Oregon
Tina Kotek, Governor

Public Utility Commission
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September 10, 2024

Via Electronic Filing

OREGON PUBLIC UTILITY COMMISSION ATTENTION: FILING CENTER
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RE: Docket No. UE 435 – In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, Request for a General Rate Revision.

Attached for Rebuttal Testimony filing are the following exhibits:
Exh 2300-2301 Dlouhy Scala
Exh 2400-2401 Dlouhy REDACTED
Exh 2500 Ayres
Exh 2600-2601 Nottingham
Exh 2700 Chipanera REDACTED
Exh 2800-2818 Muldoon
Exh 2900-2901 Pileggi
Exh 3000-3001 Stevens
Exh 3100-3101 Bolton
Exh 3200-3209 Shierman REDACTED
Exh 3300-3301 Yamada REDACTED
Exh 3400-3402 Ball REDACTED
Exh 3500-3502 Mondragon REDACTED
Exh 3600-3601 Dyck
Exh 3700 Anderson
Exh 3800 Peterson
Exh 3900-3901 Moore
Exh 4000 Abraham
Exh 4100-4101 Rossow

Confidential and non-confidential exhibits and Excel exhibits included with this filing are:

Confidential exhibits:
Exh 2400-2401 Dlouhy CONF
Exh 2700 Chipanera CONF
Exh 3200-3209 Shierman CONF
Exh 3204 Shierman CONF.xlsx
Exh 3206 Shierman CONF.xlsx
Exh 3207 Shierman CONF.xlsx
Exh 3208 Shierman CONF.xlsx
Exh 3300-3301 Yamada CONF
Exh 3400-3402 Ball CONF
Exh 3500-3502 Mondragon CONF

Non-Confidential exhibits:
Exh 2801 2802 2803 2804 2805 Muldoon ROE.xlsx
Exh 2806 Muldoon ROE BEA GDP Growth.xlsx
Exh 2806 Muldoon ROE BEA GDP Growth.xlsx
Exh 3209 Shierman.xlsx
Exh 3601 Dyck - UE 435_AWEC DR 048_Attach A_nonconf to OPUC_GB.xlsx

/s/ Mark Brown
Mark Brown
Oregon Public Utility Commission
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CERTIFICATE OF SERVICE

UE 435

I certify that this day I served the foregoing document upon all the following parties or attorneys of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid or by electronic mail pursuant to OAR 860-001-0180 (which may include a link to a secure shared file service).

Dated this 10th day of September, 2024, at Salem, Oregon.

____

Mark Brown
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CASE: UE 435
WITNESSES: CURTIS DLOUHY and
MICHELLE SCALA

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2300

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Curtis Dlouhy. I am the manager of Policy and Economic Analysis Group of the Public Utility Commission of Oregon (OPUC). My name is Michelle Scala. I am the manager of the Regulatory Strategy section, employed in the Commission's Energy Program. Our business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously testified in this case?

A. Yes. We submitted Opening Testimony in Exhibits Staff/1700 and Staff/200, respectively. Additionally, our witness qualifications statements are found in Exhibit Staff/1701 and Exhibit Staff/201.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to summarize key aspects of Portland General Electric Company's (PGE or Company) Reply Testimony and Staff's continuing concerns regarding rate pressure and affordability, as well as how these concerns are aggravated by PGE's lack of balance between its shareholders' interests and customer impacts and value.

Q. Did you prepare any exhibits for this docket?

A. Yes. Staff prepared a single exhibit consisting of slides discussing the role of regulatory lag from a leading utility economist. These slides are contained in Staff Exhibit 2301.

Q. Please summarize PGE's proposed rate increase in this docket, as updated by the Company's Reply Testimony, filed August 14, 2024.

A. In Reply Testimony, PGE has reduced its originally filed price request from $202 million to $184 million, for an overall net rate increase of 6.3 percent as of filing their Reply Testimony.[1] As highlighted by Staff Witness Itayi Chipanera, the Company expects that the overall rate increase inclusive of other updates to be 7.6 percent effective on January 1, 2025.[2] If approved, Staff expects that the Seaside Battery tracker would further increase rates by approximately $49 million, or another 1.6 percent, once it becomes effective based on the Company's workpapers filed with its Opening Testimony. Seaside is expected to be operational in June 2025.

Notable changes from the Company's initial filing include a revised return on equity (ROE) request from 9.75 percent to 9.65 percent and the withdrawal of both the Investment Recovery Mechanism (IRM) and associated storage Renewable Automatic Adjustment clause (RAC) policy proposals from this case. PGE's reply also includes adjustments to revenue requirement summarized by Staff Witness Itayi Chipanera in Exhibit Staff/2700.

Additionally, in response to various parties Opening Testimony, PGE revised its frontloaded battery storage investment tax credit (ITC) amortization proposal to instead amortize the ITCs to customers within the revenue

1 PGE/1000, Ferchland - Liddle/8.
2 This overall rate increase includes the Company's revised general rate case revenue requirement, the July Net Variable Power Cost update, the Schedule 122 credit to integrate Clearwater, the current prices for the Schedule 151 Wildfire Mitigation Cost Recovery Mechanism, and the Schedule 105 Regulatory Adjustments.

requirement over the useful life of each respective project, based on the actual values received for the ITCs.[3]

Q. Have the major cost drivers of this case changed following PGE's Reply Testimony positions?

A. No. The most significant cost drivers of the Company's proposed increase in UE 435 continues to be new capital investment, even without including the Seaside battery that is not included in the proposed revenue requirement. The second major cost driver is PGE's Operations and Maintenance, largely related to Routine Vegetation Management (RVM), Utility Asset Management (UAM), and the Company's Virtual Power Plant (VPP).

Q. Please describe what issues Staff would like to highlight.

A. Staff appreciates the modifications the Company made in response to parties' Opening Testimony. However, these modifications do not overcome Staff's concerns regarding 1) Rate pressure and affordability impacts; and 2) PGE's focus on dollar-for-dollar, immediate recovery rather than transparency into spending discipline or the value that customers are receiving for these increased costs.

Q. Please elaborate on Staff's concerns about the impacts of the proposed rate increase on customers.

A. The potential impacts of this case on customer bills, particularly on the heels of the 18 percent rate increases in effect January 1, 2024, remain significant. PGE continues to brush over the significance of affordability across its

[3] PGE/1000, Ferchland - Liddle/7-8.

customer base to focus on their difficulty funding the Company's proposals. Residential customers, in particular, are typically more vulnerable to harms when faced with untenable levels of rate pressure and energy burden.[4] These risks are amplified for environmental justice (EJ) communities, including the approximately 118,000 low-income, high energy burden households[5] where arrearages and disconnections are more concentrated, even with the availability of the PGE's Income-Qualified Bill Discount (IQBD) and other forms of energy assistance (EA).[6]

If approved, the rate increase would round out a more than 60 percent increase to residential monthly bills over the last decade, 40 percent occurring in the last three years, and roughly 25 percent in just the last year.[7] These changes have not gone unnoticed by PGE customers either. In UE 435, over 2,300 public comments have been filed coalescing almost entirely on the financial strain of the recent rate increases and "growing sentiment Portland General is not managing costs at the expense of ratepayers."[8]

Based on updated data, it's clear that the Company's customers are facing record disconnections for nonpayment and arrears that remain higher than pre-pandemic levels despite targeted outreach and customer programs meant to reduce energy insecurity. Disconnections in 2024 are nearly double

[4] PGE's Response to CUB DR 097, Attachment A. Staff observes higher percentages of residential customers in arrears and experiencing disconnection.

[5] Empower Dataworks. (2024). *PGE 2024 Energy Burden Assessment.* Retrieved from: https://edocs.puc.state.or.us/efdocs/HAD/ue416had329702054.pdf.

[6] As of July 2024, roughly 70 percent of PGE customers participating in the IQBD have a past due balance.

[7] Staff/200, Scala/19-20.

[8] Staff/2600, Nottingham/2-3.

the Company's annual average since 2019, with two months exceeding 4,000 customers and one month representing the highest in the data provided to the Commission since 2018.[9]

Q. Did PGE address these affordability issues in its Reply Testimony?

A. Yes. Staff appreciates the Company's efforts to offer additional data and context on the arrearage and disconnection statistics. However, Staff is concerned that PGE's reply seems to characterize affordability and rate pressure concerns as misinformed or warranting less attention or urgency than the Company's financial position and capital planning. While PGE acknowledges the "difficulties [PGE] customers have faced in recent years", the Company focuses on explaining why affordability is a balance and how necessary their investments are for reliability and resiliency regardless of how "tempting [it is] for parties to advocate to reduce investments or expenditures when facing price increases".[10]

Q. Did the Company respond to any proposals specifically designed to limit the rate impacts of this proceeding?

A. Yes.[11] PGE finds proposed limitations to the Company's cost recovery unsupportable. The Company describes overarching thresholds on recovery of prudent costs as inconsistent with statutes that establish fair and reasonable rates. Further, PGE states that rate caps result in delays in spending that can

[9] In April 2024, PGE reported 4,712 residential disconnections for nonpayment.
[10] PGE/1000 Ferchland-Liddle/6.
[11] PGE/1200, Sheeran-Wise/39-48.

lead to higher costs.[12] In response to CUB's proposal to implement a rate cap akin to that in effect for housing, PGE argues that the industries are incongruous for the purposes of this policy and unnecessary as the Commission is already tasked with setting the "lowest reasonable rates to serve customers." [13]

Q. How does Staff respond?

A. Given the affordability crisis facing Oregon customers, Staff appreciates parties' willingness to bring creative proposals forward for Commission consideration. As PGE correctly pointed out, ORS 757.230 grants the Commission flexibility to structure classes of service to address affordability. The Commission may exercise this authority broadly to encompass the residential class as a whole and/or more narrowly by focusing on subsets within. Staff appreciates that the utility business model may respond to caps and thresholds by delaying important investments, which could lead to higher costs. This reinforces Staff's desire for more transparency into the cost control measures that underly utility spending decisions and the level of value customers are receiving in exchange for cost increases.

Q. What does Staff wish to highlight about the Company's approach to rate recovery in this docket?

A. Staff remains concerned about the Company's lack of tolerance for regulatory lag and proposals that fail to strike a reasonable balance between the interests

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12 PGE/1200, Sheeran-Wise/39.
13 PGE/1200, Sheeran-Wise/46.

of shareholders and the rate shock facing its customers. First, PGE is seemingly unwilling to time their rate cases in a way to balance cost recovery with customer impacts as evidenced by their proposals for two separate battery trackers. Second, the Company withdraws their IRM proposal only to state that they intend to explore a multi-year rate case. Neither of these proposals demonstrate any willingness to put customer concerns on the same level as the concerns of its own shareholders.

In addition, the Company argues that it needs to escalate the expenses assumed for setting the rates that went into effect at the beginning of this year but resists Staff's recommendations to verify the Company's need to increase collections based on updated information. The Company also proposes to collect from customers for things like additional FTE, stock incentives, and vegetation management without providing clear and substantive evidence about benefits to customers. Finally, the Company appears to overlook the need for all customer classes to pitch in under this level of rate pressure by presenting proposals such as the load following credit and TLEA which may result in cross-class subsidization. The Company's request should reflect a demonstrated value for every dollar being requested in the Test Year, it is the only appropriate response given the recent drastic increase in rates. However, the Company's focus on reducing regulatory lag, lack of justification for proposed investments, opposition to comparing their O&M proposals to actual expenditures, and promotion of programs that shift costs between classes without clear benefit to the public signal a lack of awareness to the circumstances of customers.

Q. PGE characterizes acceptable regulatory lag as a level where depreciation and new investment offset in a way to keep rate base consistent.[14] Does Staff believe that the Company's characterization of regulatory lag is correct or addresses Staff's or stakeholders' concerns?

A. Not at all. While Staff does not disagree with the high-level mathematics exercise that the Company presents about how rate base is affected by depreciation and investment, Staff notes that the Company's assessment is based on the self-serving premise that regulatory lag is inherently bad. As stated in a 2015 presentation given to the National Association of Regulatory Utility Commissioners (NARUC) by David E. Dismukes, regulatory lag is not necessarily bad and can provide incentives to increase efficiency similar to competitive markets.[15] Dr. Dismukes goes on to state that regulatory lag is only "bad" for inefficient utilities.[16] In his presentation, Dr. Dismukes states that any alternative regulation to eliminate regulatory lag—such as a tracker, deferral or automatic adjustment clause—should balance the risks between ratepayers and utilities.

Staff reiterates that PGE's proposal to increase residential bills by six percent and include two trackers—one of which is six months beyond the rate

[14] PGE/110, Kliever – Liddle/27-30.
[15] Staff/2301, Dlouhy/2.
[16] Staff/2301, Dlouhy/19.

effective date—a mere year after increasing the average residential customer's bill by a staggering 18 percent does nothing to consider customers concerns and shifts nearly *all* risk onto customers with *all* the cost recovery benefits flowing to shareholders without considering the customer impacts or energy justice concerns that it claims to prioritize.[17]

Q. How does Staff respond to the Company's decision to drop the IRM and the inclusion of storage in the RAC?

A. Staff appreciates the Company's efforts to narrow the issues in this case, but notes that deferring these discussions leaves lingering questions about PGE's tolerance for regulatory lag and the evolving needs of the Commission's ratemaking approaches. PGE notes it anticipates exploring a multi-year rate case approach through future conversations with parties.[18] While the details of the IRM, existing AACs, or a multi-year rate case may differ, Staff warns that taking these proposals in an ad hoc manner could limit regulatory lag for the utility without allowing Staff and stakeholders to fully analyze the utility's rate requests.

Q. Does Staff oppose exploration of mechanisms that address the trend toward annual General Rate Cases?

A. Staff recognizes that there are increasing pressures on the system that are likely to drive a different pace of investment in resources and grid infrastructure. These pressures may warrant exploration of more nimble

[17] PGE/1000, Ferchland – Liddle/6.
[18] PGE/1600, Cloud – Albi – Putnam/6.

ratemaking approaches. Staff is open to working with parties to explore multi-year rate case outside of a general rate case proceeding. Staff's pillars for undertaking this scale of project include: administrative efficiency, consolidation of single issue rate recovery mechanisms, consideration of utility performance and customer value, balance of shareholder and customer interests, durability of methods and metrics, and procedural justice and data transparency. If properly designed, a multi-year rate case may require the utility's shareholders to shoulder cost risk that would otherwise fall to customers in an annual rate case. While Staff does not endorse a multi-year rate case at the moment, Staff is open to exploring with the stakeholders ways that a multi-year rate case can achieve common goals.

Q. PGE defends itself stating that it is not relitigating issues from UE 416. Does Staff agree?

A. No. While PGE claims that it is only re-introducing a single proposal, the "associated storage" item, it defends itself against criticism over its renewed request to increase its ROE and its increased O&M asks from UE 416.[19] PGE also attempts to deflect the blame by shaming parties for recommending O&M adjustments relative to the 2023 test year by stating that "unique" circumstances required it to compare its 2025 Test Year to its 2024 budget.[20]

PGE's assertion that this is a "unique" rate case is unfounded. The Company has complete control over when it files its rate cases and readily

[19] PGE/1000, Ferchland – Liddle/14-16.
[20] PGE/1000, Ferchland – Liddle/14.

admits that the traditional ratemaking approach is to compare test year forecasts to base year actuals.[21] Staff sees no reason to upend traditional ratemaking practices merely because a utility was too impatient to wait to file a rate case until all of its large plant additions were ready. Staff reviews all relevant data, performs analysis, and makes recommendations based on the facts available to them in each case, doing otherwise would not meet the fair, just, and reasonable standard.

Q. Could PGE have filed a rate case that addresses its capital concerns without relitigating issues from UE 416?

A. Yes. PGE could have easily narrowed the scope of this case to only its new major capital additions. Staff would have welcomed a GRC that only included incremental additions to capital since the UE 416 rates went into effect on January 1, 2024. However, PGE has updated their Test Year forecast and made several proposals that increase revenue requirement based on new information. Staff's analysis is responsive to this choice by the Company and seeks to incorporate new information in its proposal for inclusion in the Test Year.

Q. Does Staff agree with PGE's characterization of duplicative O&M adjustments among parties?

A. No. While PGE acknowledges that parties do not coordinate with their O&M proposals,[22] Staff finds it concerning that PGE presents Staff and stakeholders

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[21] PGE/1000, Ferchland – Liddle/13.
[22] PGE/1000, Ferchland – Liddle/15.

as unsophisticated groupsthat neither read other parties' testimonies nor comprehend that certain calculations may overlap. If anything, Staff finds it telling that independent analysis by different parties came to many of the same conclusions.

Q. Could Staff summarize its expectations for PGE in the future as informed by this proceeding to date?

A. Yes. While it is difficult to offer fully comprehensive solutions in the limited scope and venue of this proceeding, Staff's summary recommendations and expectations thread three primary areas:

1. Spending discipline;
2. Customer impacts; and
3. Procedural justice.

Regarding spending discipline, Staff acknowledges that increasing pressures on the system will continue to drive investment across areas like non-emitting capacity and grid infrastructure, both key drivers in this rate case. Staff also finds there is an obligation to ensure that customers are getting commensurate value from these investments. This requires a prioritization and closer scrutiny of investment decisions because of the cumulative impact on customers. The pursuit and costs of reliability and access should not be divorced from transparency, communication, equity, and affordability.

Regarding customer impacts, Staff finds it warranted to recenter these and other proceedings affecting rates on the human experience with our energy systems. Prioritizing and achieving affordability in rates through strategic planning like disciplined spend, holistically informed effective dates, and equitable rate design, benefit customers and the system. Consideration of public input, energy burden, and energy insecurity indicators should always be foundational to ratemaking dialogue. Customers should not be an afterthought in system planning.

Finally, regarding procedural justice, Staff expects to investigate this issue with interested parties and utilities as soon as a concerted effort to improve energy justice outcomes in future rate proceedings.[36,37] While Staff appreciates the Company's responsiveness in its Reply Testimony, Staff and stakeholders have been sharing concerns regarding the level of procedural equity throughout the Company's limited engagement on rate increases and energy justice over the last several years, most of which have not materially influenced PGE's proposals in the present proceeding. Staff hopes that the future will include more dedicated and transparent venues where PGE can allow community voices from all groups to authentically confer and meaningfully influence equity in decision making.

Staff, however, does appreciate the Company noting areas where Staff inadvertently double counted an adjustment. These areas have been refined in our Rebuttal Testimony.

INTRODUCTION TO OTHER STAFF'S REBUTTAL TESTIMONY

Q. Please describe the Rebuttal Testimony submitted by Staff in this proceeding.

A. The Staff exhibit numbers, respective Staff witnesses, and topics published on this date, September 10, 2024, are identified below. These exhibits provide Staff's response to PGE's Reply Testimony and other intervening parties' Opening Testimony positions, if applicable.

In **Exhibit 2400, Curtis Dlouhy Ph.D.**, Policy and Economic Analysis Manager, discusses proposals for the Virtual Power Plant, Constable and Seaside Batteries, nonresidential time-of-use rates, and the Clearwater deferral.

In **Exhibit 2500, Kate Ayres**, Senior Utility and Energy Analyst, discusses the income-qualified bill discount (IQBD) program, arrearages and disconnections, and the IQBD cost recovery.

In **Exhibit 2600, Melissa Nottingham**, Consumer Services Manager, presents and summarizes public comments on this docket.

In **Exhibit 2700, Itayi Chipanera,** Senior Revenue Requirement Analyst, presents Staff's revenue requirement model and discusses cash working capital, escalations, the Commission fee, income tax, unbundling, and interest synchronization.

In **Exhibit 2800, Matt Muldoon**, Accounting and Finance Manager, discusses the Company's capital structure, rate of return, and return on equity.

In **Exhibit 2900, Rose Pileggi**, Senior Utility Analyst, reviews the Company's long-term debt proposal and proposals brought up by AWEC related to the broker and finance fees.

In **Exhibit 3000, Bret Stevens Ph.D.**, Senior Economist, reviews the Company's marginal cost study, residential basic charge, Load Following Credit, rate base calculation, and alternative recovery proposals.

In **Exhibit 3100, Madison Bolton**, Senior Utility Analyst, discusses the Company's transportation line extension allowance (TLEA).

In **Exhibit 3200, Eric Shierman**, Senior Utility Analyst, analyzes the Company's TLEA capital expenditures, motor vehicle fleet, and transportation electrification plan.

In **Exhibit 3300, Steph Yamada**, Senior Utility Analyst, analyzes wages, salaries, and incentives for PGE employees.

In **Exhibit 3400, Dustin Ball**, Senior Utility Analyst, analyzes the Company's requested property insurance, casualty insurance, transmission and distribution (T&D) capital, the Diesel Particulate Filter installation project, and information technology (IT) capital investment.

In **Exhibit 3500, Luz Mondragon**, Senior Financial Analyst, analyzes the Company's T&D O&M, Routine Vegetation Management, and utility asset management.

In **Exhibit 3600, Julie Dyck**, Senior Utility Analyst, analyzes the Company's fuel stock in rate base.

In **Exhibit 3700, Laurel Anderson**, Senior Telecom Analyst, reviews the Company's generation of non-labor expenses.

In **Exhibit 3800, Nicola Peterson,** Senior Telecom Analyst, analyzes the Company's customer accounts and services O&M, administrative and general expenses, employee health insurance and benefits, grant efforts, and Amazon pay option.

In **Exhibit 3900, Mitchell Moore**, Senior Revenue Requirement Analyst, examines the Company's non-fuel materials and supplies in rate base.

In **Exhibit 4000, David Abraham**, Senior Economist, examines the Company's other operating revenues.

In **Exhibit 4100, Paul Rossow**, Utility Analyst, analyzes the Company's expense for charitable contributions, meals and entertainment, membership, and dues.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: CURTIS DLOUHY
MICHELLE SCALA

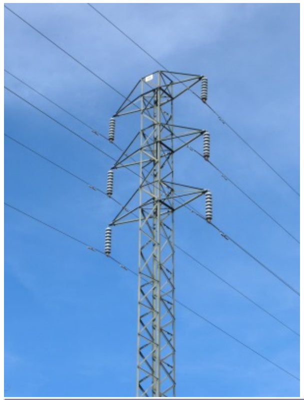
PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2301

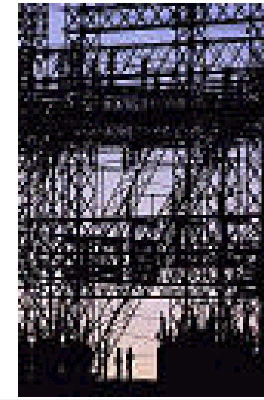
Exhibit in Support of Rebuttal Testimony

September 10, 2024

LSU | Center for Energy Studies





Incentives, Risk and the Changing Nature of Utility Regulation

NARUC Staff Subcommittee on Accounting and Finance Meetings, New Orleans, Louisiana

April 22, 2015

David E. Dismukes, Ph.D.
Center for Energy Studies
Louisiana State University

LSU | Center for Energy Studies

Take-Aways

Interesting time for the consideration of alternative gas/electric regulation given **other policy agendas**.

Regulatory lag is not “bad” -- Primary incentive mechanism included in regulation that should **increase utility efficiency incentives** in a manner **similar to competitive markets** (efficiency leads to increased profitability).

(Most) trackers are the antithesis to PBR since they are not tied to performance, are periodic, and cost-plus based.

Do utilities want PBR and rewards for efficiency or do they want insulate themselves from cost-recovery risk? Utilities in today’s environment **may not be supportive of performance based approaches** since it requires them to bear performance risk of their investments.

Alternative regulation is a **modification** of, not a **substitute** for, traditional regulation

A good alternative regulation program ensures that the **risks and rewards** between ratepayers and utilities are **balanced**.

Traditional Regulation

Why Are Utilities Regulated?

Utilities are regulated for two reasons:

1. Utilities are **imbued with the public interest**: utilities provide critical services (electricity, natural gas) that are essential for a modern economy; and

2. Utilities are "**natural monopolies**." Utilities have (natural) cost characteristics that allow them to drive competitors out of the market and then price their services at rates higher than competitive markets.

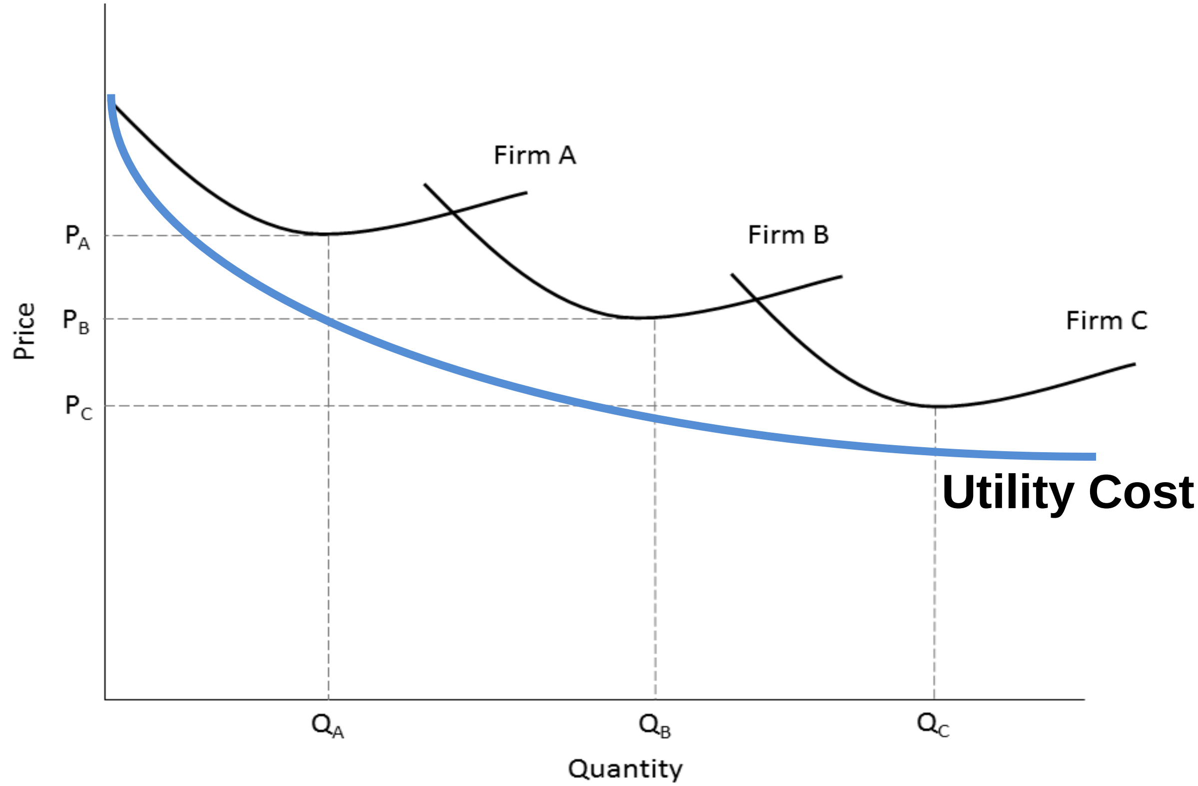
These two conditions serve as the basis for utility regulation.

LSU | Center for Energy Studies

Traditional Regulation

Utility Natural Monopoly Conditions

- Natural monopolies have large "economies of scale" which means that a utility's average costs tend to decrease as output expands.
- This cost advantage allows utilities to squeeze out potential higher-cost competitors.
- This cost advantage also means that the most efficient outcome for society is to let one, low-cost firm serve the entire market.



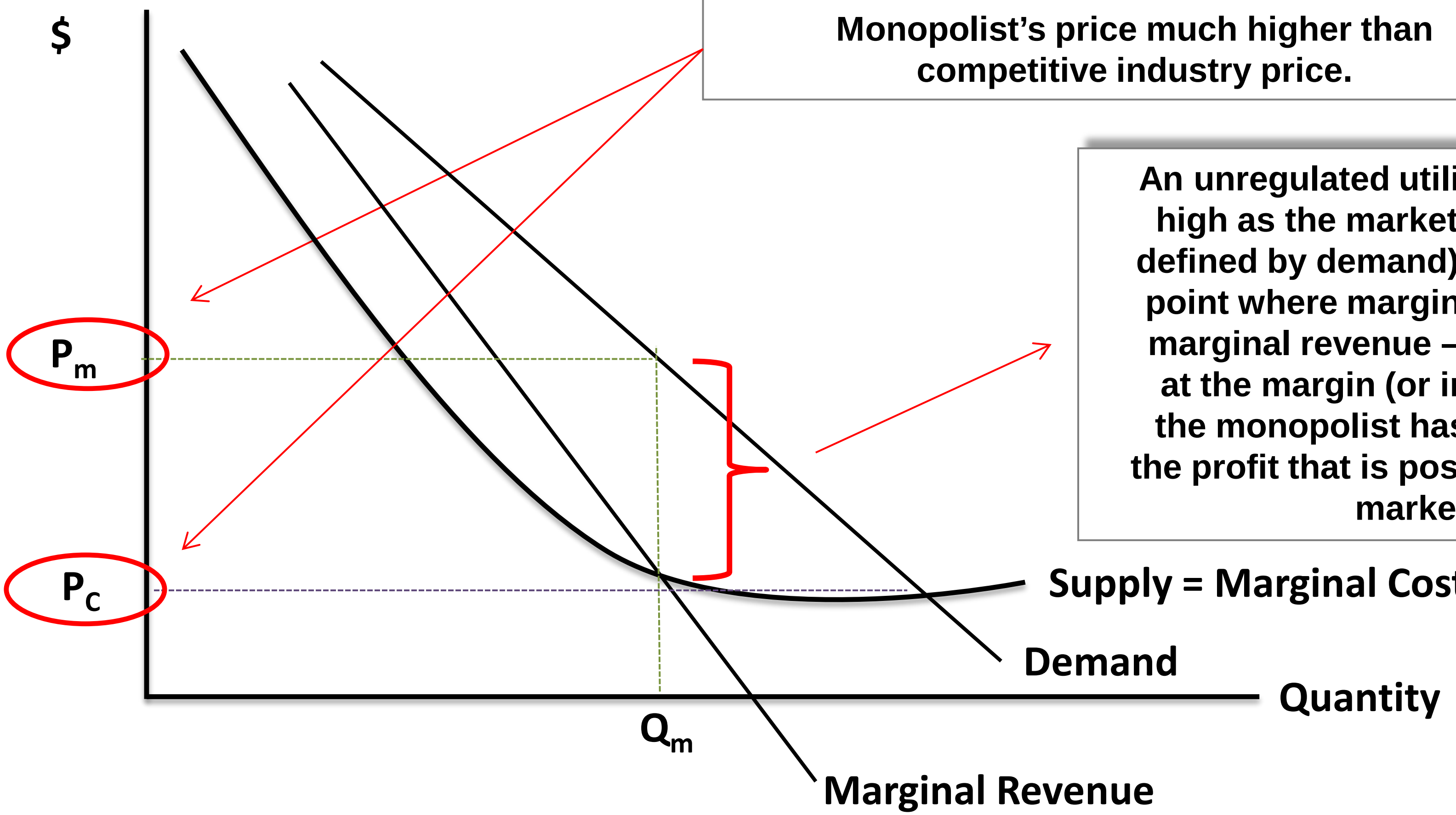
The problem with only allowing one firm to serve the market is that the single firm becomes a monopolist that has the ability to charge unnecessarily high prices and limit how much it produces.

What Would Happen if We Didn't Regulate?

If we did not regulate utilities, they could price far higher than what would normally occur in a competitive market.

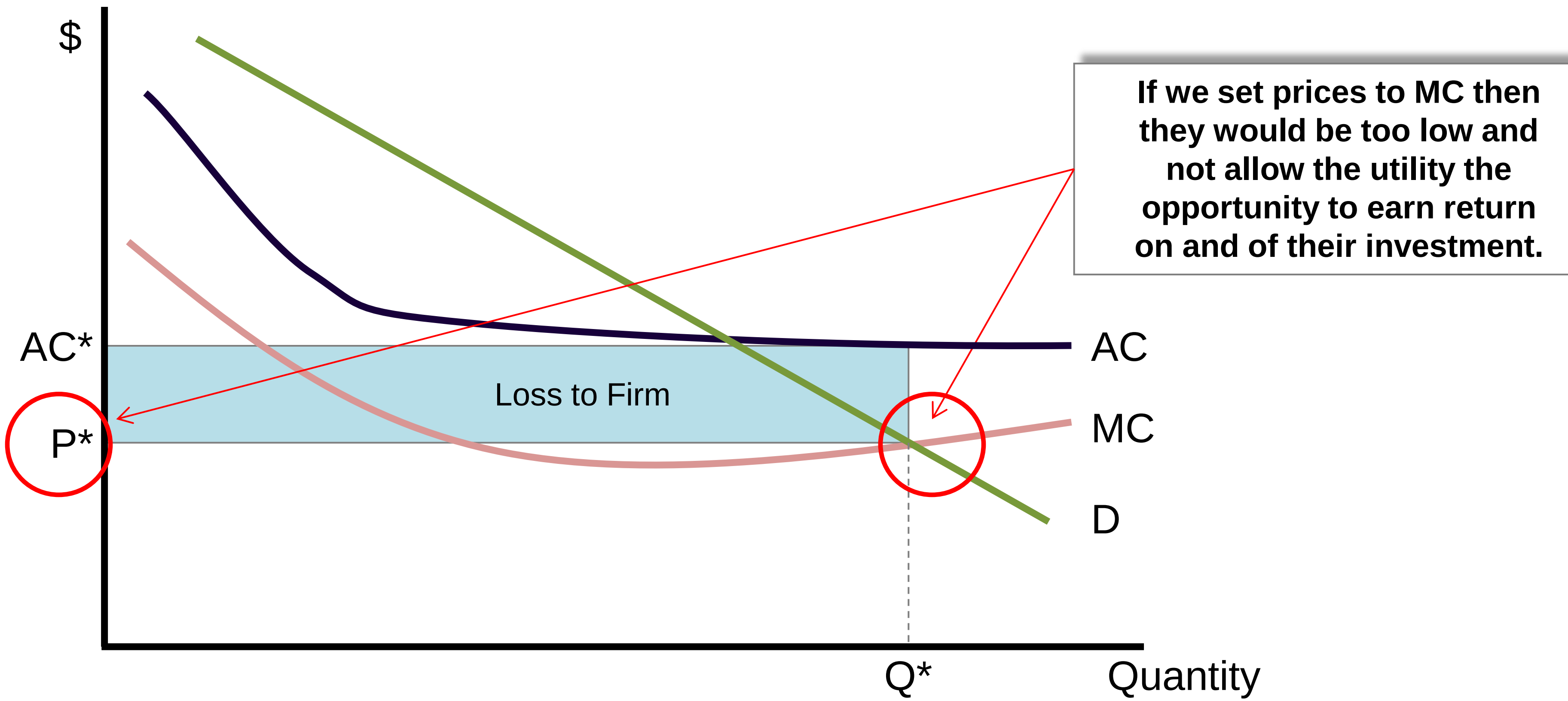
Monopolist's price much higher than competitive industry price.

An unregulated utility will price as high as the market will allow (as defined by demand) – this is at the point where marginal cost equals marginal revenue – which means at the margin (or incrementally) the monopolist has extracted all the profit that is possible out of the market.



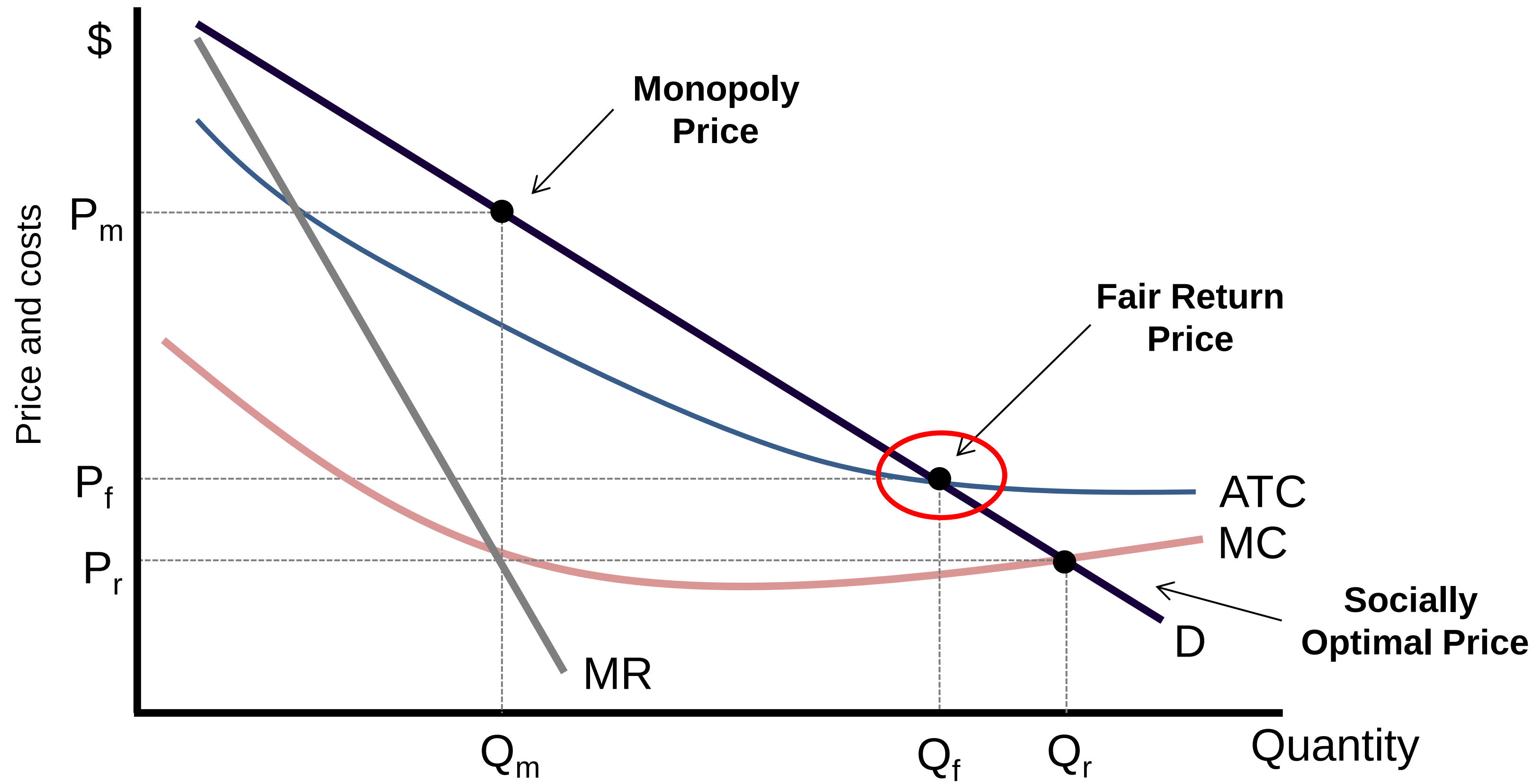
The Natural Monopoly Problem: Setting Prices at Optimal Levels

If competitive industries set prices at marginal costs, why don't we force utilities to simply price their services at marginal costs? Primarily, because they have a large amount of shorter run fixed costs that have to get recovered. If we priced at marginal costs, utilities would go bankrupt.



Comparison of Various Monopoly/Regulated Pricing Outcomes

Regulators, therefore, have to choose prices that reflect some middle ground that give utilities a "fair-return" for their investments. This results in prices lower than what would occur under an unregulated monopoly, but higher than those arising in competitive markets.



The Relationship Between Regulation and Competition

Traditional regulation limits the degree, nature, and **timing** of price changes **much like competitive markets**.

For instance, **competitive firms** cannot increase market prices, and if they increase their own prices unilaterally, without any industry-wide cost justification (like input cost inflation), they will likely **lose market share and profits**.

In addition, **competitive firms** that **invest in innovative technologies** that reduce costs and/or efficiently expand their abilities to increase the scope of their services, **can increase market share and profitability**.

Traditional regulation can facilitate similar competitive market outcomes through the **timing** of rate changes (rate cases) and what is known as "**regulatory lag**."

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Incentives & Regulatory Lag

Regulatory Lag and a Form of Market Discipline

Regulatory lag is the period of time between when a utility's rates go into effect and its next rate case and is an important means by which **traditional regulation** is thought to **inject discipline upon utilities similar to that arising in competitive markets**.

Under traditional regulation, **rates are set on a utility's prudently-incurred costs**:

- If a **utility improves its operating/investment efficiencies** after a rate case, then **the increased profits** associated with these actions accrue to the utility much like they would in a **competitive market.**
- The **inverse occurs if a utility becomes less efficient** or is unable to contain its costs after a rate case: profits will fall much like they would in a competitive market.

Control of Regulatory Lag and Risk Relationships Under Traditional Regulation

Timing of rate case rests with utility – gives utility the ability to **shift the risk of regulation and regulatory lag away from itself** and onto ratepayers.

Utility has "option value" creating a price floor to buttress value.

This price floor **allows shareholders to retain benefits** created by regulatory lag, as well as **the option to defend against challenges to those benefits through the timing of a rate case**.

Often noted that **utility commissions tend to defend against rate increases, but are less aggressive in pursuing rate decreases** when rates are stable or decreasing in real terms.

Source: Graeme Guthrie. (2006) "Regulating Infrastructure: The Impact on Risk and Investment." *Journal of Economic Literature*. 44 (December):925-972. Paul L. Joskow. (1973) "Pricing Decisions of Regulated Firms: A Behavioral Approach." *The Bell Journal of Economics and Management Science*. 4 (Spring):118-140.

LSU Center for Energy Studies **Regulatory Lag**

Is Regulatory Lag Inherently "Unfair" or "Confiscatory"?

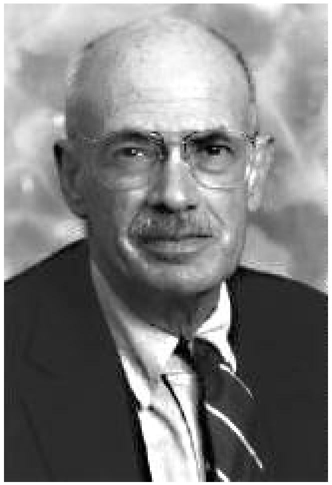
The premise that regulatory lag is somehow **unfair** is simply **antithetical to 40 years of utility regulation research and practice**.

Regulatory lag is **long recognized as imposing discipline** on utility operational and investment decisions.

Regulatory lag **prevents utility regulation from devolving into a "cost-plus" regulatory approach** that simply passes through costs on a dollar for dollar basis to ratepayers, and can lead to cost and investment inefficiencies.

The **cost-plus regulatory approach also shifts a considerable amount of performance-related risk away from utilities and onto ratepayers** and leads to inefficient outcomes, which was recognized as early as the 1960s and has come to be known as the **"Averch-Johnson" or "A-J" effect**.

What is the Averch-Johnson Effect?



Harvey Averch and Leland Johnson and published in the *American Economic Review* in **1962**, posited that rate of return regulation creates **an incentive for regulated utilities to overcapitalize**, resulting in an **inefficient utilization of resources** and higher than optimal rates.

This finding, however, was **premised upon a model with a number of assumptions**, one of which presumed there was no regulatory lag and that rates were set on a period-to-period basis: in other words, rates were set on a "cost-plus" regulatory approach.

Source: H. Averch and L. Johnson. (1962) "Behavior of the Firm under Regulatory Constraint." *American Economic Review*. 52:1052-1069.

Follow-Up A-J Research

Soon after its publication, Averch's and Johnson's article was met with a **flurry of scholarly research** attempting to **empirically verify** the A-J effect, as well as examining the conditions under which the effect would, and would not, be sustained.

Rejoinders to the research noted that two characteristics of the regulatory process tended to temper the likelihood and prevalence of the A-J effect:

1. the possibility of **disallowances** through the prudence review process and
2. the **positive efficiency incentives created by regulatory lag**. In fact, a series of articles published soon afterwards noted that regulatory lag typically creates incentives for utilities to seek efficiency opportunities between rate cases since the gains (profits) from those investments inure to shareholders instead of ratepayers.

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Regulatory Lag

Summary: Arguments Supporting Regulatory Lag ("Good Thing")

- May impose **discipline** on utility operational and investment decisions: encourages efficiency.
- Prevents utility regulation from devolving into a **"cost-plus" regulatory approach**.
- **Reduces incentives to avoid overcapitalization**, since earnings gained by avoiding inefficient actions are passed directly to shareholders.

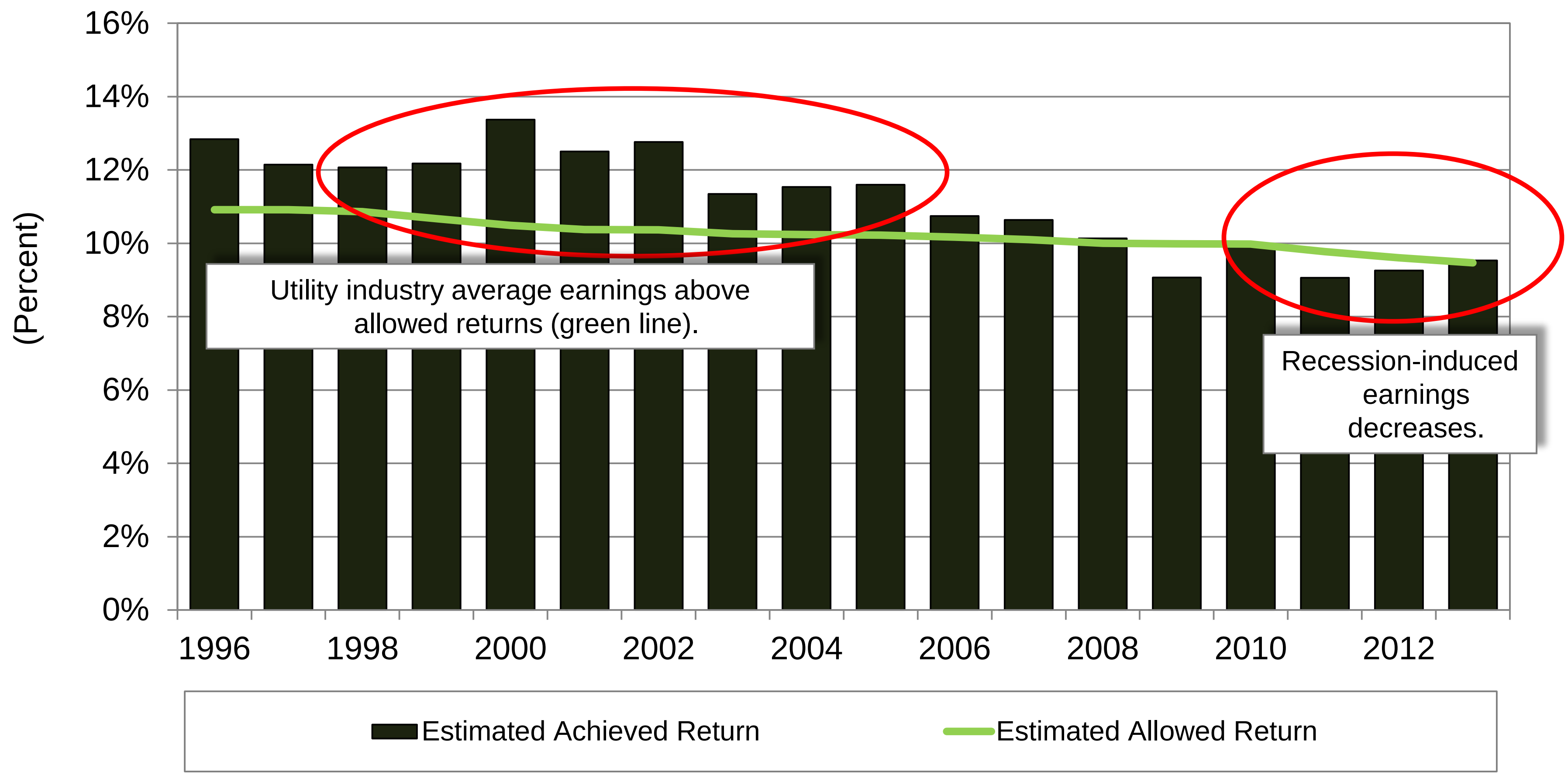
Summary: Arguments Against Regulatory Lag ("Bad Thing")

- Utilities view regulatory lag as a problem because **rates do not keep up with rising costs**.
- Hinders **infrastructure development,** capital expenditures and investment in **"non-revenue generating"** system improvements (i.e., safety, reliability, resiliency).
- Theory of regulatory lag is **"time-dated"** – it may have held merit in a **high growth/high productivity environment** but holds less merit today with low energy demand growth and infrastructure replacement challenges.

LSU Center for Energy Studies | Traditional Regulation

Historic Utility Earnings Compared to Estimated Allowed ROE for Industry Overall

Historically, electric utilities (on an industry average), have seen periods where they have clearly benefited from regulatory lag. The 2009-2010 recession, however, challenged achieved utility earnings relative to those allowed by regulators.



Note: Estimated achieved return is calculated as Net Income divided by Proprietary Stock (less preferred stock).
Source: Federal Energy Regulatory Commission; and Public Utilities Fortnightly.

Regulatory Lag and Risk

Thus, regulatory lag is only “bad” for inefficient utilities. Some utilities have found **regulatory lag beneficial** and have not filed a traditional rate case for time periods that span anywhere from 7 to 15 years.

Regulatory lag, however, can **increase utility earnings risk** since future market conditions, weather, and the opportunities for innovation are not known with 100 percent certainty: but this is also true for many other energy industries, particularly those **operating in competitive markets**.

Further, **utilities get a fair (i.e., market-based) rate of return** to compensate for operating in markets with these types of rates.

Thus, utilities are compensated in two ways for this risk: (1) they are given an allowed rate of return that **factors in these market risks** and conditions and (2) have the opportunity to achieve **some degree of additional earnings through regulatory lag** (assuming they manage that lag successfully).

Forms of Alternative Regulation & Components

Recently proposed methods for addressing regulatory lag:

- Trackers
- Alternative or Performance-Based Regulation

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Trackers: Modification to Traditional Regulation

Definition of Tracker Mechanisms

- Mechanisms that **remove cost and/or revenue recovery from base rates** to a separate rider or tariff.
- Can be for the collection of **new** costs not included in base rates or **true-ups** of revenues or expense items from levels that differ from the test year.
- Recovery typically periodic and **more fre**quent than rate cases.
- While mechanisms can include surcharges and credits they **should not be automatically considered "symmetrical."**
- Mechanisms **originally developed with fuel-cost recovery**, but have expanded to a variety of other sales, capital and expense-related changes.

Tracker Mechanism Examples

Tracker Mechanism	Recovery Type	Purpose
Asset Replacement Riders	Capital	Replace aging or inferior assets.
Inflation Riders	Expense	Inflate costs to match general inflation or other measure.
Asset Development Riders	Capital	Facilitate preferenced assets like baseload generation, smart meters.
Energy Efficiency Riders	Expense	Recover energy efficiency expenses as incurred.
Renewable Energy Riders	Capital	Recovery renewable energy development costs, rebates, and/or PPAs.
Environmental Cost Riders	Capital/Expense	Recovery of capital investment or air emission credits.
Weather Normalization Clauses	Revenue	Recovery of changes in sales due to weather.
Revenue Decoupling	Revenue	Recovery of changes in sales due to other factors.

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Tracker Mechanisms

Commonly Cited Rationales for Trackers

Rationale	Driver
Volatile and unknown cost changes.	Recent increases in commodity costs and inflation.
Remove disincentives to purse public policy goals.	Energy efficiency, renewables, fuel diversity.
Required by “Wall Street.”	Capital crisis/recession.
Required to ensure recovery of revenue requirement.	Changes in UPC, climate change, other “exogenous factors.”
Reduce rate cases.	Increase in recent number of rate cases.

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Tracker Mechanisms

Risk Shifting

Risk Type	Risk Shifting Perceptions	Potential Consequence
Regulatory Risk	Ratepayers have higher burden to prove investments are imprudent rather than utilities proving that they are prudent.	Takes away, or significantly reduces the power of a regulatory disallowance that is long recognized as a powerful regulatory tool in minimizing cost and expense inefficiencies and offsetting potential “A-J” or “X-inefficient” outcomes.
Performance Risk	Ratepayers have higher burden to prove that tracker objectives were not met on sometimes illusive (qualitative) cost and investment decisions.	Effectively paying for a service before it has been rendered.
Sales Risk	Ratepayers will make utilities whole for any change in sales regardless of reason (economy, price, weather).	Decoupling revenues from sales is likely to lead to a decoupling of costs from revenues in a regulated cost-based industry.

Overview of Alternative Regulation

Consideration of Alternative Regulation

The purpose of alternative regulation was to improve utility performance through the **use of incentives**.

Moral hazard notes that often, the informational asymmetry between regulators and regulated companies, **prevents traditional regulation from forcing the most optimal outcome**.

While optimal costs are difficult to observe, profits are not.

Regulated firms are profit maximizing: thus, tying regulatory outcomes to observable **output-based information** (profits) was seen as preferable to unobservable input-based information (costs).

Movement to alternative regulation presumes that these **unobservable efficiency opportunities** actually **exist** and the **benefits** of changing regulation are **greater than the costs**.

How Do Regulators Affect this Change?

Starts with a certain policy leap of faith: regulators have to be willing to allow **prices (or revenues)** become **“decoupled”** with **traditional (utility-specific) measures of costs**.

Alternative forms of regulation inherent recognize that there are (a) **information asymmetries** and (b) there may be certain **risks for utilities** in pushing themselves to achieve certain efficiency improvements.

Alternative regulation moves the traditional regulatory process **away from governing inputs to defining acceptable outputs**.

The process is not unbridled since regulators often build in a hedge that **sets boundaries** on the program (so, this should not be interpreted as “deregulation”).

What is Alternative Regulation?

Alternative regulation is a means of regulating utilities that relies **less on a traditional rate case** structure and more on an **annual formulaic-based approach** of setting rates.

Alternative regulation **modifies traditional regulation**: it does not replace traditional regulation. Alternative regulation focuses more on **output and performance** rather than inputs (measuring the cost of service in any given year).

Rationales for the use of alternative regulation:

- “Institutionalize” regulatory lag.
- Reduce asymmetric information problems.
- Reduce administrative costs.

How Does Alternative Regulation "Institutionalize" Regulatory Lag?

Regulatory lag gives **efficient utilities** the opportunity to increase their achieved earnings after a rate case.

These efficiency-induced excess earnings, however, are limited. In theory, under traditional regulation, a regulator can force a utility to **decrease its rates if it finds earnings to be "excessive**." The ambiguity in what constitutes excessive earnings can discourage utilities from pursuing additional efficiency measures.

Alternative regulation attempts to release this excess earnings boundary (and ambiguity) through the use of **pre-defined sharing bands** and percentages with ratepayers. Future changes in rates, under an alternative regulation plan, are **defined by utility performance and its ability to maximize the efficiency opportunities created by regulatory lag**.

In this way, alternative regulation "institutionalizes" or formally "codifies" regulatory lag. This is another reason why **alternative regulation** is often called **"performance-based regulation**."

Definition: Asymmetric Information

What do we mean by **"asymmetric information?"**

Definition: when one contracting party has a **different set of relevant information** relative to another contracting party it can lead to an inefficient outcome.

Pervasive problem in all forms of regulation (utility, environmental, financial, etc.) that **regulators typically have less information about a regulated company's operations** and costs than the regulated company itself.

Informational asymmetries can result in **"gold-plating"** of capital investments and expenses (i.e. cost-inefficiencies). Since cost-of-service regulation is based upon costs, this can lead to inefficient rates.

Alternative regulation is thought to reduce the regulatory problems of asymmetrical information since (1) the regulatory emphasis shifts from **inputs to outputs** and (2) utilities have active rather than passive **profit-maximization incentives**.

How Does Alternative Regulation Reduce Administrative Costs?

Most alternative regulation methods use a formula or pre-defined approach to setting rates on a periodic basis.

This formula is typically set for a **fixed number of years** which can be anywhere from between 3-5 years.

No rate cases are usually allowed during the alternative regulation program time period. Rate cases are not, however, prohibited.

Rates only change by the formula or guidelines.

Avoiding rate cases is thought to **reduce administrative costs** of repeated rate cases although there are annual reviews of costs by regulatory staff during the alternative regulation program period.

Specific alternative regulation plan structure really determines whether or not administrative costs are actually reduced.

Alternative Regulation: Theory v. Practice

Alternative regulation has several theoretical appeals. However, the biggest challenge in program design is in **appropriately assigning risks and rewards** of the alternative regulation plan.

Conceptually, risks can be borne by either party (ratepayer, utility) provided they are **corresponding opportunities for rewards.**

All to often, **program performance risks are shifted entirely on ratepayers**, with few to little rewards.

Few states have an alternative regulation plan like Vermont. California is the only other state with an active alternative regulation plan comparable to Vermont.

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Alternative Regulation – Fixed Price Mechanisms

Fixed Price/Fixed Revenue

Prices or revenues are **fixed for a set period of time** (three to five years – or "stay-out" period) after an initial rate case review.

Utility **allowed to retain** a certain share (or large share) of excess **earnings** that arise from **efficiencies** arising during the "stay-out" period.

Rates are recalibrated and program effectiveness is reviewed at the end of the stay-out period.

Examples include post-merger rate freezes, retail restructuring rate freezes.

Inherent assumption in these (fixed) mechanisms is that there are enough **accumulated inefficiencies** that can be garnered over time that will **self-fund the efficiency improvements**.

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Incentives & Performance

Why is Timing/"Stay Out" Period Important?

Commonly set in **three to five year range**, although some are set for much longer periods that can include up to one decade.

Length is often part of the regulatory bargain between utilities and regulators and likely determinant on other program components (like earnings sharing bands).

Determination of **stay-out period itself is one subject to** a certain degree of **moral hazard** since the utility will have a better understanding of its short and long run efficiency improvement opportunities.

Does not eliminate opportunism since utilities often have statutory (constitutional?) provisions allowing them to "break" the contract.

Why is Timing/"Stay Out" Period Important?

Argument for long stay-out periods: longer periods give utilities the opportunity for making **longer-run investments** that will yield **efficiency gains** (and returns) over a period of time. Longer stay out periods help to create opportunity to attain the **full return from the investments**.

Arguments for short stay-out periods: allowing long periods of time can result in a **significant disconnect between rates and costs** without recalibration and can lead to utilities earning the same **monopoly returns** regulation is intended to eliminate.

Alternative Regulation: Variable Price Mechanisms

Price Caps

Designed to limit the ability of utilities to earn more than normal profit, while incentivizing the utility to attempt to reduce input costs and invest in productivity improvements.

Price caps typically take the following form:

$$\Delta \boldsymbol{PI} \leq \Delta \boldsymbol{P} - \boldsymbol{X} \pm \boldsymbol{Z}$$

Where:

$\Delta \boldsymbol{PI}$ = the rate of change in the price index of regulated prices
$\Delta \boldsymbol{P}$ = a measure of price inflation
$\boldsymbol{X}$ = total factor productivity, or an index of expected efficiency gains
$\boldsymbol{Z}$ = a factor capturing other relevant variables

Primary Components of an Alternative Regulation Plan

Alternative regulation plan should be based upon a structure that balances risk and rewards between ratepayers and utilities. These plans are typically based upon three primary components

Formula for allowed annual rate change → Formulas that defines how annual rate changes will be allowed to occur. This also includes a definition of the costs eligible for annual increases.

Earnings sharing mechanism → This mechanism defines how excess earnings, or under-earnings, will be shared between ratepayers and utilities. This can be thought of as the "profit-sharing" aspect of the plan that occurs after the fact.

Program duration → The program duration defines the time period under which utilities will be subjected to the plan and the time period in which formal rate cases are not allowed.

Alternative Regulation: Framework for Allowed Rate Changes

Alternative regulation plans allow revenues/prices to grow by a pre-defined formula during the program duration.

Traditional formula:

Allowed Revenue (or Price) Increase =

(Change in Inflation) less (Productivity Offset) plus ("Exogenous" Factor)

(Change in Inflation): Revenues/prices allowed to increase by the rate of inflation as measured by standard government indices like the CPI.

(Productivity Offset): Revenues/prices are reduced by a fixed measure of industry productivity. This adjustment forces some cost discipline on utility since it reduces the magnitude of the overall inflation adjustment.

("Exogenous" Factor): Utilities are often allowed to increase revenues/prices for unexpected ("exogenous") changes in costs like unexpected tax changes or costs associated with severe weather events.

Trade-offs: A low productivity offset, and a generous exogenous factor adjustment, will reduce utility risk by providing for a relatively stable, undiscounted increase in rates. High productivity offsets and narrow exogenous adjustment allowances will tend to reduce risks for ratepayers.

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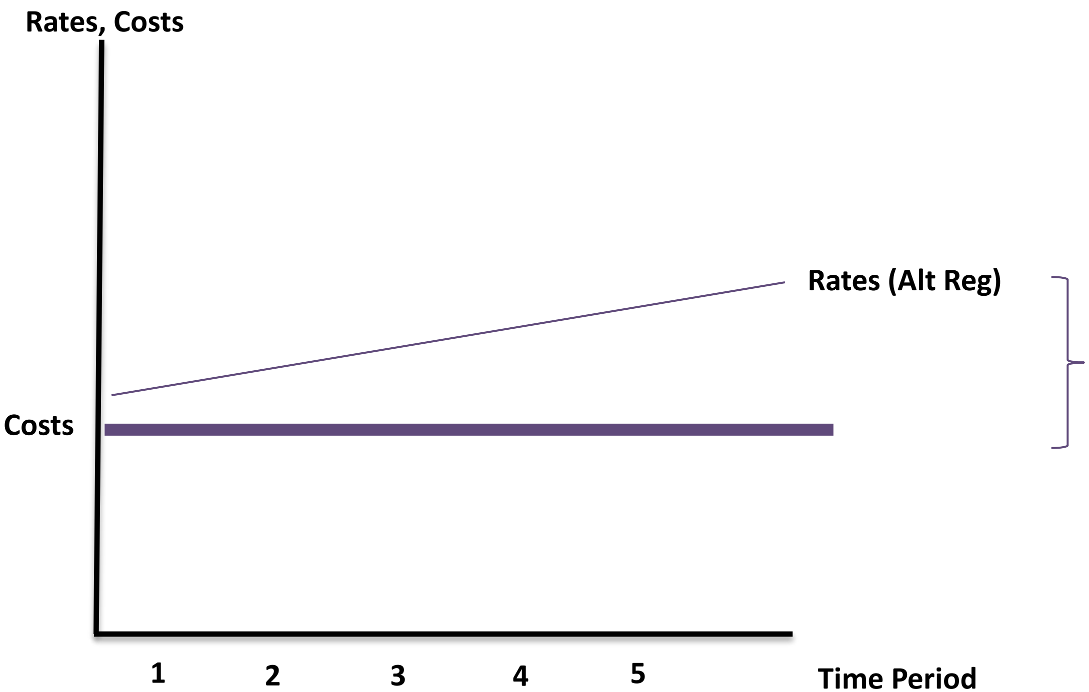
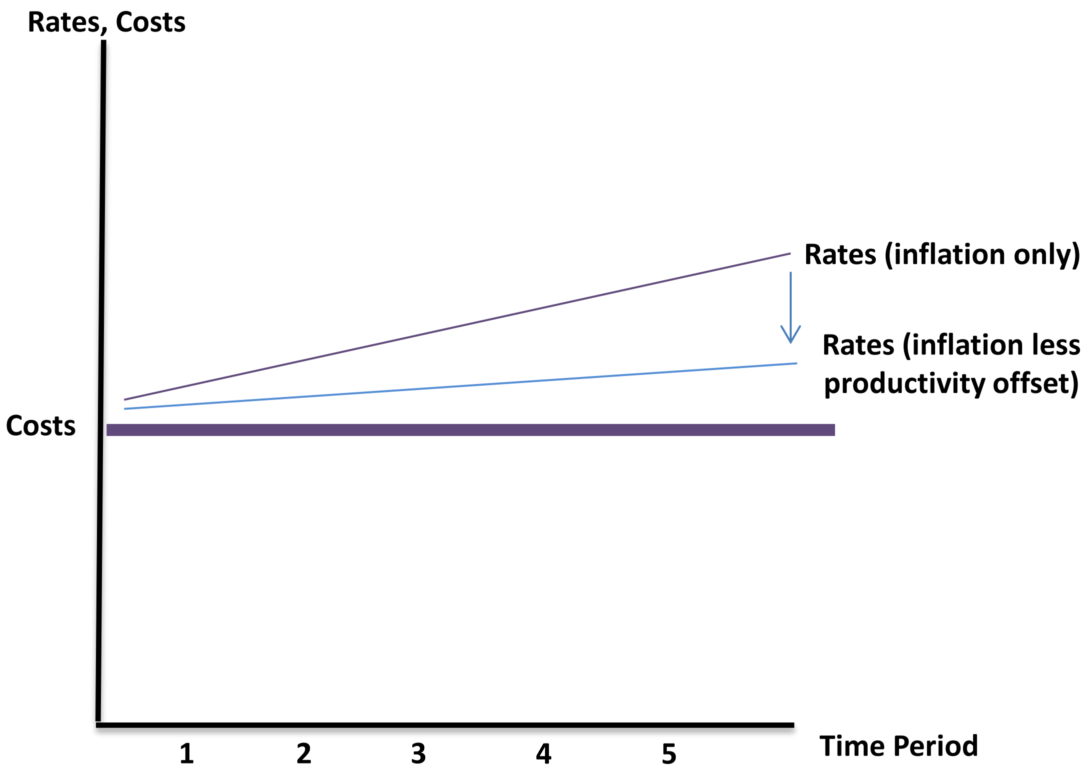
Alternative Regulation: Why Allow Rate Changes Without a Rate Case?



Annual rate changes allowed under alternative regulation is thought to facilitate a utility's ability to continue to invest in its system and to explore cost efficiency opportunities including cost efficiency investments such as automation and equipment upgrades.

The regulatory emphasis on determining the potential cost of service is reduced in favor or monitoring performance outcomes. Utilities are allowed to increase rates and must live within the means allowed by the price change formula. **Alternative regulation was originally developed to facilitate capital investment by allowing rates to change without rate cases**. This approach differs from "trackers" which allow explicit costs to be flowed-through rates on a dollar-for-dollar basis.

Alternative Regulation: Productivity Offsets (Illustration)



Time Period	Inflation Increase (%)	Productivity Offset (%)	Net Allowed Rate Change (%)
1	3.0%	1.0%	2.0%
2	2.8%	1.0%	1.8%
3	4.2%	1.0%	3.2%
4	2.5%	1.0%	1.5%
5	3.0%	1.0%	2.0%

The productivity offset works to adjust allowed inflation increase. The offset is fixed (does not vary like inflation) to account for industry-wide productivity that would normally be passed along to customers if the industry were competitive. **The larger the productivity offset, the smaller the allowed annual rate change** (holding inflation constant).

Alternative Regulation: Exogenous Shocks

Most alternative regulation plans recognize the possibility that **"outside" (exogenous) factors** can influence utility costs like an unexpected change in taxes or the costs of unexpected weather events.

Exogenous adjustments in most alternative regulation plans are designed to address changes in costs that are infrequent in nature and associated with events **outside utility control**.

Exogenous adjustments **should not be used** to facilitate cost recovery **for known and measureable costs (like new asset development)** that are entirely within a utility's control or large enough to justify a traditional rate case. **Unfortunately, both Vermont alternative regulation plans allow rates to be increased for exactly these kind of known and controllable costs**.

Passing through large, known costs within a utility's control, and with little active regulatory oversight, **incorporates one of the worst aspects of cost-plus regulation** into alternative regulation.

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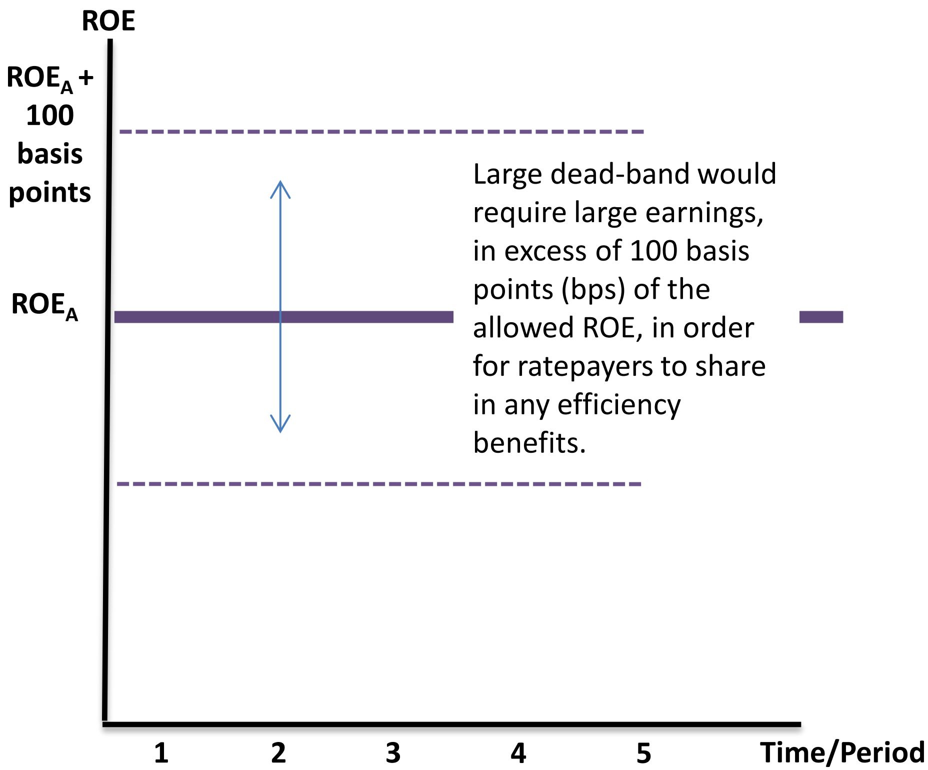
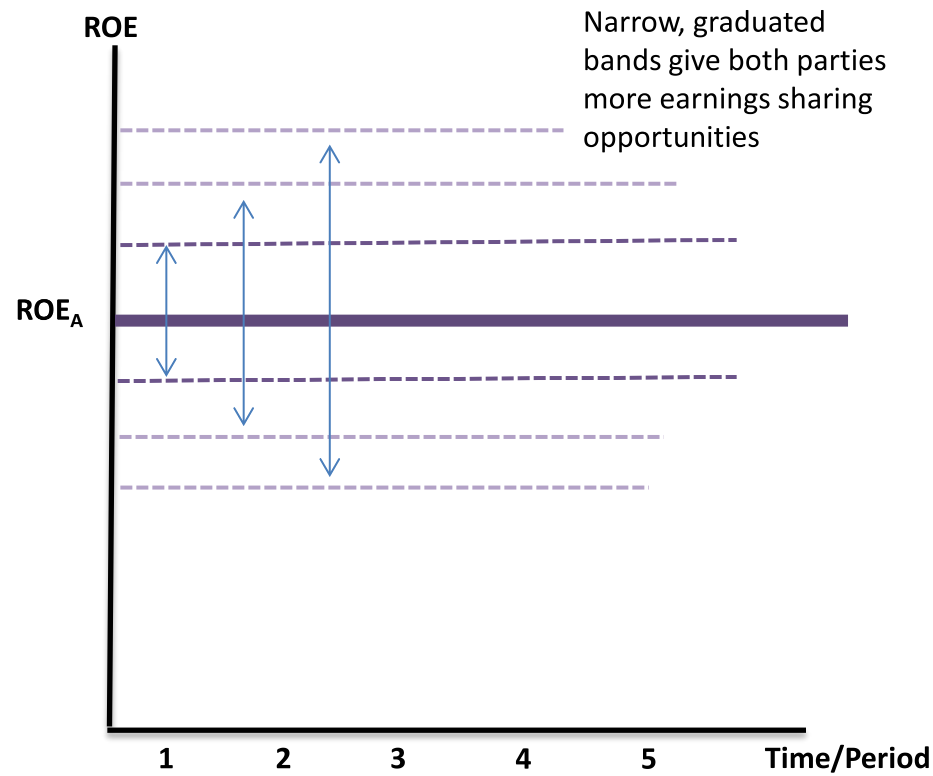
Alternative Regulation: Risks & Earnings Sharing Mechanisms -- Bands

A large number of narrow sharing bands creates more graduated opportunities for sharing. Broad bands reduce those opportunities – increased sharing opportunities will require exceptionally large excess earnings.





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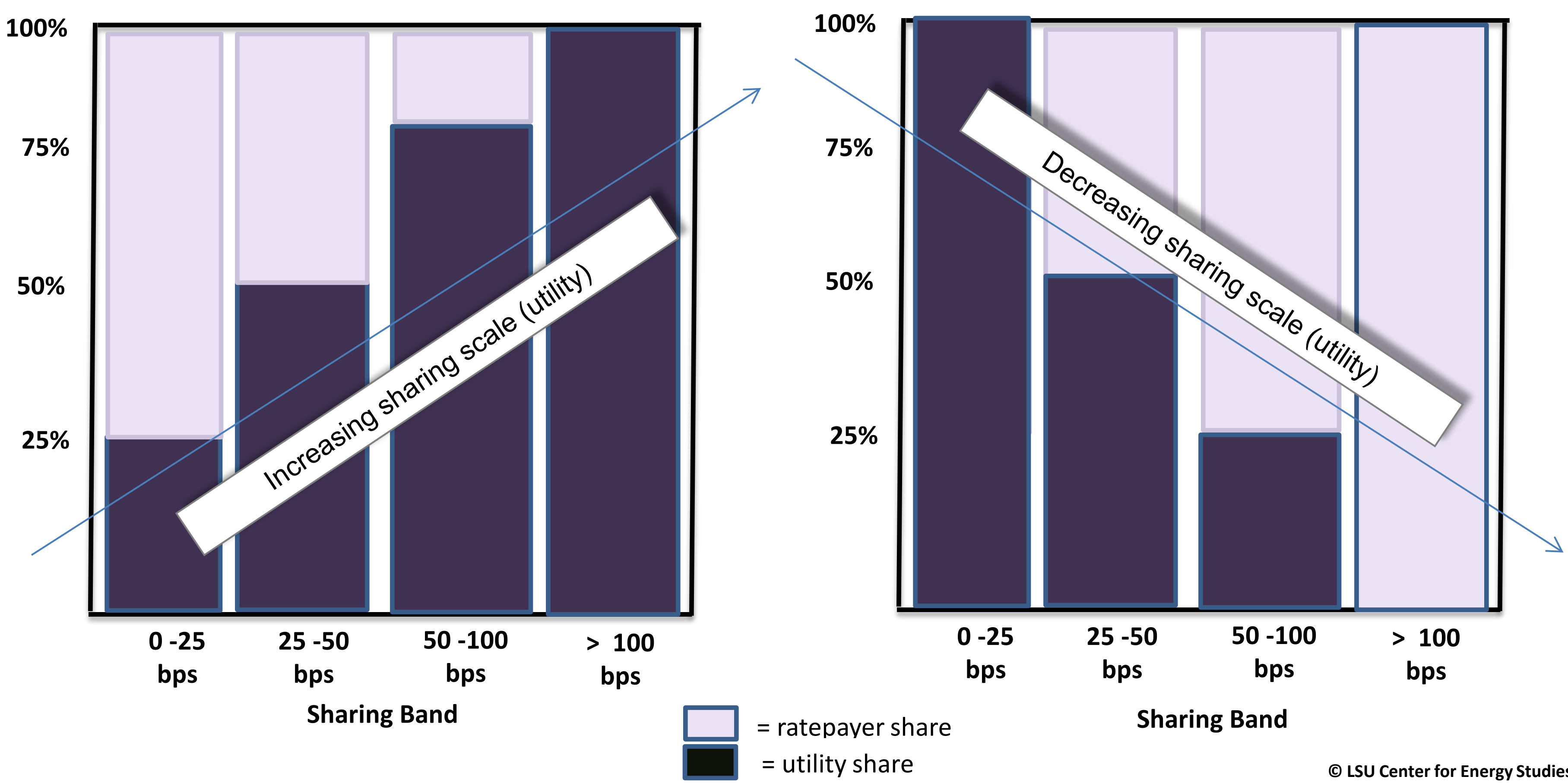
Alternative Regulation: Risks & Earnings Sharing Mechanisms – Sharing Percentages

Increasing sharing percentages require utilities to work harder in order to share in excess earnings whereas a declining sharing percentage scale gives utilities first claim to excess earnings.



Alternative Regulation: Risks & Program Durations

Alternative regulation plans are commonly set in **three to five year range**, although some are set for much longer periods that can include up to one decade.

Length is often part of the regulatory bargain between utilities and regulators and likely determinant on other program components (like earnings sharing bands).

Longer stay-out periods are thought to give utilities the opportunity for making **longer-run investments** that will yield **efficiency gains** (and returns) over a period of time. Longer stay out periods help to create opportunity to attain the **full return from the investments**.

Shorter stay-out periods, however, can help to reduce any long periods of time unanticipated **disconnects that can arise between rates and costs** without rate recalibration.

Summary of Alternative Regulation Design Characteristics - Risks

Alternative Regulation Plan Component	Risk Characteristics
Formula for Allowed Rate Change	Less risky provision of an alt regulation plan since price changes will occur in any given year and only vary by the degree to which inflation in the economy varies. These rate increases could be used to facilitate efficiency investments that pay dividends (through excess earnings) over time.
Earnings Sharing Mechanism	More risky component of alt regulation plan since earnings outcomes (excess earnings) are entirely dependent upon utility performance. Programs that allow relatively larger initial rate increases should provide some later concessions for those funding the investments (i.e., ratepayers) through inclining sharing blocks.
Program Duration	Moderately risky component of alt regulation plan since it is defined early in the process. Utility does bear risk that the gains of its efficiency efforts could be expropriated by a future rate case if duration is set too short.

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Conclusions

Conclusions

Interesting time for the consideration of alternative gas/electric regulation given **other policy agendas** (reliability, resiliency, replacement) and their corresponding ratemaking mechanisms (trackers).

(Most) **trackers are the antithesis to PBR** since they are not tied to performance, are periodic, and cost-plus based.

PBR should be thought of as a substitute, not compliment to tracker-based regulation and may be an **alternative for "tracker-fatigued" commissions.**

While PBR/incentive regulation "decouples" rates and costs, it **"recouples" performance** not found in tracker-based approaches.

Conclusions

Do utilities want PBR and rewards for efficiency or do they want insulate themselves from cost-recovery risk?

Utilities in today’s environment **may not be supportive of performance based approaches** since it requires them to bear performance risk of their investments.

Utilities may not preference PBRs since they are **uncertain about the likely performance effectiveness** of these reliability, resiliency, and replacement investments. If this is the case, it raises new set of issues related to cost-recovery, prudence, and performance.

LSU | Center for Energy Studies **Conclusions**

Conclusions

Regulatory lag is not "bad" -- Primary incentive mechanism included in regulation that should **increase utility efficiency incentives** in a manner **similar to competitive markets** (efficiency leads to increased profitability).

Alternative regulation is a **modification** of, not a **substitute** for, traditional regulation by taking a little of the "old" (cost of service ratemaking and regulatory lag) and combining this with a little of the "new" (formulaic increases in rates and fixed regulatory review periods) to **increase the effectiveness** of the regulatory process for both parties (utilities and ratepayers).

Alternative regulation **changes the regulatory emphasis** from focusing on **"inputs"** (i.e., the cost of service) to one that emphasizes **"outputs"** (i.e., efficiency and profitability): this is why **alternative regulation is often referred to as performance-based regulation**, because its underlying goal is encourage efficient **performance**.

A good alternative regulation program ensures that the **risks and rewards** between ratepayers and utilities are **balanced**.

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Take-Aways

Interesting time for the consideration of alternative gas/electric regulation given **other policy agendas**.

Regulatory lag is not "bad" -- Primary incentive mechanism included in regulation that should **increase utility efficiency incentives** in a manner **similar to competitive markets** (efficiency leads to increased profitability).

(Most) trackers are the antithesis to PBR since they are not tied to performance, are periodic, and cost-plus based.

Do utilities want PBR and rewards for efficiency or do they want insulate themselves from cost-recovery risk? Utilities in today's environment **may not be supportive of performance based approaches** since it requires them to bear performance risk of their investments.

Alternative regulation is a **modification** of, not a **substitute** for, traditional regulation

A good alternative regulation program ensures that the **risks and rewards** between ratepayers and utilities are **balanced**.

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Questions, Comments and Discussion

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CASE: UE 435
WITNESS: CURTIS DLOUHY

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2400

REDACTED
Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Curtis Dlouhy. I am the Program Manager for the Policy and Economic Analysis Group of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. I provided Opening Testimony in Staff/1700, and my witness qualifications statement is found in Exhibit Staff/1701.

Q. What is the purpose of your testimony?

A. I respond to arguments presented by Portland General Electric (PGE or the Company) and stakeholders about the Company's proposals regarding the Renewable Resource Automatic Adjustment Clause (RAC), Virtual Power Plant (VPP), Seaside battery project, Constable battery project, and its updated nonresidential Time of Use (TOU) rates.

Q. Did you prepare any exhibits for this docket?

A. Yes. Staff prepared exhibit 2401 containing PGE's response to Staff DR 751.

Q. How is the remainder of your testimony organized?

A. My testimony is organized as follows:

Q. Please summarize Staff's position on issues addressed in your testimony.

A. Staff continues to recommend that the Commission reject the Company's definition of "associated energy storage" and only consider changes to the Commission's interpretation in a standalone docket. Alternatively, Staff recommends that the Commission issue an order on "associated storage" in this proceeding to give all parties the clarity that PGE desires.

Staff revises its Virtual Power Plant adjustment downward to a $1.5 million reduction to account for unintentional double counting of FTE by Staff in its Opening Testimony.

Staff proposes Constable be allowed into rate base at the amount proposed by Staff, either on the rate effective date or after the project is on-line if not completed by the effective date.

Staff continues to recommend the Commission deny PGE's request to include the costs of the Seaside project in rates by way of a tracker. In the event the Commission approves this request, Staff continues to recommend an adjustment of $44 million to rate base.

Staff continues to recommend that the nonresidential time-of-use rates be applied to Schedule 90- Large nonresidential standard service (>4,000 kV and aggregate to >30 MWa).

ISSUE 1. RAC MODIFICATION

Q. Please describe PGE's proposal for the Renewable Resource Automatic Adjustment Clause (RAC) as well as Staff's and intervenor's responses in opening testimony.

A. In Opening Testimony, PGE proposed that the Commission clarify the "associated storage" language contained in ORS 469A.120(2)(a) related to cost recovery for RPS-compliant resources extends to standalone storage projects.[1]

In response to seeing this proposal again, Staff, Alliance of Western Energy Consumers (AWEC), and the Citizens Utility Board (CUB) opposed PGE's language clarification, reiterating points that have been stated ad nauseum as recently as UE 416.[2]

Q. How did the Company respond to the statements made by Staff, AWEC, and CUB regarding the "associated storage" language in the RAC?

A. In its Reply Testimony, PGE stated that it continues to seek clarity on the "associated storage" issue but ultimately dropped its proposal in this case.[3]

Q. Does PGE withdrawing the proposal give it clarity on the issue?

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1 ORS 469A.120(2)(a) provides: "The Public Utility Commission shall establish an automatic adjustment clause as defined in ORS 757.210 or another method that allows timely recovery of costs prudently incurred by an electric company to construct or otherwise acquire facilities that generate electricity from renewable energy sources, costs related to associated electricity transmission and costs related to associated energy storage."

2 Staff/1700, Dlouhy/6; AWEC/100, Mullins/72; and CUB/100, Jenks/64.

3 PGE/1700, Powell – Clark/29.

A. No. Staff recognizes the discourse that prompted the Company to withdraw the issue from the case, but is concerned that this important policy question continues to linger without final resolution.

Q. How does Staff recommend that this issue be resolved?

A. Staff maintains its recommendation from this docket and UE 416 that "associated storage" should not apply to standalone storage projects, particularly without broader consideration for the customer protections needed to expand the RAC under the current policy and procurement environment. Staff believes that the record on this topic is complete and recommends that the Commission rule on "associated storage" in this docket in order to fully resolve this issue and provide the clarity that PGE seeks.

Alternatively, Staff is still open to resolving this issue in a standalone docket, which was recommended in Staff Opening Testimony. As an alternative recommendation, Staff is open to PGE clarifying that it will not bring up associated storage in a future general rate case and instead will only seek to resolve the issue in a standalone docket. A standalone docket would allow a space for the issue to be fully resolved, across utilities, without competing concerns that arise in a general rate case.

ISSUE 2. VIRTUAL POWER PLANT

Q. Please summarize Staff's position on the Virtual Power Plant (VPP) in Opening Testimony.

A. Staff recommended that the Company's proposal to recover an incremental $4.0 million in O&M costs be denied based on Staff's finding that the Company has not made any clear, documentable progress in scaling up the VPP since the last rate case and that it appears that the Company was attempting to double recover costs that would be covered through a grant. While Staff did not doubt that a VPP could provide benefits for customers, Staff noted that there are some undefined overlaps between the VPP, the Advanced Distribution Management System (ADMS), and the Distributed Energy Resource Management System (DERMS), that warrant further investigation. Staff also noted there is currently no venue to for ongoing transparency into the costs incurred by the VPP and the benefits that the VPP provides and recommended that a reporting docket be created to provide this information on an annual basis.[4]

Q. How did the Company respond to Staff's opening testimony on the VPP?

A. The Company disagreed with Staff's opening testimony on the VPP. The Company notes that Staff's VPP adjustment of ($4.0 million) mistakenly double counts the FTE adjustment proposed in Staff Exhibit 1700 by

4 Staff/1700, Dlouhy/15.

approximately $2.5 million.[5] The Company also asserts that the costs associated with **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** are not being double recovered by the Company, as a condition of this funding is a cost sharing commitment.[6]

PGE also states that Staff's assertion the VPP hasn't had significant progress is incorrect and presents a table demonstrating the growth of summer and winter VPP capacity since 2022.[7] While it supports a workshop to explore the overlaps between the VPP, ADVMS, and DERMS, PGE opposes another filing requirement because it is duplicative with the Multi-Year Plan and the Distribution System Plan (DSP).[8]

Ultimately, the Company recommends that the Commission reject the requirement for an annual filing and accept the Company's request for an additional $4.0 million to fund the VPP.

Q. Does Staff agree with PGE that Staff's VPP adjustment mistakenly double counts the labor O&M adjustment of Staff Witness Steph Yamada.

A. Yes. While Staff does not believe that PGE's insistence on highlighting areas where Staff and stakeholders make similar adjustments is productive, Staff appreciates when the Company highlights areas where our own revenue

5 PGE/1600, Cloud – Adbi – Putnam/23.
6 Id.
7 PGE/1600, Cloud – Albi – Putnam/25.
8 PGE/1600, Cloud – Albi – Putnam/26-27.

requirement calculations may be imperfect. Staff agrees to remove $2.5 million from its VPP adjustment to omit the double counted adjustment to FTE levels.

Q. Does this mean that Staff supports the inclusion of the 13 new FTEs that the Company highlights in its Reply Testimony?

A. No. As discussed in the Rebuttal Testimony of Staff Witness Steph Yamada, Staff does not support the Company's overall requested FTE level. Further, Staff's concerns expressed in Opening Testimony about the cost effectiveness of the VPP and possible cost overlaps between the ADMS and DERMS remain. While Staff withdraws $2.5 million of its requested $4.0 million downward adjustment to VPP-related costs this is only because these costs are addressed by Steph Yamada. Staff's concerns remain and should be viewed as supporting Ms. Yamada's overall labor adjustments.

Q. Does Staff agree that the Company is not attempting to double recover costs that it is already receiving from a grant?

A. Yes. **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**

Q. How do you respond to the Company's analysis that demonstrates that the VPP is growing annually?

A. Staff appreciates the information that the Company provided in Figure 2 of its Reply Testimony. Had this analysis been presented to the Commission in a planning docket or annual update about the VPP's actual operations and cost effectiveness, perhaps Staff would not continue to hold concerns about whether a VPP is an effective use of ratepayer money at this moment.

Q. Does Staff still hold concerns about the cost effectiveness of the VPP at the moment?

A. Yes. Staff notes that in the Company's comparison of its summer and winter flexible capacity in Reply Testimony, it appears that its 2022 actual flexible load is approximately 9 MW higher than its 2024 year-to-date flexible load.[9] While PGE explains that the historical capacity is adjusted based on actual performance,[10] Staff finds it difficult to justify the cost-effectiveness of the program without a set of clear narratives justifying the adjustments, ways in which the VPP was used in prior years, and ways in which the Company aims to further optimize the VPP in future years.

Q. PGE opposes creating an annual, standalone filing for the VPP because it believes that it has properly communicated the VPP through the DSP and Multi-Year Plan.[11] Does Staff agree?

A. No. As stated previously, Staff is unable to fully understand the cost-effectiveness of the VPP when the size of the VPP appears to fluctuate both up and down throughout the course of a year. Staff also notes that the

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9 PGE/1600, Cloud – Albi – Putnam/25.
10 PGE/1600, Cloud – Albi – Putnam/24.
11 PGE/1600, Cloud – Albi – Putnam/27.

VPP is comprised of no less than seven distinct programs that are collectively treated as a single asset.[12] Put differently, the VPP is a resource whose contribution to the Company's day-to-day operations and total costs appear to be changing continuously. For the purposes of planning for future grid needs, it is critically important for Staff and stakeholders to understand how the Company has deployed this diverse collection of programs and resources into one, unified asset, what it costs to use that asset, what benefits the asset has provided so far, and what lessons have been learned by working with that evolving asset. Staff believes that the VPP warrants its own standalone filing not only because it holistically combines various disparate programs that may be presented in a vacuum, but also because unlike other capacity resources, the VPP's stated capacity fluctuates.

Q. Please summarize Staff's updated recommendation on the VPP.

A. Staff revises its adjustment from a $4.0 million reduction to a $1.5 million reduction to reflect the previously double-counted labor expenses. While the Company provides evidence to assuage Staff's concerns about double recovery of grant funds, Staff reiterates that the Company hasn't provided any evidence that the VPP provides any meaningful marginal benefit since the Company's last general rate case filing. Therefore, Staff still believes that the Company has not met the burden of proof to justify putting any increased VPP spending into rates at the moment.

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[12] PGE/1600, Cloud – Albi – Putnam/26. See Figure 2.

Staff continues to recommend that the Commission direct the Company to create a standalone annual filing as described in Staff's Opening Testimony.[13] Staff further clarifies that this filing should include a discussion of how and when the VPP was used in the previous year, and what operational lessons were learned in the process. Given the newness of this proposal, Staff is open to holding workshops with the Company and stakeholders to more clearly define what should be included in this filing.

Staff also agrees with the Company that a workshop to discuss the overlap between the VPP, DERMS, and ADMS would be useful and looks forward to scheduling such a workshop.

[13] Staff/1700, Dlouhy/15.

ISSUE 3. CONSTABLE AND SEASIDE BATTERIES

Q. Please describe Staff's position on the Constable and Seaside Batteries in Opening Testimony.

A. Staff did not support PGE's request to include a tracker for both the Constable and Seaside batteries. While Staff did not oppose the Constable tracker so long as it is placed into rates before January 31, 2025, Staff believed that a tracker for a resource that will not be online for approximately six months after the rate effective date did not fairly balance costs recovery risk between customers and shareholders.[14]

If the Commission finds that the projects are prudent and the trackers should be approved, Staff recommended a $14 million dollar reduction to Constable's rate base and $44 million reduction to Seaside's rate base following an analysis of the capital costs presented in the 2021 RFP.[15] Additionally, Staff recommended a $5 million disallowance based on PGE's refusal to answer simple data request to assess the competitiveness of its RFPs.[16]

Q. Please describe intervenors' testimony on the Constable and Seaside batteries.

A. At a high level, the intervenors that wrote testimony on the Constable and Seaside batteries opposed the trackers. CUB recommended that rather than create a tracker limited to just the incremental costs of Seaside, the

[14] Staff/1700, Dlouhy/29.
[15] Staff/1700, Dlouhy/21. Staff/1700, Dlouhy/29.
[16] Staff/1700, Dlouhy/19.

Commission should keep base rates at their current level and place all revenue requirement increases into the tracker so that it will go into effect once the Seaside project is used and useful.[17] Effectively, CUB's proposal would delay the rate effective date of the Company's requested increase until after Seaside is used and useful.

AWEC recommends that the Commission reject the trackers for both the Seaside and Constable batteries.[18] For Constable, AWEC recommends Constable only be placed into rates if the Company files an attestation that the project is used and useful prior to the rate effective date.[19] Further, AWEC recommends that the Commission condition any prudency finding on PGE opting out of Investment Tax Credit (ITC) normalization treatment for the ITCs associated with these projects.[20] AWEC calculates that the effect of this proposal is a decrease in revenue requirement of approximately $25 million.[21]

Q. How did PGE respond to the concerns raised by Staff and stakeholders?

A. PGE rejects Staff's $14 million disallowance on Constable, claiming that it's inconsistent with previous capital recovery of RFP-procured assets.[22] PGE also opposes Staff's $5 million reduction based on PGE's refusal to provide past RFP data.[23] PGE does not oppose most of Staff's conditions for the

[17] CUB/100, Jenks/11.
[18] AWEC/100, Mullins/5.
[19] AWEC/100, Mullins/59.
[20] AWEC/100, Mullins/5.
[21] AWEC/100, Mullins/3.
[22] PGE/1700, Powell – Clark/5.
[23] PGE/1700, Powell – Clark/12.

Constable tracker, but requests that the latest project online date be extended to February 28, 2025, to account for unforeseen delays. Finally, PGE reasserts its Opening Testimony recommendation that the Commission approve the use of a tracker for the Seaside battery project.

Q. What reasons does the Company give to oppose Staff's $14 million reduction to Constable's rate base?

A. PGE states that Staff's analysis includes stale amounts and fails to account for other cost categories that were not included in the RFP costs.[24]

Q. Does Staff believe that it conducted an incorrect or unprecedented comparison?

A. No. Staff believes that it is important to ground actual project amounts with those that are presented in the RFP when scoring bids. Staff believes that cost projections are useful in analyzing the prudency of costs because it ensures that least cost/least risk assumptions are fairly reflected in rates.

Further, PGE's criticisms of Staff's methods and points of comparison contradict its own assessment of Staff's methods in other dockets. In UE 427, the RAC filing for the Clearwater facility, Staff directly compared the costs of Clearwater in the RFP to the total plant costs that PGE requested be placed into rates.[25] While PGE responded to essentially every other part of Staff's testimony in UE 427, at no point in PGE's Reply Testimony did the Company

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[24] PGE/1700, Powell – Clark.
[25] UE 427, Staff/200, Dlouhy/10.

take issue with Staff comparing Clearwater's requested gross plant to put into rate base with the project costs used in the RFP scoring.

Q. PGE states in its Reply Testimony that Staff has access to this data and provided a table with the information requested by Staff in its testimony.[26] Does Staff still believe that a $5 million disallowance is warranted?

A. While Staff continues to be frustrated that PGE was unable to provide this information during discovery, Staff appreciates that PGE was able to provide information in its Reply Testimony. Staff no longer recommends a $5 million disallowance.

Staff, however, takes issue with PGE's statement Staff had access to the information through its participation in other dockets. As PGE is aware, RFPs contain a plethora of highly confidential and commercially sensitive information under a separate modified protective order (MPO) than the MPO for this docket. In the past, Staff has also had issues with PGE granting permission to use highly confidential information in an RFP docket in a different docket. Rather than risk accidental disclosure of highly sensitive information or waste PGE and Staff time going back and forth to figure out whether and how Staff would be allowed to use RFP information under multiple MPOs, Staff felt that it be more administratively efficient for PGE to compile this information internally and disseminate it under this docket's MPO if needed. In the future, Staff is

[26] PGE/1700, Powell – Clark/13.

open to finding solutions to more efficiently solve discovery problems arising from MPOs across different dockets.

Q. What did the information presented by PGE in Table 1 illustrate about the competitiveness of PGE's RFP process?

A. PGE states that their RFPs have maintained robust participation and presents evidence that the number of counterparties, bids submitted, and benchmark proposals submitted have increased since 2011.[27] While Staff appreciates that the total number of counterparties appears to have risen from 12 to 18, and the total number of bids has increased 33 to 110, PGE's table also highlights Staff's concerns about the trends in PGE's RFP processes. Table 1 below presents the total number of benchmark bids compared to the total RFP pool of bids for each of the four RFPs PGE presents in its testimony.

Table 1: Performance of Benchmark Bids in PGE RFPs

	2011 & 2012 Capacity and Energy Power Supply RFP	2012 Renewable RFP	2018 RFP	2021 RFP
Benchmark Bids Submitted	3	5	3	15
Benchmark Bids on Final Shortlist	3	1	3	11
% of Benchmark Bids Submitted	9.1%	8.8%	11.5%	13.6%
% of Benchmark Bids on Final Shortlist	12.5%	14.3%	50%	46%

While benchmark bids comprise a smaller portion of the total number of bids submitted into any given RFP, PGE's benchmark bids comprise a

[27] PGE/1700, Powell – Clark/12.

proportionately larger share of the final shortlist. This highlights concerns that some portion of the RFP scoring or selection process is skewed to favor PGE's own bids. Further, Staff notes the lack of competitors participating in the contract negotiation phase that follows the final shortlist selection.

While Staff believes that the conversations about protecting the integrity of the Commission's RFP process under a changing procurement landscape are actively being addressed outside of this proceeding, Staff believes that this information is helpful context for any resource rate recovery review. Staff also notes that many of the highlighted concerns from the Company's 2021 RFP have been addressed in the Company's current RFP and the RFP processes for the Commission's other regulated entities.[28]

Staff's goal in overseeing utility procurement is to ensure the best mix of resources are available to serve customers. This is increasingly true given pace and complexity of resource procurement anticipated and requires faith in the integrity of the process for bidders, other stakeholders, and the Commission. The need for strong oversight and protections against utility ownership bias provides all the more reason to align RFP bid data with actual values to place into rates.

Q. Moving on, how does PGE justify the Seaside and Constable trackers in its Reply Testimony?

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[28] Order No. 24-011 and Staff's Response to NewSun's Application For Rehearing Or Reconsideration filed on April 4, 2024, in Docket No. UM 2274.

A. PGE notes that it is a cost-of-service business and that denying timely recovery of the batteries will lead to significant under-recovery.[29] PGE further pushes back against AWEC's claim that the Carty tracker was disastrous, citing that the major challenges that led to the cost overruns were not included in the tracker.[30] PGE also recommends that the Constable tracker should extend to February 28, 2025.[31]

Q. How does Staff respond to PGE's justification for the Seaside and Constable trackers?

A. As Staff highlighted in its Opening Testimony, Staff believes that any under recovery associated with Seaside is a product of PGE's managerial decision to file a rate case now rather than waiting for approximately six months so that the rate effective date would coincide with Seaside's online date.[32] Staff is not sympathetic to PGE's assertion that it is entitled to place the battery in service as soon as it is on-line and continues to believe that regulatory lag is useful feature of a regulated industry. As Staff highlighted in Opening Testimony, if PGE had waited six months to file a rate case, or extended the effective date of this rate increase, to absorb the regulatory lag associated with Constable, it would have had to absorb $10 million in regulatory lag associated with two plants whose gross plant balances exceed half a billion dollars.[33]

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[29] PGE/1700, Powell – Clark/18.
[30] PGE/1700, Powell – Clark/19.
[31] PGE/1700, Powell – Clark/16.
[32] Staff/1700, Dlouhy/31.
[33] Id.

Q. Does Staff believe that it is appropriate to extend the final date for the Constable tracker to February 28, 2025?

A. No. Staff supported the use of the Constable tracker because it was expected that Constable would be used and useful by the rate effective date. It was Staff's belief that *small* delays that would cause Constable to come online late could warrant a tracker. It is Staff's belief that a full month of cushion beyond the rate effective date for a resource that PGE expects to be online prior to the rate effective date is more than fair.

Further, Staff notes that if PGE is truly concerned about Constable coming online late, PGE could have again planned to file a rate case with a later effective date so that Seaside could be reasonably included in rates without a tracker *and* PGE would be given many months of cushion to bring Constable online prior to the rate effective date.

Q. How does Staff respond to the other battery tracker proposals brought up by AWEC and CUB?

A. While Staff favors its own proposal to allow the Constable tracker with conditions, Staff is interested in the proposals brought up by AWEC and CUB and sees their merit. AWEC and Staff are in alignment on the Seaside tracker, and while Staff supports the use of the Constable tracker, Staff sees merit in AWEC's arguments in favor of only allowing Constable if it is online prior to the rate effective date, as this is how ratemaking is traditionally done.

Regarding CUB's proposal, Staff believes that the proposal is a clever way to address Staff's concerns about the Company's inability to properly time a rate case. In effect, CUB's proposal would allow this rate case to function as a rate case whose effective date coincides with Seaside's online date. While Staff is not aware of a precedent for this type of recommendation, Staff is nonetheless supportive of seeking Commission direction on the concept.

ISSUE 4. NONRESIDENTIAL TIME OF USE RATES

Q. Please describe Staff's position on the Company's nonresidential time of use (TOU) rate proposal.

A. Staff was generally supportive of the Company's nonresidential TOU rate proposal in Opening Testimony. Staff recommended minor changes to the Company's on-, mid-, and off-peak differentials applied to Schedules 38, 83, 85, and 89, and also recommended that the charges be applied to Schedule 90.[34] In making the recommendation that these charges apply to Schedule 90, Staff noted that just because the customer's load is flat doesn't mean that the customer is unable to shift load, and that even if Schedule 90 customers have a flat load, they are still causing energy costs that vary throughout the day. Staff also notes its understanding that there was only a single customer on Schedule 90 at the time of publishing testimony.

Q. Did any other stakeholders write testimony on the nonresidential TOU proposals?

A. Yes. Walmart raises concerns that having a different peak structure for only Saturday creates complexity for management and proposes aligning Saturday with either the structure from Monday through Friday or with Sunday.[35] Walmart also raises concerns that the proposed on-, mid-, and off-peak period for energy charges do not align with the on-peak period for demand charges and recommends that the Company align these two bill components.[36]

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[34] Staff/1700, Dlouhy/46-47.
[35] Walmart/100, Perry/22.
[36] Walmart/100, Perry/23.

Q. How did the Company respond to Staff's and Walmart's proposals?

A. PGE was open to Staff's recommendation to adjust the TOU on-, mid-, and off-peak price differentials using historic Mid-C prices instead of forecasted prices. However, the Company recommends basing prices on a historic three-year average in order to smooth out anomalies.[37] The Company recommends against applying the new TOU rates to Schedule 90 on the basis that these customers typically have high monthly load factors, the consistency of these customers' loads assists in PGE's planning, and there are now two Schedule 90 customers.[38]

PGE also agrees with Walmart that there is value in aligning the TOU windows for Saturday with the TOU windows for either the weekdays or Sunday. In their Reply Testimony, PGE updates their proposal to have a consistent set of TOU windows for Monday through Saturday instead of Monday through Friday.[39] While PGE understands Walmart's concerns about the peak demand windows, they do not recommend changes to the windows.

Q. Is Staff open to calculating the TOU prices based on three-year historical prices?

A. Yes. At this time, Staff finds no issue with this proposal and agrees that it may help to smooth out anomalous years.

Q. Does Staff agree with the Company's reasons to not apply to Schedule 90 customers?

[37] PGE/2000, Macfarlane – Pleasant/13.
[38] PGE/2000, Macfarlane – Pleasant/13-14.
[39] PGE/2000, Macfarlane – Pleasant/15.

A. No. As described in Staff's Opening Testimony, Staff feels that it is proper to align the costs of providing energy to Schedule 90 customers with the rates charged for these customers. While there are now two Schedule 90 customers and PGE states that both customers have high load factors, this doesn't address Staff's concerns that the cost to procure or generate energy for these customers varies throughout the day and that this may become increasingly relevant as the region transitions away from emitting resources.

Further, Staff notes that the intent of a TOU rate is not necessarily to be cost neutral, but rather to align cost recovery with the time-varying nature of electricity generation costs and incentivizes customers to move their consumption off the highest cost periods.

Q. What is the effect of applying the Company's proposed TOU structure to Schedule 90 customers?

A. Table 2 provides Staff's proposed Schedule 90 price differential based on the Company's response to Staff DR 751 and the Mid-C prices used by Staff in Opening Testimony.

Table 2: Staff's Schedule 90 TOU Differentials Relative to the On-Peak Rate

Rate	Schedule 90
On-Peak	-
Mid-Peak	-1.2 ₵/kWh
Off-Peak	-1.7 ₵/kWh

Q. Does Staff oppose PGE's response to Walmart's recommendations?

A. No. Staff agrees with PGE and Walmart that aligning Saturday's TOU rate structure with the Monday through Friday rate structure makes sense and supports it. Staff does not oppose PGE maintaining its proposed demand charge.

Due to the short turnaround between the Company's Reply Testimony and Staff's Rebuttal Testimony, Staff was not able to implement the three-year average when calculating proposed TOU rates nor the change in TOU windows proposed by Walmart. Staff welcomes the Company to update these proposed prices with the proposed TOU windows and prices in its Surrebuttal Testimony and in the compliance filing should these changes be adopted.

ISSUE 5. CLEARWATER RAC DEFERRAL

Q. What did Staff propose be done with the deferral associated with the Clearwater RAC filing?

A. Staff proposed that this deferral be amortized over the course of one year beginning on the rate effective date of this general rate case, January 1, 2025. Staff further recommends that the rate spread on an equal percentage of generation revenue basis, which is consistent with Schedule 122's current rate spread.

Q. Did any parties submit testimony on this issue?

A. No.

Q. Has Staff's position on this issue changed since Opening Testimony?

A. No. However, Staff notes that UE 427 has been further delayed with a target order date in December 2024.

Q. Does this conclude Staff's testimony?

A. Yes.

CASE: UE 435
WITNESS: CURTIS DLOUHY

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2401

Non-Confidential Responses to Data Requests

September 10, 2024

September 3, 2024

To: Scott Gibbens
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 751
Dated August 26, 2024

Request:

Please provide the total forecasted test year kilowatt-hours used by Schedule 90 customers during the on-, mid-, and off-peak periods that the Company proposes for Schedule 38, 83, 85, 89.

Response:

PGE understands this question to be asking for the large commercial TOU structure that PGE is only proposing by applied to Schedule 38, 83, 85, and 89, were it to be applied to Schedule 90, based on forecasted annual kWh. Using the TOU schedule as proposed in PGE's opening testimony, the forecasted annual kWh per period for Schedule 90 would be as follows:

Period	Forecasted Annual kWh
Onpeak	641,388
Midpeak	1,440,848
Offpeak	1,603,077

CASE: UE 435
WITNESS: KATE AYRES

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2500

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Kate Ayres. I am an Energy Justice Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Exhibit Staff/1900 and my Witness Qualifications Statement is provided in Exhibit Staff/1901.

Q. What is the purpose of your testimony?

A. This testimony responds to Intervenors' Opening Testimony and Portland General Electric Company's (PGE or Company) Reply Testimony. Additionally, it provides further analysis and recommendations regarding the Company's Income-Qualified Bill Discount program (IQBD or Program), residential arrears and disconnections, a discussion of customer programs, and the IQBD cost-recovery mechanism.

Q. Did you prepare any exhibits for this docket?

A. No, I have not prepared any additional exhibits for this docket.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. INCOME-QUALIFIED BILL DISCOUNT

Q. Please briefly describe the Company's current Income-Qualified Bill Discount program.

A. PGE's current Income-Qualified Bill Discount program (IQBD), approved in 2022 as Schedule 18, is a percentage of bill discount program available to residential customers whose adjusted household income is at or below 60 percent state median income (SMI). The Company currently offers a five-tier structure, shown in Table 1, providing up to a 60 percent monthly discount to applicable charges on an enrolled customer's PGE bill. Customers who previously received Low-Income Home Energy Assistance (LIHEAP) or Oregon Energy Assistance Program (OEAP) funds in the last 12 months will be automatically enrolled, or customers may self-attest to the qualifying household's income and household size.

Table 1.

	Adjusted Household Income	Discount
Tier A	0-5% SMI	60%
Tier B	6-15% SMI	40%
Tier C	16-30% SMI	25%
Tier D	31-45% SMI	20%
Tier E	46-60% SMI	15%

Q. Please provide a brief summary of Staff's Opening Testimony recommendations related to the IQBD.

A. Staff provided several recommendations in Opening Testimony, including:

- The Company should propose a master meter customer component to the Company's IQBD.

  - This should include a reasonable discount to be passed onto Oregon residents housed in master metered dwellings within PGE's service territory that would otherwise qualify for the IQBD.
  - Following the adoption of this component, the Company should work with Oregon Housing and Community Services (OHCS) to identify low-income affordable housing units and reach out to landlords to offer discount information.
- The Company should engage with its Community Benefit and Impacts Advisory Group (CBIAG) and Community Action Agency Partners (CAAs or CAP agencies) on additional outreach techniques for reaching IQBD eligible customers.
  - This should include, at a minimum, a discussion on additional inserts timed strategically with the higher energy demands of heating and cooling seasons. Such inserts may be helpful to increase interest and enrollments in the program.
- The Company should engage CAP agency partners in the presence of Staff to discuss program adjustment opportunities that optimize low barrier and timely enrollment for customers.
- The Company should monitor, track, and report to the Commission a list of IQBD customers with a monthly usage of 2,000 kWh or more.
  - The Company should refer customers with high usage to CAP agencies, Energy Trust of Oregon (ETO), and any other known partner agencies administering low-income energy efficiency or

weatherization services to environmental justice communities in the Company's service territory.

- Following referral, the Company should follow-up with the customers to ensure they are being connected with services and/or help the customer connect with services if they are facing long wait times or ineligibility.
- Additionally, the Company should monitor customers to ensure their usage is going down through intervention of assistance and/or efficiency measures.

- Following the Company's EBA filing, the Company should,
  - Convene Staff and stakeholders to discuss:
    - The Company's IQBD structure and discount levels,
    - An Arrearage Management and/or forgiveness program for IQBD customers,
    - Adjustments to the definition of high usage customers for energy efficiency and weatherization reporting, and
    - Additional opportunities for refinement identified by the Company or by stakeholders and Staff following review of the EBA findings.

Q. Did other parties provide testimony on the IQBD?

A. Yes. The Oregon Citizens' Utility Board (CUB), Verde, and the Alliance of Western Energy Consumers (AWEC) each provided testimony on the IQBD.

Q. Please summarize CUB's Opening Testimony recommendations related to the IQBD.

A. CUB details concerns around a rise in customers' energy burden if discount tiers are not recalculated and adjusted when rate increases are proposed.[1] CUB recommends the Company utilize the findings of the Energy Burden Assessment to conduct a tier analysis on its IQBD to determine what needs to be done to actually offset an increase and should be determined and finalized prior to the rate effective date of January 1, 2025.[2] CUB would also like to see PGE run deeper analysis surrounding the suggestions from the 2024 EBA to consider splitting the basic charge by service size.[3] Additionally, CUB believes that the EBA results can help the Company identify which customer segments require equity impact analyses.[4]

Q. Please summarize Verde's Opening Testimony recommendations related to the IQBD.

A. Verde recommends PGE adopt a monetary cap on bills as a percentage of income, also known as a PIPP, to provide substantial financial protections against future rate increases.[5] Alternatively, Verde recommends the Company increase discount rates for IQBD customers, including adding in the Oregon Self Sufficiency Standard as the lowest measure of income rather than the current 60 percent SMI. As described in Verde's testimony, the Self-

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[1] CUB/300, Wochele-Jenks/12.
[2] CUB/300, Wochele-Jenks/18.
[3] CUB/300, Wochele-Jenks/7.
[4] CUB/300, Wochele-Jenks/11.
[5] Verde/100, Segovia Rodriguez/8.

Sufficiency Standard is a measure of income adequacy that is based on the costs of basic needs for working families, including housing, childcare, food, health care, transportation, miscellaneous items, and including taxes and the impact of tax credits.[6] Verde states that this standard helps put energy burden in perspective with other rising costs.

Specific to the IQBD program design, Verde recommended adjusting PGE's current discount tiers to reflect a 90 percent discount for 0-5 percent SMI, a 70 percent discount for 6-15 percent SMI, a 60 percent discount for 16-30 percent SMI, a 50 percent discount for 31-45 percent SMI, and a 20 percent discount and the Oregon Self-Sufficiency Standard, described above, as the maximum income for Tier E of the program, deviating from the current 60 percent SMI cap.[7] Verde also recommended that the Commission direct PGE to eliminate post-enrollment verification related to the IQBD.[8]

Q. How does Staff respond to Verde's IQBD proposal?

A. Staff agrees that program design changes are needed to better align IQBD relief with PGE's customer burdens and needs. That said, Staff supports a data driven approach to IQBD program design and believes that some of the details in the Verde proposal could be modified to better align with the energy burden data found in the Company's 2024 EBA. Staff is also sensitive to pursuing this degree of change within the rate case proceeding rather than UM 2211,

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6 Verde/100, Segovia Rodriguez/11.
7 Verde/100, Segovia Rodriguez/9.
8 Verde/100, Segovia Rodriguez/18.

particularly for the 31-45 percent SMI category. As noted within UM 2211,[9] Staff intended to pursue limited near-term incremental improvements to bill discount programs in 2024 utility rate cases based on easily observable levels of need. Efforts to move towards deeper refinements should be informed by a utility's EBA filings and receive the higher level of time and attention to discuss program design options in depth with a broader group of stakeholders.

Q. Please summarize AWEC's Opening Testimony related to the IQBD program.

A. AWEC highlights that PGE's program relies on self-attestation and only requires a random three percent of participants to participate in a post-enrollment verification (PEV) process. AWEC goes on to state that this creates the potential for abuse of the Program by allowing customers to potentially receive discounts who are not eligible for them. AWEC then recommends PGE modify the IQBD to require independent verification of income level before customers are enrolled in the Program.

Q. How does Staff respond to AWEC's proposal regarding PEV?

A. Staff disagrees with AWEC's recommendation for the Company to perform income verification as a requirement to enrollment because it is in direct conflict with Staff's core UM 2211 principle to provide low-barrier enrollment options through self-attestation for energy assistance programs.[10] AWEC's

[9] *In the Matter of Public Utility Commission of Oregon, Implementation of House Bill 2475,* Docket No. UM 2011, Staff's Phase 2 Process Proposal (February 13, 2024).

[10] *In the Matter of Public Utility Commission of Oregon, Implementation of House Bill 2475,* Staff's letter to stakeholders providing implementation strategy update, December 22, 2021, page 2.

focus on verification is unsupported and distracts from efforts to improve the reach and impact of the program on burdened customers. Staff prefers to focus on improving program enrollment among households in need of this relief and does not see high barrier enrollment programs that continue to be plagued with participation rates of 13 to 18 percent of the eligible population as a model for IQBD program design. An effective PEV can contribute to program integrity and encourage broad public support. Staff is committed to advancing the efficacy of low-barrier energy burden mitigation programs through UM 2211 and is actively engaged with utilities and stakeholders in robust discussions on practical and equity centered PEV designs. To these ends, Staff does not find AWEC's recommendation appropriate for this proceeding.

Q. Please provide a summary of PGE's response to parties' various recommendations on the IQBD in Reply Testimony.

A. While PGE agreed that some of the parties' proposals are worth exploring, the Company states that the conversations following the September EBA filing are a better venue to further discussions. PGE explains that the Company offers three pillars of support for low-income customers: bill discounts through the IQBD, bill assistance via utility and publicly funded programs including Oregon Energy Assistance Program (OEAP) and Low-Income Home Energy Assistance Program (LIHEAP), and bill reduction, which PGE says comprises all efforts to help customers manage their energy use, notably enhanced energy efficiency and weatherization programs.[11] The Company states that

[11] PGE/1200, Sheeran-Wise/7.

they continue to evaluate, identify, and prioritize reforms to improve program effectiveness, and that they are discussing changes to offerings based on EBA findings with the Community Benefits and Impacts Advisory Group (CBIAG) to then submit changes to the discount program in September.[12] PGE includes a summary of the major findings from their EBA stating that Empower Dataworks concluded that PGE's IQBD is operating effectively and is following energy assistance program best practices, and that the majority of recommendations are auxiliary components that can be added to PGE's energy affordability approach.[13]

IQBD Outreach

PGE responds to the recommendations around enhanced IQBD enrollment outreach stating the Company is already working on ways to enhance enrollment and that Staff's recommendations align well with PGE's efforts.[14] PGE states that they are increasing engagement with CAP agencies and soliciting input from the CBIAG to inform enrollment outreach reforms that strive for increased awareness and participation from highly impacted customer groups, including high-energy burden customers, high-energy consumers, and mobile home occupants.[15] In response to Staff's recommendation on proposing a master-metered discount offering, PGE states that program expansion to these customers should be analyzed and considered as part of

[12] PGE/1200, Sheeran-Wise/8.
[13] *Id.*
[14] PGE/1200, Sheeran-Wise/10.
[15] *Id.*

the holistic approach for the EBA recommendations, and that several data and billing complexities would need to be addressed to administer such a program.[16]

Verde's IQBD Discount Structure

In response to Verde's recommended discount tiers, PGE points to the EBA results that found the current discount rates for customers in the 31-45 percent SMI tier and the 46-60 percent SMI tier to be suitable. PGE states that while the EBA did not recommend a higher discount for the lowest income tier, it did recommend PGE continue to assess the feasibility and benefit of enhanced discounts versus costs.[17] PGE continues by describing the total estimated IQBD program cost to grow to $54 million in 2025, and breaks down the residential customer bill line items for the IQBD program, Schedule 115 Low-Income Assistance, and the Public Purpose Charge to equal $4.69 per month.[18] The Company states that Verde's recommendation for discount tiers would nearly double 2025 program costs to just over $100 million. PGE states that the Company is evaluating the cost versus benefits of modifications to the existing IQBD tiers, and any changes would be considered within the EBA process and PGE's September filing.[19]

Post-Enrollment Verification

[16] PGE/1200, Sheeran-Wise/11.
[17] *Id.*
[18] PGE/1200, Sheeran-Wise/12.
[19] *Id.*

In response to recommendations regarding post-enrollment verification, the Company states they support exploring a more targeted approach, with input from the CBIAG, as recommended in the EBA for future PEV processes.[20] In response to AWEC's concerns around potential ineligible customers enrolling in the IQBD, the Company states they evaluated the option of verification before enrollment and determined it would create a barrier to enrollment for ineligible customers, and the costs to verify income eligibility would exceed the avoided costs of having a limited number of ineligible customers enrolling when the self-certification approach is paired with the possibility of post-enrollment verification.[21]

September IQBD Filing

In response to additional IQBD design, scope, outreach and verification recommendations, PGE offers that the Company's filing in September will incorporate learnings from the EBA and is the appropriate proceeding for PGE to put forward a proposal that will be informed by recommendations in Opening Testimony in this docket. Additionally, PGE states that the EBA found that PGE's IQBD was operating effectively and in alignment with energy assistance program best practices, and that EBA recommendations should be the focus of near-term design discussions as the program matures and more information on the program's performance and impacts is known.[22]

[20] PGE/1200, Sheeran-Wise/13.
[21] *Id.*
[22] PGE/1200, Sheeran-Wise/16.

Q. Please summarize any additional components PGE responded to in relation to low-income customers.

A. PGE's Reply Testimony included a discussion on bill assistance programs and their availability to help lessen energy burden for residential customers.[23] The Company stated that eligible customers can seek bill assistance from LIHEAP and other programs through community action partners and that PGE will typically help customers who are having trouble paying their bills to get referred and connected with these programs. PGE goes on to say that the Company is implementing a new voluntary offering that will provide additional bill assistance funding to the Oregon Energy Fund through a program targeted to launch by the end of 2024 called Bill Round-Up.[24]

Q. What are Staff's expectations for the Company's September IQBD filing and ongoing implementation on energy burden programs?

A. Parties in this proceeding raised a range of near-term opportunities to improve the eligibility criteria, tier structure, outreach practices, and PEV approach of the IQBD. Staff offers the following recommendations as minimum expectations for PGE's September filing:

- An outline of planned engagement spaces allowing Staff, stakeholders and the Company to review post-enrollment verification procedures and evaluate a targeted PEV strategy as outlined in the EBA.

[23] PGE/1200, Sheeran-Wise/16.
[24] PGE/1200, Sheeran-Wise/16-17.

- Additional analysis and offering of program enhancements as identified in the EBA, including but not limited to:
  - An arrearage management or arrearage forgiveness program proposal informed by the EBA that can be further refined following stakeholder engagement and Staff-led workshops within the UM 2211 process.
  - Outreach efforts to expand IQBD enrollment that target high energy burden eligible customers across the Company's service territory.
- Opportunities for feedback to inform and influence the Company's proposals in shared learning and co-designed workshop/meeting spaces.
- A master meter component to the Company's IQBD that is rolled out in consultation with OHCS, CBOs and PGE's CBIAG members.
- A method to track total energy assistance funding as a percent of energy assistance need as an annual metric, as identified in the EBA. This could happen in collaboration with OHCS or other agencies also delivering energy assistance.
- If the UM 2211 process does not result in well supported improvements effective on a timeline that provides relief in the upcoming heating season, the Commission should direct the Company to make these improvements in their order in UE 435.

Q. Are there other concerns Staff flags in relation to PGE's IQBD?

A. Yes. Staff is also concerned with PGE's significant reduction in IQBD engagement, both in previously recurring venues and the clear lack of engagement on EBA informed changes to the IQBD ahead of the Company's anticipated September filing. Staff has stressed the importance of engagement prior to utility filings and is concerned that the Company has not conducted or even communicated plans for additional engagement with Staff and stakeholders following the EBA filing and before the Company's Program update filing that they expect to file by September 27, 2024. This, paired with the Company's recent series of cancellations on IQBD monthly engagement meetings, leads Staff to question how IQBD adjustments proposed in September will be thoughtfully informed by stakeholders and community input. Staff would emphasize the need for feedback to inform and influence Company proposals. These spaces should be focused on shared learning and co-design, rather than seeking buy in on decisions the Company has already made.

Q. Are there other aspects of PGE's Reply Testimony on IQBD that Staff would like to highlight?

A. Yes. After reviewing the Company's Reply Testimony and observing recent CBIAG meetings on the IQBD, Staff is concerned with the proportion of attention dedicated to program costs compared to program design. For example, in reply, the Company framed a discussion of IQBD costs by totaling the IQBD with two separate charges related to low-income or energy efficiency programs. Staff questions the utility's intent with this approach given that the IQBD is a new program, driven by the policies and intent of HB 2475, intended to address persistent and disproportionate energy burdens facing environmental justice communities. This program was authorized before, and knowingly in addition to, the pre-existing programs which communities, Staff, and the Company's own EBA have found insufficient to address the level of energy assistance need in PGE's service territory. While Staff is cognizant of the cost impacts program growth can have on all customers, Staff is cautious of the Company's cost illustration as potentially misleading and distracting from both the intent and benefits of the differential rate programs. Thus, while both cost and benefit issues warrant dedicated and meaningful discussion, Staff sees the Company's excessive framing of one over the other as peddling negativity toward the Program and omitting a valuable discussion of benefits, energy equity, and the policies behind these programs.

Q. Staff also noted that PGE referenced other forms of bill assistance in its reply to IQBD issues. How does Staff respond?

A. Staff is appreciative of the Company looking at all available forms of energy assistance for eligible customers as a way to offset energy burden. Staff flags that many customers that are eligible for bill assistance from programs like the federal Low-Income Home Energy Assistance Program (LIHEAP) or Oregon Energy Assistance Program (OEAP) do not receive assistance from these programs. Staff has heard from OHCS that roughly 18 percent of eligible low-income customers participate in LIHEAP or OEAP each year. This may be attributed to limited funding and/or high barriers to enrollment, such as long waiting periods between application and relief and rigorous documentation requirements to qualify.[25] Further, during discussions with CAP agencies, Staff has also been made aware that funding has decreased following the pullback of extra COVID-19 relief funds, which has left more people needing assistance with less funding available to help.

As such, while Staff agrees it is important to understand the current landscape of bill assistance available, traditional energy assistance such as LIHEAP and OEAP does not reach all eligible customers. Staff reiterates that the September filing on PGE's IQBD needs to address identified gaps and should at a minimum, reflect the guidance recommended by Staff earlier in this testimony.

Q. Please summarize Staff's recommendation in Opening Testimony related to the IQBD cost recovery.

A. Staff asked the Company to provide analyses in Reply Testimony on how the costs would shift with 1) the removal of the cost recovery cap on non-residential schedules and 2) a percentage of bill for non-residential customers. Staff asked the Company to provide analysis that evaluated what costs would look like at the following percentages: 2, 2.5, 3, and 3.5 with an analysis that evaluated reasonable program growth and the proposed rate increase to fully evaluate the cost impacts.

Q. Did other parties provide testimony related to the IQBD cost recovery.

[25] Oregon Housing & Community Services, LIHEAP & OEAP Intake Operations Manual Program Year 2023, found at: 2023-EA-Manual-Master-09-28-22.pdf (oregon.gov).

A. Yes. AWEC provides two recommendations regarding the Company's IQBD cost recovery. First, AWEC recommends the Company modify the current limit on Schedule 118 charges from a per site limit to a per customer limit. AWEC states that a per-customer cap is more reasonable than a per-site cap given the vastly different size of a Schedule 90 customer with multiple sites relative to other customer schedules. AWEC also states that even under a per-customer cap, a Schedule 90 customer will pay as much or more than any other PGE customer.[26]

Second, AWEC recommends the Company spread and recover IQBD costs based on revenue rather than load. AWEC states that the costs currently allocated based on load are not equitable, as it results in residential customers paying the lowest portion of their bill to support IQBD and highlights that Schedule 89 pays 4.1 percent of their bill to Schedule 118 as compared to the residential schedule paying 1.9 percent.[27]

Q. Please provide a summary of the Company's response in Reply Testimony.

A. PGE does not support AWEC's proposal to change the definition of customer based on bill aggregation stating it would require considerable time, effort and cost to implement and maintain the data necessary.[28] When looking at moving to a revenue-based allocation, the Company states that while it could substantially reduce the amount paid by large commercial and industrial

[26] AWEC/200, Kaufman 32.
[27] *Id.*
[28] PGE/1200, Sheeran-Wise/15.

customers on Direct Access service, it may be contrary to the intention of HB 2475.[29] In response to Staff's recommendation, PGE highlights that the percentage of bill structure would shift collections to high-usage customers and away from low-usage customers which also means that customers with solar generation (low-usage) would contribute less to the IQBD.[30]

Q. Please provide Staff's response.

A. Staff agrees with PGE and does not support AWEC's proposal of moving away from a per site to a per customer model. Staff agrees with PGE that AWEC's suggestion could be in opposition to the intent of ORS 757.695(2).

AWEC's proposals seek only to shift costs away from large customers, regardless of the effects on equity. AWEC points to Schedule 89 as bearing a larger percentage of bill payment under the current model, while refusing to entertain a cost recovery model without a cap, which would technically lower the Schedule 89 rate by increasing eligible kWh collections from Schedule 90. Similarly, the proposed per customer cap would shift significant amounts of cost recovery onto other schedules, benefiting only Schedule 90 as it is the only one that would hit the cap, effectively cutting its contributions down while increasing that of all other Schedules.

Staff appreciates PGE's analysis of cost-recovery models in workpapers filed with the Company's Reply Testimony. Staff is still interested

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[29] ORS 757.695(2) requires that "consumers that purchase from electricity service suppliers pay the same amount to address the mitigation of energy burden as retail electricity consumers that are not served by electricity service suppliers."

[30] PGE/1200, Sheeran-Wise/16.

in continuing to evaluate creative cost-recovery models that distribute costs equitably across customer classes within the ongoing UM 2211 process. Currently, Staff does not recommend altering the cost-recovery mechanism and believes that the current model provides a suitable mechanism as we continue evaluating the interim programs within the UM 2211 process.

ISSUE 2. RESIDENTIAL ARREARAGE MANAGEMENT AND DISCONNECTIONS

Q. Please summarize Staff's Opening Testimony regarding the Company's disconnection and arrearage levels.

A. Staff recommended the Company include a proposal for an Arrearage Management Program (AMP) Component in Reply Testimony. Staff indicated that the AMP should be connected to the IQBD, targeting participants reporting household income at or below five percent SMI. Staff asked for the proposal to include the cost impacts for ratepayers across all service schedules and include the rate spread of total program costs. Staff recommended that in conjunction with the Company's Q3 2024 filing updating the IQBD, PGE provide an analysis of residential customers' past due balances, information on disconnections pending or carried out for the same household within a calendar year, and a proposal that aims to reduce monthly disconnection rates for residential customers and prevent the accumulation of past due balances above a certain amount.[31] Staff recommended that the plan be informed by CAP agency partners, energy advocates, Staff, and other interested parties in at least one workshop to occur before going to the Commission.

Additionally, Staff recommended that for any IQBD participant with a past-due balance over six times the monthly average bill for the account, the utility halt the accumulation of additional debt and pause any IQBD account referrals to collection agencies in anticipation of relief from the aforementioned

[31] Staff Exhibit/200, Scala/30.

proposal.[32] Finally, as a practice going forward, Staff recommended intervention for any residential customer with past due balances greater than six times the monthly average bill for the account and that the account be referred for arrearage management review.[33]

Q. Did CUB provide recommendations regarding the Company's disconnections and arrearages.

A. Yes. In Opening Testimony, CUB explains that based on the current data on disconnections, the Company's current method of working with customers on a case-by-case basis does not appear to be effective at preventing disconnections or helping customers afford their bills and manage their debt in a reasonable way.[34] CUB recommends that PGE implement an arrearage management and arrearage forgiveness program that considers the findings of its 2024 EBA prior to the January 1, 2025 effective date.[35] CUB also recommends the Company extend the actual bill due date for residential customers before the disconnection process can trigger from a 20-day notice to 30 days.[36] Finally, CUB recommends that PGE immediately begin working with stakeholders to design a program to assist customers between 60-100 percent SMI by the rate effective date, and that PGE should waive and

[32] Staff Exhibit/200, Scala/31.
[33] *Id.*
[34] CUB/300, Wochele-Jenks/26.
[35] CUB/300, Wochele-Jenks/31.
[36] CUB/300, Wochele-Jenks/32.

eliminate late fees for any customers who are currently or have been in arrears in the prior five years.[37]

Q. Did any other parties provide testimony regarding arrearages and disconnections?

A. Yes. Verde strongly encouraged the Commission to require that PGE implement an arrearage forgiveness program for the 0-46 percent SMI range of the IQBD enrollees.[38] Verde recommended the Company investigate permanently adopting an arrearage forgiveness program and/or an AMP in connection with all income tiers of the IQBD but did not put forth a specific recommendation for implementation at this time. Verde recommended PGE present information on how an arrearage management program or an arrearage forgiveness program for all tiers of the IQBD program would impact low-income customers' energy burden. Additionally, Verde recommends PGE eliminate non-payment disconnections for IQBD enrollees, and recommends the Company adopt a July-September moratorium on non-payment disconnections to address the added financial burden and health impacts of increasing heat waves.

Q. Please summarize the Company's response to the issues raised by parties in Opening Testimony.

A. The Company describes the offerings that are available to customers having difficulties paying a bill or who have past due balances including Equal Pay,

[37] CUB/300, Wochele-Jenks/33.
[38] Verde/100, Segovia Rodriguez/16.

energy assistance referrals, Time Payment Arrangements, and the waiver of late fees for IQBD participants.[39] PGE testified that the EBA includes a high-level recommendation around an arrearage forgiveness program as a form of bill assistance. The EBA recommendations include forgiveness for a specific set of IQBD customers in arrears via a retroactive application of the bill discount percent up to a set amount. It also includes assessing the feasibility and benefit vs. cost of a capped budget arrearage relief program.[40] PGE goes on to state that the Company views an arrearage management program as a new offering best addressed in the EBA process or in other comprehensive affordability dockets, such as UM 2211.[41]

Q. How does Staff respond to parties' Opening Testimony and the Company's reply on residential arrearage and disconnection topics?

A. Staff agrees with both CUB and Verde that a focus on near-term arrearage assistance is needed to help customers manage their current balance while also managing a possible rate increase on January 1, 2025. In response to CUB's recommendation around customers between 60-100 SMI, Staff has measured interest in reviewing the opportunities available to help customers with high energy burden that fall outside traditional energy assistance income thresholds and hopes to evaluate opportunities in additional phases of HB 2475 implementation in UM 2211. While Staff agrees with Verde that more consideration is needed on how to extend disconnection protections, Staff

[39] PGE/1200, Sheeran-Wise/17.
[40] PGE/1200, Sheeran-Wise/18.
[41] PGE/1200, Sheeran-Wise/18.

highlights the need to provide a more targeted approach that reviews currently available data and includes discussions with utilities, stakeholders and Staff to inform program design. Finally, Staff expected the Company to respond more substantively to the merits of the arrearage management concepts raised by parties in Opening Testimony. This is a lost opportunity to make progress in advance of the UM 2211 discussions Staff will facilitate through the end of the year.

All that said and to that final point, Staff would clarify that its intent in elevating recommendations relative to arrearages and disconnections in this proceeding are to ensure safety nets and protections for energy insecure customers by the UE 435 rate effective date. Staff's priority process to address these issues remains UM 2211. To this end, Staff is willing to limit its recommendations on this topic within UE 435, but only to the extent that PGE is committed to substantively engage on these or similar proposals as Staff moves quickly to enhance protections in the upcoming winter heating season through UM 2211.

ISSUE 3. CUSTOMER PROGRAMS

Q. Please summarize Staff's Opening Testimony recommendations regarding PGE's customer programs.

A. Staff did not propose any modifications or adjustments to PGE's overall energy efficiency programming in Opening Testimony. Staff recommended the Company begin data sharing with the Energy Trust of Oregon (ETO) on IQBD participant heating type and should include IQBD enrollment data as part of their monthly data sharing with ETO.[42]

Q. Did any other parties provide recommendations regarding customer programs?

A. Yes. Verde recommends that PGE coordinate with ETO to implement no-cost programs to low-income ratepayers.[43] Additionally, Verde recommended PGE increase its energy efficiency investments and offerings to meet the need reflected in their pilot and demand response programs, recommending the Company start by transitioning the DHP pilot program into a fully funded program.[44] Finally, Verde recommends that PGE implement targeted assistance for IQBD households with excessive usage to identify excessive usage issues and address energy efficiency and weatherization opportunities.[45]

While CUB did not have specific recommendations on PGE's customer programs, CUB did ask for a holistic approach to addressing arrears and

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[42] Staff/1900, Ayres/41.
[43] Verde/100, Segovia Rodriguez/25.
[44] Verde/100, Segovia Rodriguez/26.
[45] Verde/100, Segovia Rodriguez/28.

affordability challenges in a way that is inclusive of energy efficiency, weatherization, and distributed energy resources (DERs).[46]

Q. How did PGE respond to parties' recommendations on customer programs.

A. PGE's Reply Testimony recognized the importance of connecting highly burdened customers to energy efficiency programs but did not fully respond to the recommendations made by either Staff or Verde.

Q. Does Staff find that the ETO coordination and other existing activities described by PGE successfully address Staff's concerns?

A. Not entirely. Staff is appreciative of PGE elevating the activities currently happening or that are set to be rolled out and sees significant progress toward better coordination across agencies and programs. However, given the number of disconnections, high arrearage balances, and unmet energy assistance need in PGE's service territory, Staff remains concerned that there may be persistent gaps. Staff would similarly like the Company to provide more data regarding the efficacy of these activities, particularly with regards to improving energy security measures across low-income communities. PGE's response in Reply Testimony does not provide enough detail on the actual deliverables or impacts the programs described are having or will have on mitigating the presented issues. As such, Staff continues to recommend that the co-deployment with ETO includes the data sharing recommendations described in Staff's Opening Testimony to include IQBD heating type and IQBD

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[46] CUB/300, Wochele-Jenks/20.

enrollment data as part of their monthly data sharing as soon as feasible, and by no later than January 1, 2025.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: MELISSA NOTTINGHAM

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2600

Rebuttal Testimony
Public Comments

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Melissa Nottingham. I am the Consumer Services Manager employed in the Water, Telecom, Safety and Consumers Programs of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is provided in Exhibit Staff/600 and my Witness Qualifications Statement was provided in Exhibit Staff /601.

Q. What is the purpose of your testimony?

A. Consistent with the Commission's Internal Operating Guidelines addressed in Order 20-065 in Docket No. UM 2055, public comments received by the Commission are now made part of the Staff's testimony in a General Rate Case (GRC). The first round of public comments was included in Staff Opening Testimony, Exhibit Staff/Nottingham 602.

The purpose of this testimony is to include subsequent public comments not previously included in Exhibit 602.

Presenting comments at a Commission Informational Hearing or through the Commission's website does not subject the commenting person to cross examination. Any party, though, may respond to Staff's summary of the public comments or the comments themselves in evidentiary testimony.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/2601, consisting of 114 pages.

SUMMARY OF COMMENTS

Q. How are public comments obtained by Staff?

A. Comments may be submitted via an online form, an email, a letter, or a telephone call. All comments are submitted and published to the docket's webpage and are available for review at any time. Please see: PGE REQUEST FOR A GENERAL RATE REVISION.

Q. Please summarize the supplemental public comments received after Opening Testimony in this rate case.

A. Comments through July 1, 2024, were included in Staff's Opening Testimony filed on July 15, 2024.[1] Comments included in Staff's Rebuttal Testimony include comments received between July 2, 2024, and August 27, 2024. Portland General's UE 435 received 751 additional comments since Opening Testimony. As with comments included with Opening Testimony, comments included with this round of testimony continue to focus on the financial strain of consecutive rate increases on rate payers and the growing sentiment the Company is not managing costs at the expensive of ratepayers.

Ted Wheeler, Mayor of Portland, and Eric Schmidt, City Manager of Gresham, provided comments advocating for consideration of the financial impact of a rate increase to their communities. The other numerous comments regarding the impact of a rate increase on households express significant concern and frustration. Many individuals highlighted the financial strain that the increase would place on their budgets, particularly in the context of fixed

[1] Staff/600.

incomes or already tight financial situations. Some mentioned that the rate hike would force them to make difficult choices between essential needs, such as food, medicine, and paying utility bills. There were also mentions of the broader economic pressures, including rising costs in other areas, making the utility rate increase even more challenging to manage. Several comments reflected a sense of being overwhelmed by cumulative cost increases, indicating that this rate hike could significantly disrupt their household's financial stability.

Commenters also express a desire to see shareholders bear more of the financial burden to reduce the rate increases on customers. Commenters often suggest that shareholders should contribute more, or even that executive salaries and bonuses should be reduced, to help mitigate the need for rate increases. There is a sentiment that customers should not be the only ones shouldering the financial impact and that shareholders and Company leadership should also take responsibility in managing costs.

A strong plea is made to the Public Utility Commission to reject the proposed rate increases due to the financial impact of consecutive rate increases.

Q. Are any of these issues addressed in Staff’s Rebuttal Testimony?

A. Yes. Staff’s Rebuttal Testimony addresses the themes, concerns, and issues raised by the public in many different exhibits. In Exhibit 2300, Curtis Dlouhy, Senior Economic Analyst, and Michelle Scala, Energy Justice Program Manager, discuss the overall impact of the rate case. Kate Ayers, Energy

Justice Analyst, details the Company's low-income assistance program and arrearage management in Exhibit 2500.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: MELISSA NOTTINGHAM

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2601

Public Comments
July 2, 2024 to August 27, 2024

September 10, 2024

Office of Mayor Ted Wheeler
City of Portland

August 27, 2024

Oregon Public Utility Commission
201 High St. SE, Suite 100
Salem, OR 97301

Subject: Urgent Call to Reconsider Proposed Utility Rate Increases (UE 435, PGE Request For A General Rate Revision)

Dear Chair Decker and Commissioners Perkins and Tawney,

As Mayor of Portland, I am writing to express the City of Portland's concerns regarding the proposed utility rate increase submitted by Portland General Electric. This proposal places an undue burden on Portland's residents, particularly our most vulnerable populations, as well as adding significant new costs for the City of Portland at a time when budget cuts are already impacting city services.

Residential ratepayers, already strained, face disproportionate increases that impact low-income residential ratepayers the most. Our analysis has determined these increases would significantly impact not only individual ratepayers but also the fiscal health of our city. If the filed rate increases take effect, they will be on top of steady utility rate increases since 2022 totaling nearly $4 million for the City of Portland. And the city's declining revenue is projected to require budget cuts equal or greater than last year. The functional result is a Peter robbing Paul scenario, where city services will be lost to cover yet more utility increases.

We recognize the necessity of infrastructure investments in upgrades and resilience efforts. However, the timing and scale of these investments must be carefully considered to minimize their financial impact on our community. The proposed rate increases by PGE of 10.9% to go into effect in 2025 follows a rate increase of 18% that recently went into effect in January of 2024. PGE's residential rates have gone up more than 40% since 2021. Most alarming following these rate increases, we have observed a distressing rise in utility disconnections, with PGE reporting the highest number since records began in 2018.

Given the critical nature of this issue and its potential impacts, it is crucial that the decision-making process incorporates the broad implications of these increases on the economic wellbeing of our community.

We urge the Commission to consider these points carefully and to work with us to find a balanced approach that supports necessary infrastructure improvements without placing an undue burden on

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MayorWheeler@PortlandOregon.gov

ratepayers. We value increased engagement to understand pressures facing the utility, and collaborative work to address issues that impact our community.

Thank you for your attention to this matter. I look forward to a continued dialogue and to finding solutions that uphold the interests of all Portlanders.

Sincerely,

Mayor Ted Wheeler

1221 SW Fourth Avenue, Suite 340 ♦ Portland, Oregon 97204
MayorWheeler@PortlandOregon.gov

City Manager's Office | City of Gresham

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Gresham, OR 97030 GreshamOregon.gov

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JUN 25 2024
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5/6/2024

Oregon Public Utilities Commission
201 High St SE #100,
Salem, OR 97301

Dear Public Utility Commission,

As the City Manager for the City of Gresham, I am writing to express feedback that my office has received from constituents in Gresham, regarding the proposed 7.4% rate increase by Portland General Electric (PGE).

We value PGE's partnership with our community, yet the cumulative impact of rate increases, now totaling over 30% since December 2022, poses a significant burden on our most vulnerable residents, especially after the financial strains caused by historic inflation, and wages remaining flat. In Gresham, nearly one in four residents are 55 or older, many relying on social security and are on fixed incomes.

This body may deem these rates to be acceptable, but I believe that any proposed rate increases necessitate a broader discussion not only about the resilience of our energy infrastructure, particularly given the unique challenges of our geographic and climatic conditions, but also about the equitable support mechanisms for our most vulnerable populations. This letter is intended to elevate the concerns that I have received from diverse populations and also convey that we all still have work to do to ensure a safe, affordable and resilient power system.

In light of these historic rate increases, I urge you to advocate for the implementation of expanded support options for our elderly, income-challenged individuals, and other vulnerable groups. It is essential that our energy policies reflect a commitment to inclusivity and support for all residents, ensuring that no one is left behind as costs rise.

Additionally, a review of climate related power outages and what collective steps the state, cities and counties can do to bolster grid resilience.

Your leadership could guide significant reforms in how we approach energy affordability and sustainability. I am hopeful that with your support at the hearing, we can influence policies that prioritize the long-term welfare of all Gresham residents.

Thank you for your attention to this pressing issue. I look forward to your proactive engagement at the hearing.

Warm regards,

Eric Schmidt
City Manager
City of Gresham

Cc: Raihana Ansary, PGE

CITY OF GRESHAM

First Name	Last Name	City	Comment
Kyle Colleen	Black	SALEM	Your rate increases are not substantiated or fair when persons do not have another power selection. It is the last remaining monopoly, and it is placing burdens on Oregonians who are already economically challenged, while the Board of Directors receives pay increases.
Brent	Rocks	PORTLAND	As a person on a fixed income I oppose this and the last rate hike.
Mary	Benson	BEAVERTON	This increase on top of the earlier increase is too much. I am a senior citizen on a fixed income. Please reconsider.
cherry	klassen	SALEM	My Husband and I both are disabled, live on a fixed budget. Our electric bill has skyrocketed in the last few months WE CANNOT AFFORD TO Have it go up anymore!!! For the month of June we paid $275.00 and now the bill is $345.00 Please stop
Janiece	Gwynn	WOODBURN	It is not fair for seniors to face another outrageous hike from PGE. I don't see social security being raised 30%. I understand inflation level hikes. Fir ex. If consumer index raises 5%, then they get 5%, but this is beyond ridiculous and 2 years in a row! When does the greed of corporations stop? They are so busy earning shareholders money, they don't worry about the common good!
Keith	Boline	KEIZER	I am opposed to paying more for my electricity from PGE based on the green energy mandates dictated by the Democrats in our Oregon Legislature! With the costs rising on everything we should not have to bear the brunt of higher energy costs when lower cost production of electricity is foolishly being done away with the push for more electric usage on an outdated and stressed electrical grid!
Jeremy	Colyer	WOODBURN	Dear PUC, Please DO NOT approve any more utility bill increases.
NA	NA	WOODBURN	I am a retired woman recently widowed living on Social Security. I am blessed to own my own home but the recent and proposed PGE increases will make it difficult to cover all my expenses. I am very careful with my expenses but there is only so much a person can cut back on. Thank you.
Andrew	Fischtensen	SALEM	Keep the rates low and affordable so we can make it.
NA	NA	NA	Dear Sir/Madam: My name is Paul Walker, and I reside at 14400 Forsythe Rd., Oregon City 97045. I am a PGE customer in good standing. I write to you to express a serious concern - the current rate of inflation of power rates for consumers like me. One of the great things about living here in Oregon is the high percentage of cost-effective renewable power that is available. While there are certainly downsides to hydropower, as relates to fishery management for example, in the great scheme of things our power supply is a terrific advantage for us here in the PNW. Now, I understand that the computer server industry is making significant investments in capacity and that this industry is very specifically targeting contractable power in areas like ours. This industry has a couple segments that really concern me as a rate payer: * First, the crypto-currency "miners" This segment should not be allowed to gobble up the low cost power that we individual consumers rely upon. The crypto operators should be paying a big premium for power before ordinary rate payers experience one dime of price increase. Crypto-currency is a speculative activity, further complicated by the fact that some fraction of the traffic in crypto-currency is related to crime. I just can't fathom why a Public Utility Commission would grant favorable status, or frankly any status, to these operators. If there is an excess of power supply, that supply could be sold at a premium so as to avoid raising rates on residential users. And, the crypto-server segment should be on interruptible power - supply to the residential users should come first. * Next, the "AI" server operators. Same issue. Granting advantageous power rates to these large users, who are in many ways a speculative entry into the industrial marketplace, seems wrong to me. If AI is so great, then its operators can afford to pay a premium for power, again assuring that residential consumers are insulated from rate increases to the very best of the Utility Regulator's ability to provided it. Thank you for the opportunity to express my point of view. Sincerely, Paul Walker Oregon City OR

First Name	Last Name	City	Comment
NA	NA	NA	Dear Oregon Public Utility Commission, I'm Chelsea Alatriste Martinez, and I am writing on behalf of Fair Oregon Utility Rates for Small Business ("FOUR") to advocate for the fair treatment of small nonresidential customers, also known as small general service or small commercial customers. It is important that small businesses are not unfairly burdened by the financial implications of these decisions. This ratepayer class is basically Rate Schedule 32. First, we'd like to correct a previous statement made in oral comment that Portland General Electric Company ("PGE") serves 200,000 small nonresidential customers. Per PGE's request to increase rates in this case, that number is about 96,000. This ratepayer class is by far the second most numerous class of customers of this utility. In its public notice printed in a newspaper, PGE did not inform its small business customers of the 9.4% proposed rate increase which is among the highest proposed increase of any customer group. Although a notice in a newspaper is perhaps not required for these customers, outreach to small business owners should be prioritized to give this very large group of customers insight into proposed rate increases that also will surely impact them. As an Oregonian who grew up helping my family business, I understand the limitations of operating a business. Busy small business owners should not be expected to search for information necessary to engage in the ratemaking process. Our goal is to ensure that the rates for small commercial customers is as important as any other rate class, particularly given the impact of small businesses to the wellbeing of our communities. FOUR respectfully notes that in return for a monopoly of service territory, PGE receives an opportunity to a reasonable rate of return, but not a guarantee of that return. Risk is shared by investors and ratepayers. FOUR suggests that the risk to the utility and its investors decreases when costs are embedded in base rates, and suspects that the request to institute an "investment recovery mechanism" will incorporate more assurance into the utility's rate recovery, unfairly burdening ratepayers. We are concerned that lumping together small commercial customers with large commercial customers in the load forecasting testimony and tables, will yield inaccurate results. Models should be reviewed carefully to calculate the load that small general service (aka small nonresidential) place on the grid in PGE territory. We're also intrigued by PGE's use of the DAS Office of Economic Analysis to identify the economic drivers. We know that PGE's territory serves much of Clackamas, Multnomah, and Washington counties. Per the State of Oregon Employment Department and Business Oregon, these counties have by far the highest number of firms with 20 or fewer employees. We encourage OPUC Staff to consider publicly available information and current state statistics to review the PGE analysis and modeling tools. If Staff is bound by a certain test year, then Staff should ensure that any future filings, including future rate proposal, address anew the load and cost of service of the small nonresidential customers. We appreciate clarity as to how the utility calculates its customer count for the small commercial customer. Thank you for your attention to these important matters. Sincerely, Chelsea Alatriste FOUR, Board Secretary Chelsea Alatriste she/her J.D. Candidate - The University of Oregon School of Law, 2025
Suzanne	Fisher	WOODBURN	As a retired couple, we are living on a set monthly budget which we try our best to make it stretch. We strongly oppose a PGE rate hike which would increase the challenge to make ends meet which includes making a choice to buy medicine or food.
Larry	George	SALEM	Please say NO to the proposed rate increase as a senior on a fixed income it's become one of our major expenses. Maybe they need to cut Maria Pope's salary instead of raising rates!
Eugene	Schroeder	WOODBURN	Speaking as a retired individual, the recent rate increases have been very onerous and has had a financial impact on me. Both PGE (35 - 40%) and Northwest Natural Gas (50%) is too much and needs to fall back to more reasonable rate increases. I say a hard NO to this latest rate Increase request.
Thomas	Koepke	SALEM	I find it offensive that PGE continues straining captive customers that have no alternatives in choosing their power utility provider. Their quarterly earnings show a 24% increase in revenue, 47% increase in net income, 18% increase in net profit, and nearly a 24% increase in EBITDA. The one sure fire way of moving stable blue Oregon into Republican red is through increases such as this. The cost of living in Oregon needs to come down.
Marilyn	Blake	SALEM	I oppose another rate increase by PGE. They already had a 17% increase and that should be enough for now. Manage it more wisely. As a retiree, I cannot afford another increase.
Michael	Chase	WOODBURN	I oppose a utility rate increase. As a senior citizen I see rates increase but income stays the same making me choose between food and life support medical equipment. Not much of a choice!

First Name	Last Name	City	Comment
Keith	Rosentrater	SALEM	I am strongly opposed to the proposed 7% rate increase. The increase that was approved for this year has already put a strain on our fixed income during our retirement years. With other rising costs due to inflation, the prospect of another increase in electricity rates is discouraging indeed. Please deny this request@
Jim	PaRR	KEIZER	Hello Kandi, Regarding Pacific Power, they are asking that every customer pay an additional $10.00 per month to help construct increased wild fire resistance. This is in addition to the monthly power use. So a customer pays extra to pay for infrastructure improvements BUT has no ownership in the company. Considerable this: what if you are a loyal local Ford auto customer. You buy your Ford from the local dealer. Then, your Ford dealer wants to charge all of their regular customers an annual $120.00 fee so that they can increase the size of their display room. Customer is paying for the larger display floor but has no ownership in the company. This same argument applys to PGE's request for an increase to pay for infrastructure improvements. Customers pay their monthly electricity bill plus additional fees for projects for which they do not gain any ownership of. Thank you for referring my comments to the investigators for me. Jim Parr. (Keizer).
NA	NA	NA	Please do not continue to raise rates. As a homeowner whose salary has not kept up with inflation over the past five years, it is extremely difficult to make ends meet. Please stop the rate hikes, it's not sustainable, and it's making me seriously consider relocating to another state. As an engineer, I'm happy to take my professional experience elsewhere.
Lisa	Shanklin	WOODBURN	Rate increases of PGE are ridiculous. Their goals are to increase their profits, make changes in policy to make it easier to continue to raise utility prices, and to shift all risks(fire) to the consumer. As a soon to retire couple, the huge increase in our utility bill is yet another reason to move out of one of the most expensive states to live in when retired. Green energy policies only serve to line the pockets of special interest companies affiliated with democrat politicians and at the same time weaken our power grid.
Alan	Torga	SALEM	We are in the middle of a recession, with the cost of living skyrocketing and wages not keeping up. Stop taking advantage of everyday Oregonians - NO PRICE HIKE!
Carol	Farries	SALEM	Please No PGE rate hike. It's way too high!
Kristan	Langley	SALEM	No more increases! Food costs are up. Utilities are up. Homeowners insurance went up because of the wildfires. We didn't use Christmas lights December 2023 because of the last PGE increase, electricity cost us more in 2023 than 2022 when we had lights. Doing my part to reduce electricity consumption and now PGE wants MORE! No! And I don't want solar panels on my brand new roof. I'm hearing from my neighbors that the solar panels they recently had installed aren't making much of a difference anyhow. I understand that increases need to happen but enough is enough.
Melissa	Brownell	GERVAIS	Inflation is hurting Oregon families. Continued cost increases of necessities needs to stop. Stop increasing utility bills! When extreme weather events happen, utility companies provide life saving services. No one should have to chose to risk their life because the bills are so high. It's time to find cheaper energy not green energy.

First Name	Last Name	City	Comment
Brian	Hayes	SALEM	Dear PGE, I am writing to express my strong opposition to your proposed rate increases. My concerns are as follows: The primary justification for these rate hikes appears to be covering costs from lawsuit settlements. It is fundamentally unfair to shift this financial burden onto consumers for issues that are not our responsibility. While the transition to electric power is important, your aggressive approach is deeply concerning. The rapid conversion of our infrastructure to all-electric systems cannot happen overnight, regardless of the amount of money thrown at it. By dramatically raising electric rates to fund this transition, you risk making power unaffordable for many consumers. This approach could potentially trigger an economic disaster rivaling or exceeding the Great Depression of the 1930s. Your messaging regarding solar power is contradictory and seems manipulative. You include flyers in our bills encouraging consumers to invest in solar, implying we should provide electricity to the grid at our own expense. Yet simultaneously, you're raising rates to pay for net metering. This appears to be an attempt to make consumers bear the cost of electric upgrades without PGE expanding the grid using its own profits. It's crucial to remember that PGE is a for-profit entity. With a CEO earning approximately $6 million per year, it's difficult to justify pushing these significant cost increases onto consumers who are already struggling with rising living expenses. In conclusion, your proposed rate increases seem to prioritize corporate interests over consumer welfare. I strongly urge you to reconsider these rate hikes and instead develop a more balanced approach to grid modernization and electrification that doesn't disproportionately burden your customers. Sincerely, Brian L Hayes
NA	NA	SALEM	Do not allow them to raise rates again. The citizens of Oregon are already strapped for cash as it is, and PGE is a multi billion dollar company. Don't allow PGE to rip more money out of Oregonian's hands to be squandered.
Lance	Berkey	WOODBURN	I oppose the current 7% rate increase that PGE is looking to impose on my utility bill. PGE has already increased our bill by 18% this past year and should not be allowed to increase our bill again, especially in a time of high inflation that is having a continuing negative impact on our economy and our disposable income. Rates have already increase 30% since 2022, which is excessive and now you are looking to bump our rates once again - what is causing these excessive rate increases? These rate increases hurt the lower wage earners the most but they also hurt the middle class, so I ask you to decline PGE the current rate increase they are seeking. Thank you
Jim	Parr	KEIZER	Hello Kandi, Regarding the PGE rate increase request: Among their several items, PGE is asking to be able to increase their profit. These increased profits go to the shareholders and there is no actual service benefit to their customers. Also, PGE customers that use the least amount of electrical power pay the highest per unit cost. This is not fair. Whether a small or large consumer, everyone should pay the same per unit cost. This structure is also contrary to the environmental message that we should be frugal and minimize our consumption of resources. As it is, based upon the current per-unit cost, customers using the least amount of power are subsidizing the large quantity user. Despite the companies message that conservation is the best option, customers that are "frugal" for all of the right reasons are not rewarded. Regarding both PGE and Pacific requests for rate increases for infrastructure improvements, I would like to know.......are shareholders also being charged for improvements? Shareholders have ownership. The typical customer has NO ownership in the companies but is being asked for money to fund improvements! Thank you for forwarding my responses to the examining officer(s). Jim Parr. (Keizer).
Claudia	Underwood	SALEM	We are retired and the PGE hikes are lowering the standards of our very simple, frugal lifestyle, which we have maintained for many years. Please consider people like us when making your decisions to approve rate hikes. Thank you for your consideration.
Renita	McNaughtan	SALEM	ABSOLUTELY NO INCREASE! Customers are not responsible for PGE's error. Let the shareholders and management receive no dividends or raises for 5-10 years. You will find your funds there! There is NO reason that customers should have to pay for the mistakes of PGE. We can barely pay for our power bills now!! I retire next year, how am I going to pay my power bill if they continue to request and receive increases!!! NO MORE INCREASES!!! Please, we can't take anymore.

First Name	Last Name	City	Comment
Deanna	Failing	PORTLAND	With crushing inflation and these constant rate increases, I find our family scraping by to pay our electric bill. When will it stop? Our electric bill KEEPS increasing despite measures we've taken to ensure energy efficiency. Please Help!
Tommy	Schopp	PORTLAND	Increased rates for residential customers to support industrial infrastructure is wrong and unfair, especially given that residential use has decreased. Industrial customers should bear any increased rate overhead for their businesses.
Brad	Hodges	BANKS	Please do not support a rate increase, PGE needs to live on a budget. Like their customers have to. Their rate is for power. Not lawsuit pay outs, or infrastructure. A 30% increase = 10.9% on top of 18% this due to poor management obviously.
NA	NA	PORTLAND	Please understand that we as citizens impacted by a potential rate increase do not care about stakeholder input when we know the total compensation of the executive leadership staff. Requesting an increase after already being approved one only shows that either there is a lack of understanding of the projected budget and revenue or there is a mismanagement of money. That is something that I am not satisfied with as a PGE customer that has no other options for power. Infrastructure takes a while to get brought up but let us not mistake that while what happened during February this year was not PGE's fault, but it shows the need for upkeep of our systems and infrastructure. Raising rates means that people will be left unable to pay for their bills, including their PGE bills. Without us being able to pay for our bills due to the seemingly fluctuating costs of power while the executive leadership staff is able to enjoy their wages leaves a lot to be desired. A home located in PGE's service without electricity is just a home without electricity. You're not going to be able to make money when folks can't pay their bills.
Steven	Kray	TIGARD	Entering this comment feeling incredibly depressed and pretty aware that this will mean nothing because this stuff usually gets your rubber stamp. This rate hike really only addresses the concerns of their shareholders, and truthfully does not do enough to support their customers after a record number of disconnects. Oregonians are being priced out of basic necessities at a time where we have already incurred major rate hikes. Stand up for the citizens and say enough is enough with these incredible prices and do not give them the ability to just raise rates without a review every year. I begging you for our state, have a backbone here!
Tim	Reilly	KEIZER	It is absurd that PGE could even consider another rate increase. This would put their total increase at over 40% in less than 4 years! Nothing about the service being provided on the consumer end has changed in any meaningful, positive manner. We should really be debating decreases in rates to actually benefit is consumers who are already being squeezed at both ends with wage stagnation and constant inflation fueled by nothing other than corporate greed. This will force many of us to opt for alternatives. Affordability is not at the forefront of any of these increase requests. This is blatant greed.
Brett	Wilkerson	MULTNOMAH	Do not raise rates on the people of Portland!

First Name	Last Name	City	Comment
Jordan	NA	BEAVERTON	I would like to state some facts about PGE's business, revenue, and expenses and then question the merit of the proposed rate increase for 2025. I would also like to question the PUC's conflicts of interest in the matter, particularly around Megan Decker's automatic approval of rate increases. Background & facts: PGE is a public company who is given a "natural monopoly" over much of the Portland metro area. The only alternatives if you live in their service area are either going off grid or moving to an area not controlled by PGE. Both alternatives are not an option for a significant portion of the population. The PUC is directly responsible for the rate regulation of PGE, as stated on the PUC website. PGE's net income for 2023 was $228 million per the 2023 annual report. Their dividend paid to investors increased just over 5% from $1.77 per share to $1.86 per share. The dividend expense for 2023 was noted to be $179 million (pg 63 of annual report). PGE's CEO total compensation for 2022 came in at $6.97 million including salary, bonuses, stock and retirement contributions. "PGE is requesting a total revenue increase on base sales to customers of $294.844 million or 10.9 percent." Question #1: Given the facts stated above, with net income exceeding $228 million, how does the PUC justify the rate increase? The quotes below are from page 9 of the docket: Question "Does PGE's filing show PGE is actively engaged in controlling costs?" Answer: "No. PGE's Test Year forecast for this rate case is built on its 2024 budget. The 2024 budget is built on the revenue requirement resulting from PGE's last rate case. In many cases, PGE's proposed Test Year increase is a modest increase from PGE's 2024 budget. However, in these same cases, the increase from actual costs in 2023, the most recent full calendar year of costs, is significant. PGE's use of its 2024 budget rather than an examination of actual costs suggests a lack of discipline to Staff." If in the PUC's opinion, PGE is not responsibility managing their costs. This leads me to question: why are the consumers responsible for poor management at PGE? Should the company be liable for their poor cost analysis? Given the fact PGE profited over $228 million in 2023, their incentives to improve staff discipline seem low. The price of PGE's stock should NOT be a consideration in these rate increase proposals. Poor management of any public company leads to stock depreciation in all sectors of the economy. We should let PGE suffer the consequences of poor management rather than shift the burden to its customers, who again have no alternatives. In my opinion, they have plenty of net income to fall back on, and they should bear responsibility of poor cost forecasting. PGE's rates have increased significantly faster than inflation (~40% since 2019). There should be no justification for expenses to increase at a rate closer to double the inflation rate. Even if expenses are increasing that quickly, how much of that is due to prioritizing profits over upgrades in the past? PUC's conflict of interest. In my opinion, Megan Decker is significantly overpaid, and thus lacks any sense of relatability to the general public and PGE's core customer base. Megan earned $166,840 in total pay between July 2018 and June 2019. From a different source, Megan's annual compensation is now $195,980. I'm going to assume a 10% increase in Megan's power bill will not affect the bottom line, if Megan is a PGE customer. We are paying a person way too much to automatically approve rate increases. Correct me if I'm wrong, but not once in Megan's tenure has Megan not approved a rate increase. I would like to ask "Why?". My sources for information are the Docket No. UE 435, PG&E 2023 annual report, Gov.Oregonlive.com report on Oregon Government Salaries, and Ballotpedia's public profile of Megan Decker. All publicly available sources are linked below. Sources: https://edocs.puc.state.or.us/efdocs/HTB/ue435htb330124025.pdf https://investors.portlandgeneral.com/static-files/2457aa2d-263c-4933-a33b-8fc6b53ca9bb https://gov.oregonlive.com/salaries/person/78095/decker-megan/

First Name	Last Name	City	Comment
Jennifer	Wase	PORTLAND	PGE is creating an out-of-control utility crisis. And they are not truthful about the real cost increase. After the first increase, I went back and checked all press releases. The energy use charge, the one they have to ask to be allowed to increase did only increase the 7% or so they claimed. They said it would be approximately $25 and that part was. However, my bill increased $175. So after spending hours with spreadsheets and my bills, I determined that they also raised the transmission rate and the distribution charge for a combined total of 70%. With the next increase my bill again went up $100. I re-read the press releases. They said an average family who uses 800 kW per month will see an increase of about $30. I live in an 820 sq foot house and am extremely careful about wasting electricity. And we use on average 1600 kW per month. And again they increased the other 2 rates. 2 years in a row they said my bill would go up $20-30 per year and a total of $250 in that time. If they raise the rate they have to disclose and possibly the others I am looking at another $100. This means I would be pay close to $400 a month in winter for my tiny house. They say there is assistance but if you look at that you have to make For a single person you have to make less than $15.92/hour to qualify. Meaning if you make minimum wage you will not qualify. But making $23/ hour barely allows you to put a roof over your head. Much less afford $400+ electric bills. I am asking for the proposal to be voted down. At a minimum, they must adjust the hardship programs to reflect the rate increase.
Bart	Johnson	NORTH PLAINS	As a PGE customer I oppose any rate increases. The last rate increase was excessive, and most people's cost of living increase didn't even come close to matching it. After watching Asplundh fool around for months on Pumpkin Ridge Road not accomplishing much, I firmly believe that PGE needs to make wiser decisions with rate payer's money. When PGE replaced the lines and poles on Pumpkin Ridge Road I would have thought they would have placed it underground. I realize the initial cost might be more but, but how long would it take to recoup those costs when you factor in emergency storm repair, and all the money they waste on Asplundh doing what little they get done, and fire safety issues with having overhead lines.
Stacie	In	KEIZER	Since 2021, PGE rates have increased by 43.8%. We can barely afford the rate hike that went into effect this year (2024) my adult child had to move back home due to cost increases I cant even imagine them being able to move out now and pay ridiculous rent plus the cost of utilities as it is, but to increase again there isn't any way this is going to help them. Its terrible to think that something we NEED is ok to keep increasing past the point that no one can afford it but the rich, and we are lower middle class. PGE needs to not be the only option to us in our area, and if they are they cannot be allowed to keep increasing our prices as we cannot shop around. What will PGE do when people stop paying because they cant afford, they wont be getting the money at that point either?? You cant get to the point where people just are at the end of the rope especially 2 years in a row?
Corinne	Lever	WOODBURN	The public is still reeling from very large rate increases. We cannot handle another increase next year. PGE needs to cut costs and manage their budget like all businesses, Oregon SCHOOLS, and households are doing. I request that you deny their request for rate increases.
Wanda	coleman	ODELL	I am on social security and live in a 2 bedroom apartment. I cannot afford yet another rate increase. I am already paying about $600.00 a month for my electric bill and I don't get that much in SSI. When are they going to stop raising the electric bills. We can't keep paying this. They reported that they paid out half a billion in profits to their share holders. the CEO made 7 million last year when the average CEO makes 1.7 million. Yet here we are faced with do we pay electricity or pay our rent. This is why so many people are homeless. Do you people ever say no to them? You need to make this stop.

First Name	Last Name	City	Comment
Jeremy	Nelson	BEAVERTON	I saw it on the news that PGE is requesting yet another 11% increase on top of the one they got last year. It's every year they get an increase. PGE isn't an investment firm it's an electric company it is a public utility. Warren buffet has gottan ahold of this company and is forceing these rate increases. This shouldn't be happening when we have billions of gallons of water supplying the dams that provide electricity to portland, these rate increases are ridiculous. On the PGE website they're showing that they were able to double the payouts to shareholders, that's ridiculous. They are making a profit off of something which is the customers. PUC isn't doing a damn thing to protect the customers at all. I left a message with all of my state representatives also about this. This is a direct cause of the homeless problem. Also what are you going to do about reversing the previous rate increases? They obviously didn't need them since they gave their CEO and shareholders so much money year after year. They aren't spending it on infrastructure. Pacific Power had to pay out all that money due to the forest fires and they still made way more money than they ever have last year. PGE use to go around and trim trees you would see them all the time and they're not doing that, they aren't maintaining the lines and there's constantly outages. They don't have enough people to do the jobs yet the shareholders and ceos get paid but the customers aren't being served. You just rubber stamp every single rate increase they ask for when the people who are paying this can't even afford to feed themselves. Why are you allowing this you need to stop this and reverse the previous ones.
Mathew	Horn	PORTLAND	I am outraged. PGE already had big rate increase this year, now another one proposed for 10% from 7%. I didn't know PGE was for profit and whole reason is to make money for shareholders. I don't understand how public utility can be for profit. I am upset about rate increase and this is going to impact all customers and small business owners. PGE is on way to being most hated entities in Oregon.
Ken	staples	AURORA	This is also against the increase on UE 433 Pacific Power. Bothe of these companies have had extreme rate increases in the last two years. PGE got 18 plus percent and PP& L also was granted a large increase. I live in the Willamette valley and am retired. My last increases granted by the government was 3.8%. Now how do you think that my self and other just like me are going to afford these increases. If these increases are actually so these companies can be reimbursed for expenses due to the fires in previous years then it should be indicated as such. If PP&L wants to start a war chest for future payments then they should take the money from there own accounts. I support the power companies but you cannot give them large increases that take from what little money the people have today with all the tax increases that are being lobbied against the people on Oregon. Please feel free to respond to me via email Lunaseacapt@gmail.com.
NA	NA	PORTLAND	My power bill has gone up over 200% over the last few years with PGE, yet my service is worse than ever. If this rate increase is allowed to go through you will only be hurting consumers and small businesses and padding the pockets of PGE's greedy CEO.
Ramen	Owens	CORNELIUS	To: the Oregon PUC Please decline the PGE request for an additional rate hike in January. You are supposed to consider the effects on the public of any rate increases. Most people i know are stretched to the limit already. After the last 20% increase just this year, my winter power bill topped $1000 per month, for at least 6 months during heating season. Even in the summer, our bill has not dropped below $350! We do not live extravagantly at all, we dont even have air conditioning. We live in a fairly well insulated older home, with a gas heat pump. There is no way that cost is sustainable for us, and we dont have the means to upgrade our whole house and heating system. An additional increase will guarantee that this will not be an option. I am fortunate that i own my own business, and can somewhat afford this outrageous bill, but there are many people in our community who would end up freezing in the dark if they got that bill. Please, i am begging you to put us, your constituents and taxpayers, before corporate profiteers. Electricity is a necessity in our northern climate, and should be protected as such. Do the right thing! Uphold your mandate to the public, and reject this inhumane dollar grab!! Pge can afford to absorb the cost of their battery storage, and should be mandated to build those anyway, to help address climate change. This increase will increase our already terrible homeless problem, and cause suffering all over our region.

First Name	Last Name	City	Comment
Sean	Thomas	ALOHA	This would be a total hardship on almost every person in PGE service area I am by no means rich but I can pay my bills allowing this rate increase would cause households like mine to have to reach for help from sources that are already stretched thin and adding more people reaching for help would have a strong impact on lower income residents that are barely getting by now also taking their resources away.
Marsha	Ventrella	WOOD VILLAGE	I do not think it is fair to make customers pay the penalties PGE incurred for their negligence resulting in vast devastation by wildfires. I realize this is not the justification given, but maybe if they weren't so dang negligent they could afford required improvements. How will a penalty ever mean anything when the penalized just pass on the cost to those that can least afford it. I would like an increase in my pension, because ... costs. Doesn't work that way. Shouldn't work that way.
Laszlo	Jakusovszky	BEAVERTON	This request will put a strain on customers already struggling with the effects of inflation. PGE already received a 17% rate _this_ year. They have asked for and received a hike every year for three years! Enough is enough. Electricity is a utility, not a luxury item. Raising the rates by 28% in two years is simply not acceptable! If you approve this our rates will have increased by 50% since 2022!! I know climate change is impacting us all. My family has been trying to conserve energy as much as we can. Using Energystar appliances; changing _all_ bulbs to LED. I run Air conditioning in the heatwaves, but we open windows at night to cool off the house to minimize the need for AC. But our bill _still_ goes up repeatedly, costing more and more even as we try to use less and less. Do not raise their rates again!!
Kevin	Molskness	HAPPY VALLEY	PGE has risen their rates an obscene amount over the past couple of years, and they are making massive profits off of us. They should not be permitted to raise their rates yet again, in fact, they should be required to lower them. Do not allow them to line their pockets with more of our hard earned money for an essential service.
ann	huan	PORTLAND	As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 7% for Oregon households. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. People cannot afford these increases. People can barely make ends meet with grocery inflation. Energy is a neccesity. You are depriving your citizens of a life neccesitity if you approve this request. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request.
Dawn	C.	PORTLAND	If you have enough profits to pay your top 6 Executives 1.4 million - 6.8 million no rate hikes are needed. Our power bills are unfairly high. They need to lower our power bills.
Cherie	Stuart	PORTLAND	Please do not let them raise our rates again, We will not be able to pay the bill if they do, This company makes a profit they do not need more of our money, I think it needs to be lowered, My last bill was $569, It is just too much.
Christine	Hofmann Williams	FAIRVIEW	Keep it low
Robert	Frias	MOLALLA	I am concerned about the rate increase. I am going broke and not sure what to do. I am retired on fix income and can't get another job to make extra money. I feel this rate increase is too much. I need to be able to survive.
Ron	Adams	LYONS	Pacific Power and PGE both companies Everytime they have to pay a fine they make the rate payers pay for it. The Commissioners need to take a good look before they approve this for both companies. i don't mind paying my fair share but this isn't it, for either company. They're both monopolies and they don't need this much money to run the company. You need to look at decreasing the rates for the consumers not raising them.
Kevin	Gregg	EAGLE CREEK	18% last year 10% this year Do they even care it's obvious they don't care when the only people who benefit from this are the stockholders. It's disgusting what they are doing. The commissioners should all be fired along with all the people at the company who are doing this. My bill last year at this time was an average of $70, now it's $180.00 and nothing has changed. They do nothing to better their service to their customers reliability or anything else. it's a monopoly and they should be seeing what they can do to lower the price to the customers.

First Name	Last Name	City	Comment
Helen	Bitor	SHERIDAN	What do they even think that they're doing. I don't understand what they're thinking. $345.00 is what I pay a month for my electric bill and I'm on equal pay. I'm 83 retired and I can afford it. But what about the people who can't? I'm doing ok but i'm fortunate many other people absolutely cannot. This is as much as a car payment, or insurance per month and electric shouldn't cost that much. there's 2 people in this house and we use a wood burning stove. It's alarming that they just raised the rate and now they want to raise it again. Why are they doing this?
Jeff	Mills	PORTLAND	After the rate increases last year and nearly 40% increase over the last 4 years this is too much to handle for customers. The service is not improving - I lost over $200,000 in damage to my home because our winter storms - our power lines are not buried - I get brown outs in the summer. I am out of power for at least 5-7 days per year. Our infrastructure is lacking and they are making 40% more than 4 years ago... Show me something for a few years first then raise rates. you don't get to keep raising rates.
Megan	Daley	PORTLAND	After the rate increases last year and nearly 40% increase over the last 4 years this is too much to handle for customers. The service is not improving - I lost over $200,000 in damage to my home because our winter storms - our power lines are not buried - I get brown outs in the summer. I am out of power for at least 5-7 days per year. Our infrastructure is lacking and they are making 40% more than 4 years ago... Show me something for a few years first then raise rates. you dont get to keep raising rates.
Lisa	Hall	GRESHAM	Please don't it's too much to to pay you will end up with so many people loosing power. Or many people not eating due to overpaying pge
Monica	Scheer	OREGON CITY	PGEs rates have gone up more than 30% since 2022. Please do not let them go up further. Wages are not going up. We can't afford these added costs. Please put some restraints on the spending that will require ratepayers to fund PGE's expenditures.
Jon	Kreig	EAGLE CREEK	Why are they requesting this? they haven't changed anything to improve their level of service. There's power outages all the time and they last longer than they use to and are more frequent. What are they offering to customers that makes this worth it. One thing they could do is when they are working on something, instead of having 4 supervisors standing around watching 2 guys do the work is get rid of some people up top. It makes no sense how they are managing the company. There has to be a reason why they are wanting to raise the rates other than President Biden because that's not it.
Jazmin	Montes	GRESHAM	I oppose, the proposal of an increase for 2025. I strongly disagree agree with an increase due to the fact that so many Americans are struggling to pay their bills let alone our county has already so many middle class -lower class families struggling to make ends meet and have already met difficulties with this last increase.

First Name	Last Name	City	Comment
Michael	McClenahen	GRESHAM	While PGE is well within its rights to request this rate increase, per existing laws, they are certainly not acting in the best interest of their customers. Essentially Oregon, through legislation, has taken over the management of Public Electric Utilities to impose a non-carbon future, based on the flawed assumption that carbon-dioxide is a pollution. Carbon-dioxide is a naturally occurring state of carbon necessary for all life on the earth. I realize Oregon is a progressive State, and lawmakers from Portland, Salem and Eugene as well as the Governor have been able to pass legislation to supposedly fight the dreaded "Climate Change" with the assumed monster in the room being CO2. Lawyers and Legislatures have no idea on how to provide reliable electric service to the public. Electricity generally needs to be generated on demand, thus PGE needs to have a generating capacity under their control to meet the variable demand. Deregulation has removed the sources of power from the Utilities control. Now it is a guessing game, PGE must buy power on the open market instead of increasing their own generation. This results in much higher costs for electricity, as stated in the rate increase proposal, when significant heat or cold events occur over a wide region. It is never reasonable to pay $1,000 to $2,000 per Kwh from the open market. PGE's customers deserve better. Instead of unproven battery storage, which may only provide a slight improvement in reliability during peak times, perhaps some additional generating assests that can provide power on demand. Battery storage is just that, storage, once discharged they need to be recharged. Wind turbines and solar panels have dismal availability. What is needed is proven baseload generation, being coal, nuclear, or natural gas generating plants. Hydro is also clean and dependable; however, availability fluctuates significantly depending on river flow. PGE closed the Boardman Coal Fired Station, a significant baseload facility. It is my understanding that they requested to construct a new Combined-Cycle Gas Turbine/Generating plant to replace this lost supply, which was rejected by the PUC in lieu of less available wind and solar projects. This surely resulted in higher annual electrical costs for consumers. My suggestion is that PGE maintain a reasonable generating capacity, under their control to handle expected peaks in demand, at a reasonable cost per Kwh for customers. Suggested projects to improve the environment: 1) Construct a modern trash burning facility in the Portland Metro Area. This will increase the regional generating capacity and eliminate hauling trash to Arlington using diesel fueled trucks. 2) Invest in elimination of electrical resistant heating in housing. Electrical resistant heating is the least efficient use of energy for heating. Natural-gas is by far the most efficient and cost effective source of building heat. Considering that a majority of electric resistant heating was installed, when there was an abundance of Hydropower in the region, in mostly apartment buildings. At todays rates, the cost of electricity makes heating these older apartments impossible and many low income people must endure cold homes. 3) Change Oregon Law or Constitution to allow the use of Nuclear power generation in the State. Modern Nuclear designs are safe and efficient and will provide baseload power with a high availability.
Carmen	H	PORTLAND	Our electric bills are already unaffordable. Please do not support the increase.
NA	NA	PORTLAND	My work place also works with electricity, including employing union electricians, and we only increase our prices 3 - 5% every year. 10% rate increase is cruel and outrageous. Do not do this to Portland families trying to keep the lights on.
Andrew	Barker	LAKE OSWEGO	STRONG OPPOSITION We sustained over 17% increase this year already. We can not afford another 7-10% increase. Even with a slight financial assistance we are barely able to pay our bill and keep our family warm in the winter and use our oven year round. Our home is 100% electric. We plead that PGE is NOT allowed to raise rates anymore in 2024/2026
Andrew	Barker	LAKE OSWEGO	STRONG OPPOSITION We sustained over 17% increase this year already. We can not afford another 7-10% increase. Even with a slight financial assistance we are barely able to pay our bill and keep our family warm in the winter and use our oven year round. Our home is 100% electric. We plead that PGE is NOT allowed to raise rates anymore in 2024/2026
Ginger	Barker	LAKE OSWEGO	STRONG OPPOSITION We sustained over 17% increase this year already. We can not afford another 7-10% increase. Even with a slight financial assistance we are barely able to pay our bill and keep our family warm in the winter and use our oven year round. Our home is 100% electric. We plead that PGE is NOT allowed to raise rates anymore in 2024/2026

First Name	Last Name	City	Comment
Anita	Hynds	PORTLAND	It is insane that the cost of electricity is going up so quickly in such little time. Many people, myself included, will consider leaving Oregon for a state with lower electricity costs if PGE is not reigned in. I understand needing to increase rates, but 10% (or more) each and every year is just absurd. PGE needs to be slowed down on their rate hikes, maybe 4-5% each year, if they really need to hike the price at all. I feel this is a cash grab from the company, as what other options do we have? Either pay it or don't have electricity. It feels like extortion. Perhaps the CEO or stakeholders (seriously, a private utility company?) should feel the sting of having to pay more and get less.
Tyler	Laufman	PORTLAND	UE 435 - While I haven't lived in Oregon long, I *have* lived here long enough to be affected by PGE's annual price hike. It's unfortunate that we as citizens are essentially held hostage by PGE, at their mercy due to a lack of either competitors or a voice for us to be heard. A cap, or some alternative would be sufficient, especially with these price hikes going towards"¦? Outages are still common, and I've not read any headway being made to prevent another ice storm catastrophe, in spite of the extra revenue that the most recent price increase has generated.
NA	NA	NA	We were already notified of the unreasonable request by PGE to increase rates up to an additional 10% above the recent 18% just imposed. Now they want another 7%! I am a single income senior working full time and can still barely pay my rent, auto insurance, required rental insurance, and utilities. I spent last winter bundled in 3 layers and had to keep my small place at 62 degrees just to afford PGE's rate. We are being bled dry. Stop the greed of this corporation. This is ridiculous. As a renter, there are no programs to help us unless we are at the homeless economic level which I am trying very hard to avoid. There so many here just like me. This increase is completely unreasonable. PGE has been given $314 million in grants, with a Net income of $228 million in 2023. That is NET income! Seriously, the proposed increases are completely out of step. If you can convince employers to increase pay that much, and other remaining living costs to NOT increase...fabulous. But while America as a whole is striving to control inflation, corporate greed is not helpful, and in fact is the cause. Thank you. Gwen Ingram Portland, Oregon Yahoo Mail: Search, Organize, Conquer
Rosalyn	Zaccaro-Widney	NA	Good evening, I am not sure who to contact, so I will start here. We just heard on the local news(KATU) that PGE is yet gain asking for a rate hike of about 11% to take effect on January 1, 2025. If memory serves me, they just got about a 17% rate hike this last yer(?). My husband and I are 77 years old, and rely on Social Security and a small annuity to survive. This is just not OK>>> We are probably better off than a lot of seniors..BUT with everything else going up it is becoming a struggle to just get by with what should be normal living conditions. I would implore the PUC to consider the overall effect on many individuals and families that simply cannot keep dealing with rising costs, and not OK this ask from PGE to once again increase costs. Instead consider a discount for seniors/veterans/low income families. Thank you in advance for listening to my concerns. Roz (Rosalyn Zaccaro-Widney)Widney dwitless@comcast.net

First Name	Last Name	City	Comment
Meghan	NA	NA	To whom it may concern, Hello there, my name is Meghan, I have lived in Oregon my whole life, which has been 33 years and of that I have lived on my own for 12 years. Of those 12 years my husband and I bought our own house, got married, had 2 kids and I have never felt as scared about money as I do right now. My husband has a very well paying job that's barely cutting it right now. This proposed rate hike is unbelievable! I'm just wondering how PGE expects people to live? Or if your CEO has any heart at all? Maybe they should be taking a pay cut? Reading about how many people have had their electricity shut off since this hike is deplorable and just adding to the problems of more people becoming homeless. From an article from Koin 6 news "It's dangerous that we're now in the double digit range,"�said Bob Jenks, Executive Director of the Oregon Citizens' Utility Board (CUB). "We're now more than three times the rate of inflation and customers just can't afford this after the big rate hike we had last January. Jenks added the newest increase proposal comes as the company implemented a record number of customer disconnections this year. Back in April, PGE cut off service to more than 4,700 homes " the most recorded in a single month according to Oregon CUB "" only to shut off an additional 4,300 the next month in May."� really hope that you see that that is not okay. My family is starting to struggle with all the price increases of literally everything. But we make too much money for any type of help for utilities and don't even have many other bills other than the rising cost of food, electric, and gas. Does this seem okay to you? To further pull from the article I read it continues: "PGE says says these numbers are fluid and it's too early to say what how this proposal might impact customers. Nonetheless Oregon CUB said they are asking the Public Utilities Commission to delay or reject it."� can tell you exactly how it's going to impact customers. They're going to have to continue to choose between somewhere to live, electricity and food. This is crazy and just pure greed. For profit utilities are getting out of hand! So please see reason and think of the small businesses and single mothers/fathers trying to survive and even families that used to be considered upper middle class that are now struggling. It's sad that this is how the world is headed and how this company is worried about paying their already over paid CEO. Signed a scared and angry mother and wife
NA	NA	NA	What were the salary increases for the PGE CEO the last few years? Current compensation is $6.4 mil. How is that justified with middle class wage earners are struggling to make ends meet?? Sent from my iPhone
Michael	Hughes	OREGON CITY	To whom it may concern My name is Michael Hughes and my wife's name is Marjorie Hughes. We live at 12821 Marysville Lane Oregon City OR 97045. We are opposed to the recently requested rate hike by PGE. We are both past 75 years old, don't work, and other than Social Security, we don't have a job that gives us raises every year. Oregon's PUC should spend more time examining the books of PGE for expenses, starting with executive salaries, that are excessively out of line and encourage/require excessive salaries and expenses be trimmed rather than a large rate increase. Kind regards Michael (Mickey) Hughes
Christy	Aleckson	BEAVERTON	Hi- I saw the article on PGE requesting ANOTHER rate hike. Please say no. I make a great income and every electric bill I receive I cringe and wonder what I can cut in my life to ease the burden of paying that one bill. It was $500 in July. I am the only human living in my home. I had 4 days with 2 guests in my home. My friend around the corner from me live(d) (just evicted because he couldn't afford his bills anymore with all these increases) alone in an apartment and never turned on lights in his place to save money. His bill was over $300 every month. He used less than an average person. He requested assistance from PGE and all they did was tell him he could make two payments. Where was the money coming from to pay that over two months and then another bill would be arriving for the same amount. He is now sleeping on someone's couch in southern Oregon and owes PGE almost $900 (and note, I helped him pay the bill several times so he wouldn't be without heat and lights). I can share more stories. Many more. Please tell them to pursue alternative options. They can issue bonds, or even sell more shares, or make more from their trading of energy. Please make this stop being on the backs of the utility customers. Thank you, Christy Aleckson, MBA Beaverton, OR

First Name	Last Name	City	Comment
Jocelyn	Martinez-Blanco	NA	To whom it may concern, I would like to write on behalf of my family to disagree with the rate increase proposed by Portland General Electric. The company has already increased several times in recent years to the point that another increase is unacceptable. With the cost of inflation already, many families are struggling to keep a roof over their head and with this increase it feels like you are making us choose between food, shelter and heat. Even with the low income program many do not qualify because we are right in between low income threshold and above. I purpose that PGE goes back and revisit its goals and find another way to slowly meet its goals overtime without another increase to customers. Best, Jocelyn Martinez-Blanco
NA	NA	NA	The rate increase is going to cause more people to have to do without. I'm barely making payments on everything right now and I have 3 jobs! This increase will wreak havoc on many peoples budgets including mine. I don't understand why these increases have all of a sudden happen within this short period of time. I feel like we are just getting obliterated with increases. Water, gas, Pge, sewer, when is enough???????????We are all going bankrupt!!!
Bill	Mason	CLACKAMAS COUNTY	PGE's continued rate hikes need to stop. Consumers cannot avoid these double digit rate increase especially while PGE continues to pay large dividends to their stockholders. The PUC needs to hold cost increases to minimum from all public utilities. Bill Mason Unincorporated Clackamas County
Brian	Hartman	NA	Dear Members of the Oregon Public Utility Commission, I am writing to express my strong opposition to the proposed 10.9% rate increase for Portland General Electric (PGE) customers. As a concerned resident and PGE customer, I believe that this increase will place an undue burden on households and businesses already facing significant economic challenges. The proposed rate hike comes at a time when many individuals and families are struggling to recover from the financial impacts of the COVID-19 pandemic. For many, any increase in utility costs could mean difficult choices between essential needs such as food, healthcare, and housing. Additionally, small businesses, which are the backbone of our community, may find it even more challenging to stay afloat with increased operational costs. Moreover, this rate increase does not seem to align with the broader goals of promoting energy efficiency and sustainability. Higher rates may discourage customers from adopting energy-saving measures or investing in renewable energy solutions, contrary to the long-term environmental objectives we all share. If the environment is truly at the forefront of PGE's mission, this alone should make you reconsider. Any other reason speaks to the greed of the business. I urge the Oregon Public Utility Commission to reconsider this proposed rate increase and explore alternative solutions that do not disproportionately impact PGE customers. It is crucial that we find a balanced approach that supports both the financial well-being of our residents and the sustainability of our energy systems. Thank you very much for considering my concerns. I trust that the Commission will make a decision that takes into account the best interests of all stakeholders involved. Sincerely, Brian Hartman
Samatha	Butler	NA	To whom it my concern, I feel it is wrong for PGE to ask for another rate increase. This is a monopoly, they can raise the rates as much as they want and there is nothing we can do about it. That is wrong! Families are already struggling with the cost of everything going up around us. When you have to choose between gas in your car and food on the table or pay your electric bill this is a problem. If you truly need to increase rates the people in the corporate office can take a pay cut to equal the 10%. I guarantee it will not affect them like it will the customers. Sincerely Samantha Butler
Carol	Collins	NA	This is ridiculous!! Another 10.9% increase from PGE?? BULLS**T!! The last increase almost DOUBLED my PGE bill!! THIS CANNOT CONTINUE!!! I understand they need to do maintenance and upgrade the system, but why have they not been doing this all along instead of waiting until they have to do it thus, leading to an increase in the cost to do it that totally devastates people trying to pay their bills? Choosing between electricity and food, housing, and medicine on Social Security is NOT AN OPTION!!! Carol Collins Sent from my iPhone
Paul	NA	NA	Who do I contact with my lawyer about suing PGE for extreme rate hikes? This has gone way to far. Portland residents have a required need for power to survive and some are losing their power over unpaid bills. The time has come to do a class action lawsuit against PGE for unfair rate hikes without competition. Thanks, Paul

First Name	Last Name	City	Comment
Noel	Jones	NA	My PGE bill for August 2022 was $25 dollars and this August is $42 dollars it's not necessary the amount of money it's that percentage increase indicates to me that PGE is totally out of control and needs to be held accountable. We need to force the PGE management to be responsible and accountable for this issue. Thanks for listening to me! I appreciate all you do! Sincerely, Noel P Jones
NA	NA	NA	Please deny another rate increase. The average salary hike is less than 5% annually. We can't afford another rate increase. PGE should not take such a profit. Sent from AOL on Android
NA	NA	NA	Hi, I just heard that PGE wants to raise our rates by another 10%. This is outrageous. That would equate to 50% over the last three years if I understand correctly. This is price gouging and I want to ask for all assistance to reject this rate increase. Thank you!
kathy	Toozeaguirre	NA	Sent from my iPhone to whom it may concern. I moved back home from Hawaii two years ago. I can't believe all the rate hikes that occurred within two years. This is absolutely ridiculous. I'm a senior on fixed income living in a one bedroom apartment. I'm a widow very little money. I don't wanna be homeless but if these rate hikes keep increasing I have nowhere to go. My resources are very very limited. I barely buy food for my house now because I'm so concerned about, if they continue on raising the rates, I have nowhere to go. I'm so scared of being homeless. I don't sleep well at night I don't know who reads your email. I don't know if they're gonna see this email, but I'm trying hard to live my remaining few years without having to worry about if I turn on my heat during the winter and fall, I literally look like an Eskimo in my house because during those times I don't turn on my heat anyways I do have more to say but it's very long. Have a great day. I heard there's gonna be an increase again from PGE how come they keep raising our rates, the CEO makes $6 million isn't that enough for him? What about all the people that are living like me????? Sincerely, Kathy Toozeaguirre ??
Janelle	NA	NA	Hello - I am writing today to express my concern about PGE once again asking to raise rates. It seems like doing so will put an increased stress on an already struggling community. In winter we shouldn't have to decide between being warm and being able to eat. Please consider not accepting PGE's to hike rates again. Thank you Janelle
Mark	NA	NA	I just learned that PGE is proposing another rate increase for 2025. I understand the cost of business has been increasing. However a near 40% increase from 2020 for a single utility is ridiculous and not sustainable for the average working family. Please think about how much the cost of living has increased in the past four years and the stress this huge rate increase with put on families and businesses. PGE needs to figure out how to adapt with higher labor and materials costs while expanding the power grid. I don't know any working families that received a near 40% increase in income to deal with higher cost of living since 2020, we have to make it work. Thank you for your time. Mark Sent from my iPhone
NA	NA	NA	How does your commission investigate and approve rate hikes? You recently approved one for PGE and since then word on the street is that PGE employees have been recipients of bonuses/additional pay. My interpretation as to the necessity of this increase was not for that purpose. As a commission, it is your responsibility to govern and protect all parties involved in this process. Before they get another stamp of approval you should dig deeper into their needs and intentions. If word on the street is accurate it would be embarrassing for a government agency to not do their due diligence. Thank you for looking into this matter. Sent from my iPhone
NA	NA	NA	Do you want more people living on the streets? Because that's what you're going to get if you keep letting PGE increase rates. It's killing us. Inflation is already insane. Housing is already insane. Wages aren't even close to keeping up. If you do keep allowing them to screw us, and frankly for allowing the insane increases they've already foisted on us, I hope your socks are always wet and you step on Legos everyday. Sincerely, Every PGE client

First Name	Last Name	City	Comment
Dr.	Eddleman	NA	Hello, I am writing to express my opposition to PGE's latest rate hike request, for 2025. PGE has already received an exceedingly high rate increase for 2024, which has proven to be a substantial burden to many customers, particularly low-income families. In addition, PGE seems to be continually plagued by random power outages and poor customer service. Until PGE can better manage the money it currently collects from customers (although it is arguable whether people who obtain services from a monopoly utility, even a regulated one, can be called "customers"), the PUC should put a hold on further rate increases. The PUC should prioritize the best interests of the public, and further aggressive rate increases are certainly not in the best interest of the public. Respectfully, Dr. Eddleman Dr. L.M. Eddleman
Steve	Horowitz	TUALATIN	A cap needs to be implemented immediately. These rate hikes have been too frequent and too high
Gina	Cavellini	PORTLAND	I completely oppose the next rate hike for electricity!! OPPOSE AND REJECT!
John	Wyland	TUALATIN	This is unbelievable. How can Oregon allow a monopoly to continually raise rates. As Oregonians continue to be hit by inflation, this is yet another money grab. I live near a PGE facility, do you know what I see constantly?? BRAND new electric chev trucks. These are not for the lineman who do the work, these are just manager trucks, do they need $90K trucks and brand new to run around in?! I personally drive a 10 year old vehicle. It sure seems they could look within and shed some fat. There is zero competition in this market for them, so why would they care. My vehicle observation is just one small view into their budget spending. I am sure the wasteful spending, making our power more expensive is worse then we know.
Diane	Johnsen	BEAVERTON	My husband is disabled and even with me working we live paycheck to paycheck. I have come to realization that I won't be able to retire at age 67 due to the rising cost of living. I actually spoke with a PGE agent last week to inquire about financial assistance due to our already rising monthly bills. The annual income to receive said assistance would not be even close to enough for us to even make our mortgage payment let alone pay for any utilities or food. This situation is untenable for seniors living on a fixed income. DO BETTER for your community!
Patricia	Lopez	PORTLAND	You're killing my budget! Please stop raising rates by so very much. I get that shiny things cost money, but the recent hikes allowed us retirees zero time to adjust. ??
Joshua	Patterson	PORTLAND	I will have to move. It is that simple. There is no competition to shop to. PGE is effectively a monopoly which I have no escape from except to move out of the metro and out of customer area. When you combine rent increases, with utility rate increases and stagnant wages it's unreasonable. And unbearable. This has to stop.
Kimberly	Brown	PORTLAND	I ask that you do not allow PGE to raise customers rates again after already raising it double digits at the beginning of they year. I have had my electricity bill become increasingly difficult to pay. As a renter, I am facing increasing rent prices, increasing utility prices, and the increases to my overall wage are not keeping up. When I heard that PGE was going to increase our rates again by more than 10% after raising it more than 10% already at the beginning of the year, I balked. It cannot be okay that they are passing their poor decisions in how they handle our utilities onto customers. Please reign in their greed. Thank you.
Dii	Mazuz	PORTLAND	The cost of electricity has gone up dramatically already in the last few years. It is not fair or right for PGE to raise hikes another 10%+ in such a short time.
NA	NA	PORTLAND	A second year of double digit rate hikes is not financially stable and will hurt my family and community. This rate hike far outpaces inflation and the growth in rate is unsustainable and will price people out of critical resources.
NA	NA	TROUTDALE	Oregon citizens cannot afford yet another rate increase as requested by PGE. There needs to be transparency about how PGE manages itself and why they have been unable to meet their profit goals and provide good, reliable service via the rate increases that have already gone through in the past few years.
NA	NA	GRESHAM	PGE needs to lower their profit margin and stop milking the people of Oregon for more money. They should do better and planning for the future so as to provide good service while also understanding the strain of increase electric costs to its customers.

First Name	Last Name	City	Comment
Doug	Wagner	OAK GROVE	PGE is always cagey when asked why they need to have ANOTHER rate increase. They make very general comments about distribution systems, battery backups and reliablity, but what I would like to know is who is actually benefiting from these upgrades? They don't say. I can say that the reliability of my residential service hasn't improved one bit over the past 5-6 years. I continue to get frequent momentary power outages for 5 - 10 sec, roughly about 3 - 4 times a month. I finally had to spend my own money to install a whole house surge protector so my furnace, AC and appliances don't get damaged from these outages. I believe these upgrades and demand for more energy is coming from the high tech industry and data centers...and this is becoming a problem in other states as well. Make these businesses, who I am sure landed tax BREAKS in Oregon, should foot the bill. Energy costs in general around the US have NOT been going up.
Micheal	Johnson	GERVAIS	I oppose the PGE rate increase. Having increased almost 50% in the last few years is already enough. If anything I suggest a rate freeze for several years.
Candice	Wotal	PORTLAND	I'm a PGE customer living in SE Portland, and I make too much money, according to PGE, to qualify for their assistance program, and yet I'm having to take money out of my savings each month just to be able to afford my bills and groceries. I'm trying to live as cheaply as possible, but with the hotter weather I have to have my air conditioner running. I really cannot afford to pay any more for electricity, and I'm doing better than some of my neighbors. If they need to increase the rate for electricity, then they should increase the cap on the amount of money you can make before qualifying for assistance with their electric bills. For example, according to https://livingwage.mit.edu/states/41, a living wage in Portland for a single adult with no children is $24 per hour. That's $49,920 if you're working full time. That wage is a lot less than what I make, but I still have trouble affording my meager bills. PGE only gives their "Income-Qualified Bill Discount" to a single person in Oregon if they make $33,427 per year or less. I can't imagine anyone in Portland being able to afford a place to live at all if they make this wage, let alone have electricity, not when the average cost of a one bedroom apartment per year is more than half that. Are we trying to fix the homeless crisis here or make it worse?
kathy	peterson	TUALATIN	People cannot afford another rate increase!! 43% since 2021? battery storage?? and 17% at the beginning of this year for battery storage?? please vote no on this!!! and i read that a record number of people last month got disconnected because they couldn't pay their high bills ! PGE does not care about the people who pay them. please stand up for the ratepayers.. thank you
Robert	Connin	PORTLAND	PGE is requesting a 10% rate hike for 2025. People especially senior and people on fixed incomes like myself simply can't afford this much of an increase in their monthly PGE bills. People are already struggling to make ends meet and PGE is only thinking of their profits. This proposal needs to be rejected by the PUC. I totally oppose this proposal.
James	Leal	SALEM	My power bill is high enough. I'm single and live by myself and my power bill is over a $100. I'm gone from home 8-10 hours a day
Lynsey	Wakeland	HILLSBORO	If approved, this will be the third year in a row of rate increases. After the massive increase in January, my family really began to struggle to pay our electric bill. This double-digit rate increase would be a devastating and unaffordable blow to my family. I believe that PGE can find more cost effective solutions to their spending needs.
Jeff	Olsen	TUALATIN	I am on a fixed budget and I don't know how I can afford any more increase in my power bill. Maybe P.G.E. could sell some of the new trucks, that just sit in there yard doing nothing.

First Name	Last Name	City	Comment
Carly	Krotowski	PORTLAND	Within the last four years, PGE as a company has increased their profits. The CEO take home pay has gone from $3.9 million in 2019 to $6.8 million in 2023. Roughly a 174% pay increase. In that time period, PGE has also asked for nearly 40% in rate increases. At their initial request this year, they asked for a 7.3% raise, egregious enough after the most recent 17.4% jump in the last year. Without so much as providing any public justification, that number is now 10%. While it's terrific the CEO has been so fortuitous in their take home pay increase, the reality of the average resident is that everything from utilities to groceries has increased significantly as companies are posting record profits. It is unrealistic and unsustainable to allow a utility company to so substantial increase a basic human necessity. The income of the average Oregon resident from 2019 to 2023 increased 16%. The utility rate is far exceeding the average wallet. If they truly need assistance, they should look towards federal or state funding as the utility rate is completely unsustainable. Pacific Power operates in Portland. While they are also asking for egregious rate increases, they do not match the strain of those from PGE.
Joshua	Cohen	PORTLAND	I recently responded to a survey sent to me by PGE. I generally gave them high marks: I don't have a lot of disruptions; those disruptions that do occur - such as those during the big freeze of January 2024 - are taken care of in a reasonable timeframe; and their billing system is fairly straightforward. The last question on the survey asked my overall opinion of PGE. I gave them the lowest mark possible for one simple reason. Their service is unreasonably expensive and has gotten even more so in recent years. I live in an older apartment. PGE says I can save with a smart meter. The landlord isn't about to install one. How about a new furnace or heat pump? Can't be done at my home. I imagine the next advice they'll give me is to just move out of the city.
NA	NA	NA	To the parties in favor of more PGE customer electricity increases: Kindly and respectfully, Hell No! How are your customers going to afford a 2025 increase of nearly 11%? You will encourage customers to seek out the low income programs to help pay the bill. All the other PGE customers foot that bill + annual increases you want pushed through. I'm pretty certain you don't have to decide between running the dryer, dishwasher or AC because your daily usage is maxed out for the day in order to pay your Monthly bill. You probably don't look at your daily usage to make sure you haven't gone over kWh's and do the math in your personal home. I will be doing everything in my power, in the manner I live daily, to not give anymore money to PGE. YOU ARE GREEDY. I say to you"¦..Balance your PGE budget, cut PGE costs, find new ways to produce and use PGE electricity (sun & water are free) , seek out Federal money to help you (all the same things you tell your customers to somehow figure it out), and then maybe some PGE folks need a pay cut!!! The CEO of PGE earned $6.8 million in 2023. I suspect there was an increase in 2024. Perhaps a freeze on PGE executives salary for three years is in order to offset and balance PGE ledgers! This would add up very quickly to fill the shortage (so you say) in your pots! Your customers have all received increases, in 2024 alone, in garbage services, water & sewer rates, internet costs, cell phone costs, and now PGE wants another increase for a 3rd year in a row. Oh I forgot, food, fuel, and property taxes too. It is NO WONDER you are disconnecting more customers than ever before. Your website says you have over 2 million customers in Oregon. The amount of time, Money and energy needed to disconnect a huge percentage of the 2 million could definitely be offset if you stopped raising rates. You are a monopoly in the majority of Portland Metro area. You should be a PUD. We have no choice but to get our electricity from you. That is unfortunate for us. A huge majority of your customers would leave if they could. Ironic that you are the only option. Thank your for your time if you read this email all the way through. Sincerely, Not a fan of PGE & a current customer Sent from my iPhone
NA	NA	NA	Don't blame PGE, blame your state government with all its green energy policies. It will just keep getting more expensive. Sent from my iPhone

First Name	Last Name	City	Comment
Larry & Iris	Welch	NA	We are horrified at the prospect of another 10% rate increase! We are retired. My husband is retired military. We are on a budget. We use LED lightbulbs. We have a heat pump for heating/cooling. We try to limit laundry to 2-3 cold wash loads a week. Laundry is fluffed 5 minutes, then line dried. We shower at the gym several times a week, and we have a timer on our water heater. What more can we do? Last year, our "level pay" bill was $108.00 per month. It adjusted early this year to $133.00 per month. We just received a letter from PGE advising that our new monthly amount, based on usage (yes, it was 103 degrees!) would jump to $154.00. That's almost a 50% increase! We really don't feel another increase is justified. Larry and Iris Welch
NA	NA	NA	I am opposed to any more rate increases by PGE or Pacific Power. Inflation has taken a hard toll on everyone and asking for more money from the utilities will only hurt us more. Please do not allow an increase at this time. These utilities have already made a lot of money. Linda Potter Salem
Tadon	Christopher	NA	This has a very easy answer. Is the power company in the red or in the black? If they are making any form of profit than no, they can not increase rates. It is upon the company "making a profit for the betterment of the citizenry," to improve efficiency and reduce the cost of producing power in order to make a profit. They don't get to just raise prices unless not doing so would cause bankruptcy or power outages. They have a government sanctioned monopoly. They don't get to play the capitalism game. If I was allowed to start my own power company and sell power that would also be a different story, but that is illegal. They have no grounds to even ask for a raise of rates. If this is because of debt they owe from lawsuits when THEY failed to provide preventative maintenance of THEIR infrastructure, again they do not deserve to make a profit. They failed us and people lost their homes. They lost their lives. No, the power company does not get to ask for a rate raise. Tadon Christopher
Amanda	Sledz	NA	To Whom It May Concern, I recently read of PGE's recent proposal to increase rates yet again, after increasing rates the previous year for the same articulated reason. The real, unspoken reason appears to be that PGE will continue to increase rates until someone tells them to stop. Their "low income"� discounts and programs are needlessly complicated, and don't offer much relief. Their "time of day"� savings demands using as little power as possible during "peak hours"� which happen to be from the end of the work day until 9pm. I eat dinner at 11pm because of this, which isn't something the average family (and person) can do. Beyond this, when virtually anything happens, that is tacked on to our monthly bills as well. Fallen trees? Consumers pay for it. Power outages? Consumers pay for it. What exactly are we paying PGE for? The cost of living in Portland is already unsustainable, with each service perpetually hiking their rates, while services remain the same. All the while, no one seems to note that people aren't being paid more in the midst of all this, with many already stringing together a living wage from multiple sources. How many jobs would you like all of us to have? Are we supposed to cobble together a time-travel schedule for the sake of working two jobs at once? Enough is enough "” especially since, at this point, PGE is basically lying, and banking on not being called out. The Biden's administration's infrastructure grants provide generous support for exactly what PGE repeatedly asks customers to pay for "” conversion to green energy. They recently received a $250M infrastructure grant for green conversion on the Warm Springs reservation. How many other grants have their received? Where does the money go, if it constantly requires increased supplement from everyday users? And why does the commission endlessly approve these requests, despite overwhelming evidence that there is no end to their rate increase demands? Take a stand against PGE and Pacific Power. It's time to put people over corporate profits. Very few people can afford this, and the bottomless demands are cruel. Thank you for your time, Amanda Sledz
Patrick	Linhart	NA	Good morning, I want my email to comment/vote against this rate hike. I fail to understand why repeated rate hikes have to pile up year after year of this magnitude. I have worked in construction my whole life and these recent rate hikes are above the industry average inflation. With folks wanting to spend millions removing dams that generate power why would we then want to pay more for the electricity that we just eliminated production capacity. Our country continues to reduce consumption with more efficient bulbs and smart technology, we can't simply replace that saving with additional rate hikes. Thank you for listening, Patrick Linhart

First Name	Last Name	City	Comment
Carrie	Ebling	PORTLAND	I am writing today to express my disapproval to the proposed 2025 rate hike that I just read about. If PGE is trying to run even more people out of the Portland Metro area, then this is a great strategy. The cost of living here has far outpaced any increase in wages. This additional double digit increase in utilities for the 3rd year in a row will force low income people to choose from keeping their lights on and buying other essentials like food and medicine. How about PGE upper management take a double digit pay decrease to help balance their budget? Carrie Ebling
Karen	Eason	NA	Seniors in my mobile park go without food to pay their PGE bill. I live in $50 square feet and pay $250 to PGE. Who is this going on? I can't buy food or essentials because PGE CEO makes millions customers are paying for and the mistakes PGE made with fire in California. What isn't our public utility commission stopping this? Karen Eason Sent from my iPhone
Bill	Casti	LAKE OSWEGO	How much are they raising COMMERCIAL electricity rates? They should get the same hikes instead of placing the entire burden on the backs of residences. I oppose the new proposed rate hike unless there are conditions put on it, like: 1. No more TEXIDENTIAL rate hikes for at least 3 calendar years; 2. PGE assists large residential favikities, e.g., co dos, apartments, etc. to get assessed for and convery to solar energy at partially-PGE-funded costs. 3. Enough is enough. Bill Casti 83 Oswego Summit, Lake Oswego, OR 97035 Bill Casti, CIPM | CIPP/US | CISA | CISSP | CITP | Cloud+ | CQA | CRISC | FIP | HCISPP | ISSMP | PCIP | PCI QSA (inactive) | Project+
NA	NA	NA	Pge is scamming people my bill has gone up over 200 bucks I the last year and a half I don't have anything else new in my house I chose between ffos and power all the time and go without some of my astmha medication to pay it
Bryana	Nesbitt	MILWAUKIE	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 7% for Oregon households. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mrs. Bryana Nesbitt
NA	NA	NA	Pge price hikes should be illegal and should be denied .
David	Bennett	NA	Good afternoon, As a public utility, it is imperative to consider the broader impact of rate increases on the community, especially during challenging economic times. The proposed rate increase of nearly 11% snowballs on top of other recent increases from PGE. Since 2021, rates have increased more than 43%, placing a substantial financial burden on families and small businesses. This trend is troubling, irresponsible, and corrupt given the current economic climate, where many are struggling to make ends meet and public utilities across the U.S. continue to reap the rewards of monopolistic positions. The customers and communities PGE supports are getting ripped off. Public utilities have a responsibility to provide essential services at a reasonable cost. The continuous rate increases strain household budgets and increase risks for small businesses. PGE clearly does not care about the Portland community, but only in growing their revenue. These hikes continue to occur despite record profits reported by the company. In addition, the increased prices do not equate to better service. Continual outages, slow responses to winter storms, and a bogus solar offering to customers do not demonstrate respect from the public utility company. Again, a public utility company. There should be more transparency to operating costs and the actual investments made to the greater Portland area. I urge PGE to reconsider this proposal and explore alternative measures to manage costs without disproportionately impacting customers. Transparency in how funds are allocated and a commitment to minimizing financial strain on the community is not a request, but a requirement. Thank you for your attention to this matter. I look forward to your response and hope for a resolution that considers the well-being of all customers. V/r, -- David W. Bennett

First Name	Last Name	City	Comment
Tiberiu	Guttman	NA	Hello My name is Tiberiu Guttman I'm an immigrant and I been struggling with my current power rates . I live in an apartment and my landlord has no reason to care of how much I pay and how inefficient are the dishwasher and AC and fridge they provided me and also the insulation of the apts walls are horrible I have to keep a bedroom closed just so I don't have to die from heat . My AC is also crap and I cannot use my own window unit here there no option . I think that until PGE and the State can work with landlords of large apartments and require them to take steps to ensure energy efficiency. The poor folks that cannot afford a house will be suffering and choosing in between getting medicine or having AC. I don't think this is fair to the folks like me that work hard and get taxed the hell out of because I'm single and I live paycheck to paycheck at this time some days I skip meals but I'm making more money then the group that can get assistance before Tax after tax and medical insurances that I'm required to buy because of another bill that was passed my income is cut by as much as 25%. Please take this into consideration call me if you like me to testify under oath I will be willing to and provide full documentation for everything I just said here Tiberiu Guttman 5033050327
Vlad	Khoroshenkikh	PORTLAND	Oregon Public Utility Commission, I am writing to express my concerns regarding the proposed rate increase, which I believe will have a negative impact on all households in Portland Including my family. It is evident that the quality of service provided has declined over the past year, yet consumers continue to be burdened with increasing payments. Many families are currently struggling with the recent price spike, and the consequences were particularly dire this past January when numerous families were left without power during freezing weather conditions for days. Even now, many households can't pay their monthly bills. With inflation affecting all essential goods and services, including power, many people are being pushed to rely excessively on your discount program. This program burdens the average consumer since a percentage of their monthly bill goes towards it. With the increasing number of people forced to join the program, more individuals will struggle financially. Over the years, the average Portlander has found it increasingly difficult to afford living in Portland, and these actions are exacerbating this issue, potentially forcing residents to either relocate or face homelessness. Additionally, I would like to address the discrepancy between the promised rate increase last year of 18% communicated to consumers last year and the actual 30 + % increase discovered when analyzing the cost per kilowatt. When I contacted PGE last year regarding this matter, the response I received from the representative was dismissive and unhelpful, such as "we don't specialize in math," "Just see your next bill; it won't be that much of a difference," and "you're the only one who cares." It is concerning that such misinformation and lack of transparency exist within the company. Therefore, my main question about this price spike is: what will be the actual rate increase? I urge you to reconsider the proposed rate increase, as it will only further burden Portlanders and contribute to the ongoing affordability crisis. Furthermore, with the mismanagement of funds within PGE, Portlanders are bearing the brunt. The CEO of PGE has a salary of $6.97 million dollars, yet the average household is living paycheck to paycheck in the current economy. PGE has the funding to pursue projects but is choosing to increase the burden on its consumers instead of working with its current budget. I hope that you will prioritize the well-being of Portlanders and help the average worker struggling to get by. Vlad Khoroshenkikh
NA	NA	NA	These rate increases are getting out of control. Many folks are unable to make ends meet as is. Rates have already increased nearly 50% over the last 6 years. PGE needs to have a cost investigation completed by a third party & see just how much money is wasted by their own employees abusing the system. You cannot drive past a PGE crew without seeing multiple people standing around or sitting in their vehicles. This is not to mention the contractors PGE hires, such as Asplundh Tree Expert, who also waste and abuse time and resources regularly. We the People are fed up. Sent from my iPhone
John & Shari	Ferrier	SANDY	NO! To another rate increase! Do you want more of us driven from our homes!?! We are retired! How do you think we can afford such an increase after last year's 18%! This is outrageous! We are surrounded by solar panels here in Sandy so I know other forms of energy are being produced. Do better! John and Shari Ferrier
Brett	Denison	KEIZER	To whom it may concern, We just had a rate increase from PGE. Please, as a family we can't afford another one. Not again so soon. Please tell PGE No Sincerely, Brett Denison Keizer, Oregon PGE Customer

First Name	Last Name	City	Comment
Karen	Loftus	NA	Dear Regulators Please don't authorize yet another increase for PGE. I realize my email may be too late, I only just learned of this issue. As a for-profit entity I understand PGE has fiduciary responsibilities to its shareholders. However, as a public utility company, with the monopoly in the Willamette Valley, it's also responsible to its customers. PGE received an 18% increase which made our January bill look more than an 18% increase - and we have natural gas heating. Since we're both disabled, it's not like we're taking more warm showers in the winter months! (It's as difficult in winter as it is in summer.) It shouldn't be the case that customers pay for damage caused by wildfires and winter storms because the power companies are lax on their maintenance practices. Thank you for reading this. I'm ever so sorry I didn't hear about it on time. Best regards Karen Loftus
J	Roberts	SALEM	I am a senior citizen living on Social Security alone and even though we get a cost-of-living increase it isn't nearly enough to combat the increase in prices of groceries et cetera which we need to live. PGE got a healthy raise already I don't believe they need more money. To me it seems like corporate greed. The ones who will suffer are the senior citizens and the poor people. This will probably force a lot of people to go without using the air-conditioning or heat because of the cost. This is not right. J.Roberts NE Salem Sent from my iPad
NA	NA	NA	This energy increase is on the road to destroying our communities. Nobody can afford these skyrocketing prices. This increase will push families out of portland. Our schools will loose funding, our small or family owned businesses will shut down, crime will rise. This hasn't destroyed our economy yet, because we are still hanging on for dear life trying to sustain through these unimaginable price hikes. But this period of instability won't last long and we we will see the effects very soon as we have no choice but to move somewhere more affordable. Leaving behind broken communities and lost dreams. This is not encouraging the growth and wellbeing of our economy and communities, but quite the opposite. No more price increases! We cannot afford the ones that were already put in place! We cannot live! Let alone thrive or feel peace!
H	Tourville	ESTACADA	Enough is enough. Oregonians CANNOT continue to absorb PGE's rate increases, one after another after another. Last winter's energy bills were ridiculous! Hundreds higher than we've ever experienced before. For PGE to be asking for additional rate increases when energy costs are already up 43 PERCENT in 3 YEARS should be met with a resounding NO! Presumably the Oregon Public Utility Commission exists to oversee that energy costs remain affordable for citizens. Presumably you have the power to say NO to additional PE rate increases this year. Will you exercise your power for the benefit of the people you serve? Or will you continue to cave into PGE's demands for higher rates so that it can sustain its profits while inflicting additional financial hardship on all Oregonians. Enough is enough! Please say NO to PGE's rate increase requests. A very concerned citizen, H. Tourville Estacada, OR
Tom	Orth	NA	What has PGE done with all of the profits from marijuana grows? Tom Orth
NA	NA	NA	Don't blame PGE, blame your state legislature that mandates more costly supposed green energy and shut downs of cheap coal and gas generators. You get what you vote for. Now pay the price. Sent from my iPhone

First Name	Last Name	City	Comment
Amy	May	PORTLAND	Dear Oregon Public Utility Commission, I am writing to express my strong opposition to Portland General Electric's (PGE) proposed 11.9% rate increase for 2025. As a resident of Portland, I am deeply concerned about the impact this rate hike will have on my household and our community, particularly on low-income households and small businesses already struggling with rising costs. While I understand the need for investments in infrastructure and modernization, such as the development of local battery energy storage systems and upgrades to transmission and distribution networks, the proposed rate increase places an undue burden on consumers. Many residents are still recovering from the economic effects of the pandemic, and an additional financial strain could lead to increased energy insecurity. Moreover, PGE's justification for the rate hike, including enhancing reliability and resilience, should not come at the expense of affordability. There must be a balance between necessary improvements and the financial well-being of customers. It is also concerning that PGE has prioritized increasing shareholder wealth, as evidenced by their recent financial performance. This focus on shareholder returns comes at the cost of struggling Oregonians who are already facing economic hardships. I urge the Commission to consider alternative funding mechanisms or phased approaches that do not disproportionately impact ratepayers. I respectfully request that the Oregon Public Utility Commission reject PGE's proposed rate increase and explore more equitable solutions that protect consumers while ensuring the reliability and modernization of our energy infrastructure. Thank you for your attention to this important matter. Sincerely, Amy May
Liz	Steiner	NA	No rate increase. Their CEO can take a pay cut, just like the teaching staff in our state did. We didn't start the fires, but we sure are paying for them. Liz Steiner
NA	NA	NA	People are already struggling! The CEO of PGE should not be making millions take home while families and people cant afford rent and now more for electricity!! What is wrong with PGE? This is not ok! Please stop raising our bills! Are you trying to get people to give up and be homeless? Stop the rate hikes and let the poor struggling humans have a chance!!
NA	NA	NA	PGE can not be allowed to raise rates yet again. To many people are struggling with the cost of living. It is not the customers problem that the utilities companies have not used their budgets properly and are trying to make customers fit their insurance costs because they can not budget and manage properly. As a manager with multi million dollar budgets to oversee, this is completely unacceptable and a gross example of greed from a company to line their pockets with everyone else has to struggle.
NA	NA	NA	Please don't let pge raise the rates again. I barely get by. Yahoo Mail: Search, Organize, Conquer
NA	NA	NA	As a commission, you have a responsibility and a duty to manage the utility providers that we consumers do not get to choose. PGE is not managing spending. I worked with PGE as a vendor and know first hand that PGE is spending money on projects that are not necessary and are not cost effective. As a life-long Oregonian, I am frustrated at the high costs of power here in our State. I have discussed energy rates with several people I know from other states and their bills are a fraction of what we are paying. Trust me, PGE will be able to figure out how to operate when you, the commission, denies their request for these ENORMOUS RATE increases. They will make it happen on their end"¦just like other businesses do when faced with the same situation. I am a former business owner and you cannot simply raise your costs every time your business expenses go up. PGE is a business and they can figure out how to become more efficient as a company and lower operating and overhead costs. You cannot continue to break the backs and budgets of us Oregonians by continuing to give PGE the ok to continue to operate status-quo by approving these extreme and excessive rate hikes. PLEASE show some leadership and control this by rejecting PGEs request. Make them go back to their drawing board to lower costs on their end. Thank you

First Name	Last Name	City	Comment
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NA	NA	NA	As a commission, you have a responsibility and a duty to manage the utility providers that we consumers do not get to choose. PGE is not managing spending. I worked with PGE as a vendor and know first hand that PGE is spending money on projects that are not necessary and are not cost effective. As a life-long Oregonian, I am frustrated at the high costs of power here in our State. I have discussed energy rates with several people I know from other states and their bills are a fraction of what we are paying. Trust me, PGE will be able to figure out how to operate when you, the commission, denies their request for these ENORMOUS RATE increases. They will make it happen on their end"¦just like other businesses do when faced with the same situation. I am a former business owner and you cannot simply raise your costs every time your business expenses go up. PGE is a business and they can figure out how to become more efficient as a company and lower operating and overhead costs. You cannot continue to break the backs and budgets of us Oregonians by continuing to give PGE the ok to continue to operate status-quo by approving these extreme and excessive rate hikes. PLEASE show some leadership and control this by rejecting PGEs request. Make them go back to their drawing board to lower costs on their end. Thank you
Erin	Sauer	NA	Things are seriously out of control. As a single patent who became unemployed back in February, I can barely pay my utilities now. If PGE continues these increases i will no way to pay. Electricity is not a luxury it's a necessity and especially if you have kids trying to get through school it's absolutely imperative to be able to have electricity. At this point, we are all begging for CEO's or whoever way up that ladder to take a step back and evaluate what the rest of us have for an income and realize you are literally going to destroy most of us. Erin Sauer Yahoo Mail: Search, Organize, Conquer
Gail	Crosby	NA	Just, how dare you do this again??? I volunteered to have a 10 percent increase to fund green energy, and a month later was informed I'd be having a 27 percent increase. I had to withdraw from the green program and now you want to raise it again!!!! Meanwhile, I lose power 3 or 4 times a year. And my neighborhood is very low priority for you, so it's usually off for several days. I get sub par treatment already. I've stopped using a clothes dryer. I no longer use my dishwasher. All to save money. HOW DARE YOU!!!!!! I moved to a place outside Metro Portland to minimize the possibility of having multiple utilities that raise rates all the time. Apparently, electricity is the one I cannot afford. A miserable customer who is very unhappy with PGE. Having no options, apparently I just have to suffer this unending injustice. You should have buried the lines 30 years ago. Gail Crosby
NA	NA	NA	I cant believe this is happening again PGE has to go back and clean up its wasteful spending. Every large corporation has areas that can be cleaned of wasteful spending. This should have an oversight board to check the accounting of PGE. Increasing public rates is not the only option. Clean up your act.

First Name	Last Name	City	Comment
NA	NA	NA	For your consideration, I am firmly against PGE asking for a further rate increase. They have put an unnecessary burden on those of us on fixed incomes, and approving a further rate increase is unconscionable. PGE needs to learn to control their OWN spending, and not pay out so much money to their already rich board of directors and "investors." I don't care about their investors pocketbooks. They're already rich. I care about making MY ends meet. Raising rates directly impacts my food and medicine budget. It impacts my rising rent costs. It impacts my ability to pay for my own insurance costs. Already this past year I have tried not using my air conditioner or heater on so called average days, unless I was about to sweat and pass out from summer heat or couldn't feel my fingers from the cold over the last winter. This is because of PGE's last exorbitant rate hike. Is this the sort of situation you want Oregonians to resort to? For those of us with bad circulation to suffer from the cold? Enough is enough. I have to learn to live within my means, and PGE needs to learn this too. There are those of us struggling who don't qualify for their supposed "low income aid" because we fall just out of the finance range they set. Our rent is raising every year. What about OUR livability? Why are we paying for them to live high on the hog, when we can't even live comfortably in the heat or cold? Also, it seems PGE is getting too comfortable running this monopoly, where average people have little choice for service providers. We need PGE broken up into at least two smaller parts, to offer more competition, like it was with Bell Communications and phone lines. Because with more competition, there's more pricing options to choose from. Maybe work on that, because in smaller parts and areas serves, citizens might save a little more money. Things like PGE wanting yearly rate hikes price that monopolies are bad for us. They may claim it's for "system upgrades" but I'm curious how much money their investors are getting (we just need one ceo and NO stock market investors on public utility services!). I am concerned that they are using "fire proofing costs" as a too convenient excuse for pure greed. If it's insurance for fires, during wind storm days, cut power to fire prone areas in forests or ask the board of directors to take a pay cut instead. We shouldn't have to pay their insurance costs for their lack of preparedness. That's on them. Please take all this into consideration this year, and cost of living in the future? When you approve their rate hikes, low and middle class people: young people with children, the elderly, the disabled...they are the ones who suffer. Their low income program is not enough if over 50% of population is already struggling to pay bills in PDX. Please don't placate their money grab. Please put limitations on them, the same financial limitations that we have to live with. We live within our means and so should PGE. Thank you, A concerned and cash strapped citizen.
Charlene	Wells-Moran	NA	I am emailing you to voice my annoyance with PGE asking for more rate increases, and increasing their present request. This rate increase I do not believe is due to cost of energy, but rather at least partially to increase profits for their company And any "assistance" that they offer as they are recently advertising as some sort of great mercy towards us, will be negated by rate increases as well as causing hardship on those who don't qualify for assistance but are at an income level barely surviving. Please be reasonable in your reviews of these rate increase requests and don't just give them a rubber stamp! Regards, Charlene Wells
Debby	Patten	NA	Please stop. What is the point of electricity if many of us can no longer afford it. I live in Milwaukie, where you just sent a letter telling me my rates will go up 3% because the City is charging you that much. I just saw your quarterly report...must be nice. Debby Patten
NA	NA	NA	No home rate increase! PGE should be charging data centers a higher rate with no subsides.
NA	NA	NA	I am against Portland General Electric raising our rates again.

First Name	Last Name	City	Comment
Kristian	Tigard	TIGARD	To whom it may concern, Regarding UE 435 and PGE's requested rate increase for 2024, the answer has got to be no; this is absolutely unacceptable! If approved of 10.9%, this is a nearly 48% increase for utilities over the last three years. This percentage is nowhere in line with other cost of living metrics"¦ I understand the utility is focused on modernizing, however this is also after years of deferring upgrades and now they are trying to play catch-up on the backs of the public. Additionally, PGE is focused more on improving its profit margins and decreasing liability for its shareholders than it is for keeping the public interest at hand. We as residents have zero choice in who provides our utilities, we HAVE to rely on consumer advocacy groups and legislation to protect us from untoward cost. It is furthermore very disappointing and concerning that the PUC brazenly turned down the Citizens' Utility Board petition in the last year and honestly this probably needs addressed legally and legislatively. Please consider who your true priority is when addressing this case. Thank you for your time, Kristian Tigard, OR
NA	NA	NA	It is outrageous for price hikes for pge. People are hurting in Oregon, a price hike will increase pain these people will can endure. Please stop this...... !
Mitch	Ryan	NA	To whom it may concern: I understand that PGE has costs that they need to cover. However, at what point does their profit margin need to absorb some of those costs? For the past several years consumers have paid more and more without seeing the benefits. Power in the winter has not become more reliable, outages were terrible last year. These modernizations aren't doing anything to address that. They are not moving lines underground where possible. They are actively discouraging consumers from adding power to the grid from home solar by changing the rules so that it's no longer beneficial to the customer. They are maybe moving to some more green power, but only on their terms and not with any transparency. Plus they have a monopoly. I can not choose to go with a different company. The only thing that can check them is you. I would encourage you to reject their request this time, or at the very least most of it. They need to show that they can responsibly handle consumers money before they ask for more. They need to show that their profits are going to take a hit for their decisions before consumers are. Please consider how this company is treating its customers, because right now it feels more like being a hostage. Mitch Ryan
Emily	Traver	NA	I can't believe you are trying to do this! We as a family of four who make decent money you can say. Can barely afford our pge bill of 300 plus a month. Plus other utilities. We don't qualify for low income or any help because of the income but we aren't poor enough to get any help. Where does the middle of the pack get help? Our water is almost 200, our food is over 1,000 a month, rent 2000, heaven forbid anything happen in between there and we need any extra cause we don't have it. Stop giving people million dollar bonuses and saying your using it to make the grid better cause your not. My income isn't going up fast enough to keep up and pretty soon your going to have more homelessness problem because we will soon be there making "decent money " living on the fucking streets. I am sorry I am cursed. My parents never had to feel like this even when they were poor. Sent from: Emily O. Traver
NA	NA	NA	How about cutting the salaries of the top PGE board and share holders 17% instead of raising our rates ?
NA	NA	NA	This is insane. We are already paying through the nose for our electric bill. Almost a 43 percent increase since 2021. Enough is enough. Please don't approve this larceny. Thank you. Sent from my iPad
Jeff	NA	NA	I understand the need to raise rates from time to time, and I fortunate to be retired and able to meet these rising costs. However, we've already seen a 40% increase the past few years and now another 10%? On the surface this looks like extremely poor planning/management. Thanks, Jeff
Maria	Baptiste	NA	As an intel employee here in oregon this is so frustrating to see. We're facing job loss, no raises, no bonuses, pay cuts last year, continually falling stock prices. But PGE can potentially do a THIRD YEAR IN A ROW RATE HIKE? Please stop this. This is not ok. I am a single woman and my salary has not moved anywhere near in proportion to these rate hikes. When will someone step in and help people and stop helping monopolistic corporations? Please make the right decision for every Oregonian who will face another higher bill and no ability to meet the rising costs. Maria Baptiste Sent from my iPhone

First Name	Last Name	City	Comment
NA	NA	NA	I don't think that you should authorize the rate increase for PGE let their stockholders invest in their own business not the rate pairs
NA	NA	NA	I don't think you should authorize the rate hike. I think their shareholders.shareholders. should invest in their own business not the rate payers. Sent from my iPhone
Patricia	Muller	BEAVERTON	I am appalled that PGE is asking for yet another huge rate hike, in the wake of nearly 50% in hikes since 2021. Despite the corporate double speak about batteries, fuel costs, etc being the reason, it doesn't take a genius to figure out the actual driver of these rates-- losing multiple lawsuits amounting to hundreds of millions of dollars they now have to pay out for their rampant greed and negligence contributing to wildfires throughout the state. So now they're paying those bills out of every customer's pocket; it's outrageous behavior from a public utility with a clear monopoly on vital electrical services we all depend on to live in modern life. I can't just find a different vendor of electricity if I'm unhappy with PGE's rates and service. Nor can I whip up a generator in the backyard to run my house. Oregonians, like residents of all U.S. states, are being systematically robbed of the ability to live a decent life by the untrammeled, despicable and apparently bottomless greed of corporate America. PGE needs to pay their own bill for decades of dereliction and neglect of necessary safety measures, not stick already massively overburdened consumers with it. Especially when we don't have a choice about who sells us our electricity, so we can't vote with our feet. the PUC needs to send a clear message about accountability to PGE and do their job of protecting vulnerable consumers from more rampant abuse and exploitation by soul-less, parasitic companies like PGE.
Claire	Teasdale	PORTLAND	There have been multiple rate hikes recently and it's a huge financial burden for those already struggling to make ends meet or those who live with rigid budgets. This burden on the working class or middle class and below populations is unfair and scary. Please find another creative solution than another huge rate hike that will disproportionately affect the households already pinching pennies.
Stephanie	Solis-Limas	PORTLAND	I would like to say that I speak for households that I know are lower income to middle class when I say that people can barely afford to already now pay their bills , raising this cost will only lead to more people not having funds to pay for their bills . With inflation raising prices on all essentials for families including gas , groceries etc . It is crucial that the rate stays where it is .
Jennifer	Carranza	HILLSBORO	It is incredulous to propose yet another increase on power pricing when citizens of Portland and the metro area are already struggling to make ends meet let alone pay their power bill. People only have PGE because it is the only choice they have for power companies, and PGE is clearly taking advantage of that. What is the reason for the increase? Greed? It does not make sense that PGE needs the extra money from citizens like myself when they take hours upon hours to fix downed lines, power outages, etc. the fact that they suggest using less power during the hottest and coldest times of year is ridiculous because no one will do that unless they want to die. I am lucky to be able to afford to pay my bill monthly. Not everyone has that luxury. And even less will be able to pay on time or pay at all if pricing goes up and up and up for no reason at all.
Bernadette	Chien	LAKE GROVE	No rate hike of 10% please. Ridiculous!
Rachel	Marsters	CORBETT	As a family who has struggled to pay increasing cost of living expenses, an additional increase on top of the already proposed 7+% will not only increase the shut off notices in our community it will personally affect my ability to make decisions on what bills we can afford to pay. Our living situation already looks different due to these agregious increases and I fear we will face further issues with disconnection due to unjust increases. Reduce the pay for higher executives and overall bonuses to those sitting in offices, making these decisions and stop increasing the burden on customers.
Elissa	Banaka	PORTLAND	I strongly oppose the 2025 rate increase.

First Name	Last Name	City	Comment
Katherine	Kurfessa	FAIRVIEW	I am a mother of 4 kids with a disabled husband, I work two jobs to already try to pay the bills however with everything going up it's getting harder and harder. Instead of being able to buy groceries I have to go to the food banks when I'm able since we "make too much"for food stamps. That being said the outrageous PGE bill that we already have is more than I can afford let alone thinking about raising it. Please please please don't raise the PGE for we need electricity and have no other choice but to pay it and it's already taking from my kids mouths. Thank you for listening
Erika	Eischen	BORING	Our electric bill is already high here in the Portland area. As a state we use renewable sources for energy. Increasing prices is insane. Oregon as a whole and Portland is one of the most expensive states to live in. Driving more people to leave this state.
Nicolas	Founds	SANDY	Another increase after we hust had a large one rates are up so much it's becoming unaffordable to the middle class. Using an increase to buy battery storage in ridiculous as that will not help out the general public. I wish they would truly concentrate on affordable energy instead of this clean energy that is so expensive and will probably be a waste in the end.
Brandon	Perron	TROUTDALE	PGE has a monopoly and is showing why they are illegal, because we have no other option and they can name thier price. Their increases are well above increases we are seeing in other aspects of our lives. There is no logical reason for these increases except pure and absolute greed. Hundreds of dollars a month is a ridiculous number.
Rebecca	Waibel	GRESHAM	Absolutely against this proposal, PGE just had a rate increase. Without a cost of living wage increase this proposal should be denied. Any representative that runs under the assumption of supporting ALL Oregonian constituents would very quickly be voted down if they support this proposal. The cost of rent is already far too high and to increase a utility cost would just increase homelessness.
Heather	Hendricks-Thurber	PORTLAND	PGE keeps asking for money despite having record high earnings. Instead of getting the money for their upgrades from their customers, they should be getting it from their investors. I strongly oppose this outrageous rate hike.
Judith	Johnson	PORTLAND	I oppose this. It is ridiculous how often you increase your rates. People cannot afford this
Morgan	Chan	PORTLAND	The additional hike will put my household at serious financial risk when stacked with all other price hikes across essentials. I'd like PGE leadership to addressing funding needs for improvements by refusing any bonus or salary increase or better yet cut earnings for the better of the community they serve.
Matthew	Sprague	NEWBERG	Herr we go again. How can any company or agency reasonably make sense out of year over year increases in cost exceeding inflation rates by a tremendous margin. If the PUC continues to allow these increases in a monopolistic industry the people are going to be fed up. Cost of fuel when we have hydro power? Come on! The people are not stupid and we see what's happening.
Leslie	Van Meter	KEIZER	New rate increases for Portland General Electric residential customers represent an imbalance. I would suggest PGE stockholders sacrifice dividends in 2025 rather than increasing rates for customers. The stockholders and corporate heads have been rewarded sufficiently while recent rate increases have challenged customers. Additional rate increases are unreasonable.
NA	NA	CLACKAMAS	Nobody can afford more rate increases by PGE mi rate increases for at least the next three years. They spent millions on a new Tualatin office that sells electricity they don't need more from us who can't afford it.
NA	NA	CLACKAMAS	Nobody can afford more rate increases by PGE mi rate increases for at least the next three years. They spent millions on a new Tualatin office that sells electricity they don't need more from us who can't afford it.
Greg	Beard	SALEM	DO NOT, REPEAT. DO NOT approve another rate hike. PGE already gouging consumers. This is a publicly traded company that makes millions in profit to satisfy shareholders, they can dig into that money and leave the consumers alone. The PUC was set up to monitor and regulate these rate increases, so how many have occurred over the past 3 years? Huh huh, they do not and should not get another one.

First Name	Last Name	City	Comment
NA	NA	BEAVERTON	There needs to be regulation for PGE. 40% rate increase over the past 3 years is asinine, in addition to every other rising cost consumers are facing. There are single mothers barely scraping by as it is, allowing additional rate increases for PGE would be a disservice to everyone and anyone who has the disservice of being customers to a monopoly. For the sake of your constituents, grow a spine and make companies invest in their products and services to serve their consumers and communities, instead of lining their executive suites wallets.
John	W	PORTLAND	Portland General Electric is going to be requesting another 10.9% increase in rates beginning in 2025. They have increased the utility costs 43.8% since 2021 and this has got to stop. They have a Monopoly in the Portland area and these kind of increases are going to do nothing but destroying the average home due to not enough income to keep up with this kind of . On a personal note, I received a 2% raise last year and got another 2% raise this year. Far below the cost of living. I cannot do much more without being homeless. Please DO NOT allow prices to increase any further. Most people in their area of coverage cannot afford this.
Adam	Fisher	PORTLAND	Hello - I just read that PGE wants to again raise electric rates. I think this should not be allowed. I have seen no cost cutting from PGE. Other companies, when faced with raising costs have cost cutting measures, everything from limiting travel to layoffs to reduced work hours. PGE has made no attempt to reduce administrative staff or other costs. Thank you, Adam
Byron	Borisoff	ALOHA	Re PGE rate increases, I hope the public is outraged. When has a rate increase been denied? Obviously many Oregonians receive minimal perfomance evaluation raises. In addition there are the retirees on restricted incomes. I wish I could call social security anytime and request massives payment increases. How do we challenge this?
Brett	Hansen	NEWBERG	Pleas don not allow PGE to do another rate increase. This is out of control. We have no other choice for power to choose from. They have a monopoly and it is out of control. These substations and line upgrades are for data centers and not for residential customers. Please do not approve this rate hike. Thank you
Jordan	Miller	ESTACADA	Please to not give into PGE for another rate hike! We have paid enough in rate hikes the past two years. Another 10% increase is just too much. PGE has already increased their rates by 43%. I work in a very strong union and I have in no way received anything like a 43% pay increase. Let alone adding another 10%. Many people cannot afford this!
Will	Chittick	ESTACADA	PGE's new rate proposal coupled with the previous two years worth of increases would account to nearly a 50% rate hike in 3 years. That is unsustainable for families, individuals, small and large businesses alike. The already imposed 30% increase over the last two years is already causing financial distress and disruptions at record highs. Add that on top of inflation of day to day needs such as grocery costs, transportation costs I.e. fuel & record insurance increases, public roads being in worse and worse shape by the day causing increased maintenance costs to public and private vehicles both. The breaking news of yesterday with one of the largest employers in Oregon; Intel. Announcing 15,000 impending employee layoffs coming in the state. Which will also have a downstream negative effect on other industries, business', employees, and rate payers. This further increase accounts to massive financial pain and suffering for families, individuals, businesses, and even government (The state, county, and local governments power bills will be increased as well which the tax payers will in turn need to fund. All of this adds up in the end to much undue stress and financial hardship being inflicted on the population of the state, by a for profit publicly traded company. This company which has been given the green light already for further profits, little accountability and some would argue misguided or inefficient upgrades and policies with the rate increases that have already been implemented. The increases further hurting the population as a whole when wages in the state have been very notably flat. Further rate increases by PGE or any public utility for that matter hurts the economy and population of the state as a whole. Simply when many desperately cannot afford the increase and would force many to choose keeping up with massive increases in monthly bills or adding to our state's overwhelming homelessness crisis. Thank you for your consideration on this issue. -Will

First Name	Last Name	City	Comment
Vicki	Zeitner	PORTLAND	I strongly oppose additional rate increases by Portland General Electric. PG&E is requesting a 10.9% rate increase for residential customers and businesses starting in 2025 after an 18% hike last January and a 12% increase the previous year. Our incomes surely haven't increased annually at those rates! Meanwhile, Maria Pope makes over $1.144 million a year off our backs. With high food prices and greater need for air conditioning during extreme summer heat, how are low and middle income people supposed to afford this?! There has got to be another way. Find it!
Jason	Shambaugh	BEAVERTON	I am writing to urge you to reject PGE's latest request for a 10% increase in electricity. I'm an electricity consumer, like everyone else in the area, and rely upon this necessary utility as a cornerstone of modern life. I also manage subsidized housing in the Portland Metro area and have seen first hand the impact of these price hikes on lower income individuals and how devastating they can be to the health and safety of disadvantaged and vulnerable people. Especially during extreme weather events in summer and winter. Oregonians have already endured massive increases in power costs over the past year, allowing this will push the cost of energy up some 40%. The public that you're commissioned to serve will remember the impact of these choices every month when they see their power bill. Have some basic human decency and stand up to profit gougers, for the good of us all.
Kim	Wallis	SAINT PAUL	ANOTHER rate increase request by PGE?? 40% over 3 years on top of the last 2 recent increases?? PGE is out of control and PUC is nothing more than a rubber stamp for PGEs greed. Disgusting. Every commissioner should resign.
Brett	Wilkerson	MULTNOMAH	I do not support and disagree that PGE wants to increase a 10.9% rate increase for residential customers and businesses starting in 2025. This approval will drive people out of the state, continue to make Portland unaffordable, and drive business away.
Jules	Barret	PORTLAND	I just read that there will be an 11.4% increase for PG&E customers on January 1st, 2025. This is after an 18% increase this past January. What is the purpose of the PUC exactly? This has to be approved by you all! How DARE you. People are already struggling to pay their bills and now this? And during the coldest part of the year!? People are going to suffer but you don't care so long as your pockets are getting lined, isn't that right? The PUC will be responsible for people having to choose between having power or paying rent/buying groceries. This is unacceptable, sick, and cruel. Do something! Where are your morals and ethics?
Mary	Keating	BEAVERTON	PGE has increased rates by 43% since 2021. I've lived in my home for 20 years using PGE services and this year I received a $628 bill. This is easily $200+ more than I've ever received in years past regardless of weather conditions. As a widow heading towards retirement soon, I cannot afford this increase, and certainly not another one. PGE is a for-profit company, with board members making 2x+ the annual salary of others - it's time PGE looks inward for cost savings vs. profiting off their customers who can't afford it. They ask us to find ways to conserve - but what are they doing to mitigate spending? I ask that OPUC flatly reject this rate increase fully.
Donald	Hornsby	SALEM	As a resident of Oregon and a customer of Portland General, I strongly oppose the proposed 11% rate hike. This increase places an undue burden on families and individuals already struggling with rising living costs. We need fair and affordable rates that reflect our economic realities, not hikes that exacerbate financial strain. I urge the Public Utility Commission of Oregon to consider the impact on our community and reject this rate increase.
Lester	Hunter	SALEM	PGE has been bleeding us dry. Now is not the time for another rate increase. Everyone is still recovering from the pandemic and we need a small break from the constant rate hikes.
Jane	Mercer	BEAVERTON	STOP IT !!!!!! Stop allowing PGE to raise their rates!! This is ABSOLUTELY RIDICULOUS!! Why do you continue to approve their requests? And their various programs to help people with payments is not fair to everyone. I have chosen to not install AC; due to environmental concerns. I use fans. I have never used my dish washer and do a load of laundry every 2 weeks. I turn lights on only when necessary. But I don't get a break on my rate or help with my payments as I am not financially in need. Please tell PGE to figure out how to "get by" without taking more of our hard earned dollars. Please!! Please!!!

First Name	Last Name	City	Comment
Janet	Goinski	HILLSBORO	Please do not raise our rates again. I'm 76 yrs old, widow, on a small pension & social security. I'm just trying to get by. If u raise the rates again I don't know what I'll do. I live from pay check to pay check. I know that there a lot of people just like me. Please consider deferring another rate increase.
Janice	Green	OREGON CITY	PLEASE!! No more PGE increase. Unless PGE/Public Utilities Comm makes it FEASIBLE for Seniors. A cap? A discount based on income. There must be a way. What used to be a $60-$70 monthly bill is now $150-$170. And those figures are during none high heat days. During the winter with need for continued heat my PGE bills are $240-$260. I am so careful on my usage. No wonder we have so many homeless. Living in Oregon is becoming difficult especially for us seniors. If the reason for the new request of increase is due to beach town cost coverage, let the wealthy who own in that area make up the coverage! PLEASE NO INCREASE!!
Kristie	Hester	BEAVERTON	The rate increase for pge would not increase it to 48%. It actually amts to much higher. Each increase not only increases what was already the bill, but adds that additional % to the prior increase. So it would increase the last 18% by 10% and each additional increase since 2021 coming out to a lot more than the 48% increase the media claims. It is unfair to the people of Oregon and quite frankly some of it should be reversed.
Sarah	Joos	PORTLAND	PGE's rate hikes over the past year have been outrageous. I'm on the reduced income plan and my husband and I, who both work full time and have a roommate, are scraping the barrel each month to pay for electricity for our 1200 Sq ft home. I'm afraid of what will happen with the next rate increase. How many oregonians will have their electricity shut off because PGE needs more and more money? It's a monopoly! We don't even have a choice of electrical companies. This is extortion and we need a rate freeze for the next few years.
Suzanne	Miller	PORTLAND	Why are Oregon officals -who are SUPPOSEDLY in office to HELP the citizens - continously allowing PGE & PACIFIC POWER to place to weight of the MONETARY JUDGEMENT AND PENALTIES AGAINST THEM FOR FIRE DAMAGES on the Oregon residents? Their FAULT! THEIR RESPONCIBILITY!! THEIR PENALITY!! As usual in Oregon, people mean NOTHING compared to the mighty dollar. There is ZERO RESPECT FOR STATE RESIDENTS. ALL residents, homeless included. Its not the peoples responcibilty to PAY the FINES AWARDED BY COURT AGAINST ANY LARGE COMPANY.
Kay	Simons	LAKE GROVE	I understand that PGE has applied for another rate increase. Please don't allow this to happen. The rates have risen 43% since 2021. This is excessive for consumers now. Seniors on fixed incomes will surely suffer if another rate increase is allowed. I am in that classification. Even though I am on equal pay it is very difficult to come up with almost $200.00 per month for electricity. Natural gas is used to heat our home so we also pay for that utility. Consider carefully this ridiculous rate increase. Thank you.
Patricia	Merrill	PORTLAND	As a low income senior I would like to comment on PGE's request for a rate review for 2025. The rates I currently pay are too expensive. I live in a small apartment and I can no longer use my air conditioner because I can't afford the bill! I don't know what this state is thinking! Are out of state millionaires who move here and large businesses the only ones who deserve a break? How can people thrive if a state can't stand behind the less advantaged people in this state!
Thomas	Bray	PORTLAND	As a senior living on fixed pensions, these multi digit power increases are increasingly unaffordable. Eventually they are going to push me out of my home. As a for-profit company with a monopoly on power in our community, PGE needs to be much more transparent about profits and how much rate hikes benefit shareholders as opposed to consumers. For-profit companies need to invest their own profits into infrastructure, etc, not increase consumer prices to pay for same. It's time that the State steps in instead of rubber stamping these unaffordable rate hikes. They should be capped at the inflation rate. Thank you.
James	Hegstrom	BEAVERTON	I am an 81 year old living on a fixed income. In my one bedroom leased condo my average cost for electricity had averaged around $80/month. With the hot weather we have been having and with the latest rate increase, my PGE bill has averaged more than $100/month. I fail to understand why PGE continues to need price increases. Perhaps they should look at ways to reduce costs rather than take the easy route by continually needing rate increases!

First Name	Last Name	City	Comment
Kelli	Lloyd	HAPPY VALLEY	The recent rate increases have been very painful, and another rate increase will dramatically change the way that I live. I will no longer be able to afford to keep fans or portable air conditioning running. I will be required to limit my electricity usage by not watching television, keeping my lights off and relying on lighting from windows, even cooking. This is an unbearable thought to not be able to afford basic electrical needs.
Jerry	Booze	COLTON	41% percent increase since 2021, and now requesting another 10.9% increase for this year, which would be a 51.9% increase since 2021. That is over 12% per year rate increase. No one that I know of on a fixed income could afford this insane rate increase. Very few people in middle class America can afford this. Has anyone checked PGE profit margins and or amount of taxes they paid during these time periods? How about the salaries and political connections of the governing PUC representatives? I am ok with increases based on CPI inflation values. But Inflation has not been 51.9% in this same time period. I see that PGE are trying to justify increase for upgrades to infrastructure and fuel, but more likely to cover massive lawsuits recently lost due to fires. Did the employees and management of PGE and the PUC receive large pay increases and bonuses in this same time frame? Has the Utilitys stock increased a large amount? Obviously, the system is broken and the PUDs and the Utilities they regulate are not operating in the best interest of the citizens. Changes need to happen at every level of these systems to better represent the citizens of the areas controlled by the utilities. Trying to implement new sources of green energy has merit, but not at the cost of making average people cutting their standard of living to support corporate greed and corruption, which obviously a 51.9% increase in rates in 4 years is. I feel at this point like citizens are being lied too, stolen from and in general taken advantage of by greedy corporations and corrupt regulators. Not sure how to fix it as this obviously has been an out-of-control situation for a long time within the PUC and the Power providers. A very frustrating situation that until fixed will continue to impact lives of the citizens in a negative manner. It also tends to be huge impact on lower or fixed income citizens the most. Most seniors on fixed incomes and middle class with children will have a very difficult time in making budgets work with over 10% rate increases on a yearly basis. This is obviously not sustainable situation going forward, changes to the system must be made and soon, or the entire system will collapse on itself. Will my comments mater? I doubt it, but at least I feel better by saying what needs to be said.
Cherie	Taylor	DONALD	In just this year, my water/sewer rates are now a minimum of $100/mo., my garbage collection rate is very close to $100/mo. and now includes mandatory payment for a newly-introduced recycling feature that I do not participate in, but as I said is now a mandatory payment addition regardless. Now PGE wants yet another rate increase? I think not. Citizens are under siege from inflationary prices for groceries, gasoline, housing, and every other outflow from their hard-earned wages and salaries we are barely keeping up with as it is. Such a rate increase, coupled with effects of global warming, will cause us to not use electricity to cool or heat our homes because of affordability. With the way our summers have been these last few years, people could actually die from this. And what's with putting battery storage that will 'eventually' come online into rates already? I say no rate increase at all for PGE or Pacificorp. They've been to the well enough already.
Bret	Lytle	SALEM	I am shocked and appalled how disconnected this company is to their customer base. I have no choice in who provides my power. I make six figures but my mortgage, the rising costs of groceries and other everyday living expenses have increased to the point where we are at zero at the end of the month. We moved into this house 3 years ago and it has a daylight basement and a lot of trees which helps control the temperature in the house. During the summer we don't have to use heating or cooling. All of my lights are LED. At our previous house my summer bills were under $20. My last bill that I just got in the mail was $189 and that's without using any AC or heat. My bills in the winter are well over $400. This can't continue. I would go solar if I could but that's also cost prohibitive. How do they expect us to be able to feed our kids and get to work and pay our bloated mortgage costs and then continue to jack up our power bills? If I'm making this much money and the power bills are hurting me then I can't imagine someone with less being able to pay their bills.

First Name	Last Name	City	Comment
Audrey	Sandwrs	HAPPY VALLEY	This is an absolutely shameless money grab by PGE. PGE raked in $2.2 billion in 2023 per ABC7 San Francisco. Its CEO that same year enjoyed a $17 million salary, including her stock awards. PGE follows up on these record profits by asking for another wholly unreasonable rate hike to line the pockets of its shareholders while regular Oregonians suffer the very real consequences. This request for a rate hike is absurd and, quite frankly, cruel. PGE seeks to exploit its customers by price gouging - raising the rates of electric while our communities' need for this resource becomes more acute given our increasingly unstable climate and the resulting weather. A price hike of 10% AFTER the rates have already gone up 43% since 2021 is shameful, horrific, and one of the most blatant examples of corporate greed we have seen in recent history. If PGE claims it needs revenue over the several billion dollars it makes in profit only each year to make changes to its infrastructure and procedures as it claims, I highly recommend they do what they appear to expect Oregonians to do: stretch that outrageous paycheck and make it work. I humbly suggest they look at cutting salaries for their money-hungry executive suite. There's a lot of unnecessary fat to shave there.
Lindsey	NA	TIGARD	We simply CANNOT afford your continued requests for more of our money, PGE. Be better stewards of taxpayer dollars. Find a way to make the recent 7% increase work. An additional request for more is simply irresponsible and will bring harm to the community- many are moving due to lack of affordable living. Stop this nonsense now.
T	Crabtree	SALEM	Rates can't just keep rising. Soon the increased temperatures will cause people with lower or fixed incomes to suffer and possibly die. Profit cannot and should not have priority over people.
Wanda	Burden	GRESHAM	I want the PUC not to grant another rate increase to PGE. I am a Senior (77) and most seniors are struggling with inflation that is effecting everything we need to live. Please consider what we will do when we have to .turn the temperature in our homes even lower in the winter. I speak for all Seniors and low-income residents. Please don't do this to PGE customers so they can make more money . They have neglected routine maintenance in the past and want us to pay for those mistakes. NO!!!
Jose and Elena	Galindez	BEAVERTON	With the recent PG &E announcement of yet another almost farcical rate increase request for next year, it becomes almost imperative for the Commision to explain or disclose its methods and processes to review the specific justification for the specific and unique reasons and capital projects behind the increase. Battery farms? Why? We've not needed them before, so why now, and what will be their ROI? New transmission lines, because some towns have provided many incentives to many companies to buils server farms and data centers in their proximity? Why should the rest of us bear the burden of their tax benefits largesse? Every time PGE -or any other utility decides to launch a capital project, it does so with the expectation to make good money from it for their shareholders -and that's okay, provided the projects truly are 'needs' and not 'wants', which begs the question: what tools, processes, people, tools and methods will be brought to bear to ensure the projects behind the increase requests provide an adequate return of investment to PGE's rate-paying customers as they will to PGE's shareholders?
NA	NA	WOODBURN	The increase needs to be rejected. We are still trying to catch up with the increasing of last year. Our income barely gets increased 1 percent not even enough to keep up with all the increases. This is making it hard to live. Single income families are having to decide what food to buy etc . It's putting so much stress on people that causes them to get sick .
Harold	W.	TIGARD	re PGE proposed rate hike 8/5/2024 they just had one an it met with vehement rejection! So what is going on in such a short time I REJECT this hike, as some of our friends have no income and with selling a house and money in bank, they have no means for income and SSI doesn't cut it They are living on credit cards, and what has happen to justify this increase I would say no increases fo r a years after the last one, and only less than 5% of the last increase This is getting out hand What needs to be evaluated: how much increases for CEO, boards, and other high end employees .. If the increases match the increases for high end employed pay schedules , then there you have it, no increases for say 6 years H

First Name	Last Name	City	Comment
Tanya	Maldonado	TIGARD	The proposed PGE rate increase is becoming untenable. I am near retirement and that date gets pushed out year after year so I can continue to pay my bills and live in Tigard Oregon. My employer may give us a cost of living increase every three years at 3%. That does not keep up with one utility let alone housing, food and other bills. It is unconscionable. I pay as part of my bill assistance for others who cannot pay their bill without financial support. When will it be my turn? My spouse is retired and income is not keeping up nearly with expenses. Even working my salary has not gone up 40% in 4 years and never will. A 40% PGE increase in 4 years?? I work at a college where the student refrain is I cannot afford to live in Portland when I graduate. Better yet I cannot afford to pursue an entry level health career such as medical assisting that at best will start with an hourly rate of $24 an hour. How are we going to sustain ourselves as a community? Here is the salary information from Oregon Employment Dept. webpage - Qualityinfo.org Oregon (All Counties) Median Hourly Wage $23.97 This is irresponsible management and unsustainable for many Portland Metro residents.
Marsha	Hunter	SALEM	I am opposed to PGE getting yet another rate increase. They had one in 2023, a large one this year & now they want another!? I am on a fixed income & don't get raises anywhere near that amount. I think they should manage their money a little better. It's unfair to ask for that many raises.
Bill	Brett	SANDY	I'm sure that PGE is using their increased tree trimming expenses as an example of why they need increased rates. A review of their tree contractors production should be required. Their crews spent a ridiculous amount of time "pruning"the trees along 2 miles of roads in our neighborhood, leaving many hazardous trees that should have been removed. 1 month later a different contractors crew came through and flagged the hazard trees and I imagine now the tree trimmers will come through and spend another ridiculous amount of time. Both crews require flagging crews which are totally unnecessary on our street PGE's supervision was never present in my daily observation of this waste of time and money we are being asked to pay for through increased rates. This waste can be observed daily, at most location that the contractors crews are working around rural Sandy or along Hwy 26 up toward Mt Hood. Please require PGE increased supervision before you allow any more rate increases
NA	NA	GRESHAM	The price increase is going to price me out of my current home. (An apartment)
Michael	McAlpine	CORBETT	Another Rate hike? We pay the CEO over $6 million dollars a year to say "raise rates on customers" instead of wasting that amount of money on 1 person to come up with no ideas, use the money to do something FOR the customers. This is a joke. In the past 3 years I have put over $10,000 into upgrading the electric at my house including moving all above lines underground, installing a tranfser switch and bought a generator and in thanks from PGE you want to stick me and all customers with another rate hike. If this is the best that the leadership of PGE and the PUC can do, then you have all FAILED AND SHOULD RESIGN IMMEDIATELLY.
Ashley	Lauer	PORTLAND	Hey, we're currently going through a recession whether or not people want to admit it or not and people cannot afford higher electricity, tell PGE that unless Portland wants more homeless people, they can't increase those rates. I just got a bill for over $1,000 this month. 30 hours of overtime gone. I cannot keep up with this. People cannot keep up with this. Having a second job just to keep the lights on. My electricity cost seems to have tripled since 2022, we have the AC set at 78 we've started burning wood in the winter because it's literally cheaper than electricity. And Portland doesn't even want us doing that. People are going to start dying in their homes because they're unable to afford to cool or heat their homes, people are going to riot and I'll be there with them. People should not have to work 110 plus hours to keep the lights on and I can't even afford food and I'm not considered low income!!! I'm going to food banks to even eat at this point, prices have gotten out of control, at some point the government's going to have to start handing out potatoes and rations.
Todd	Mickalson	CORBETT	My power bill for my single family house averages $450.00 a month and is over a quarter of my monthly budget. I can't afford another rate hike. I have switched everything over to LED lights and have the most energy efficient appliances.

First Name	Last Name	City	Comment
Diane	Edmonds	GRESHAM	I am against yet another PGE rate hike in 2025, we just had one recently. Thus is not fair to customers who are struggling to pay their electric bills already with inflation at an all-time high, and we have to decide on feeding our families or keeping the lights on? That's barbaric on the general public.
Ryan	Ernst	CLACKAMAS	I do think it's funny how you want people to leave out vulgar language when yall want to rob us year after year. I need to see the CEO removed and their replacement have a cap on their salary. Yall want to hit us up with double digit increases and then muzzle us. Well, I hope the worst for PGE and whoever supports their money grab. They want to come back to the taxpayers after they didn't do the right thing 4 years ago and turn the power off during a red flag warning. The leadership should be held personally accountable. Please don't sell this like the last one"¦ and make some silly shizz up about helping low income rate payers with more money from us all. Go away.
Shawn	Hill	GRESHAM	Pge rate hikes have put a huge financial burden on my business and home. Another rate hike will only further that burden while we still are attempting to recover from the losses of covid. Please reconsider.
Sharon	Crocker	SALEM	I am currently served by Salem Electric which is a great cooperative having great service at reasonable rates. In my experience and in reading about PGE performance in CA OR, I purpose that PGE increased rate appropriations be refused and the company be broken up into smaller, more responsible units, perhaps in an anti-monopoly regulation of some kind. Sharon Crocker
Gina	Carr	WOODBURN	I am appealing to the commission to consider the caps proposed by the citizens board. As a senior on social security and a modest pension, I am struggling to make ends meet as is.
Catherine	Johnson	GRESHAM	The continued increases are getting out of hand. I am on Social Security and my increases are not keeping up with the cost of living. How are seniors supposed to stay in their homes when they can't afford electricity and other expenses now? Please reconsider the proposed increase.
Pamela	Hickman	PORTLAND	No no no to radically increasing my energy bill. With climate change we are increasingly dependent on electricity. The current proposal is inhumane.
Toni	Sanders	GRESHAM	Aren't your record profits enough?! How are your average people expected to live? Between housing , food and now electricity you are going to cause MANY more homeless. When is enough enough???!!! PLEASE STOP THE 10.9% INCREASE in Oregon. Thank you Toni Sanders
Sara	Maletis-Sharp	LAKE OSWEGO	I oppose another PGE rate increase.
Joe	Stoe	PORTLAND	This is criminal highway robbery. We are expected to pay there insurance and cover lawsuits caused by there own negligence.
Ginger	Barker	LAKE OSWEGO	Opposed to PGE rate adjustment We are an all electric household and our rates were just raised over 20% last year. We CAN NOT afford another rate hike Strongly oppose
Ann	Anderson	PORTLAND	PGE rates have increased 30 percent since 2022 and they want more? I'd they can't manage their business successfully with what they getting in now than they aren't good at what they do, this is too much! We are made of endless money to pay for ELECTRICITY! It's not a luxury, it's a necessity. Please listen to the public and do what's right for us, no rate increases!
Tyler	Murphy	GRESHAM	This is ridiculous that they continue to ask for increases to line their pockets. They have had ample opportunity to upgrade systems and have neglected to be forward thinking to do so to handle future problems. Their increase all does not match that of your average raise increase every household gets. They state the increase is "only 21.50 per month" but they both work on a tier usage system. When you go over the lowest kw usage that cost increases exponentially. My family is your basic middle class family. We started reaching levels of concern with our electric bills because of the increases.
Dawna	Deitz	KEIZER	This is so wrong to keep raising your rates. Rent increases are bad enough but pge keeps raising it's rates makes it hard to survive.

First Name	Last Name	City	Comment
Don	NA	SALEM	Enough is enough when it comes to ripping off the consumer by these corporations. The sad part is they(meaning utility,power companies) know they can get away with it, because there are people who have the power to change how much they can collect from the public and are going along with power company proposals. What ever happened to the cost` s of doing business? Whenever there is a circumstance where they have to spend some of their funds(which they have been collecting over a period of many,many years),they cry to PUC of Oregon for a reimbursement, and they get it. How do these people who run these organizations, promote good will to the consumers ,when the consumers know they are being taken advantage of?
Sheryl	Williams	SANDY	PGE's proposed rate increase an abomination! Is it really ok to pass on the funding for plant improvement to the general bill paying public when the top executives are being paid millions of dollars outright with additional stock option perks? It's just lip service when the say it's in the customers best interest ,when so many of us are just struggling to make ends meet. Many folks are denying themselves the comfort of being warm or cold depending on the season, what a shame! Who protects the customers, not the PUC!
Kayla	Schregardus	PORTLAND	Cut the CEOs salary! This company should be ashamed of charging hard working Oregonians when the CEO of PGE Maria Poppe made $1.4 million in 2023 and $11million from stock awards! Fire the CEO and that will get the funds! If all citizens banned together and stopped paying what would happen?!
Dan	B	PORTLAND	People in Portland, OR are struggling as it is. Please don't allow another PGE rate hike. It's forcing us into more and more debt.
Kate	Bush	SILVERTON	I just received my most recent billing statement from PGE. The cost of my monthly summer bill has now increased to double what is typical for this time of year. I am used to summer generally being my lowest time of year for utility expenses. Our new bill is now the maximum of what is typical for our deep cold winter month and one I can barely afford. Typically our electric bill averages $160-$180, I budget $180 except for the winter months when it is around $250+, again this is only a couple months out of the year and expected. My bill this month is $297! We also have natural gas that offsets the electricity. Allowing PGE to bill us this high is a travesty for consumers. My actual usage is $138, I am billed $107 for distribution, $4.14 for "extreme weather & pandemic costs", $8.92 city tax, $1.88 "bill adjustment recovery ", $20.25 federal regulatory fees, basic charge of $13, $10.66 transmission charge. This is to name a few plus I have almost $6.00 is supposed energy credit! That would have put my bill over $300! FOR ONE MONTH. My husband and I realistically make a decent income but we cannot afford continued rate hikes. DO NOT APPROVE ANY INCREASES!
Leighta	Lehto	PORTLAND	PGE needs a pause on raising rates. The rates are too high and a burden on working class and poor people. Portland is already so expensive. We need more energy options. Energy should be a public utility for all not a luxury.
Nathaniel	Phipps	BEAVERTON	It is absolutely insane thay you require over 20k oregon citizen or more to complain to even acknowledge the fact PGE is abusing it's customers. They claim the reason for the rain hike is to update infrastructure, my question (and the one you should be asking too) is why have then not been using our money to update infrastructure previously. Why the sudden massive rate hikes. It's because the few dozen fat cats at the top of PGE have milked the customer for all we are worth and now there company needs upgrades and instead of cutting wages of the tope 5% of the company they push the cost onto us the consumer. They receive tax brakes and yet we pay more and more each year and have more and more power failurs and outages. It's disgusting that we even have to discuss this! As public servants it is your duty to protect us, do your job for the sake of the people paying taxes which pay your wages. Please please help us, we are literally dying out here and need help.
Marsha	Lyons	SALEM	As a retired individual on Social Security, any more increases will mean no heat on in the winter and no air conditioning during the summer. Please do not allow any more increases!!
Jim	Wikel	PORTLAND	Regarding PGE's proposed rate increase, I will be brief. It is nothing short of unmitigated corporate greed.
james	hesse	PORTLAND	i believe a pge rate hike would be an enormous burden to people who have worked their entire life, and are now on fixed incomes.

First Name	Last Name	City	Comment
beth	mulcahy	PORTLAND	Why are you even considering letting PGE raise rates again?? And by so much?! It's so obvious it's covid era gouging to make the investors wealthy that the poor and working class pay for like so many other monoplies. They have over 2 billion in profits. How much more do they need? If they want to build, then have the investors pay for it or take it out of the 2 billion profit. They never pass any of the infrastructure savings on to the consumer anyways. PGE shut off heat to over 4500 people in the middle of a cold snap this year. The most on record because they already raised their rates so much. Do you care about that? THAT WAS YOUR FAULT. Why do you keep agreeing to this? WHAT are you getting out of this? My bill is usually around $300/month or more. And with you keeping agreeing to these endless rate increases it's going to be hundreds more a month. Do you want to pay my bill? The contempt you have for people just trying to survive is off the rails. Asking the public to "weigh in" on whether they'd want a 4th rate hike in 3 years-how incredibly disingenuous! You're not fooling anybody.
Kati	Kryzer	PORTLAND	Please do not allow ANOTHER double digit increase for PGE in January. These bills are getting out of control to working families in Oregon.
Mel	Zillick	PORTLAND	Instead of passing on the increased electric costs that PGE and PPL are proposing, off to average citizens who are already struggling, why not raise taxes on data centers? This podcast looks at the increase in energy use and carbon emissions from the multiple data centers in Washington. Since OR is building multiple data centers because of our increased vacant farm land and water in the PNW it seems a perfect opportunity to get funds from billionaires that, as the podcast points out, hire far fewer employees than originally estimated and reap fast amounts of of money. Don't get scared about data centers walking away as they're going to keep building. Instead be bold and help maintain costs for those of us who are struggling. "Do Data Centers Fit With Washington's Clean Energy Goals"�https://www.opb.org/show/thinkoutloud/
Annette	Russell	TROUTDALE	Make a rule to not raise rates on residential consumer's. Find a better way. Think about how it affects the consumers bottom line and if they can afford it. Space out what you want to improve. Are you trying to get everyone to use alternate energy? It sounds like if you keep raising rates, it will leave no other alternative.
Annette	Russell	TROUTDALE	Make a rule to not raise rates on residential consumer's. Find a better way. Think about how it affects the consumers bottom line and if they can afford it. Space out what you want to improve. Are you trying to get everyone to use alternate energy? It sounds like if you keep raising rates, it will leave no other alternative.

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Michael	Grigsby-Lane	PORTLAND	I'm not sure which docket number to comment on, but I'm referencing a recent news story https://www.koin.com/news/oregon/customers-simply-cant-afford-pges-proposed-rate-hike-advocacy-group-says/ This story indicates that PGE is going to be asking for an 10.9% increase for their customers. This is wrong for multiple reasons. First, PGE is essentially a monopoly. I don't have a choice about how to get electricity. They have ratepayers over a barrel and can gouge as much as they want. Second, PGE has had significant rate increases totaling 43% since 2021. What have they done with all that money? Prior to the pandemic, my electric bill was usually 50-80 dollars monthly. Now the bill is routinely over $100. I'm sure the money has gone into the pockets of their executives and lobbyists who are actively working to find new ways to screw over customers. Third, I'm disabled and my only source of income is social security. Do you know how much social security is currently proposing for a cost of living adjustment? 2.6%. I currently receive $1803 per month, and a 2.6% increase means I would receive an additional $54 per month, leaving me at $1857. Now keep in mind that I just received a notice of a 9% rent increase, bringing my rent up $87 per month. If you can do even basic math, you will see that I am already going to have to cut $33 from my monthly budget. How do you expect me to find an additional 11% to pay my electric bill? I guess I'll have to choose between medication, food, rent and utilities since I don't see a way to pay for everything. This rate increase is unnecessary; it is callous and cruel; it unfairly targets the poorest and most vulnerable in our communities; it smacks of unregulated capitalism where the rich get richer and the poor suffer to pay for it. You must reject this rate increase. It will harm many, many Oregonians terribly. At a time when the cost of everything is astronomical, this rate increase is a knife to the gut of working people, disabled people, seniors, and poor Oregonians. Again I say: YOU MUST REJECT THIS UNFAIR RATE INCREASE.
Andy	Appel	LAKE OSWEGO	The electricity rates have become unaffortable for my family. We are activitely looking for our next home outside of Oregon because of the high cost of utilities and living in Oregon.
Martin	Hehman	BEAVERTON	ChatGPT 4o mini Log in Write a comment on PGE's request to increase rates in 2025. Focus on how family are struggling to make ends meet and make choices between food and electricity. An increase will force more families to make these difficult decisions. Low SES families are still recovering from the trauma of Covid. Companies such as Intel, Nike, Tesla, and Electrify America should be charged with this increase and not the general household. ChatGPT PGE's request to increase rates in 2025 comes at a time when many families are already struggling to make ends meet. The rising cost of living has forced households to make tough choices between essentials like food and electricity. An increase in utility rates will only exacerbate this problem, placing additional financial strain on low-income families who are still grappling with the lingering effects of the COVID-19 pandemic. Instead of burdening ordinary households, it would be more equitable to allocate these costs to major corporations such as Intel, Nike, Tesla, and Electrify America. These companies, with their substantial resources, are better positioned to absorb the additional costs and should be held accountable for contributing to the increased financial demands, rather than further squeezing families already facing economic hardship.
Sara	Maletis-Sharp	LAKE OSWEGO	I oppose yet ANOTHER rate increase.
Jeff	Sharp	LAKE OSWEGO	I oppose another rate increase.
Robert	Scofield	LAKE OSWEGO	Just paid our PGE bill of over $652 for the month of July?! Now they're looking for another rate increase in 2025 after an already shocking 13% price gouge in 2024?! Their rates are already up 43% since 2021. A criminal enterprise at best. Enough is ENOUGH! Not only should the new hike be denied, please allow other companies to come in and compete for our business. Shame on PGE and Oregon PUC if another rate increase is allowed to go through.
NA	NA	FOREST GROVE	Please fight for the citizens of our state and do not approve the requested rate hikes. Enough is enough.
NA	NA	KEIZER	I do not support a rate increase. They already increased the rate drastically last year and I'm struggling to be able to pay my bills, even with being on a payment plan. If they need $202 million more dollars I think they should have an audit to see if they are properly utilizing the funds they already have.

First Name	Last Name	City	Comment
Juniper	Dyer	GRESHAM	This is an unconscionable and inhumane proposal. There are thousands of working families, senior citizens on fixed incomes, and low income people struggling to pay their rents and bills as it is. Families are in need of food boxes and donated clothing just to make ends meet. We have disabled senior citizens that cannot find affordable housing. This proposed rate hike is not humane and it will increase the number of unhoused people that can't get off the street since having electricity shut off in rental units is a violation of the lease agreements. I have worked in social services for over a decade and I speak to people everyday that are in desperate need of help. We will lose more and more working people in the next year as they move away and take their tax money with them. This cannot be allowed to pass.
Jathan	Stitch	TIGARD	PGE just did a price increase this year and I do t see how people can afford yet another increase. I have a small business that heavily relies on PGE and this would be devastating for us at a time where inflation is at an all time high.
Jessica	Jacobs	OREGON CITY	These rate hikes are not reasonable and unaffordable. how about you get rid of all of your green policies.
Vinson	Ferrinho	PORTLAND	People before profits - PGE has brought in increasing profits year-over-year while increasing electricity rates for Portland's citizens, including our most vulnerable. Why? The Oregon Public Utility Commission is empowered to regulate this business and put citizens over shareholders. There is no moral or functional reason why a rate increase must be approved, especially while shutoffs are at a record high. Shareholders and PGE do not have Portland's citizens' best interests in mind. The PUC certainly should.
Darby	Foxx	LAKE OSWEGO	My power was disconnected in April. I had to pay approximately $400 that I needed for my rent to just get my power turned back on. I run a small business out of my home and without electricity - I cannot make any money. This rate increase harms not only those of us on the edge of barely making it day to day - but small businesses and economic growth in our state. PGE must stop the price gouging. PGE lost power for a week to my home during the horrible ice storm. My pipes burst during this time. I received no help. PGE is just trying to ruin small businesses and customers without care. The Utility Commission has a responsibly to customers - not just to give in to whatever the utilities want.
Ashley	Mogford	SALEM	As a family of six, our electricity bill has more than doubled on the last two years. Another rate increase is insanity. PGE cannot continue to increase their profits at the expense of costumers who have no where else to go. If I could chose another power company, I would in a heartbeat. Please do not let them increase rates yet again.
Bernie	Gies	PORTLAND	Don't raise rates so much. A few percent, under ten, might be ok. Over time, it appears that PGE has mismanaged their income & paid big dividends when they could have improved infrastructure.
Sergey	Kiselev	PORTLAND	The recent and the proposed price hikes by PGE are ridiculous and unjustified. Moreover, I am baffled by PGE being a stock company vs. PUC. First and foremost job of an electrical utility company should be supplying it's customers with affordable electricity and not generating profits for stakeholders that have nothing to do with the customers
Freddie	Elmore	PORTLAND	There is no reason PGE has to raise rates when their profits are up. Electricity is a necessity, it is not something that we can choose to do without. PGE, on the other hand, can choose to manage itself responsibly and budget for massive executive bonuses and forest fire fines without passing the cost of its incompetence to the consumers.
Nicole	Jones	HILLSBORO	Do not increase rates
Justyn	Searle	OREGON CITY	These rate increases are ridiculous.
Stephanie	Ritzert	NA	These year-over-year, double-digit rate increases are not affordable for the middle class consumers. As a retiree living on a fixed income, I struggle each year to keep up with these year-over-year double-digit rate increases. While I probably don't qualify for "low income discounts"�I find that at this point it is becoming increasingly difficult to live within my budget because of these constant rate increases. This is NOT how I envisioned retirement to be"”worrying about money. I feel it's completely unfair for ratepayers to subsidize corporate greed and poor management resulting in continuing lawsuits and legal fees. I want the PUC to deny this exorbitant rate increase for BOTH Pacific Power AND Portland General Electric. Stephanie Ritzert

First Name	Last Name	City	Comment
Dawn	Andersson	SALEM	Thank you for clarifying. I am a customer of PGE. If I could at all pick my provider it would not be PGE. Salem Electric would be my choice. The 16 years that SE provided my services they proved they cared more about the community / customers than profits. I do not understand how we can choose our propane, cell and internet providers,, but not this service or natural gas. I think we have laws against monopolies and forcing us to have one option leaves us being at their mercy with no other choice. Dawn Andersson -----Original Message----- From: Dollipop <dollipop77@gmail.com Sent: Sunday, August 4, 2024 1:00 PM To: PUC PUC.PublicComments * PUC <puc.publiccomments@puc.oregon.gov Subject: Rate increases Dear PUC, Please do not approve more rate hikes by the utility companies. It is criminal that they are allowed to increase the rates over 40% in the last few years with yet another request to increase rates. They show profits and pay a CEO over 6 million a year. We should not be paying for their lawsuits, while they continue to profit and pay a ridiculous amount to a CEO. We have people going hungry or at worst losing housing over the massive increases. Please ?? stop this corporate greed! Dawn Andersson Salem 97306
NA	NA	NA	2.2 Billion in profit to share holders. NONE of that went back into structural changes to strengthen electrical grid. NO to rate hikes.
Christy	McCoy	NA	I am writing to let decision makers know, the huge double digit increase last January, coinciding with a ridiculous storm was too much. Now we're back at it AGAIN, tapping renters and homeowners? With another double digit increase when you've increased rates over 40% in a very few, short years (2021). This is outrageous, it is unconscionable and now we're adding: Do we pay rent/mortgage? Do we buy groceries? OR do we pay our bloated electricity bill? To this Jumanji/apocolypse game you seem to only play, with private residents. Ya'll need to go back to the drawing board on this one, and figure a new plan. You state that it's cheaper, somehow, to provide corporations and businesses with electricity and their rates are not getting blown out of the water. To state I simply do not believe you? Is a gross, understatement. Do better. Before you literally force people to live in their homes, with no power. I am disgusted. Christy McCoy
Linda	Everson	NA	How many more people do you have to kill in the name of green energy before you admit it's not even a real option? Are you REALLY finally hardening the grid after you've waited 30 years to do it? If you think we need to pay this for all the electric cars they're going to force us to buy, don't bother, it's not happening. Not only can no one afford them, no one wants them. So, STOP TRYING TO KILL US WITH RATE INCREASES WE CAN'T POSSIBLY AFFORD!!! I think it's time we all get together to file an anti-trust lawsuit against PGE - you're leaving us no choice. Thanks for nothing from a retired fixed income customer Linda Everson
NA	NA	NA	The fact that PGE has already been allowed to raise our rates 3 times in the last two years (from what I remember) is not at all right for the citizens of Oregon. We are currently paying nearly $100 more than we did back in 2021. Sadder yet, last year we had to run our A/C nearly non-stop for several days because of extremely high temperatures and even though we consumed a lot more electricity at that time, our bill is nearly $50 more for the same time this year. It's quite frankly ridiculous, because we are struggling to get our bills paid and I know of other people forgoing food just to be able to keep their electricity on. Quite frankly, it is rather pathetic that they were allowed to raise our rates so many times in the last few years, when no other utility company we deal with has raised our rates but maybe once. As far as I'm concerned, they should be forced to rollback their most previous rate hike, because it is killing the people of this state. cid:storage_emulated_0_Android_data_com_samsung_android_email_provider_files__EmailTempImage_1_TempSignature_signature_Drawing_1708877672311_png_1708877672405

First Name	Last Name	City	Comment
E	Savage	NA	I don't understand why the public utilities commission always approves rate increases for PGE? Are they running their company so badly they need several 30 and 40% increases in a row? Maybe their CEO and Execs should have their salaries lowered for such bad management of their company. It is outrageous that citizens are held hostage to the constant rate increases that we cannot afford anymore, just because we need electricity and PGE is abusing their control over its customers. We should all be able to afford basic utilities to live in the USA. I will do whatever I can to let lawmakers know that rate increases should not be automatically granted and that it is totally unacceptable for them to keep raising rates. Income has not kept up for most people. We simply can't keep paying for basic needs at outrageous prices. Do not approve any more increases without public vote! E Savage
Kimberly	Nickerson	NA	Please don't appove these rate hikes for PGE. It's hard enough to keep bills low as it is and I live in the dark all year long because turning lights on and leaving them on is too expensive all ready. I heat my house with electricity so I only turn on light when I absolutely have too and my electric bill is over 100$ a month. This is crazy if this new rate increase is approved. So many people won't be able to afford to heat their homes in the winter or cool them in summer. I only use my a/c when I can stand the heat anymore and then turn it off because I know if I leave it on it will be close to 100$ even in summer. Thank you for reading I hope you all have a great rest of your day and consider not approving this rate increase Sincerely Kimberly Nickerson
NA	NA	NA	I am writing about ANOTHER proposed rate increase. This is an outrage. You just increased them 19 percent. Perhaps you should look at cutting some salaries within. Why were the upgrades not done with the increase in revenue you received previously. It seems to me you are not being fiscally responsible on your end. I have had service for 30 years and have never seen rate hikes where people have to freeze in winter and bake in summer because of utility bills. Your spokesperson "acknowledges rate increases are challenging". That is an understatement. Most people that take this hit are not eligible for dicount programs, but with utility, water, heat, rent, food , Rx cost increases we will all be poor, but still not eligible. I am vehemently opposed to this. I find this new proposal extremely vexing. It's not like cable, internet or phone service where you can shop around. Consumers have no choice here and you just raise rates and consumers suffer. I am displeased with your ridiculous charges and cannot even heat my home anymore to a comfortable temperature. You can't cancel your electricity, we are just in shackles and slaves to your whims. Sent from my Verizon, Samsung Galaxy smartphone
Charlene	Wells	NA	I am emailing you to voice my annoyance with PGE asking for more rate increases, and increasing their present request. This rate increase I do not believe is due to cost of energy, but rather at least partially to increase profits for their company And any "assistance" that they offer as they are recently advertising as some sort of great mercy towards us, will be negated by rate increases as well as causing hardship on those who don't qualify for assistance but are at an income level barely surviving. Please be reasonable in your reviews of these rate increase requests and don't just give them a rubber stamp! Regards, Charlene Wells
Cammie	DeRaeve	NA	No more PGE hikes! This is insane. We are already paying through the nose for our electric bill. Almost a 43 percent increase since 2021. Enough is enough. Please don't approve this larceny. Thank you.

First Name	Last Name	City	Comment
Meghan	Bales	NA	To whom it may concern, Hello there, my name is Meghan, I have lived in Oregon my whole life, which has been 33 years and of that I have lived on my own for 12 years. Of those 12 years my husband and I bought our own house, got married, had 2 kids and I have never felt as scared about money as I do right now. My husband has a very well paying job that's barely cutting it right now. This proposed rate hike is unbelievable! I'm just wondering how PGE expects people to live? Or if your CEO has any heart at all? Maybe they should be taking a pay cut? Reading about how many people have had their electricity shut off since this hike is deplorable and just adding to the problems of more people becoming homeless. From an article from Koin 6 news "It's dangerous that we're now in the double digit range,"said Bob Jenks, Executive Director of the Oregon Citizens' Utility Board (CUB). "We're now more than three times the rate of inflation and customers just can't afford this after the big rate hike we had last January. Jenks added the newest increase proposal comes as the company implemented a record number of customer disconnections this year. Back in April, PGE cut off service to more than 4,700 homes "“ the most recorded in a single month according to Oregon CUB "“ only to shut off an additional 4,300 the next month in May." really hope that you see that that is not okay. My family is starting to struggle with all the price increases of literally everything. But we make too much money for any type of help for utilities and don't even have many other bills other than the rising cost of food, electric, and gas. Does this seem okay to you? To further pull from the article I read it continues: "PGE says says these numbers are fluid and it's too early to say what how this proposal might impact customers. Nonetheless Oregon CUB said they are asking the Public Utilities Commission to delay or reject it." can tell you exactly how it's going to impact customers. They're going to have to continue to choose between somewhere to live, electricity and food. This is crazy and just pure greed. For profit utilities are getting out of hand! So please see reason and think of the small businesses and single mothers/fathers trying to survive and even families that used to be considered upper middle class that are now struggling. It's sad that this is how the world is headed and how this company is worried about paying their already over paid CEO. Signed a scared and angry mother and wife
Deborah	Brown	NA	Dear Official, I am writing to urge the PUC to reject the current rate increase by PGE for 2025. Many of us are struggling to afford the current rates, refraining from using air conditioning and heat in order to keep costs down. I am a senior living on social security and absolutely am unable to afford more rate hikes. I already requested low-income assistance but was only granted 15% which is negligible compared to the current rates. Meanwhile, the CEO of Portland General Electric, Maria Pope, is receiving compensation is $6.97 Million in 2024. This is a PUBLIC UTILITY, and I am shocked to see this kind of bloated compensation while so many in Portland are barely able to make ends meet. I strongly urge you to reject this proposal and protect Portland consumers as you are bound to. Sincerely, Deborah A Brown
Leanna	Stoneberg	HILLSBORO	I am 110% against any rate hikes!!!!!!! PGE has already raised rates 17% this year! Absolutely ridiculous! The CEO gave herself a pay raise"¦"¦ is that with the money is needed for? I'm over it! Inflation is through the roof and everything is hard to pay for right now! If PGE needs money they need to take care of their CEO first. We Oregonians never got the opportunity to say no to this, and I am putting my foot down now! I am against any rate increases in power bills! I'm absolutely furious over these rate hikes!!!!! PGE needs to lower their rates now! Leanne Stoneberg Hillsboro, Oregon Sent from my iPhone
NA	NA	NA	You cannot increase the cost of our bills again. It is becoming unaffordable to live, untenable to save for home, I'm forced to rent. This also while expecting. You are making it unaffordable to live. Consider this when you sign yet another increase for PGE who can not manage their money. This all the while continuing to increase taxes in this city. You are making people leave. Your tax base is leaving"” do you not see the writing on the wall??? - Concerned citizen

First Name	Last Name	City	Comment
NA	NA	NA	This proposal is absolutely insane - our family decided to move to downtown Portland, against the advice of many, which we found to be a DYING city last December. We saw our electricity rate increase immediately and already are facing another huge increase next year? We do not automatically receive 10%+ additional income annually, and any additional costs PG&E faces are due to its own neglect of maintaining their own systems. Customers cannot afford this, and should not have to cover the company's costs. As a result you are driving people out of the cities you should desperately be trying to keep them in.
Jennifer	Daniello	CLACKAMAS COUNTY	Please no more rate hikes for PGE. We as customers cannot afford a third rate hike. Ask the CEO Maria Pope to take a pay cut from her annual $7M annual salary. This is a joke the c-suites are making millions annually when a large percentage of their consumers are unable to afford things like heat and AC in the coldest and hottest months. The price gouging of consumers has to stop. Please help the people, not the corporations! Thank you, Jennifer Daniello Clackamas County PGE customer
NA	NA	NA	To Whom it may Concern: I am writing in regard to the rate increase purposal of the 10.5%. Due to the rate increase last year, it was a struggle to pay my power bill, I was on monthly payments to help.spread the cost out to keep power, and even then I was paying 350 a month for a 1100 Sq ft manufactured home and kept my heat at 67, and had fires going most of the time. This increase will hit people financially so hard and all ready with the highest year of shut offs due to lack of payment. I understand upgrading to maintain better supply for customers, and the cost that is connected with that, but there has to be ways to cut from somewhere to provide that. For example, power up mt. Hood, burying the power lines, yes it would be expensive at first! But in the long run how much are you saving, by always having crews up there to fix downed lines, trees, cutting, overtime. We had our power down a lot, and it would be extremely frustrating at times due to when the power goes out up there, we also have no water since our wells run on power. So please take into consideration other ways to save money, even if it's not right now, but it saves later, and not do an increase to help people keep their power on, I know would benefit everyone in the long run. Thank you. Yahoo Mail: Search, Organize, Conquer

First Name	Last Name	City	Comment
NA	NA	NA	This is absolutely absurd and unfair to inflate costs that much after you doubled our costs last year. Last week my best friend who runs a memory care unit was informed her employee was stealing food. She investigated and found the cgs husband hurt himself. They were struggling to pay the bills with him out of work for ONE WEEK. The employee was stashing leftover food and bringing it home to her family so they didn't starve because she was too proud to admit that cost of living is high and she is struggling to afford to live. I am a nurse. Both my husband and I work full time and over time. I have no kids but cost of living is hard for US. I have many nurse friends who are letting bills go and picking and choosing what to pay. AS ONE OF THE HIGHER PAID PROFESSIONS When we lived in an apartment last year, for our 1100sqft apartment that we used wood burning fire to keep us warm and had the light off most of the year to try to get our bill down but IN AN APARTMENT we paid 250$ a month many many months in the winter and it was KILLING US. My bill dropped in half when we moved into our private home but you increasing these bills again leaves us unable to pay for electricity. We are one missed paycheck away from not being able to pay our bills. And again. We work well respected careers. Known for paying fairly well. I saw an anonymous post the other day on a page where someone who moved to Oregon was even inquiring about the cost of electric because they have never in their life paid so much for electric. They too were in an apartment getting SCREWED. It is not okay to charge apartments more than individual homes. It's absolutely not okay. People live in apartments because it's the most affordable and even that isn't very reasonable now days. It should not be a punishment to be poor and not be able to afford buy your own home, and hiking up costs for the lower income class feels really grimey. I dotn say this as a pitty party to me. I am asking you to understand what this will do to others who make far less than we do. We are not the caregivers who make 18-22$ an hour. We are not the grocery store worker making the same. The fast food employees. The gas attendants. The medical assistants who make 23$ an hour with a degree that they pay 30k for. the street sweepers. The coffee shop employees. And before you say "they could all get better jobs"..... If EVERYONE has to get better jobs, who will work the lower paying positions?? I am BEGGING you to help us all not have to pay 200$ a month to live with electricity. This is America. Electricity is not a privilege. It is a right. This is not a third world country.
Laura	Birchard	NA	To whom it may concern: I'm trying to raise my family in Portland where, year after year, the quality of life for my family erodes. PGE CEO Maria Pope makes 6.9 million dollars in annual compensation. A large percentage of this is bonuses, if google it to be believed. PGE shut off the power of record number of customers following their last rate hike. Please do not approve another rate hike. If PGE can pay dividends and bonuses like this surely they can reinvest profits instead of increasing rates. This will be a 43 % increase over the past fews. Across the river Clark county has a non profit model which is superior. Why do we tolerate for profit utility? Please do the right thing and do not approve this rate increase. Customers cannot choose another service provider, so it's basically extortion. Laura Birchard Sent from the field

First Name	Last Name	City	Comment
Anais	Marquez	PORTLAND	Dear Members of the Public Utility Commission, I am writing to express my strong opposition to the proposed rate increase by Portland General Electric (PGE) for the year 2025. As a resident of Portland, Oregon, I am deeply concerned about the negative impact this increase will have on our community, particularly on low-income households and small businesses already struggling with the rising cost of living. PGE's request for a rate increase comes at a time when many Portland residents are facing financial difficulties due to economic uncertainties and inflation. An increase in utility rates would exacerbate these challenges, making it even harder for families to afford basic necessities. Additionally, small businesses, which are vital to our local economy, may find it difficult to absorb the additional costs, potentially leading to closures and job losses. Furthermore, it is crucial to consider the broader context of climate change and the need for sustainable energy practices. While I understand the necessity of investing in infrastructure and renewable energy, I urge PGE and the Public Utility Commission to explore alternative funding mechanisms that do not disproportionately burden consumers. There must be a balanced approach that ensures both the reliability of our energy supply and the affordability for all residents. I respectfully request that the Public Utility Commission carefully review PGE's proposal and consider the long-term economic impact on Portland's residents and businesses. It is essential to seek solutions that prioritize fairness and sustainability without imposing undue financial strain on the community. Thank you for your attention to this important matter. I trust that the Commission will act in the best interest of all Portland residents. Sincerely, Anais Marquez
Woods	Family	NA	I heard about the rate hike that is proposed for 2025 and I'm very upset about it. My family simply cannot afford hike after hike on the same utilities in which we need to live, our families need to live. People work hard to come home to a few hours each night of comfort, whether that be a hot meal, air conditioning, hot shower, or even to be able to do homework on a computer or laptop. We all need these things, these aren't things we can just drop or give up like we already have with new clothes, evenings out, and vacations. We are trying to keep up with the Jones's but simply trying to live a peaceful life hoping to one day thrive. Covid has hit us all hard and everywhere I turn costs have gone up, it's only matter of time before this family and most run out of money. Do not increase the rate over 10 percent! My hourly wage cannot afford to take another hit. Sincerely, The Woods family
NA	NA	NA	Come on, we are already over a barrel to this for profit utility and they can't find the money in dividends to avoid rate hikes? Please deny this rate hike or we can all see where your allegiance lies Sent from my iPhone
NA	NA	NA	STOP THIS MADNESS! No one can afford to have electricity with the constant rate hikes. We see no difference in anything so just what are you improving? I make $90k+ a year and literally live paycheck to paycheck. Your new proposed price hike would have us paying 40% more than we were two years ago. Instead of hiking our rates up, why don't you try to find a less expensive solution. That's what we need"¦ Lynda Luce Sent from a small piece of technology held in my hand :-}
Meredith	Henderson	NA	We are your classic family of 4 Middle Class oldest child will be attending her first year in college. Second child will be a senior. Husband I am work hard for our money. This last rate Increase was a financial impact in a negative way. If you increase again we will struggle making our payments. We do NOT qualify for assistance. Please reconsider the rate Increase. Sincerely Meredith Henderson
NA	NA	NA	I believe the lack of a competitive market in energy is allowing rate hikes that Oregonian can't afford . Amidst the rising inflation everywhere from food to gas how can we be expected to afford a 40% increase in under four years?
Corinne	Rice	BEAVERTON	As a private citizen I do not support the increase. I can barely pay my bills and get groceries. Let alone a new hike for something we cant live without. If there was another choice I would go for it. But you are the only company and I live in an apartment so i literally have no other choice but to use PGE. Make it affordable. Reduce the upper management wages and pay your employees accordingly.

First Name	Last Name	City	Comment
Alisha	Rathbone	PORTLAND	I am already struggling to pay our electric bill being on the monthly saving plan, that is only $30 off a month. With this extra increase you propose I WILL NOT be able to adjust well, along with MANY OTHERS IN MY CITY. PGE, YOU HAD A LARGE PROFIT LAST YEAR lining your pockets.... YOU DO NOT NEED TO RAISE OUR RATES A IN ORDER FOR A LARGER PROFIT. Making others SUFFER AT YOUR HANDS!!
Anatalia	Quesnoy	PORTLAND	It's inhumane to allow more rate hikes when there are masses of seniors and working class people that can't afford to eat or buy clothes. The homeless population will increase because losing electricity is a lease violation and the tax payers will leave and take our tax money with us if they allow it
Natasha	I	PORTLAND	Everybody deserves to afford to be comfortable in their homes. Before raising the rates for general consumers which negatively effects the most vulnerable community members first, I would like to see the top paying executives take pay cuts to their profit bonuses.
Rafael	Marquez	GRESHAM	General rate increases to customers .. I have a question whom among us gets an 18 percent salary increase followed by an 8.9 percent increase the very next year ?? .. I would get a 2% or 2.5% if I was lucky , how can anyone continue to absorb this ?? .. that's just a tad under 29% in two years .. How do these people expect working people to afford this let alone retirees or others on fixed incomes .. Those of you on the Commission please consider the extremely difficult position this puts the public in .. More and more people are having to make choices like if they can afford medication , or afford grocery's ?? .. well electricity is a necessity too .. Please stop or at least slow this unsustainable rate increase down ..
Jais	Stotler	MILWAUKIE	I am a Senior Citizen on a fixed, small income. I don't have a choice in who serves us electricity. This For Profit business is not making it easy for me to live in my modest .1200 sq. ft house. Even on equal pay it has gone up in the last 7 years from 102$ to 175$ and I keep house on the cool side. I hear PUDs are affordable. Wish I could have them service my house.
Ryan	Manolis	MILWAUKIE	PGE has been experiencing record profits year after year while ignoring the fact the electric grid did and does need improvements and upgrades. Now they propose those upgrades and improvements get paid for by raising rates on hard working oregonians that are allready struggling to pay for life necessity such as electricity. We can not continue at this pace and I hope you make the right decision by denying PGEs request and counter there proposals with one of our own that they pay for the improvements from the BILLIONS of dollars from the profit they make year after year. The people have noticed and the people are unhappy. Please do the right thing or we will find the right people to do the job of the people for the people. Thank you for your consideration.

First Name	Last Name	City	Comment
Tanya	Raz	PORTLAND	Not only do home owner taxes continuously increase in Portland to pay for city infrastructure, the PGE expenses is increasing substantially creating an even added burden in an economy heading towards recession due to inflation. Per the KOIN article posted yesterday regarding the hikes, Drew Hanson (communications manager for PGE) provided several reasons for the increase, but none indicated building infrastructure towards a more sustainable energy grid. Continuously fixing antiquated above ground electrical lines isn't fixing the issue where wind or ice bring down power lines, which is only going to get worse with climate change. Putting the lines in ground would be more cost up front but a much more dependable and safer energy source in the future preventing the need for as many crew to drive out to fix the lines, saving money in the long term and keeping heat on in homes during the coldest months. The cost increases makes citizens pay for the poor infrastructure that PGE built, and bandaid fixes isn't the solution and not a good use of our money. Additionally, solar systems is a great alternative, but currently homeowners are the ones that would incur all costs to purchase the solar system and on top of that, have to pay a monthly fee for PGE for them to manage the energy, and any access energy created at the end of the year, PGE can allocate it to their other programs, but instead should be crediting us for that energy that we have invested in. They don't have to pay anything towards solar panels, and essentially get funded by individuals investments in a cleaner future. Solar panels only last about 15 years and homeowners would have to repurchase (along with a new roof) making it something that isn't cost effective. There should be more incentives and partnership with government, energy companies, and homeowners to make solar panels more of a shared expense. Another area PGE can invest in is wind or river energy that is being done around the world, but I'm not seeing any indication that PGE or government planning for a more sustainable and cleaner way to create energy. Until I see PGE move towards sustainable clean energy, we shouldn't have to pay for increases cause of the need to increasingly fix the current failing energy grid they built in the first place. There needs to be accountability for poor decisions, the citizens shouldn't be the ones to pay for it!
Jessamyn	Wesley	PORTLAND	U.S. inflation rates peaked at 7% in 2021, were 6.5% in 2022, and 3.4% in 2023. How is it in any way defensible or plausible that PGE needs to raise rates by 40% since 2021? The only explanation for this astronomical increase is to pad profits for shareholders. A 40% increase in two years is absurd. Who can afford that? I'm part of a middle-income household, with two working adults. We keep our heat at 60-63 degrees max all winter, cap our cooling to 80 degrees in the summer, installed a heat pump, and are judicious about turning off lights and conserving electricity in every way. Still, our electricity bills are growing increasingly unaffordable. We will soon have to make choices between electricity costs and other basic needs. There is no possible way PGE can justify these enormous price increases as simply the result of inflation, when the rate increases drastically and dramatically outpace inflation. This level of greed and disregard for the financial and economic realities of the population are unconscionable. Many people will be forced to endanger themselves due to the unaffordability of this basic resource. Please reject PGE's ridiculous plans to hike rates yet again.
Kate	Andres	SALEM	It is getting outrageous that they are about raise my rates again. My power bill last month was $534.00. Have they been giving raises to the higher ups? Is this why there is such a huge increase?
Michael	T	PORTLAND	Maybe don't pay your CEO 6.8 million a year, ever thought of that? wtf does Maria Pope even do? You sell electricity. What sort of high concept business model is this person coming up with for ELECTRICITY??? And while you're at it tell John Kochavatr to kick rocks too. You sell ELECTRICITY. Everyone at the top not serving any function needs to be let go.
Beverly	Spurgeon	MILWAUKIE	Please do not allow the electric companies to increase by 10%"¦the general population in PDX and surrounding areas cannot handle such a drastic increase plus all the other food, etc price increases. Major layoffs from Nike and intel will impact slow growth plus add to the unemployment. Maybe the board and stockholders take a decrease in 2025. The PUC should be protecting the citizens of Oregon not burden them "¦.retirement funds are not increasing. Give the common man a break! Thank you

First Name	Last Name	City	Comment
NA	NA	PORTLAND	I am writing to oppose the 2025 PGE rate increase. "The recent request comes on the heels of the utility's 18% increase in 2024, which was its highest rate increase in 20 years. PGE's rates have gone up more than 40% since 2021," according to OPB. We are already paying way more than we used to for electricity. I understand they want to have big plans to modernize and make the system more reliable, but they are already getting more money to do that. Maybe they need to scale back their plans to make it better over a longer period of time if they can't do it with the rates they have now. Because I don't see them lowering rates when they finally get the modernization done. They will keep rates high even after the work is done. So, let's tell them "no" to the second rate hike in two years when we're paying 40% more than we did in 2021. Tell them to scale back their plans to get it done but in a longer amount of time with the money they are making now. People are getting disconnected all over the place and that's not cool. There has to be a limit to how much a utility company can raise rates in a certain amount of time. Thank you.
Brandon	Fennern	FAIRVIEW	How are we letting PGE get away with this? How are so many people struggling and these rates are still going up by a preposterous 10%? Alot of the people who are paying this PGE bill are using credit cards, putting people behind even further. Can this non sense stop. PGE can figure out another way to get money, this is absolutely not the way. Can we go to go back to PUD? This service shouldn't be for profit.
James	Asplund	GRESHAM	I object to the large rate increase after previous large increases. They must find ways to reduce their costs or other sources of revenue.
Sarah	Joos	PORTLAND	My household cannot afford the rate increases PGE keep demanding. 40% increase since 2021? My husband and my earnings have decreased since 2021 due to layoffs and finding new, lesser paid work. We need a break from these raises. What will Portland look like if half the cities power is turned off?
Kate	Dowd	CLACKAMAS	PG&E has contributed to the Oregon homelessness crisis with recent rate increases and should NOT be allowed any further rate on creases for at least 3 years from the last. With records of 4,700 household getting shut off notices since the last increase, it should be clear PG& E is causing harm to Oregon. Strongly oppose ANY rate increase for PG&E for at LEAST 3 years from last increase or we will all be parking in RVs in the PG & E properties.
NA	NA	ALOHA	After the latest 18% price increase PGE left us without power for over a week with freezing temperatures. We had to pay to stay at a hotel in the area. Now they seek another 10% increase with no regard to the financial toll they place on their customers. Please take action and stop PGE from taking advantage of their monopolized position.
Rachel	Correll	OAK GROVE	Rate-payers cannot afford another increase on the tail of the 18% increase last year. PGE needs to find funding for the clean climate initiatives another way. This has got to stop. Rate-payers have to work with their budget, so should corporations.
Katherine	West	TIGARD	Dear Board Members, I strongly urge you to deny PGE's proposed 10% rate increase. Many people are currently struggling financially and finding it difficult to pay their bills. This significant rate hike could make it impossible for some to afford electricity, a basic human necessity. Furthermore, public assistance programs for paying bills have not been adjusted to reflect the current cost of living, exacerbating the financial strain on families. While a modest increase of 1-2% might be understandable, a 10% hike is excessive and amounts to price gouging, especially in a market where PGE holds a monopoly. This practice is unfair to consumers. PGE should first look within their company and reassess their budget before seeking additional funds from already burdened customers. Please consider the well-being of the community and deny this rate increase request. Thank you for your attention to this critical matter.

First Name	Last Name	City	Comment
Robin	LeConche	PORTLAND	Dear OPUC, Greater disconnects than ever in April following 2 recent double digit rate increases, (18% & 12%). Now a Proposed rate increase for next year of 7.4% that is replaced by an adjusted/updated rate increase of 10. 9%? What is going on in the PGE math department. Put aside the unconscionable rubber-stamped increases OPUC allows for a moment, how does PGE ask for a 7.4% increase and then change it not soon after to 10.9%? It is hard to believe that a difference of 47.9% in increase requests slipped on by? More likely extra room to gouge was found! So PGE can't even get their figures accurate? What does that say for the rest of their management history ? Where else in their budgeting did they mis-calculate to the tune of 47.9%. Bonuses, dividends, cash payments, losses, right-offs, profits? This can not be tolerated. Investigate everything for the last ten years- find the errors, levy fines and give back the unnecessary increases to the customers. This is a no-brainer! Do what's right! No new increases! This is clearly, at best, massive mismanagement and incompetence! Or, just drop the "Public"� from your title. Then at least, we can be honest about who's is actually being represented .
Lucas	Humphrey	KEIZER	PGE's quarterly net income, last reported 3/31/24, was $109 million. This is an increase of $41 million from 12/31/23, and their most profitable quarter in over 15 years. Source: https://www.macrotrends.net/stocks/charts/POR/portland-general-electric/net-income They don't need to raise their rates for consumers. PGE is doing very very well. If their net income does not already cover what they plan to do, then they can cut executive pay. Please reject this price hike, Oregonians don't need it and it doesn't make financial sense.
Brett	Wilkerson	MULTNOMAH	Do not raise rates on the people of Portland!
Justine	Triest	BEAVERTON	I'm commenting on the proposed PGE rate hike. My family and I are mid income and we are shocked at the increases we've already been seeing with PGE. We've been on PGE for over 10 years and can't believe the increases in the last couple, especially since we have an efficient home (small and we've done all the energy upgrades we can). My understanding is some of this is due to Oregonians like us voting on green power sources which I support but there has to be a more sustainable way to accomplish that where tremendous hikes are t passed along to mid and lower income consumers. PGE needs to be paying for that out of their profits, out of hikes for business and industrial, and on those who are not already struggling with inflation significantly. This isn't something with an easy solution but the increase after increase on those who are not the wealthiest is totally unsustainable and unreasonable.
Matthew	NA	GRESHAM	PGE should lower their rate instead of raising it.
Gregg	Ritter	HILLSBORO	It is absolutely ridiculous, tone-deaf, and symptomatic of the problem of a public utility operating as a for-profit, dividend-paying entity. Rather than hiking rates **AGAIN** perhaps revenue and dividends can be cut to meet the needs of the utility. This is no different than squeezing the consumers of any business for as much profit as possible EXCEPT that this is a public utility and a functional monopoly. Where else will consumers get power? This rate increase MUST be rejected and caps placed on future increases and moratorium placed on disconnects.
Missy	Sandgren	CLACKAMAS	I am writing in regarding the PGE rate revision. I make a decent wage as an RN and I'm struggling with this economy. Everyday the prices of goods are going up and now to hear about a rate hike on the power bill..it's really just too much for the average citizen. How do they expect a normal person to pay for this? The EV cars are pushed on the public like crazy with mandates, but how would an average person pay to charge it? Do we really even have the infrastructure to support everyone having EV cars. PGE needs to reevaluate it's priorities, as does the state of Oregon. It's all so bizarre to me. Please rethink this rate hike and use some common sense.
Wendy	K	PORTLAND	We cannot afford continuous increases such as the ones made this year already. PGE needs to lower executive salaries and stop with so many increases. There should be a limit. Isn't that why we pay for your salaries? Help the people.
Maxine	Reames	WILSONVILLE	My husband and I are in our 80's, retired from PERS, living on a fixed income. Another increase will put us over the brink. We understand PGE needs to improve their lines and things, but they they already received their 18% increase. They need to take away from the stockholders and CEO. We cannot support another increase.

First Name	Last Name	City	Comment
Jonathan	Duncan	PORTLAND	Deny this request. PGE management is overstaffed and overpaid. These are indeed tough times, as PGE testimony states, and the public should make PGE cut salaries, jobs, and projects. PGE should not be given an even bigger budget to keep expanding while other critical areas of local infrastructure (e.g., the roads, bridges, and transit system) remain degraded.
Brian	Moe	TIGARD	I'm writing in opposition of the Portland General electric rate increase proposal of 11%. The company is reporting almost a billions dollars in EBITDA. Earnings per share of $2.91. The stock has steadily grown in value. They are not investing in operational efficiency and expect rate payers to pay for it. While there are rising costs with inflation. The inflation rate has slowed. Any rate increase should be delayed and PGE needs to work to drive its costs down before forcing rate payers to take another double digit rate increase.
Patrick	Walsh	BEAVERTON	PLEASE do not approve an additional rate hike for consumers. People are already suffering financially and rates have gone up nearly 40% in the last three years. For once, please put the publics needs above corporate profits. People are suffering because of PGE's greed already. Enough is enough.
Colleen	Bolton	SALEM	I oppose the rate increase.
Koy	Saechin-Tzeo	FAIRVIEW	PGE continues to raise prices when inflation is at an all time high. They have raised their prices multiple time in the past couple years. It's getting ridiculous and is highway robbery!! No one can afford these multiple price increases. PGE should not be allowed to continually raise prices, it is unethical and unaffordable.
Luke	T	HAPPY VALLEY	Absolutely no more increases from PGE for the next 3 years. No green power, no service improvements, no anything is worth these historic, record increases. They need to learn to budget like everyone else. This is absolutely out of control and the commission needs to step in and do their jobs.
Mark	Wright	GRESHAM	This is way to high I can barely afford my mortgage payment please raise it 4% or lower! How can you just raise it this high
Anonymous	Anonymous	SALEM	I personally couldn't afford another rate increase. My bill was $450 this month and people will not be able to afford anything. I can't believe PUC would want that for consumers.
Tina	Gonzalez	GRESHAM	I oppose this rate increase from PGE. Electric is already very expensive which I can barely afford for my family. The greed needs to stop. We need more power companies to choose from. Please do not pass this increase!
Michelle	Williams	GRESHAM	Ridiculous, trying to feed myself and working and now that much of a rate hike? I work everyday and yet still can't afford anything extra so this would make it near impossible for me to live, they can find money somewhere else
Taylor	Hunt	GRESHAM	We can not afford to raise it that much we are all working so much we can barely afford to live .
Stephanie	Hoehna	CORBETT	Please do not increase our rates again. The increase the last couple of years has been ridiculous. My husband and I make decent money, but these increases are getting out of hand! I don't know how people who make less are even paying their bills with these increases.
Alisha	Duffield	GRESHAM	We all can barely afford electricity as it is! If more money is needed then the CEO should take a pay cut, not make the lower-middle class sacrifice food to pay for heat and lights.
Trisha	Williams	PORTLAND	The cost increase of an already expensive must have utility will cause hardships to so many families. The poverty level alone is high in Portland, single family homes, elderly, people on fixed incomes, and those who are already working multiple jobs just to cover their house payment. Families are being forced out of their house due to the expense of living. Electricity is NOT a luxury item, it's a part of living. You already increased our fees once this year, don't do it again. People are already struggling enough.
Ashley	Marquez	SALEM	Oregon families are already struggling with the rising costs of everything. Increasing power bills would be detrimental to each and every household. PGE needs to cut their budget instead of increasing cost for consumers.
Jessica	Addleman	TROUTDALE	We as customers cannot afford another rate adjustment. We already had a rate adjustment and this will hurt a number of families and our community.

First Name	Last Name	City	Comment
NA	NA	TROUTDALE	PGE requesting a further increase in rates, even after double digit rate increases YoY, is a simple attempt to drive rates further without any pushback. PGE understands people need power, but also decide to cut power off whenever they deem it "necessary"�or as a "precaution"�Instead of burying lines, they pay astronomical prices to maintain above ground lines. When wind picks up in East County, instead of being secure in lines below ground, they cut power so they don't start a fire. Money grab after money grab, if you ask me.
Terri	Clark	EAGLE CREEK	People cannot keep up as it is! You can't keep playing with all your science experiments and demand that everyone foots the bill. Stop it!
Austin	Fletcher	GRESHAM	With the raising cost of everything and the fact that PGE has a monopoly on Electric here in the Portland Area, this is unacceptable to raise the cost again.
Steven	Carney	SALEM	According to PGEs own financial statements for FY2023 they earned $2.923billion in revenue, leading to a net profit of $228 million dollars after increasing rates 17% already. Do they really need to increase their profit further? If PGE wants to earn 10% more they should look into cutting costs somewhere, like millions of Americans are being required to do across the country in the fight against inflation.
David	Lewin	PORTLAND	The cost increase to the consumer is unconscionable, especially in this failing economy. I take care of my family, property, and small business and my 82 year old father"¦ my commitments are full. As a life long resident of Oregon that has supported so many initiatives to keep this state running, I can no longer be silent on this incredibly burdensome cost increase. This is a hard NO for us.
Kathlene	Kelley	PORTLAND	I know, its beginning to sound like a broken record landing on deaf ears I'm afraid. I too am on a very fixed income. My rent is $1600 which is exactly what my SS is, each month. I also receive $500 monthly from a pension. PGE has given me a low income rate, however, the rate increases have more than eaten up any of those savings. Thankfully I'm hardly ever home so my costs are far less than they would be otherwise. I live in the very top of an old Victorian apartment house. Do you have any idea how hot it can be on a 65 degree day? Two years ago i spent $600 on a portable AC. As i realize i cant afford to use this unit, when i am home i use a couple fans & its still too hot to sleep. I worry about the stretches of time when i am home & using the electric. I worry at what point i will no longer be able to pay my rent & utilities on time. I'm 67. Ive been a PGE customer since i was 18. Ive always paid my bills on time. Ive lived in my apartment for two years & so far, fortunately with no rent increase, but for how much longer? Is this how people end up on the street? It scares me.
NA	NA	HILLSBORO	I don't support the rate increase, especially given the consecutive annual rate increases for the past few years. It's put some significant stress on our bills and I don't understand the rationale when I'm already paying so much.
Danielle	Gabriel	PORTLAND	Dear Members of the Public Utility Commission, I am writing to express my strong opposition to the proposed utility rate hike by Portland Gas and Electric (PGE). As a concerned resident of Portland, I find it deeply troubling that PGE is seeking yet another rate increase, particularly in light of the significant over 20% rate hike that was imposed in 2023. The impact of this previous increase has already strained the budgets of many households in our community, including mine. In the winter of 2024, my electric bill increased by over $100 a month. As a renter, I cannot simply "invest in better windows, or heating mechanisms." This forces families to make difficult decisions about their essential needs. Adding another rate hike on top of this would only exacerbate the financial burden on Portland residents, many of whom are still recovering from the economic challenges of the past few years. Additionally, it is important to consider the broader context of utility costs in Portland. The city's water bills are set to rise by 6.24% in 2024, further compounding the financial pressure on residents. With both gas, electric, and water utilities becoming more expensive, the cumulative impact on Portland households is simply too great to bear. I urge you to carefully consider the voices of the community and the real-world consequences of this proposed rate hike. The residents of Portland should not be asked to shoulder the financial burden of continuous rate increases, especially when many are already struggling to make ends meet. Thank you for your attention to this important matter.

First Name	Last Name	City	Comment
Marie	Pokorny	GRESHAM	Enough is enough. These rate hikes have got to stopped. Over 9,000 Oregonians had their power disconnected in Feb and Mar. Oregonians are having to decide if they can put food on the table, or pay their mortgage or rent, or pay their light bills. This hits Seniors on a fixed income the hardest. All the while the CEO Pope is making over $6.8 million a year. It's time for PGE to slash her pay and all of the other CEO's making $3 million. Until PGE decides to drastically cut the pay of these elitists I don't believe they are entitled to another rate hike, period.
Jean	Dalton	PORTLAND	I'm writing in response to the currently proposed rate increase for my electric service. I am retired and living on a fixed income. I, like so many across the country, have had to absorb more and more costs due to inflation that has yet to subside in any meaningful way. Most of my utilities have gone up significantly over the past few years. My property taxes increase every year. Now PGE is proposing yet another large increase in rates after the very recent increase that has increased my monthly bill by about $60. I'm adding my voice to the many, many of your customers who cannot continue to absorb constant large rate increases.Maybe ask your very generously compensated upper tier board members and managers to bear more of the brunt.
Katherine	Schatzel	PORTLAND	The cost to be alive is getting more expensive than the cost to die. Oregon residents do not have a choice who supplies their electricity, so PGE basically has a monopoly. Oregonians can barely afford rent without having at least one housemate, and then adding on utilities makes it even MORE difficult. Minimum wage in Oregon is $14.70. *If* an Oregonian is able to work forty hours or full time, that is approximately $2,500 per month gross. After taking out taxes and other regular deductions (but not health insurance because minimum wage employers don't usually provide those at a reasonable cost for employees), the Oregonian is left with $1,875 per month to live on. Average rent is $1,500, if said Oregonian does not find house mates, rent an apartment with someone, or rent a room from someone, leaving the Oregonian with $375 per month to buy food, pay for utilities, and attempt to enjoy their life. How is this sustainable at all? Unfortunately, PGE will turn off electricity to those who cannot pay, as is their right I guess. But it isn't fair to those who are barely scraping by. A lot of Oregonians are one emergency from being homeless. Car issue, medical issue, etc. Overall homelessness in Portland increased by 65% from 2015 to 2023 (from 1,887 to 6,297 individuals). https://www.portland.gov/wheeler/homelessness. Allowing PGE to increase the rate AGAIN would not be beneficial to Oregonians, or Oregon. Please do NOT allow the continued rate hike.
Randall	Butts	SILVERTON	The rate hike instuted this year nearly doubled our electric bill. As a result we became in danger of having it shut off, because it was just simply unaffordable. As we care for an elderly relative, this could have fatal consequences. Now faced with the potential of another rate hike, it could potentially put us on the brink of homelessness. If they need to invest more money in infrastructure, maybe they should consider using some of the $2.2 billion in profits they made last year.
Claudine	Harrington	SILVERTON	I am submitting comment on the proposed PGE rate hike. PGE was just granted a rate hike and now they are asking for more. We live on a very fixed income and between housing, food, water, trash, and insurance we will be underwater if this keeps up. My question would be is the goal to get retired folks to have to sell their homes? Because that's what it looks and feels like. Continuing to do this in a depressed economy that is probably headed to recession will further punish customers for things they would never have voted for. And since most of the elected officials in this state are not representing their constituents well and basically just voting the party line or what will make them look good politically it is very disheartening. We as consumers feel we have no say or control. My suggestion would be to start cutting the salaries of some of the upper management, especially that millions of dollar salary you're paying your CEO. The reality is that the public is on to you guys and we are angry!

First Name	Last Name	City	Comment
Tamara	Ostervoss	PORTLAND	I strongly oppose UE 435 that allows PGE to increase their rates another 10.9%. PGE were just allowed to increase their utility rates by 18% in 2024 and overall, their rates have increased over 40% since 2021. People cannot afford this. Demonstrating this very fact, PGE has had a record number of customer disconnections since those approved rate hikes. Approving these rates are pushing people further and further into poverty. Yes, they do offer low income programs but there are so many people who do not qualify for those services that are just barely making ends meet and increasing rates by 10.9% can push them over the edge. Please hold PGE fiscally responsible for their operations and oppose UE 435.
Jeanie	Krinsley	PORTLAND	I am strongly against the rate increase. The company should adopt CUB's proposal and put a cap on rate increase requests and the number the company is allowed to have. They should put commodities 1st. The increases are hurting so many people and causing so many people to not able to afford their basic necessities.
Jackie	Acres	BEAVERTON	My understanding is that energy rates have risen substantially since the pandemic. I feel it would be helpful to see a timeline for when these increases would stop or even decrease. In my experience, most times when rates are increased, they are not decreased at a later date, even if only because of inflation. If these energy rate increases are driven in part because of record summer heat, record wildfires or damage due to winter ice storms, then coupled with the high levels of disconnections, this will mean more consequences to public health.
Janel	Sigley	MILWAUKIE	I oppose the rate hike as the collective "we" have been maxed out on rate increases. PGE has even admitted people are being charged far beyond their means by widening the range at which they're eligible for rate assistance. The sad part is that many of us are stuck in the middle of the bracket and unable to partake, yet struggle with paying the bills. The powers that be need to go back to the drawing board on how they want to implement the costs associated with the "green" energy transition.
Jeremy	Menear	HILLSBORO	The continued increases from PGE are absurd. Power disconnects are increasing and people can not afford to live let alone a power company increasing rates at nearly 45% over the last 4 years. The shareholder report the PGE releases shows they have large amounts of profit, free cash flow to pay dividends and cash. This increase is not needed unless the sole goal is to offset 100% of the failure to invest in the grid historically to residential customers.
Brittany	Lazur	TIGARD	I am writing to express my strong opposition to the proposed increase in electricity rates. While I understand that operational costs and infrastructure improvements may necessitate adjustments, this increase will place an undue burden on consumers, many of whom are already struggling with rising costs of living. This is particularly important in the wake of record high rate increases in January 2024. Higher rates will disproportionately affect low- and middle-income households, potentially forcing them to make difficult choices between essential services and basic needs. Moreover, increasing rates without significant improvements in service reliability or transparency from the utility company is unjustified. I urge you to consider alternative solutions that do not adversely impact consumers. For example, exploring cost-saving measures within the utility's operations or seeking more innovative and equitable ways to manage expenses could provide a more balanced approach. Thank you for your attention to this matter.
Gabriel	Foley	PORTLAND	I am heavily against Portland General Electric's proposal to increase prices for 2025. Living in Portland is already expensive with extreme living costs and inflation affecting groceries and basic goods. Having a further increase after this last year's increase is too much. There has not been any change to their service this last year - in fact, in fact there were some customers who had more power outages this year than last before their initial price increase. Requesting another - bigger - increase is outrageous.
Heather	Finch	GRESHAM	Our families can not handle all of these intense rate increases
Liz	Marcione	CORBETT	This is toooo much of an increase and is unreasonable
Lorena	De Garay	GRESHAM	Our bill has increased about $32.50 per month, PGE requested another hike. It is unacceptable unaffordable and the city needs to do something to lower costs.

First Name	Last Name	City	Comment
Dave	Smith and	CORBETT	People in Oregon cannot possibly support this outrageous increase in their power bills. No one has had a wage increase even close to what you are increasing our energy bill. You have consistently eliminated alternate viable energy sources and now you want us to pay the price for these new passive power sources. We have even volunteered to use the peak time program with very little benefits. Now you want to increase our bill so that we can pay more to wash our clothes and cook after 9 pm. Shame on you! How the utility commission is authorizing this is beyond belief. We hope the people of Oregon will fight this to the end.
Charlotte	Clawson	CORBETT	Hello, I am a resident in Multnomah County who has noticed no matter how hard we try - our power bills keep going up. We are doing all the normal citizen sacrifices our parents recommended - keeping our thermostat set above 75 degrees, turning off lights when we aren't in the room, adding automated 'off' lights, swapping out with high efficiency bulbs. And no matter what we do as residents - our bill keeps climbing. It is now the same as almost two full weeks of groceries when the weather is good. When there are weather extremes though, and we do have power which is not always a guarantee, it's impossible to limit costs. Additionally, we have little faith in our actual service being consistent. We were impacted by a full week of outages this winter when temperatures held below zero with high winds, which was a life threatening emergency for many in my area. Even with a full week of being limited to generator power, our bill was still over $300. Power is so inconsistent now in my area that when the power goes out, we have multiple 'back up' options that are routine. We have no faith in our power infrastructure and the increased costs have not come with any service improvement. These 'routine increases' are becoming an extreme burden on normal Oregon families.
Carrie	Montez	GRESHAM	Enough is enough, your community cannot afford for basic utilities to continue to raise their prices. Look at the total PGE ALREADY increased in the last 18 months. It's appalling! Reject reject reject!
Samantha	Shinaver	GRESHAM	We can't afford anymore!
Macalah	Hartung	GRESHAM	Electric is already so high! A lot of families are single income households and struggling.
Courtney	Fisher	GRESHAM	I do not support another double digit rate increase for PGE. My rate increased nearly 20% this year and yet my power is out more than it ever has been before. We are a one low income household and cannot afford another big increase.
Kari	Schluntz	FAIRVIEW	I do not agree with the proposed increase for electricity next year. It's already extremely high as it is. I keep minimal items plugged in and use AC sparingly, turn off lights when not in the room and my bill last month was still $185. I don't think it should be increased this much. Please consider.
Rebecca	Simon	GRESHAM	People can't afford this, everything is going up. This increase can mean having gas to get to work for a week. Please do not allow this hike increase.
Cody	Ladd	GRESHAM	Another hike for what? We had to live without power for 3 days straight this last winter and never got anything for the lack of service.. This company doesn't deserve a single cent more until we get more sustainable power and no power bumps! Once you can properly supply us with power and show that you know how to handle this city, then you can talk about an increase. Which I will never support!
NA	NA	GRESHAM	Rates are too high as it is.
A	Fitch	GRESHAM	I'm not sure which docket, but I am oppose to raising PGE rates. Being taxed at hight rates at work then to pay ridiculously high electric bills is forcing me and others I know in to poverty
Steve	Mallinson	BEAVERTON	We're a family with a disabled person and only one wage earner. Adding 10% in one go will create a hardship. We oppose this action.
Jenee	Pasi	GRESHAM	Can barely afford it now, how can we afford if it goes up more???
Tony	B	SANDY	The power costs have gone up yoy and never goes down the costs are getting more expensive along with everything else food insurance rent gas there doesnt seem to be any fairness to these extremely high price hikes.

First Name	Last Name	City	Comment
J	S	BEAVERTON	I hope this is the docket for the proposed rate increase next year... As a single mother with no additional support from family I struggle to pay rent for a 2 bedroom apartment for my child and myself. I live paycheck to paycheck, but still make too much gross to qualify for energy bill assistance. My bill during the summer is around $160 to $170 which does not cool my home for my child and myself to be comfortable with the one portable ac unit we are using. Getting a second would be prohibitive. At the low end of the increase, 7.4% on PGE's website is at least a $10 increase, and at the higher end reported in articles it would be closer to $20. I am already nickled and dimed to death as food increase, my rent will increase next year, and we just had a PGE increase. How am I supposed to make ends meet and keep my home running? How do I make too much for help when rent takes 2 paychecks to pay it (from a job that requires me to maintain 2 professional licenses, and used to support a family on a single income, but doesn't anymore)? I struggle already, please don't allow me and those like me to struggle more.
Elizabeth	Crane	PORTLAND	Regarding UE 435 As a PGE customer, I strongly oppose yet another rate increase for PGE. I am retired and living on a fixed income. Multiple electricity rate increases stresses my ability to cover my utility bills, my health insurance, food, medications, etc. PGE already received a rate hike, and that is more than enough from our household. I urge the PUC to reject this rate increase request. Thank you.
Stephanie	Byxbe	GRESHAM	Oregon consumers are struggling to pay the last rate increase and simply cannot afford another one in 2025. If this rate increase is allowed, PGE's prices will have increased 53% in four years which is absurd and unacceptable. Please vote no and help middle-class Americans in this period of inflation and price-gouging.
Sage	Vinson	PORTLAND	I think it's absolutely despicable that you've already raised prices by 43% since 2021. There are too many low income individuals and families that already cannot afford their electric bill. With the heat we get during the summer and the cold during the winter, people die due to lack of climate control and it's going to get worse. And when KOIN asked about why it's necessary, all we got was a fluff answer. Promising we'll be getting upgrades and enhancements to services "eventually" is not good enough. Either find the money elsewhere, without raising our prices, or give us some actual, meaningful answers as to why you are increasing costs way beyond inflation.
kevin	white	PORTLAND	I oppose any further rate increase by PGE. Power rates have gone up over 40% in the last few years -a cost that has not been matched by an salary increase the general public may have received. Further, PGE has shown a strong profit over the last few years even after paying for the traditional costs of doing business. I asked the board to deny any rate increase on top of the increases already allowed.
Brent	Baker	PORTLAND	Why is there such an increase when every paycheck to paycheck earner is struggling the way it is ? The profit margin for the electrical utility providers is high enough.
Tony	Fernandes	HILLSBORO	I am very opposed to the newest PGE rate increase. PGE is a for-profit investor-owned energy company and it has a regional monopoly. PGE had a net income of $233 million in 2023. Yearly salaries of PGE administration: CEO Maria Pope $6.8 million VP John Kochavatr $1.4 million Senior VP James Ajello $2.1 million Senior VP Angelica Espinosa $1.4 million Senior VP Joe Trpik $3.2 million Executive VP Benjamin Felton $3.1 million Not only should the monthly rate increase be denied, but the rates should go down and the company prosecuted to the fullest extent of the law for denying its customers the right to pursue happiness. I cannot say how angry this makes me.
Kaitlin	Sword	TIGARD	Portland General Electric is attempting PGE is a for-profit investor-owned energy company and it has a regional monopoly. PGE had a net income of $233 million in 2023. This proposed increase is a horrible burden on households, especially on the heels of the most recent, unprecedented increase. PGE, needs to cut it's administrative overhead before gouging the budgets of populace yet again. Yearly salaries of PGE administration: CEO Maria Pope $6.8 million VP John Kochavatr $1.4 million Senior VP James Ajello $2.1 million Senior VP Angelica Espinosa $1.4 million Senior VP Joe Trpik $3.2 million Executive VP Benjamin Felton $3.1 million

First Name	Last Name	City	Comment
Leah	Shults	BEAVERTON	That PG&E is asking for another rate increase while it's CEO makes over $1million dollars a year (not including stock and other compensation), is reprehensible. Perhaps the upper admin should take a pay cut to offset their costs rather than pass it on to consumers.
J	R	SHERWOOD	Without increases this dramatic for how much we are paid, we can not afford an electricity bill that would be that high. We can barely afford it now and a lot of people struggle each month to make ends meet. The cost of living is too high. There needs to be a different solution than to increase customer costs so much.
Wryann	Vanriper	GRESHAM	The price adjustments are unethical and lack transparency in the reason of the high percentage increase.
NA	NA	MILWAUKIE	For the love of god, stop price gouging us. Have the PGE executives take a pay cut on their exorbitant salaries instead of extorting ordinary citizens just trying to get by if the corporation is that desperate for funds. This is ridiculous.
Brian	Whitacre	GRESHAM	I oppose raising PGE rates. We just got a rate increase this year. If the governments irresponsible green regulations are causing this the regulations need to be cut. Reliability is going down and price is going up. This is ridiculous! Do not raise rates!
Amanda	Kamm	PORTLAND	The cost of utilities increase threatens to make utilities a luxury that many can't afford. The increases over the last 3 years are already too much to bear without an additional 10% being proposed . It feels as though right now every big entity is trying to ensure they get their piece of the pie and those of us in the weakest position and least ability to pay are left with the bill and no recourse.
Quinn	Felly	CLACKAMAS	This is absolutely insane. 41% increase since 2021. You're outpacing inflation and people can't keep up. Oregon needs to stop things like this or people will begin to leave the state due to high costs of living.
Cynthia	Markum	GRESHAM	Please do not raise our rates yet again. If anyone should take a hit, lower the profits given to the CEO and stockholders, they have less to lose. To use a basic necessity to increase your profits for a business who doesn't operate intelligently is a terrible thing to do. This is outrageous to think those of us who must use your energy can take the hit for your problems. It is just plain wrong. Please reconsider this.

First Name	Last Name	City	Comment
Pia	Allabastro	PORTLAND	I am writing after hearing about another proposed rate hike by Portland General Electric. After an 18% rate hike that went into effect this year, I am outraged that PGE is proposing another nearly 11% hike in cost to the public. To begin with, rate hikes of these percentages are hugely disproportionate to the cost of living increases that some (but not nearly all) of us receive each year. Most people are lucky to see a 3% COLA from their employer. To increase PGE rates a total of nearly 30% over two years vastly outstrips any pay increases that an individual might be fortunate enough to receive. Is it little wonder that this past year has seen record numbers of households unable to pay their utilities month after month and then end up with this essential service shut off? To increase rates by another 11% will put so many more households in the dark, with fridges full of spoiled food (or no food as parents have to choose between groceries or electricity), and with people suffering through intolerable heatwaves without being able to cool their homes. I have to wonder why PGE is requesting these consecutive significant rate increases. Is it that the investors and upper executives need higher salaries and bonuses? Do the investors want bigger profits? Did PGE not manage it's resources appropriately or keep up with maintenance of facilities over the years? As a public utility with a monopoly on providing an essential resource, PGE should be beholden to the general public and not investors/shareholders looking to make a profit. Because PGE is the only utility company that I can choose from, I can't choose the one that provides the best service or is most cost effective or follows ethical practices that I value. I don't get to vote with my dollars on which utility to use. It's not a company that earns my loyalty nor a true public utility that is in place to serve the public. It is a private company that profits off of being given an monopoly over an essential public service. I don't have a choice of electric utility providers. I am at the mercy of PGE to insure that my home is light when it's dark out, that my oven works to bake meals for my children, and that my heatpump works to keep us both warm in the winter and cool during the summer heatwaves. I have no choice but to pay them or have my house go dark, among other things. As the Oregon Public Utility Commission, it is your responsibility that Portland General Electric functions as a public utility, serving the public and not the profiteers. I urge you to fulfill your role in keeping PGE in check, insuring that the citizens in Portland have reasonable access to this essential public resource, and that this one part of our governmental regulatory system continues to deserve the faith of Oregonians.
Cynthia	Enlow	ALBANY	Since PGE's rates have gone up 40% since 2021, with record disconnections---wouldn't it be logical to assume another 10% increase in charges would add MORE disconnections? Besides the point that other utilities (natural gas) AND the food costs have dramatically risen, making costs of living skyrocket. This is painful for people on fixed incomes and families with low income jobs. Figure out another way and don't just rubber stamp an approval request.
Leah	Thorp	SALEM	The proposed PGE rate increase is outlandish and will significantly affect many Oregonians. We do not have a choice in provider and therefore PGE is able to force us into paying ridiculous rates for a basic necessity. Please do not allow the 10.9 Iincrease to go forward.
Kylee	Nelson	PORTLAND	The last 2 years PGE has raised electricity costs to a level that has been detrimental to my health as a long covid and pots patient. I need more controlled temperatures in my home or I risk an ER visit. I can't work a traditional 9-5 due to long covid complications and the financial burden of our home falls solely on my partner. Our PGE bill is triple our other bills if not more already! We've had to put off paying rent because of our power bill, we've put off buying groceries, etc. I strongly believe that if this level of hike was proposed in other states, three years in a row, people would be rioting. I don't understand why this is okay to do to Oregonians facing a homelessness crisis, and I really don't understand the lack of understanding or shame with how this specific power company milked its customers during a global mass-disabling event. The PGE response to public outrage basically being "well its not set in stone yet, what are people so worried about" is not only condescending, it's misleading. They wrote up this proposal because they know the people have no control over their monopoly in the area and we legally have to pay whatever they want. Long story short if PGE keeps this obvious greed up people will leave Oregon because they have to. I guarantee it.

First Name	Last Name	City	Comment
Emilie	Junge	PORTLAND	I am disturbed and upset by PGE's request for a rate increase when they proved completely unresponsive during the ice storm. Our family suffered huge health problems after losing heat, water and electricity for almost a week, and PGE never responded nor had a coherent repair program. Despite desperate calls for help from our family and other with elderly people and infants, they never bothered, and despite claiming they had enough employees, were contracting with workers outside the state. We need an independent, competent investigation of their operating procedures and response to the ice storm before considering any rate hikes.
NA	NA	THE DALLES	Renewable energy is not working. Wind towers are expensive to maintain, and once they are not maintained well like Biglow Canyon in eastern Oregon, They are expensive to repair. Solar is even worse with the huge land leases that are required. Paying $600 an acre per year is not sustainable, especially when solar takes 20 times the land that it wind tower uses. Battery storage is an expensive proposition and lithium mining is proving to be finite and inhumane.
Colleen	Williams	PORTLAND	These rate hikes are ridiculous. Hiw about your shareholders take the hit and nit the rest of us???
Dane	Mills	PORTLAND	The proposed rate increase is highly inappropriate. In a time where the public is still recovering from record inflation, PGE wants to continue to try and squeeze as much blood from the stone to feed the interest of their shareholders. This would irreparably harm the public that relies on this service. A public utility company should not be able to harm it's customers for the benefit of it's shareholders, and the continued increase of profit.
Steven	Frazier	PORTLAND	Dear Commissioners Please consider retired folks on fixed income when asking for substantial rate increases. TWICE in a year is a bit excessive, wouldn't you say? I would, and so would my wallet. Let's stick with the one you've already been granted, and nix the new, DOUBLE digit request. Thanks for your thoughtful consideration of my request.
Rebecca	Ruppert	SALEM	People are making difficult choices between getting their medications, food and keeping utilities on. PGE'S actions are greedy. You can bet rate increases will not get power back on in the event of outrageous. Stop gouging people!
Elena	Bensheimer	PORTLAND	Please do not allow PGE to increase the electrical rate for 2025. I don't know which docker number the proposal is, but I read an article on OPB that talked about PGE proposing a rate increase of 10.9% in 2025. It is outrageous they have increased their rate 40% since 2021 (the article states) and that they still are trying to increase it more. My household is still able to pay our utility bills, but it is getting harder and at what point will we no longer be able to? I think a rate increase like this will put some people over their ability to pay their bill and contribute to more people losing a roof over their heads. Thank you for your consideration.
ernie	nazario	MILWAUKIE	It is wrong to ask consumers to pay higher rates to increase corporate profits for utilities.
Allison	Bail	PORTLAND	PGE requesting to make another rate hike at a time when inflation has hit the public hard, disconnection rates are sky high, and they had a huge amount of power outages this year is out of touch with reality and frankly immoral. They have raised their rates by large amounts over the past several years and yet they still have not made significant improvements to the grid to prevent outages. Yet their profits were $228 million last year with their CEO making an unreasonable compensation of nearly $7 million per year, of course only $1 million of that being salary because we definitely wouldn't want to see much of that going back to the community in the form of taxes. People are waking up to this and are tired of working their lives away to support such nonsense. Read the room.
Rita	Lance	SALEM	I am writing to oppose PGE's latest proposed rate hike. PGE's previous large rate hike has already put a strain on my budget. I'm retired, with only Social Security and a small pension as income. As you know, my annual Social Security increase doesn't even cover the increased cost of living, never mind the huge increases that PGE has already imposed and their current proposal. Please don't let another PGE rate hike occur. I'm sure I'm not alone in experiencing the hardship that their increases have caused.

First Name	Last Name	City	Comment
Stefanie	Harmon	MULTNOMAH	I oppose any further rate hikes on behalf of PGE. Utilities should be public entities and not for profit companies. PGE's rates have gone up more than 40% since 2021. Charge the companies using the highest electricity higher rates of there is a need for infrastructure improvement. Increases cannot continue to affect average tax paying citizens.
Lark	Ryan	PORTLAND	Please don't raise electricity rates! We just switched to a heat pump from gas. Rate hikes will slow homeowners' ability to fight climate change this way, and of course hurt renters.
Micheline	Ronningen	HAPPY VALLEY	It seems fair to say much of the higher energy costs are due to the company's liability issues. Do juries not recognize all these monetary awards are passed on to the customers? And still, the utility company needs to accept responsibility when due. Maybe do more to help people avoid furthering disastrous situations.
Nicole	Hironaka	SALEM	Please do not approve any more rate hikes from PGE. It feels like every entity is squeezing every dime we have from us to line their golden pockets. This has to stop and you have the power to say no. Please think of the public you serve.
Austin	F	PORTLAND	I support a cap on rate increases that would limit utilities to raising energy rates by no more than 10%, or 7% plus inflation, whichever is the lowest.
NA	NA	SALEM	Enough is enough. Consumers should not be made to foot the bill because a private company wishes to upgrade their infrastructure. It should come out of their profit margins. It is time to set concrete limits on the amount that necessary utilities can be increased on an annual basis. To the outside observer, it appears that PUC cares little for Oregonians and is in the pocket of these utility companies. The commission that reviews these rate increases also needs to be expanded, with at least one vote representing the interests of low- to moderate-income Oregonians.
Isobel	Charle	PORTLAND	Please don't increase the electricity rates so much!!! Why would you allow these historic increases? I understand everything is more expensive now, and these increases are not proportional.
DJ	NA	SALEM	18% in 2024 and another 10.9% in 2025 is outrageous. If this keeps up will go back to burning firewood and using electricity for only necessary needs. You people should be put out of business. Figure something else out before hitting the homeowners/renters with all of the inflation that is hitting in all areas as of the last 4 yrs. People are going to be protesting on this one. And hopefully it won't get out of hand
Denise	Moore	PORTLAND	I feel that PGE is just plain being greedy. They are a monopoly. They are a for profit company and there are no other choices to turn to. We are at their mercy. That is not right. To ask for a more than 10% increase in rates on top of the 18% that was raised back in January when just admitting they had record high disconnections, it just plain greed. Something needs to done. Why not take back some of the money paid to CEO. Let her pay for all the disconnections. The people of this city/state need help. If you think the homeless situation is bad now, it only will only get worse if this rate hike is allowed to happen.
Alain	Millar	PORTLAND	I am writing to request the PUC moderate/limit PGE's request for a 10.9% increase request. They received an 18% increase last year and more than 40% since 2021. "PGE is focused on keeping the cost of electricity as affordable as possible,"they say. How does that align with "the highest customer disconnections since it began reporting figures in 2018"according to OPB? PGE is asking their customers to pay for years of neglect to infrastructure and years of profit. In a world turning more and more to electrical power in order to mitigate the impact of fossil fuels, in a world dependent on the internet for more and more fundamental access to information, education, and business, in a world of increased income disparity these requests are obscene.
Alain	Millar	PORTLAND	I am writing to request the PUC moderate/limit PGE's request for a 10.9% increase request. They received an 18% increase last year and more than 40% since 2021. "PGE is focused on keeping the cost of electricity as affordable as possible,"they say. How does that align with "the highest customer disconnections since it began reporting figures in 2018"according to OPB? PGE is asking their customers to pay for years of neglect to infrastructure and years of profit. In a world turning more and more to electrical power in order to mitigate the impact of fossil fuels, in a world dependent on the internet for more and more fundamental access to information, education, and business, in a world of increased income disparity these requests are obscene.

First Name	Last Name	City	Comment
Ariana	Head	OREGON CITY	Our electric bill is already sky high. Sometime after January 2024 it became unaffordable. I am not able to pay a penny more per month. I oppose the rate increase fir 2025. I don't even trust the usage graph. We have exclusively wood heat for our home. We do not use electric heaters. However the winter bill isn't dramatically different from the summer bill! And we have 2-3 window air-conditioners running during the hottest weeks/months. I am requesting that PGE... finds ways to cut their own budget rather than putting more strain on mine. Thank you for your consideration.
Marianne	Swafford	SHERWOOD	I am not sure if I have the right docket number. I do not think PGE should raise their rates another 10%. The focus is on increasing profits for rich people who own shares not on serving the public. These rates make it too costly for people to operate necessary electric items such as heaters or air conditioners. Also, the state and federal governments say we should use electricity rather than gasoline (for cars) or natural gas (for heating) however they do not help people who cannot afford it. The forms to apply for financial assistance are not advertised to all or easily understood by people who need them
Natalia	Makarova	PORTLAND	Power should be affordable! Is it becoming gold suddenly? NO increase! Think about CEO salary first and how all the power outages were handled this winter before even increasing a cent.
MAGDALENA	MUCHLINSKI	PORTLAND	No amount of .58 peak time rebates makes up for 11% on top of already 40% inflated rates since 2021!!!
Lisa	Ha	MILWAUKIE	As a citizen and social services advocate in the great State of Oregon, I am very concerned about another electric utility rate increase. We are already seeing the impact of the last increase negatively affecting our community. People should not have to choose between paying their utilities or food, housing and medical care. Furthermore, essential services should not be dependent on profits and considering PGE is and investor-owned utility company I am concerned about those investor interests being considered over the customer base. This is yet another example of big money interests being considered over the needs of our citizens and I hope that our leaders in Salem will have enough compassion and bravery to stand against the further spread of corporatocracy tactics in our state.
Brandon	Zipser	AMITY	I am an Oregon resident and PGE is my provider. My family and I are completely opposed to any additional rate increases. PGE just received a massive rate increase. Oregon families and myself got hit with $50 to [illegible]0 plus increases to their bill after the last increase less than a year ago. Oregon families have been wiped out financially from massive inflation that far exceeds wage increases. Electricity is not a luxury for the rich, it's a basic necessity for families to survive. Approving this will only add to Oregons homeless crisis!
Wendy	Sahyoun	PORTLAND	What with food and housing increasing so much, another higher rate increase is too much. This winter I had to shut the electric heat off at the fuse box. Someone should really look into what kinds of profits these for-profit utility companies are getting. This has to be some kind of monopoly as there is no choice or competition in the utility company we have.
Neil	Williams	CORVALLIS	I strongly oppose the proposed PGE rate increase. PGE rates have soared in recent years, massively outpacing public income growth. How can further rate increases possibly be justified when so many in Oregon are facing homelessness because of the inability to afford housing? High utility bills strain consumers' ability to keep making rent payments as well as life's other necessities. Portland, in particular, is struggling to get to grips with its homelessness crisis and legislators are constantly talking about the need file more housing provision. Well, how about preventing people from being forced out onto the streets in the first place. I'm staggered at the corporate greed behind PGE's proposed rate hike. Large companies like PGE have the reserves and financial means to raise cash that private customers do not. Please do not side with PGE again over the citizens that Oregon's regulators should be looking out for.

First Name	Last Name	City	Comment
Laurie	Thurston	HAPPY VALLEY	These out of control rate hikes proposed by PGE need to be stopped. PGE has raised its rates more than 40% since 2021 and their proposed rate hike of an additional 7.4% has now jumped to 10.9% for 2025. In the meantime, this past May, more than 4,300 homes were disconnected from power due to the inability to cover costs. This is happening in the midst of a wave of inflation that has yet to fully subside in addition to changes in climate that are heating up our PNW summers and plummeting temperatures in the winter. Continuing to raise rates unchecked are going to put undue stress on many households in our community. While the need to update infrastructure is understandable and necessary, there must be a way to slow these rate hikes. More than 75,000 eligible customers have not enrolled in discount programs. Either find a way to communicate that benefit through local community agencies or take that fund and apply it toward the proposed hike to lower prices overall. The cost of housing in this community is beyond the reach of many and these continued rate hikes for access to electricity is only leading to further financial stress on some of the most vulnerable people in our community. Is that the sort of community we want? One in which thousands are unable to be safe and stay healthy in their homes? I'm a veteran teacher. I've learned to do more with less my entire career. You're smart. You can figure this out. Make the right decision and slow these hikes, help the people who need it and don't perpetuate the cycles of poverty for our most vulnerable. Thank you for doing what's right.
Connie	Hasan	HILLSBORO	PGE rates have increased already and this is why so many people are experiencing disconnections. We do not have the income to support the high cost of living plus high utility rates. I appose another increase.
Phil	Boyle	CANBY	Electric rates have gotten out of control. What ever happened to the limitation on rate increases related to the move to renewable energy sources? If I recall, there was a bill passed by a previous legislature that promised rates would not got up more than 3% (not sure of this number) due to renewables, and that the PUC had the authority to stop rate increases beyond this limit. The fact is that the cost of the switch to renewables has far exceeded this limitation, but PGE is simply identifying the cost as "sustainability"�or "resilience"�or other popular terms. For a change, let's reduce rates this time!
Joe	Pierce	GRESHAM	I'm part of the management team at a seniors-with-disabilities apartment complex in Gresham. During the ice storm in January 2024, the entire complex went without power for nearly a week. Will this rate increase keep that from happening again next year, or is it just to line PGEs pockets? I oppose this stupid plan.
Kimberly	Schneider	HAPPY VALLEY	Hello, I appose another power rate increase as PGE is proposing. We already are paying more than ever. We live in the Pacific NW with wonderful abundant resources for power creation, example of hydropower, etc. we have had almost a 33% power rate increase nationwide in the last few years. We are on a fixed income. We have been charged a a privileged tax! What is that? We've lived in our home for over 40 years paying our fair share of taxes, etc. what is a privilege tax for energy and why are we getting this tax??? That is insulting. We have worked hard to stay where we are living. Please stop another rate increase. Thank you
Nicole	Mercier	PORTLAND	NO NEW RATE INCREASES!!! We're all struggling to pay bills. PGE should be a public utility and I intend to pursue that idea which will be very popular given all the rate hikes. PGE has shut off power to thousands who cannot afford electricity. No rate increases, no CEO bonuses, we are going to make this a public utility because yall got greedy.
Danny	Myer	PORTLAND	Rates should already be high enough with recent increase. CEO of PGE earns millions of dollars a year. Rent and food costs are already too high, this is another nail in the coffin for poor people

First Name	Last Name	City	Comment
Paul	Fishman	PORTLAND	It is difficult to understand how the PUC can allow a utility company, PGE, to continue to raise rates by huge percentages. My understanding is that PGE rates have risen by 40% in the past few years. PGE profit for fiscal year 2023 was 9.21% (https://finance.yahoo.com/quote/POR/key-statistics/), a more than reasonable profit, which causes one to ask if the rate increases are meant to support and maybe increase this profit margin for shareholders. We purchased an older home in 2022 and spent considerable money removing an oil furnace and leaking underground oil tank, adding storm windows, and decommissioning fireplaces to install electric fire logs. We now have an all electric home that we consider more sustainable and less contributory to greenhouse gas emissions. Our reward has been high electric bills that the PUC apparently agrees to allow PGE to push even higher. We are a fixed-income retired couple fortunate to be able to pay our utility bill. We know that many people in our community have increasing difficulty paying these increasing bills. I owned a small consulting company for two decades, and there is no way my clients would have tolerated double-digit rate increases and a 40% increase in three years! It is beyond belief that a regulated utility company is allowed to do this. I appreciate the efforts by PGE to decarbonize and harden the electrical system; this is the right thing to do. The obvious contradiction, however, is that the process of addressing the climate crisis is made on the backs of utility customers in order to maintain corporate profits. There is something inherently wrong, and illogical, about this. I truly hope the Public Utilities Commission acts in the interest of the Public by reigning in corporate profits and instead, protecting ratepayers.
NA	NA	PORTLAND	Shame on PGE, I went almost a week without power with a 2 and 5 year old in my house. It got down to 40 degrees in my home and I could not get an accurate date when my power would return and yet I've had the highest bills in the 10years I've owned my home. And you think you are entitled to raise praises again?!
NA	NA	NA	Hello, I am writing to express my anger and frustration with the proposed PGE rate hikes. After their recent hikes in January of this year, it has placed an additional cost burden on me, and I have been having more difficulty paying my electric bill. If the rate hikes go through again, it will have risen 30% since 2022. I'm sure there are many other people like me, and we are frustrated that we are having our wallets cleaned out for a utility that is essential for life. Additionally, the rate hikes don't seem to be going to anything other than padding the CEO of PGE's wallet, as the CEO made $17,000,000 in 2023. It seems like the rate hikes go directly to her, instead of improving infrastructure, like the battery networks like they say it's meant for. Please think of the people who live around you, as excessive price increases hurt everyone. Thank you.
Jordan	Cox	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Like many, I understand the need for increases, but we've already seen rates jump again and again. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections. People cannot afford these increases. My family cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mrs. Jordan Rae Cox
Meagan	McCue	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Miss Meagan McCue

First Name	Last Name	City	Comment
Milla	Prince	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Milla Prince
NA	NA	NA	Since December 2022 PGE has greedily raised their prices by ~30% according to statistics. An additional 10% is absolutely mind blowing. They don't care about the people, they care about making money. This is unacceptable. There is no one here to protect customers. Regular Oregonians are SUFFERING under these prices! The way this corrupt company is allowed to gouge people is disgusting and insane and board members and our government should be ASHAMED of themselves.
Nina	Radford	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Nina Radford
Elizabeth	Pratt-Russum	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Elizabeth Pratt-Russum
Jose	Delacruz	NA	To Whom It May Concern, Did the share/stake holders make a profit in 2023? Will they make a profit in 2024? I'm confuse why rates keep going up. In 2024 over 17% increase. In 2025 PGE/PUC talking about a 10.9% increase. With all the increase how are we suppose to make it ends meat. Increase in electricity, food prices, health and car insurance it is ridiculous. Add 35-40% in taxes it's outrageous. How about government official/agencies start helping the people and not what can benefit them. We elect officials to hear our complaints and yet they go no where. The only time I hear what government agency or official can due is during election years. What happens after election years promises are not kept. Please look at the rates and reconsider the 10.9% increase in 2025. See if there is and way to decrease electricity a few percent so people can live with out so much stress. Thank you for your time. Regards, Jose Delacruz

First Name	Last Name	City	Comment
Raylin	Brennan	PORTLAND	Hi, PUC board members I am writing to you to covey my distress over PGE's proposed increase to their rates. As we know in this economy it's relatively unheard of for someone to make it on their own after graduation. This means many of our recent graduates are still living with their parents well after graduation because living on you're own is not very economically feasible. My personal testimony is that I a 2023 graduate and 19 year old was able to move out on my own. Which is relatively unheard of during these inflated times. In order to make ends meet, I work more than 40 hours a week at four dollars above minimum wage, for a company that doesn't treat their employees good. Despite the ammount I make above minimum wage and my hours, I don't make three times my rent. That rule is put in place by rental companies. Half of my monthly income goes into my rent. My electricity bill in addition is more expensive than my partner who pays less than $100.00 a month. What do I pay? I paid 132.10 for the month of July, the first month of my being moved in. I work swing shit so I am usually alseep up until I have to go to work and, when I get home from work I make myself dinner and watch a little TV. With the heatwaves I had been running an air conditioner most of the days, but on days where it was cool I kept it off. If that's the extent of power I use while I am awake and home, why am I paying 132.10? If PGE is allowed to raise their rates to potentially double what it is now I will not be able to afford to live. Why is it that big companies think it's ok to raise costs of living when minimum wage is not sustainable? Am I not allowed to be able to thrive? By letting big companies drive up their rates for no reason allows them to further bully those of us getting by further into poverty. I hope that my testimony sheds light into how the younger population are affected by increasing rates. Sincerely, Raylin Brennan Previous student advisor of SKPS School Board & Advisor on SB1552
Joan	Gaither	NA	We Must stop PGE Hi there, I want to express that people cannot afford much of anything these days. If you allow them to raise the PGE bill again there's going to be more people without power, homeless or just not eating. I feel like I can either pay my PGE bill or eat but not both!! Please help the people like me that can't afford it!! Thank you so much! Joan Gaither Sent from my iPhone
Andrew	Veitch	AURORA	The PGE price increases are not only unprecidented, they come after several years of double diget price increases. It's simply an unsustainable increase to a public that has had a declining economy for several years. GAS, FOOD, INSURANCE, HEALTHCARE, TAXES, INTEREST, MORE. People on fixed incomes simply can't afford these rates, especially when there are alternative energy sources that are cheaper. PGEs profits are up, while OUR spendibile incomes are significantly down. All while Salaries of PGE executives have never been higher! Our government has promoted eliminating every other source of power to save our environment. How about focusing on saving the PEOPLE! We can't afford your extravagance. If you don't voluntarily act, the people will raise their voices so loud you will have no choice. They will leave this state at a faster pace than they already are. PGE is reporting the average price increase is lower than what i am actually experiencing. They are so out of touch with reality, they think they can just bully the public into concession. A new day is comming & this issue hits every Oregonian in their wallets so hard that they will have to listen. And Their IMAGE, BRAND, IDENTITY, will be tarnished for a generation as PRICE GOUGERS NOT TO BE TRUSTED WITH THE POWER OF A MONOPOLY! Andrew Veitch Aurora Oregon
Byana	Nesbitt	MILWAUKIE	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Miss Bryana Nesbitt

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Joan	Gaither	NA	Hi there, I want to express that people cannot afford much of anything these days. If you allow them to raise the PGE bill again there's going to be more people without power, homeless or just not eating. I feel like I can either pay my PGE bill or eat but not both!! Please help the people like me that can't afford it!! Thank you so much! Joan Gaither Sent from my iPhone
NA	NA	NA	The rate increase that PGE is requesting will be a hardship to the majority of people affected. Since we have no choice but to use PGE for our power, it's difficult to believe that a 43% increase has been approved in the last two years. The PNW used to be known for affordable energy. No more!! Get Outlook for Android
NA	NA	NA	Absolutely opposed to any and all rate hikes. This is out of control. My monthly bill is more than $30 more expensive than this same time last year, even though I am using less power. And this is the "cheap" season for me! Northwest Natural bill went up, Portland water bill went up a ton, garbage went up, property taxes went up. WAGES ARE NOT GOING UP. I cannot afford any more bills. I am not considered "in poverty" (debatable) so I don't qualify for any assistance or rate adjustments. Yet I don't make enough money to pay for anything. THERE IS NO HELP AND NO RELIEF for the average middle class - I'm not lower middle class even - person in Portland metro. I can't afford to move. I work 40-50 hours a week and it's not enough. These giant corporations can take pay cuts. Start at the top. No rate increases until there are both pay cuts for anyone making more than $100k and NO BONUSES FOR ANYONE. This is basic needs living. This should not be a for profit situation. Do we need to invest in new infrastructure? Sure. Rate payers are capped out. 40% INCREASE IN LAST THREE YEARS ALREADY. WAGES ATE STAGNANT. Make huge organizational changes before tapping rate payers again. Signed: Furious 18 year Portland resident struggling to survive in a city/county/metro/state that has completely stopped caring about affordability and quality of life. Sent from my iPhone
Patrice	Snook	ESTACADA	You are literally crippling families and destroying small businesses already suffering from inflation. As a business owner for over 23 years who provides jobs in my small community, another price increase will potentially be the final nail in my coffin. Which also means my employees will lose their jobs and not be able to pay your already outrageous price increases. Learn to manage our money better PLEASE. PATRICE SNOOK owner of Snook's Pet Products and a Estacada resident
NA	NA	NA	Hello, I would like to comment on the PGE proposal. I feel that they should not be able to keep increasing our rates. It's been a huge impact the last few years with their increases. They offer help to low income, but what about single income middle class. The last few years prices on everything have increased more than any other time in my life. It's difficult to keep up with the price increases on everything. Groceries are outrageous, housing is unaffordable, fuel fluctuates to much and the last 3 years the price increases on everything has been ridiculous and unacceptable. It's getting impossible to live with these prices on a middle class income. PGE is a monopoly along with NW natural and I have been watching my bill almost double over the last 3 years. Being a monopoly with a resource that everyone NEEDS is a guaranteed cash flow for them while the rest of us struggle. The population is growing drastically which means even more cash for them. Their executives are all probably raking in high 6 figure incomes because they are stripping the rest of us off our low incomes. There needs to be more control over inflation and it needs to start with utilities because they are monopolies with no competition. If I could go to a different power company I would because I can't afford their prices. Oregon is one of the most expensive states and it makes me not even want to be a resident here anymore because I literally can't afford to live here.
NA	NA	NA	billyinpd@gmail.com<mailto:billyinpd@gmail.com>. Ok. Great. So now most of us have to live in the dark more as well as not using our A/C or heaters as much as we need to. You ask us to use less power so we do then you punish us because your profits aren't high enough. Why dont you lower the salaries of your top 11.9 CEOs and upper echelon board members by 11.9 percent instead ? Talk about unsustainable. Your greed and pandering to your selves cant last forever
Rabindranath	Tagore	SALEM	Do Not Raise Rates.

First Name	Last Name	City	Comment
Kendal	Wagner	ESTACADA	To Whom It May Concern, I am writing to express my strong opposition to the recent proposal to increase power rates. This steep and continuous rise in energy costs is both unnecessary and unsustainable for our community, particularly given the availability of hydroelectric power and the current state of our economy. Hydropower remains a significant and reliable energy source in our region, known for its cost-effectiveness and minimal environmental impact. The continued reliance on this resource should, in theory, help stabilize energy costs rather than contribute to sharp increases. The justification for these rate hikes appears to be increasingly disconnected from the actual costs of providing electricity, especially when considering the presence of such an abundant and affordable energy source. Moreover, our local economy is still recovering, and many families, including mine, are struggling to make ends meet. The proposed rate increase would place an additional and undue burden on households already facing rising costs of living. It is not only economically unjustifiable but also socially irresponsible to push for such substantial rate hikes in the current economic climate. I would also like to address a particularly troubling suggestion I received from PG&E when I questioned my recent bill. I was advised to lower my thermostat to 55 degrees Fahrenheit at night to reduce energy consumption. This recommendation is not only impractical but potentially harmful, especially for families with young children. As the parent of a newborn, I know firsthand that such low temperatures are not safe or suitable for infants, who are particularly vulnerable to cold. This advice shows a lack of understanding of the basic needs of your customers and underscores the disconnect between the company's policies and the realities of everyday life. In conclusion, I urge you to reconsider the proposed rate increase. It is imperative that you take into account the availability of cost-effective energy sources and the current economic challenges faced by your customers. I also recommend that you review and revise your energy-saving advice to ensure it is both practical and safe for all households. I look forward to your response and hope that you will take these concerns seriously. Sincerely, Kendal Wagner
Joshua	Jones	BEAVERTON	Another rate increase is unwarranted for PGE customers. The customers are holding all the risk, meanwhile PGE's shareholders are profiting. ROE was 7.5% in 2023 and averaged 7.9% over the past 5 years. For any for-profit company that's pretty good, but it comes at the cost of captive ratepayers. PGE's dividend growth has gone from $1.50 to $1.86 at the same time. This is a 24% increase while inflation has gone up ~20% and PGE rates have gone up ~30% already. I understand that increases are inevitable but the magnitude of them these past few years, and the disproportionate rise in profits signals that PGE puts profits before customers. As a regulated utility they cannot be allowed to continue to abuse their monopoly power.
Emma	Bouchet	ALOHA	I live with my 75 year old mother who with SSI and a pension makes about 20k per year. She would absolutely qualify for income assistance on her own. However due to being disabled and in a wheelchair requiring extensive care and daily help with ADL's I need to live with her. Unfortunately because most services include my income with hers (despite the fact she has no legal right to it) she's disqualified for PGE's income assistance program. We struggled paying all the bills before the last rate increase (which will cost us $408 a year) and now PGE wants to raise it MORE?!? PGE has not expanded access to their low income program, has not included any exceptions for people who are elderly or disabled, has not offered lower rates for people who have medical needs. Worse I can't even sign up with a different company like a cell carrier or cable. This is wrong and should not be approved without serious revisions including for elderly, disabled, and adjustments to what qualifies as "low income".
Dominik	Fogt	ESTACADA	PGE has raised rates excessively these past 4 years. My bill has more than doubled with the rate for electric kilowatt with a reduction of total monthly kilowatts used. If rates continue to rise, regulations should change to allow customers to disconnect from the grid and run on their own solar/wind power with battery backup. Alternatives to electricity should become a legal requirement should rates continue to rise.
Emily	Ray	TIGARD	Considering we have just paid an 18 percent increase, I find it wholley un-American to raise the rates of a necessary utility. Do not raise the rates. You are a utility service, not a private luxury and proposals like this not only show your greed but your absolute disdain for the American people. Your current profits can and will pay for infrastructure, not my hard earned low wages.

First Name	Last Name	City	Comment
Madison	Brunkhart	GRESHAM	Please do not approve PGE's request for a rate increase. They raised rates 6 months ago, and right after that, the ice storm took people's power out for days. We shouldn't have to pay more for worse service. A public utility isn't meant to be profitable or a money maker - PGE's goal should be to provide good service to those who have to pay for it. If I could switch to another power company I would, PGE is getting ridiculous.
Gina	Langley	PORTLAND	We can not afford this. A rate increase was already approved. You are forcing people to have their services turned off. This is an outrage! Do not approve!
NA	NA	MOLALLA	This is getting out of hand with the rare increases. They are a monopoly in many areas and the constant rare increases have lead to anything better. They say they offer help but that's to people already getting help from the system to that don't may much anyways. What about the people who make between $70k-$150k who just barely scrap by to begin with and now have cut back on what little extras they had to begin with. Unless you offer a 40% discount to people in that range. You say you need more because increases in cost of things like batteries for power. What good is batteries when lines are down and you can't get power to homes. Where we had power out for 3 weeks during the ice storm a few years ago and that was after there was no ice and you restored it to everyone else around us. Cutting pay and bonuses is a good way to start increasing your profits.
Sylvia	Machado	SALEM	Mail received 8-12-24; added to comments by Consumer Services staff 8-13-24 - dr Sylvia Machado 4514 Fir Dell Dr. SE, Salem, Oregon 97302 Phone: 971-301-0108 Email: Ladymachado@gmail.com August 8, 2024 Oregon Public Utility Commission Attn: Commissioners 20l High St SE, Suite I00 Salem, OR 97301 Dear Commissioners, I am writing to express my strong opposition to the proposed rate hike by Portland General Electric (PGE). As a resident of Oregon and a customer of PGE, I am deeply concerned about the potential impact of this increase on individuals and families across our community. The proposed rate hike comes at a particularly challenging time. Many Oregonians are still recovering from the economic repercussions of the COVID-19 pandemic. Unemployment rates remain higher than pre-pandemic levels, and the cost of living continues to rise. For many households, including those on fixed incomes such as retirees, any increase in utility rates can lead to significant financial strain. This rate hike could force some to choose between essential needs, such as food and medicine, and paying their energy bills. Furthermore, PGE's justification for the rate increase lacks transparency. It is crucial for the Oregon Public Utility Commission to demand a detailed and comprehensive explanation from PGE regarding the necessity of this hike. If the increase is intended to fund infrastructure improvements, renewable energy projects, or other long-term benefits for customers, these plans should be clearly communicated to the public. Transparency is essential to build trust and ensure that the rate hike is truly in the best interest of consumers. In addition, I urge the Commission to consider alternative solutions that do not place the financial burden solely on customers. PGE should explore other funding mechanisms, such as government grants or subsidies, and strive to optimize operational efficiencies to reduce costs. It is imperative that the Commission protect the most vulnerable members of our community by preventing an undue financial burden from being placed on them. The role of the Oregon Public Utility Commission is to regulate utility rates in a manner that balances the needs of both the utility companies and the consumers. I respectfully request that the Commission deny PGE's proposed rate hike and require the company to provide a more equitable and transparent plan that does not disproportionately impact Oregon's residents. Thank you for your consideration of my concerns. I trust that the Commission will act in the best interest of the public and ensure that utility rates remain fair and just. Sincerely, Sylvia Machado /s/ Sylvia

First Name	Last Name	City	Comment
Tanya	Raz	PORTLAND	Not only do homeowner taxes continuously increase in Portland to pay for city infrastructure, the PGE expenses is increasing substantially creating an even added burden in an economy heading towards recession due to inflation. Per the KOIN article posted a few days ago regarding the hikes, Drew Hanson (communications manager for PGE) provided several reasons for the increase, but none indicated building infrastructure toward a more sustainable energy grid. Continuously fixing antiquated above-ground electrical lines isn't fixing the issue where wind or ice brings down power lines, which is only going to get worse with climate change. Putting the lines in ground would be more costly up front but a much more dependable and safer energy source in the future preventing the need for as many crew to drive out to fix the lines, saving money in the long term and keeping homes heated during the winter. The cost increases make citizens pay for the poor infrastructure that PGE built, and bandaid fixes aren't the solution and not a good use of our money. Additionally, solar systems are a great alternative, but currently, homeowners are the ones who would incur all costs to purchase the solar system and on top of that, have to pay a monthly fee to PGE for them to manage the energy, and any access energy created at the end of the year, PGE can allocate it to their other programs, but instead should be crediting us for that energy that we have invested in. They don't have to pay anything towards solar panels, and essentially get funded by individual investments in a cleaner future. Solar panels only last about 15 years and homeowners would have to repurchase (along with a new roof) making it something that isn't cost-effective. There should be more incentives and partnerships with the government, energy companies, and homeowners to make solar panels more of a shared expense. Another area PGE can invest in is wind or river energy that is being done around the world, but I'm not seeing any indication that PGE or the government planning for a more sustainable and cleaner way to create energy. Until I see PGE move towards sustainable clean energy, we shouldn't have to pay for increases because of the need to increasingly fix the current failing energy grid they built in the first place. There needs to be accountability for poor decisions, the citizens shouldn't be the ones to pay for it!
Chris	Claeys	PORTLAND	I am writing to formally express my strong opposition to the recent utility rate hike of nearly 40% over the past three years. As a long-standing customer, I am deeply concerned about the substantial increase in my electricity bills and the broader implications for our community. The cumulative effect of this rate increase has been severe for many households, including mine. We are facing a significant financial burden that strains our budgets and impacts our ability to manage other essential expenses. While I understand the need for utility companies to cover operational costs and invest in infrastructure, the scale of this increase appears disproportionate and unsustainable for many customers. Additionally, I am troubled by the lack of clear, detailed communication regarding the justifications for these hikes. Transparency is crucial, and I would appreciate a thorough explanation of the factors driving these increases, including any investments in infrastructure or improvements that are directly benefiting customers. I urge you to reconsider the suggested recent rate hike of an additional 10%, which would increase rates of almost 50% over a 4 year period, and explore alternative approaches to managing costs. Implementing measures to enhance operational efficiency, seeking more gradual increases, and providing more detailed explanations would demonstrate a commitment to balancing your financial needs with the economic realities faced by your customers. Thank you for your attention to this matter. I hope for a prompt and equitable resolution that considers the interests of both the utility company and its customers.
Yolanda	Sanchez	FAIRVIEW	Lots of people are already living from paycheck to paycheck raising the rates would absolutely be detrimental to many families who are already struggling to keep up with bills.

First Name	Last Name	City	Comment
Dan	Ragland	NA	I would like to comment on PGE's wish for more rate increases in 2025. In 2024, my PGE equal pay bill went from $249.00 per month to $283.00 per month - a difference of $34.00 per month. If it goes up another 7.3%, my monthly PGE bill will be $303.66. Please bear in mind that my income is not increasing by near that much. Neither is anyone else's that I know of. I have read that PGE wants a Return On Equity of 9.7%. Well, I have a fixed Teamster pension which doesn't change at all from year to year, and Social Security doesn't give out cost of living raises even close to what PGE is asking for in 2025 let alone what they already got in 2024. Please bear this in mind when you are considering PGE's wants and wishes for rate increases. PGE, as a corporation, can learn to live within a budget the same as their individual real life customers have to. Thank You, Dan Ragland
Carol	Wagner	ALBANY	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. STOP BEING SO DAMN GREEDY!! Please do not approve PGE's rate increase request. Sincerely, Ms. Carol Wagner
Rosalie	McDougall	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers, especially lower income people and families who may not have the same time and energy to understand what is coming, and to protest. This raise is ridiculous and harmful. Please do not approve PGE's rate increase request. Sincerely, Ms. Rosalie McDougall
Sandra	Joos	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Dr. Sandra Joos
Kathy	Grant	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). I am very much opposed to this rate hike. As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Myself and thousands other of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. How much more do you need to provide this basic service? The seems like gouging! People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Dr. Kathy Grant

First Name	Last Name	City	Comment
Debra	Friese	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Debra Friese
Margaret	Carlson	CORVALLIS	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms Margaret Carlson
Sharon	Burge	SALEM	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Sharon Burge
Debra	Rehn	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Debra Rehn
Samuel	Berg	NEWBERG	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr Samuel Berg

First Name	Last Name	City	Comment
Eugene	Dight	PORTLAND	Dear Public Utility Commission, I am writing to express concern regarding the proposed energy rate increases in Oregon, particularly considering the current financial challenges faced by many of the state's residents. The economic landscape is characterized by persistent inflation, shrinkflation, and market volatility, all of which are placing significant financial pressures on Oregonians. Approving an energy rate increase at this time could further exacerbate these challenges. Portland General Electric (PGE), Oregon's largest utility provider, has reported steady revenue growth over the past 15 years. As of 2023, PGE generated $2.92 billion in revenue, continuing a trend of increasing profits year after year. Specifically, PGE's revenue has grown substantially over the past decade, reflecting a strong financial position. Despite this growth, PGE was granted an 18% rate increase in 2024, and since 2021, rates have increased by 40%, a substantial rise within a relatively short period. These increases raise questions about whether additional rate hikes are necessary, especially when the company is already financially robust. Given PGE's consistent revenue growth, it appears that the company could potentially absorb some infrastructure costs without passing them on to consumers, particularly during a time of economic strain for many households. Additionally, the broader political context is worth considering. The upcoming presidential election could lead to changes in federal policy that may impact the economic outlook and energy sector. Furthermore, Multnomah County is expanding its local government by adding eight new council positions, a significant structural change. These political developments could introduce uncertainties that might affect the economic environment in the near future. Therefore, it may be prudent to delay any decision on rate increases until there is more clarity on these fronts. Moreover, large-scale energy-consuming projects, such as Google's planned $600 million data center in Wasco County, will place additional demands on the state's energy infrastructure. These projects, which require substantial electricity and water resources, could contribute more toward infrastructure improvements rather than placing the burden on individual consumers. It would be equitable to require such developments to bear a larger share of the costs associated with enhancing the existing infrastructure. Many Oregonians are already experiencing financial difficulties as prices for essential goods and services continue to rise. According to recent data, inflation has significantly reduced purchasing power, and shrinkflation"”where products decrease in size or quantity while prices remain stable or increase"”has further strained household budgets. A rate increase for electricity would disproportionately impact low- and middle-income households, who are least able to absorb additional financial burdens. Given these considerations, I urge the Public Utility Commission to reject the proposed rate increase. It is crucial to consider the broader economic context and the well-being of Oregon's residents, who are already contending with numerous financial challenges. Approving higher energy rates at this time could deepen the economic hardship for many families across the state. Maintaining current energy rates would help ensure that essential utilities remain affordable for all residents. Thank you for considering these concerns, and I hope the Commission will act in the best interest of protecting Oregon's citizens from further financial strain. Sincerely, Eugene Dight
Melissa	Dixon	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Melissa Dixon

First Name	Last Name	City	Comment
Bill	Parks	NA	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). I have done about as much as I can to reduce my electrical load. From energy saving appliances to new insulation, new double pane windows and signing up for PGE engery from solar farms. Yet each month my statement shows my monthly usage has gone down and my usage compared to last year is down but my bill is one of the highest I ever had! As a retiree pinching pennies I have spent a lot and done my share to help but cant continue to keep paying higher rates. It has to stop. So, as a PGE customer, I too strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Bill Parks Please do not approve PGE's rate increase request. Sincerely, Mr. Bill Parks
Judith	Homboe	LAKE OSWEGO	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections. In a time when cities and counties are searching for ways to decrease homelessness how can such a large increase in electric bills be considered? People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect all customers in the Tri county area. Please do not approve PGE's rate increase request. Sincerely, Ms. Judith Holmboe
Dana	Weintraub	BEAVERTON	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Dana Weintraub
Patricia	Jacobson	WILSONVILLE	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. We live on a fixed income & these increases are going to price us out of critical things we may need to live. The more these increases & the more devastating for all of us. We are counting on you to disapprove this next request for another rate increases. Thank you & please help us. Sincerely, Patricia Jacobson Please do not approve PGE's rate increase request. Sincerely, Ms Patricia Jacobson
Tom	Civiletti	OAK GROVE	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Tom Civiletti

First Name	Last Name	City	Comment
Elizabeth	Medley	SANDY	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Elizabeth Medley
Phil	Goldsmith	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Phil Goldsmith
Jonnie	Shobaki	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Jonnie Shobaki
Jeanine	Yows	SALEM	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms Jeanine Yows
Brent	Rocks	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections A lot of us feel that the price hike is to enrich shareholders and for stock buybacks with our money People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Brent Rocks
Ann	Watters	SALEM	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, ms Ann Watters

First Name	Last Name	City	Comment
Michael	Doyle	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Michael Doyle
Sohie	NA	NA	Please see my comment below: Please do not allow another rate increase for PGE following their recent rate increase in January 2024, which is already creating a challenge for low-income customers. We all have to use electricity, and PGE should be managing their funds responsibly as opposed to PGE punishing customers for their increased expenses in order to prioritize the profits to their shareholders. With increasing temperatures, running AC units can be life or death for some people; these rent increases will force low-income customers to stop using life-saving electricity. This is abominable and should not be allowed. Is there a way we can switch to a public utility that would not make dangerous, selfish, and irresponsible decisions? Thank you for your time, Sophie
John	Nettleton	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). This increase, along with a scheduled max rent increase next year will put me on the brink of homelessness. My rent plus electric at this time is about 50% of my Social Security and it is doubtful if I will receive a comparable increase in my income. As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. John Nettleton
Melissa	Hathaway	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. It seems like PGE has raised rates just to sue for the right to raise rates more. Enough is enough! Please do not approve PGE's rate increase request. Sincerely, Ms. Melissa Hathaway
Judy	Piercy	ALBANY	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Judy Piercy

First Name	Last Name	City	Comment
M Gaynell	Schneck	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). Let me begin by saying i am a senior and as most seniors we are not getting pay raises or bonuses each year. As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections PGE's continued increases are unconscionable. They are only making profits for shareholders while giving nothing but misery to ratepayers. People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, M Gaynell Schenck
Paul	Wooley	BEAVERTON	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections. The proposed increases are considerably more than the inflation rate, and the cost of food has risen sharply constraining my ability to take further rate increases at this time. People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Paul Wooley. Please do not approve PGE's rate increase request. Sincerely, Mr Paul Wooley
Billy	Wilson	WOODBURN	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Occasionally, there is monopolistic behavior by companies, but this is relatively rare and usually only possible if those companies have gained control of their industry regulator. Again, a government, not private sector, problem. Is that what's going on here? PGE is reporting record breaking profits month after month. Still the rate increases continue. Are legislators involved in this? Please do not approve PGE's rate increase request. Sincerely, Mr. Billy Wilson
Phyllis	Oster	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer on a fixed income, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections. People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve this increase. Phyllis Oster PGE Customer Please do not approve PGE's rate increase request. Sincerely, MS Phyllis Oster
Lou	Emerson	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Sincerely, Mary Lou Please do not approve PGE's rate increase request. Sincerely, Ms. Mary Lou Emerson

First Name	Last Name	City	Comment
Nicole	Kosina	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms Nicole Kosina
Jamie	Shields	RAINER	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mrs. Jamie Shields
Jeff	Keuhl	GRESHAM	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr Jeff Kuehl
Kristy	Giles	CLACKAMAS	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Kristy Giles
Carolyn	Eckel	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Personally, I'm afraid that the continued increases in electricity costs will mean more people will be forced into homelessness due to not being able to pay their utility bills. Or, people will have to forgo adequate heat in the winter or adequate cooling in the summer heat domes. These things will adversely affect people's health. Please do not approve PGE's rate increase request. Sincerely, Ms. Carolyn Eckel

First Name	Last Name	City	Comment
David	Kay	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. My bill has gone up by about 30% my Fixed income by about 3%, you and water and gas plus taxes are going to have us homeless. PGE is a for profit entity, you made billions in the last few years it's high time you absorb the cost of doing business in Oregon. Please do not approve PGE's rate increase request. Sincerely, Mr David Kay
Jan	Standlea	LAKE OSWEGO	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Jan Standlea
Joe	Hovey	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Joe Hovey
Matthew	Gray	CORVALLIS	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Matthew Gray
Susan	Hebert	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Susan Hebert

First Name	Last Name	City	Comment
Lauren	Burnett	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer and believer that we must protect consumers, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Lauren Burnett
Evan	Goldenrod	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Evan Goldenrod
Jon	Agee	WILSONVILLE	Me and my family cannot afford another rate hike. What had been a consistent $70/month PGE bill is now $99/month average, except for summer months where despite using power saving strategies and participating in peak energy rebate and a thermostat set to 78F on days 100F+, we pay $175/month. That's the impact of 18% hike, now another 7-10% based on inflation. These increases outpace the growth of my wages, capped at 2% for inflation, which is t adequate. I don't have more to pay. I will explore the discount program for low income but am offended at that prospect while working two jobs. I am begging you to reconsider. PGE neglected infrastructure maint for DECADES and have not been strategic with power sourcing/purchasing. Their repeated, record setting requests and returning to what they view as a bottomless well of ratepayer funds is offensive to me. Jon Agee wilsonville, or In reply to proposed PGE rate hike
Kylie	Hyde	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January-myself included. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. PGE continues to prioritize shareholders over individuals who count on these services and they need to know they cannot continue to put the financial burden on consumers. Please do not approve PGE's rate increase request. Sincerely, Ms Kylie Hyde
Leanne	Palmer	PORTLAND	I am writing to oppose yet another PGE rate increase after last year's 18% and this year's 7.4% increases. Let's demand their CEO take a 20% pay cut first. Better yet, I want our utilities to be public utilities.. Enough. Leanne Palmer Portland, 97221
Nic	Petersen	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Nic Petersen

First Name	Last Name	City	Comment
Alena	Wilson	ALOHA	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). My family is on a fixed income, PLEASE DON'T RAISE RATES!!!!!!!! It will take food off our dinner table. As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Miss Alena Wilson
Jamie	TRUE	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Jamie True
Prescott	NA	HILLSBORO	Hello: I am against the rate hike if the POR dividend continues to grow without increased reliability... As a consumer of the electricity of PGE I have to say their recent outage in Hillsboro almost killed me because my fan was out during a very hot spell of weather... As a holder of POR, I do not want any liabilities arising from the aforementioned or any such other irresponsibilities. As a stakeholder and stockholder - I have to hard pass on the rate increase unless it increases reliability of the service solely... Best, Prescott
Erin	Walker	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Erin Walker
NA	NA	NA	Please do NOT allow PGE to raise rates again. We can't afford it!
Stephanie	Soquet	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Stephanie Soquet
Daniel	Garduno-Rosas	MILWAUKIE	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Daniel Garduno-Rosas

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Frances	Rally	NA	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Frances Rally
Ruby	Tidd	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Ruby Tidd
Eric	Conner	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Dr. eric conner
Isabelle	Langley	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Miss Isabelle Langley
Decoteau	Wilkerson	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Decoteau Wilkerson
Chase	Savage	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Chase Savage

First Name	Last Name	City	Comment
NA	NA	NA	The cost of every single thing required to survive has risen significantly in only a couple of years. It is absurd. Salaries have stagnated or fallen. What little money we are able to get working our assess off has less and less purchasing power every single day. More and more people are being pushed down into poverty and homelessness. People who live in Portland have no choice but to rely on PGE for electricity. PGE household bills have already increased by 30% since December 2022. They want to raise prices even more!? I am already (and have always been) using as little electricity as possible. What are my options t0 lower my bill, which has skyrocketed? Suffer heat stroke in the summer by turning off my pathetic a/c window unit that keeps my small apartment barely cooled down below 80 degrees? While battery storage is the talking point PGE uses, the case is much more of a wish list by management: * Higher profit margins * Making it easier to raise prices every winter * Shifting financial risk to customers Stop making everyday people carry even more of the burden of cost than they already are struggling under.
Meghan	Bell	BEAVERTON	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx Meghan Bell
Carly	Ripke-Thorne	BEAVERTON	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Carly Ripke-Thorne
Makari	Andreottie	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Makari andreotti
NA	NA	NA	Criminal in all definitions of the word. These price hikes are outrageous and unnecessary. While you line your pocket books, we'll be lining our walls with ice and fire in order to protest it. PGE is the only option until they're not. Reclassify as a public utility and do something right for the oregon people. Greed is an addiction and if you can't cure it, then matters can be taken into the publics hands. - A Furious Customer
Sean	W	NA	Dear PUC, We have had enough with the skyrocketing rates from PGE. If this additional increase is sent through, we will be suffering with an over 30% inflation on our power bills since 2022. This has caused I, a lifelong Oregonian, along with many other Oregonians I know around me to have an increased anxiety about being able to pay their bills. Before this jump, I had never paid a power bill over $100 with PGE. That changed incredibly quickly both with the rate hike and the very cold snowstorm that had come in. Please, by all means, do not accept this rate change. PGE has enough money to produce the battery project on their own, and this would only lead to their CEO receiving even higher profit margins. It will only lead to further alienation of the Oregonians they serve in a world where many of us cannot afford to live every day. Best, Sean W.

First Name	Last Name	City	Comment
Nancy	Guidry	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Nancy Guidry
Colleen	Nielsen	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please, I am working three jobs to make up for some rough years and to keep up with rising costs of living. Enough is enough. Please do not approve PGE's rate increase request. Sincerely, Mrs Colleen Nielsen 4
Amber	Beaugrand	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mrs. Amber Beaugrand
Io	Boerke	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mx. Io Boerke
Tau	Rodondi	TUALATIN	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Miss Tau Rodondi
Riley	Vankirk	PORTLAND	I am emailing to note my vehement disapproval of PGE's attempt to further raise prices. The electric bill in the Portland greater metro area is already incredibly high. I moved here 6 months ago and am very disappointed to find that PGE takes advantage of their monopoly over power to line their pockets. This money is being taken straight from the working class, and with bills in all facets of living being raised, its getting increasingly harder to live. PGE must not get approval to raise their rates, else many people will sink further into poverty and have to leave the Portland greater metro area. Thank you, Riley Vankirk

First Name	Last Name	City	Comment
Arlene	Flynn	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Arlene Flynn
NA	NA	NA	If the CEO hadn't made $2 billion last year maybe they could have paid the Camp Fire Suviors ALL THE MONEY THAT IS OWED NOT 6% that the last checks where for with a note saying we don't know if or when they'll send another check will be and the rates wouldn't happened either. We are ALL going without but not PG&E
Sarah	Gregory	NA	To whom it may concern: Despite an 18% rate increase in January, skyrocketing bills, and heavy outcry from customers, PGE is asking for an additional rate increase of 10.6%. PGE bills have increased by 30% since December 2022. PGE is making this request under the guise of needing more funds for battery storage when only $17 million is spent on this use. I believe that this is just a talking point and their true aim is higher profit margins and shifting risks to hardworking Oregonians like me. PGE is operating as a monopoly and creating a system that is in no way meant to serve or protect customers. I urge the Public Utility Commission to deny their request for another rate increase. Sincerely, Sarah Grace Gregory
NA	NA	NA	People already pay a lot for electricity the only reason p.g.e wants to keep increasing rates is profit, nothing else. People are already struggling to pay rent, groceries, gas and other necessary things the last thing they need is to not to be able to cool or heat their house or use electricity period. The rate is for profit only and im sure the owners of PGE already have more money than most people. Its about all these large companies not caring about their customers but only care about the mighty dollar.
NA	NA	NA	The new proposed increase to energy usage is unacceptable. An additional 10% when we're already up 40% in just a couple of years is untenable. I already have trouble paying my bills and this is just too much. I strongly hope this will be reconsidered as most working families cannot afford price gouging like this.
Emily	Dalsfoist	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mrs Emily Dalsfoist
NA	NA	NA	PGE (Portland General Electric) in Oregon, they SOUND like they're inflating prices, oil stock just dropped, we're in a mode of recession, they keep changing their answer as to why they're charging people increased bills and they keep changing the amount they are charging. From: Colin McCarthy <colin98mcc@gmail.com<mailto:colin98mcc@gmail.com>> Sent: Saturday, You cant upgrade team and management by increasing utility costs, you are super red flag. Even considering insurance and extreme weather.
Tim	ODell	HILLSBORO	It is not Oregonian's responsibility to make a power company more profitable. Grid increases should be handled as they always have, by the BUILDER paying for extensions into a new community. PGE is fleecing the public as a normal business tactic, and the rate increases only show fiscal IRRESPONSIBLITY.
Matthew	Gochenour	GRESHAM	Do not let them raise our rates again. If they are struggling, they should not be looking at the poorest Oregonians to help pay their bills. Either tax the rich or force them to address any inflated salaries in their executive positions. Stop taxing the poor.

First Name	Last Name	City	Comment
Cathie	Cates	GRESHAM	I can't pay it for a new money. I can barely pay mine. I helped my neigher pay for her. She is 84 and doen't have any money to go a new rate. What with grocery goiny up we can barely eat. where will be go???????????
NA	NA	HAPPY VALLEY	Please consider if PGE is making internal cost saving measures before they ask for a rate increase. Our power has gone out several times in the last 4 years and we live in am area with underground conduit. Nearby property owners have trees growing into transmission lines and these only get maintained when there is an outage. Please consider directing PGE to increase rates to customers who do not choose to maintain required vegetation clearances and then drive up costs for everyone when there are failures. PGE should also look at ways to reduce energy rates for all users (not just time-of-day-users) in the late evening and overnight when there is likely excess capacity. Currently, the time of day program is not very conducive to users who don't have large power uses overnight (EVs, pool heaters etc).
Beau	Svendsen	NEWBERG	Your proposed rate increase is just to pay for extremist policies. Electric car charging support, and inefficient alternative energy meathods. Get a nuclear reactor so we can keep our poor and families with electricity. Your actions are despicable, and you are using your monopoly as a weapon against the people of this state. I for example, decreased my energy use to be a good citizen, and get punished. Disgusting.
NA	NA	PORTLAND	Just last year, PGE increased rates by 18%, the highest increase in 20 years. Industrial consumers had a lower rate increase than commercial consumers, even though their consumption rate is generally higher than private and commercial use. PGE has also had a record number of disconnections due to lack of payment. How is it just and fair to the local economy to have an 18% increase last year and then increase rates again at the highest percentage the following year? Let us not forget that the largest increase is it to private and commercial use (14.4%) while industrial use is at a lower rate (12.5%). I smell corruption brewing and a lawsuit on the horizon. I am a single parent, and what's ironic is working a full time job exceeds the income-based discount. I would need to quit my job or have 4-6 children in order to qualify for the discount. Let's get real PGE, its 2024, we are in a climate crisis and at the expense of the local economy, we pay for your facilities and improvements and industrial energy use. Do better.
Antreo	Pukay	PORTLAND	It is outrageous that PG&E has just recently increased their charges but now they say they want to increase it again by another 10%, within the same year. They have previously said it is to improve the grid to prevent power outages however over the last few months I have had more power outages than I have over periods of a few years even. We are paying more for a worse product and it appears they are gas lighting us into believing that they are improving their service. If the number of outages are increasing, they should certainly be prohibited from increasing rates when they are promising less outages and better service as their reasoning for these increases. They should also be banned from increasing rates multiple times within the same year. We have no other power company to choose from so this is a monopoly and as such our government should be putting guard rails on them and holding them accountable so they cannot just raise our costs willy nilly without following through on their promises they are making. They are also doing this in the middle of a time when our economy is rebounding and many people are still struggling. Please help stop these ridiculous rate hikes. I feel gas lit and ripped off.
Jesus	Gonzalez	HILLSBORO	The price increase on utilities is hurting the community, with cost of living up ￼paired with this increase it would make it impossible to afford to live for low income households. We wonder why the homeless issue increases in Portland and surrounding areas and this is one major reason. PGE has not even upgraded their infrastructure which causes power outages during critical times in the summer heat or winter cold. I ask the commission to deny this cost increase.
Debra	Lazzaretti	LAKE OSWEGO	The next increase requested by PGE should be held off for at least a year. This is too much increase to ask of citizens in such a short time and in the present inflation heavy economy.

First Name	Last Name	City	Comment
Jon	Parker	MILWAUKIE	Is this being seriously considered? Thought inflation was around "8%" at its highest? Shameful that we have a for-profit company that controls this utility. We can do better for our citizens in OR. Please do not allow for another increase, instead can we review the real books of this organization to ensure proper accounting and funds available for this vital infrastructure?
Eric	Hanson	SALEM	Portland general electric has a monopoly on power in my area and they have had too many rate increases in the last couple years. My bill has more than doubled since my first connection nearly 5 years ago. This is unsustainable rate increases. I really hope the commission can institute reasonable rate increases for these public utilities, or allow competition with more than one power provider.
Brandon	Buell	PORTLAND	PGE is robbing this state blind. If given the rate hike they are requesting PGE will have hiked prices by 50% in just a few years. They claim this is needed to repair thier grid and make upgrades. I have a simple question; why are they only doing this now? I, and the rest of their customers, have been paying this utility for decades. They have been profitable for decades. So where did those profits go? What was I paying for all those years? It seems to me.thst PGE has gotten used to a certain budget surplus and that when this is threatened they would rather hurt those they are supposed to serve instead of take a cut in thier own profits. You have a responsibility to reign in this offensive spending and obsession with profit over people.
Patrick	Rice	PORTLAND	I'm am begging the review board to not allow PGE to raise their rates any further. It's already an astronomic struggle to afford to live in Portland and this but be yet another nail in the coffin. We as customers of PGE should not have to pay for their past mistakes.
Kle	Po	PORTLAND	I opposed the 10.9% increase!! It's not looking good for the middle and low income families!!!
B	B	SHERWOOD	Before approving another massive price increase that will affect millions of Oregonians, I think PUC and PGE need to look to cut costs dramatically, specifically in the area of compensation for PGE employees and the cutting of superfluous positions. I have reviewed numerous job postings for PGE positions, and the compensation seems incredibly high, and there appears to be a lot of positions that don't directly contribute to what should be PGE's main mission; supplying affordable, reliable energy.
Ali	W	SALEM	I oppose the PGE rate increase of 10.9%. This is absolutely ridiculous. PGE has raised rates 40% since 2021. Inflation is high enough and people can't afford to live AS IS. There is no way we can keep affording these utility costs when they go up and we have no other choice. Call it what you want but there is no justifiable reason to keep raising rates. Infrastructure and wildfires are not a good reason for the people to have to pay these astronomical prices.
NA	NA	HILLSBORO	Pge does not spend enough money on tree services and the way they bill is a scam almost 50 percent of my bill is regulatory charges the other is usage i think pge has plenty of money to get the job done
Graeme	Byrd	PORTLAND	Two crazy high rate cutes two years in a row? I think PGE needs to improve service during extreme weather conditions and show they can be successful before asking for more money from customers. Also, there should be a law about increasing rates every year more than inflation.
Graeme	Byrd	PORTLAND	Two crazy high rate cutes two years in a row? I think PGE needs to improve service during extreme weather conditions and show they can be successful before asking for more money from customers. Also, there should be a law about increasing rates every year more than inflation.
Leona	Burnett	SALEM	These rate increases are causing lower income people an incredible financial hardship! Wages are never increased by this amount. PGE is not willing to work with people to set up a payment plan, so not only are they paying more for utilities, now they have to pay a ridiculous amount in reconnection fees. For a company that pays "C" class officers a wage that is staggering to most of us, these rate increases are not sustainable for the average consumer. They have a monopoly on the market, no competition. PGE needs to do what the majority of Americans do....budget better! Stop pushing low income families into the street because they can't afford simple, basic necessities.

First Name	Last Name	City	Comment
Miriam	Smith	GRESHAM	I don't understand how PGE is allowed to continue to increase rates so much every year. Even middle income homes are no longer going to be able to afford their bills and they won't get assistance. I almost can't afford our energy bill anymore. What can we do to stop them from raising the bill even more. There has to be a breaking point and I feel like we are past that point. Enough is enough.
Mark	Copley	PORTLAND	Do not raise the rates.we cannot afford more households on the streets or in shelters. We cannot afford to eat healthy now, let alone then!!!!
Colleen	McClain	PORTLAND	We understand PGE is requesting a 10.9% rate increase. While increasing PGE profits is not in the best interest of the public, we are willing to support a rate increase to upgrade our grid infrastructure and transition to green energy. To avoid those improvements will cost far more than a 10% increase in the future as our climate continues to warm. It will be money well spent. We hope that more publicity can be given to alert those whose income levels would qualify, that PGE offers bill discount programs.
NA	NA	PORTLAND	PGE has increased their rates by 40% since 2021. In 2024, PGE has seen record numbers for the quantity of residential households that could not afford to pay their electric bills, resulting in power shutoffs. More rate increases will increase the amount of people who cannot afford electricity during a time where Portland is seeing annual record high temperatures in the summer, and record low temperatures in the winter. The inability to access habitable temperatures during extreme weather events is going to result in increased medical emergencies related to exposure, as well as loss of life - among vulnerable people who are already struggling to make ends meet. The approval of another rate increase at this time would be morally reprehensible.
Debbi	Craven	BANKS	Please do not allow another increase for PGE. The last time they had an increase my bill was almost $600 for the months of January 2023. That is ridiculous for a two person 1800 sq ft home. I'm tired of corporate greed. Electricity is a basic need and should not be generating millions in profit for the electric companies while the customers can't pay their bills. Thank you.
Garrick	Lyng	TUALATIN	Maybe instead of rate hikes, you pay these people less for their poor management of necessary services to families that make a fraction of what one of them makes annually. Fiscal Year 2023: Maria Pope, President and CEO, $6,810,654 John Kochavatr, Vice President, Chief Information Officer, $1,401,886 James Ajello, Senior Vice President, Finance, CFO, Treasurer & Corporate Compliance Officer, $2,161,202 Angelica Espinosa, Senior Vice President, Chief Legal and Compliance Officer, $1,458,075 Joe Trpik, Senior Vice President, CFO, $3,190,250 Benjamin Felton, Executive Vice President, Chief Operating Officer, $3,133,215
Autumn	Stone	PORTLAND	A rate increase would only put Oregon residents who already face a substantial increase in Cost of Living in a worse position. A more then 30% rate increase since 2022 is already ridiculous, and should never have happened in the first place. Especially when PGE is facing substantial profits. As Oregonians, we need to hold them responsible.
Elisa	Kozma	CORBETT	Hello I opppose the PGE rate hikes. It's way too much of a financial burden. The economy is very rough and we will begin to run out of money then food.
Clayton	Breese	PORTLAND	Another rate increase is harmful. After the last one I received a $366 bill. I live in a 1000 sq ft townhouse . I was shocked. Each of the last few months 4k house hold had power shut off bc they could not afford their bills that number will just grow.
NA	NA	SANDY	I strongly disagree with the price increase. The rates have already gone up close to 40% since since 2021. With the cost of living already being crazy since the pandemic most can barely survive as is. Every day I hear from multiple people how they are unsure how they are going to pay there bills as a whole. This raise is just going to add to an already falling economy. Please take this and truly think about the families that struggle everyday and are unsure how they are going to pay the bills.
Lindsey	Record	EAGLE CREEK	I strongly oppose this docket! Many families are struggling to pay their bills and eat already with the way the economy is right now. Cost of living has skyrocketed but minimum wage hasn't increased to reflect inflation. This increase would put more families either further in debt and even worse, without a home and on the streets. We have already seen an almost 40% increase since 2021.

First Name	Last Name	City	Comment
Connie	Hasan	HILLSBORO	PGE rates have increased already and this is why so many people are experiencing disconnections. We do not have the income to support the high cost of living plus high utility rates. I appose another increase.
Fred	Greatorex	SALEM	I notice that last year my solar panels reduced my summer eletrical bills to zero, and July's bill was $140, and I haven't seen the compensation for the electricity I put into the grid go up at all, let alone the same percentage that PGE is asking for their rate hike. Sounds like PGE isn't paying more for the electricty I produce for them, so why should I pay more for the electrcity they provide me. Sounds like they're greedy liars.
Heather	Miller-Webb	MILWAUKIE	Please deny this request. After close to a 20% increase this year, we can't afford to keep seeing our bill increase. This is on top of inflation and layoffs at some of Portland's largest employers.
Hannah	Umphress	ESTACADA	This would be the third year in a row. When I moved into my home 5 years ago my power bill on equal pay was $275 a month. In the last five years we have not added any major items that require electricity and we have switched out our lighting for energy efficient lights as well as put in a whole new furnace and heat pump for efficiency to replace the one from 1980 and we never saw our bill go down instead it continues to go up. Without this price increase they have our bill at $559.00 that is more than most car payments. In addition to that they charge us extra fees when our area has power outages even though nothing on my property caused the outage. Etc. what PGE is doing is a crime and at this point we are looking into solar as well as most of Estacadians living on the outskirts who seem to be paying higher rates than those in town.
Robin	Will	SILVERTON	I'm a single woman living alone. My electric bill this month was $324. I don't even watch TV. I understand that I use more electricity for air conditioning in the summer. But how much air conditioning is gonna cost $324, I make too much money to get any financial assistance, but not enough to pay my electricity bill.
Steven	Liddane	SALEM	As a PGE customer I oppose the exorbitant rate hikes of this utility. These hikes contribute to driving citizens into homelessness which further degrades our general way of life. Having lived in other districts not served by PGE, I can honestly say, PGE has the highest rates of any Oregon public utility and I personally do not see PGE doing anything to reduce their costs of generating power, most notably selling their power to other out of state districts at lower per/KW hours and expecting Oregon customers to foot the bill.
Nunnya	Bihsnes	GRESHAM	Honest to god you guys are trying to increase electricity then give everyone a fucking $6 raise too if you expect to be payed on time. Would love for any one of you to make average of 55k a year in a three person home. Please I beg you. My rent also went up. How is this right? I know my comment won't matter but y'all's heads got screwed in backwards. You guys probably think you make positive changes in peoples life's but it's only for the people who choose drugs and sleep on the streets you wanna help. Not people laying your salary with there taxes. If I could hope to have you American citizenship taken away I would in a heart beat.
Ray	Scons	PORTLAND	I simply won't be able to pay. This change will send me over the edge
Bob	Sweet	PORTLAND	We are trying to do the right thing by electrifying our household. In 2023, we replaced our methane-burning furnace with a heat pump. Just in time for PGE's 18% rate increase. We are a well off family. We may struggle with increased costs. Others are not as fortunate. Shelter is a right. Utilities are a right. Stop making these rights inaccessible to people.
Laurel	Bennett	PORTLAND	PGE executive & board of directors pay is excessive & the fact that they are a monopoly asking for rate increases that far exceed the rate of the high inflation we are experiencing & rate payers ability to absorb these increases is obscene. Please consider the ratepayers very real inability to absorb yet more rate increases. Enough is enough!
Mitch	Griffin	HILLSBORO	Instead of the government giving drivers incentives to buy electric. Maybe they should give the money to electric grid upgrades or utilities. Tax the electric vehicles a wheel tax to help electric utilities and road work . Affordable utilities aren't affordable anymore.
Shanon	Saunders	PORTLAND	Please PLEASE don't raise the cost. We are all suffering out here

First Name	Last Name	City	Comment
NA	NA	PORTLAND	PGE's proposed 10% rate hike for 2025 after increasing rates 18% in 2024 is egregious. A snapshot of their financial picture: Revenue: US$758.0m (up 17% from 2Q 2023). Net income: US$72.0m (up 85% from 2Q 2023). Profit margin: 9.5% (up from 6.0% in 2Q 2023). The increase in margin was driven by higher revenue. Give Oregon's families a break. Preferably not by cutting their power.
Michael	Atkins	PORTLAND	Higher profits for shareholders at the expense of the public to get needed utilities is not good policy. PGE profits are consistent already without these rate hikes. If they need to invest, let them do it by reducing their dividends like a responsible organization.
Anthony	Anderson	SALEM	I am against any price increases from PGE. I live in a small two bedroom apartment and my energy bill has exceeded $300 for two consecutive months dispite reducing A/C usage. This is ridiculous. My bills are on average a minimum of $200. This is too much.
NA	NA	GRESHAM	If people couldn't afford there bill.then and had over 8,000 this happened too how many more 8 t0 10 percent will this happen to .and I don't believe for one minute believe them. There has never been an up grade of anything. The system is out dated .Iam nor for any new charges period.Also I was lied to said 17peecent raise not 18. Not cool
Joel	Hatmaker	HILLSBORO	These rate hikes are onerous and are happening too frequently
Ami	Bell	TIGARD	Please stop the rate hike propose by PGE. I am an elementary school teacher and am being buried by price increases, particularly by PGE. I am currently still paying off my bill from last winter, and am now looking at an upcoming winter in which I will not be able to use my heat as I cannot afford it. Please help..We cannot afford another large increase from PGE.
Tony	B	SANDY	Pge has raised 40%in 3 years now another 10%just another price gouging when is the government going to step in and stop this radical unfair highway robbery
Mathew	smelser	COLTON	power company need to be more fair in time of need power price have been Stable till now?l 1985 it was about 8.1 cents and now 15.98 cents for every kWh. it looks like more then (2.36% energy price jump every year from Energy Information Administration (EIA)
Jonathan	Jasinski	SALEM	To attempt to raise rates, yet again by double digits, is asinine and an unsustainable burden to place on the general public. If you can't make a balanced budget with an 18% rate increase and are calling for yet another 10% increase the next year, something is totally broken with PGE's budgeting and infrastructure process. Stop the madness. Don't ask for rate hikes significantly higher than the yearly inflation rate. If this gets approved, why even have the public comment on it?
Marcos	Barnatan	PORTLAND	Please do not raise PGE rates. This will be a cause for more disconnections, as people are struggling as it is.
Debby	Patten	MILWAUKIE	Please do not allow PGE to increase rates more. I live in Milwaukie and they have already passed an additional 3% rate hike due to charges from the city to them! Our salaries have not kept up with all the increases in costs of everything. PGE has raised their prices too much already!
Dimitra	Snow	CENTRAL POINT	Consumers cannot afford another increase in rates. Our utility bills are already unaffordable. Attempting to raise rates again would put even further strain on consumers. We are paying astronomical prices for subpar service. In the last month, our power went out at least a dozen times. Was I compensated for this loss and strain on the systems in my home? No, my rate was actually much higher than it ever has been in the summer.
Kathryn	NA	SALEM	I oppose ANY proposed rate hike by PGE and other for profit utilities in Oregon. As I have stated before, this directly contributes to homelessness. Meanwhile the head of the PUC is being compensated $200 K per year but doing nothing to serve the citizens of Oregon. I have asked our State Representative, Congress women and Governor Kotek to review the PUC practices and the continued approval of PGE's rate incresses.
Leslie	Oglesby	FOREST GROVE	This increase is not a good solution to seniors living on fixed incomes. They are having to make decisions on heat or cooling. PGE can not keep asking for rates increase to help pay for millions payed out for wildfires. Please think of what this does to everyone. Stop giving discounts to business. Stop the building of these massive data centers. Times are hard for all. God bless

First Name	Last Name	City	Comment
Valerie	Aguero	SALEM	As retired seniors we simply cannot afford to live if rates continue to hike. What will happen is we can't pay and we can't lose power so we'll be in payments we can afford forever. We were in equal pay for years but found our we were being scammed by this program. There are only two of us so I dunt know what families will do. That work rent hikes is making living impossible. It's shameful
Don	Hodges	BAKER CITY	If PGE wasn't such a tyrant people would not be leaving them in record numbers it is obvious for the public to see that PGE has the govener in there pockets!! They are indeed a Monopoly Tyrant and a good example of this is once they seen that through technology they were losing profits to the innovation of solar they implemented plans to rob those who provided excess solar generated electricity a fair compensation for their extra electricity imported to the PGE grid paying pennies on the dollar for the provided extra energy!! But keep on being the Tyrant that you are PGE and you will inevitably lose a great deal on more customers! Government leadership won't always swing your way, no matter how much you pay them!!!!!!!
Dana	Fox	PORTLAND	These rate increases must be limited to inflation. Electricity in modern society is an essential part of health and well being. It is not subject to competition and profits must be limited to avoid an abusive monopoly.
Nicole	Rufner	SANDY	PGE rates going up by 40% in three years is unethical. This is clearly the company passing along expenses to the consumer to be added on top of the rate the consumer is already paying to have access to their product. A consumer shouldn't have to pay for a companies improvements to their infrastructure. While we are on the topic, aren't the customers who are paying extra to support their green energy program also being asked to do just that? Tell you what, if I'm going to be asked to give my money to support the infrastructure and operation of PGE, then I expect a portion of their profits to be sent to me in dividends at the end of the year. Because, doesn't that technically make me an investor?
Andrea	T	CORBETT	It is shocking and disappointing that PGE is considering another price hike. With as many customers they have and after the recent rate hike of 18%, why would an additional 10% hike be needed? This feels more aligned with profits versus services. Many people have been shut off of service for their already high bills. Many people, like myself, have had to navigate multiple power outages throughout the year. Charging is more for questionable service feels wrong on many levels.
Travis	Johnson	TURNER	These rate hikes are ridiculous, electricity is necessary for several peoples health, livelihood, safety, and so much more. It's like price gouging for water when it's hot. Just because you can charge 35$ for something that costs 20 cents and people will die if they don't get it.... Doesn't mean it's right. I understand the grid needs upgrades and repairs. The government and our taxes should be going to this. Not taking money, from working Americans and those on fixed income, to the point of starving, freezing, and killing Americans. And definitely not "for profit"! People are going to die.... This is wrong... I've seen months of $4-500 electricity bills. You want to know why we have a homeless problem. It's this.... As an American I find this absolutely ATROCIOUS. Thank you for taking the time to read my submission.
David	Beasley	NEWBERG	I hope the CEO of PGE is able to sleep at night as his company cuts off households for non payment while he cashes his monthly check for 1.5 MiLLION. And now they want more...It's unconscionable ...
Will	Burge	OREGON CITY	PGE needs to keep their rates flat atleast for the next year. A 40% increase from 2021 rates is unreasonable. They need to slow down their transition to renewable fuels and focus on cheaper prices. The consumer wants cheaper bills not renewable energies
Simone	Gowan	KEIZER	I just read an article stating a request for a utility rate increase. How do you not make a connection that the reason you lost/lose so many customers is because of your utilities being increased. No one can afford utilities because they are so outrageously high.

First Name	Last Name	City	Comment
NA	NA	BEAVERTON	I am opposing the requested rate hike of an additional 11% for the residence of Portland and surrounding areas. My condo rate was $300 this last month and we didn't use near as much electricity as we did in August of last year, which was $100 cheaper. The mere fact that so many thousands of residents had their power disconnected due to non payment proves that these are unsustainable prices. If the power company can afford to give their CEO a $6.9M salary, and the CFO and COO $3M, then they can afford to keep their prices down so that the people of Portland can keep their desperately needed power. Either that or Portland needs to come up with a not for profit electric company in order to compete.
Anthony	Forsyth	SILVERTON	I can not afford any more!!!!!!!!!! You people should have thought about upgrades on the grid 20 years ago instead of million dollar bonuses for administrative scamers....
Kelly	Forsyth	SILVERTON	No more rate hikes!!
Aaron	Holmes	HAPPY VALLEY	I would very much like PUC to halt PGEs rampant rate increases. The people of Oregon do not deserve to be continued to pay increased power cost because PGE is incapable of managing themselves. No person in oregon can go to their employer and ask "my cost have gone up I need a 10% raise thanks...and an 18% next year". The argument is made that they need the money for infrastructure which can be seen as them having a lack of planning that they wish to make up for by throwing money at it...Oregonian's money they work hard for. As an engineer for over 20 years I can tell you a lack of planning on their part should demand changes internally to resolve the issue in the future. However why should PGE care to change as long as the PUC continues to allow rate hikes hurting the people that live here.
Courtney	Sanchez	LAKE OSWEGO	Please, no more PGE rate increases. Salaries and expenses should be thoroughly reviewed from the top down and waist eliminated. Refunds back to customers should be issued for excessive costs.
Mary	Hewitt	HILLSBORO	The rate increases and subsequent disconnections may force more people from their homes. Suggest to do these things. Contact those eligible for the lower income discounts and help them enroll in that current program. For those exceeding a certain level of power use, increase the rates above a limit at a 30 to 40% rate, including business and industry.
Deborah	Elliott	WEST LINN	While we understand PGE's need to maintain and upgrade its equipment and infrastructure, all of that cost should not be passed on to the customer. Their rates have increased 40% in the past three years. That increase is already unsustainable for many families, including the significant number of retirees in PGE's service area. We wholeheartedly support a 10% annual cap on increases.
kelley	Stober	PORTLAND	NO! ABSOLUTELY NO MORE! ENOUGH IS ENOUGH! PGE SHOULD HSVE BEEN UPGRADING THE GRUD A BUT ST A TIME LONG AGO! IF YOU DIDNT SEE THE FUTURE OR PLAN YOUR INFRASTRUCTURE BETTER THSTS NOT ON US CUSTOMERS! FIGURE IT OUT! TOO MSNY PEOPLE CANT AFORD TO EVEN STAY WARM OR COOL! JUST NO!!
Joy	Rheaume	WEST LINN	Please have mercy on us peasants! Do not allow PGE to raise their rates again! Last winter our heating bill went from $300(highest bill to keep warm) to $500 after the rate increase. My husband and I are on a fixed income so it is becoming difficult to keep warm in the winter, or cool in summer. I hear that the head CEO of PGE makes $35,000000 a year!!! She certainly has no idea how we the peasants struggle!
Megan	Mattson	PORTLAND	Stop allowing Portland General Electric to raise rates in customers! These rates are too much for your average middle class family! I'm not voting for a single member of government or donating one penny to a single campaign until this is fixed. Shame on all of you for allowing a utility company to rob customers blind!
Richard	Garza	PORTLAND	I oppose the rate hike PGE has requested to take effect next year, or over 10%! I would oppose one at 7.4% given the high increase of 2024 (17%+/-) 17% and then 10% is nearly 30% over the course of a year or so. That is not affordable! These private utilities don't share with consumers when they make profits - and historically not done so! Why should consumers pay the price when they struggle or want to build more infrastructure? (That's what impact fees are for!) And why aren't they putting new infrastructure under ground in a way that will improve services GIVEN climate change (fires, floods, etc.)?

First Name	Last Name	City	Comment
Phil	Dimotsis	PORTLAND	I oppose PGE's 2025 proposed rate hike for utility customers. It's high time we take back the utility and make it public again. Having Oregon customers serve the out of state interests and interference of private, investor-owned entities like PGE is having the effect of putting too much money in the pockets of those who are not touched by the rate increases. Too many ordinary customers will be burdened by the cost of electricity. Please consider a smaller increase or none at all and consider reconfiguring the relationship of regulatory bodies to PGE. We clearly need better citizen oversight that does not bend to the will of every utility argument that bleeds ratepayers dry while paying out huge dividends to investors.
Rob	Dukalskis	WILSONVILLE	Iam not sure what which docket proposal it is. But PLEASE stop raising the PGE rates at such an astronomical pace. Our wages barely go up but our power bills go up tenfold compared to said wages. We can't keep up.
Tracy	Simpson	PORTLAND	PGE's latest rate hike request is simply not sustainable by the rate payers. The fact that fire costs are being passed on to rate payers instead of stock holders is rediculous. Shame on you and our governor for letting this happen.
John	Hardy	LAKE OSWEGO	I am strongly opposed to PGE's current request to further increase their rates only one year after raising their rates to historic levels. This is putting a heavy financial burden on lower and middle class residents. I request the the Oregon PUC take this into consideration and mandate that PGE increase their rates gradually over time rather than over a two year period. I consider this action by PGE to be a total disregard for its customers. Hopefully the Oregon PUC will protect the interest of the Public when reviewing PGE's request .
Brenda	Moorman	KING CITY	I am commenting on the proposed PGE rate increase which I strongly oppose! I am still struggling with the increase in January and now they want another one? I don't understand why but if it's for shareholder profit it is wrong. They can make it sound like it's for improvements but to me it sounds deceptive. It's really sad & upsetting when that many people had to have their utilities discontinued because they couldn't afford the rates. I don't mind paying for small increases every so often but not every year & not for such large ones. Thank you for the opportunity to allow my input. Please consider the ramifications on those who are struggling!
Brad	Hammons	EAGLE CREEK	As a citizen my family cannot withstand these out of control rate hikes by PGE. We already struggle and soon may have to go without electricity. I read that April and May were the highest recorded electricity shut offs due to non payment. This is bad for Oregon. Especially the rural communities
amanda	rojas	SALEM	I oppose this new requested rate hike. I cannot afford to pay more for my electric bill. We already had to make adjustments for the current bill: no lights on during the day, no tv, radio etc on during the day. Everything unplugged unless actvely using. No ac this year. I have already looked on the pge website to see if we qualify for assistance and we don't. We also have had to adjust our weekly food bill to accommodate our electric bill. So with this added rate hike, I honestly don't know how we can keep paying the bill. It would be one thing if: first we had electric vehicles or solar batteries but we don't and second, if PGE had competition but it doesn't.
Tiffany	Leatherwood	OREGON CITY	This is in regard to the double digit increase for 2024 for PGE. How are us Oregonians supposed to get by? How are we supposed to afford outrageous housing prices, groceries, medical bills, daycare, and now even higher energy bills? We are not getting dramatic increases in our income. You know who does? The CEO and higher ups of PGE. Not everyone can be them. Not everyone can become a CEO of a company. We are out here just trying to survive as is and take care of our families. When does working class America get relief? We don't, we get more and more piled onto us. Making it tougher and tougher to take care of ourselves and the next generation. I strongly oppose this increase.

First Name	Last Name	City	Comment
Jim	Rabidue	ESTACADA	It's time that PGE invested their profits back into their company and quit passing off all costs of doing business to the consumers. The system does need to be updated and repaired, but the shareholders of PGE should be responsible for this like any other investment. Over 40% rate increase in less than 5 years is ludicrous and the state of Oregon is complicit in this scam by forcing the green energy initiatives. If the PUC approves this increase, which I'm sure they will rubber stamp this right on through, then you are complicit as well. My guess is there's more than enough lobbying and money exchanging behind the scenes to get this done.
Linda	Guthrie	EAGLE CREEK	I ask that when considering PGE's current rate hike request that you think about the end user. This request is outrageous considering the increase they put into place last year. The average consumer has not seen their paychecks increased much in the last three years. This increase along with all the increase in consumer goods will make our lives very difficult. It may make us have to sell our current house in order to survive. I can't just ask for a raise, I have to live within my budget. I'd ask PGE to do the same with what they have gotten. Thank you for considering my concerns.
elise	strasser	ESTACADA	Please, please do not let the electric rates keep climbing at such a staggering quick increase. We're having a hard enough time keeping up with bills as it is. We don't want to feel so stressed, overwhelmed and we want our littles to be warm this winter and all winters. Please, please, please help look out for US! And all others struggling. With sincere thankfulness, EliSe S.
NA	NA	PORTLAND	For the love of all things wonderful in Oregon, please do not allow PGE to raise rates another 10.9% for 2025. They have been allowed to raise rates 40% since 2021. I doubt literally any other Oregonian has received a compensation increase of 40% in that same timeline. I understand PGE is a public company and, in theory, should make a profit. However, every other company that is not a utility has to compete for business with quality service, products, and prices. PGE has to do none of that. My power went out for several days during this year's ice storm, and I still had to pay my highest electricity bill to that point. I participate in the Peak Times Rebate program as recently as last week. I purposefully took my dogs and spent time outside of my home for the full 5pm - 8pm time. I did not cook, run my dishwasher, shower, run my AC, or run my computer at all during that time (which I normally would). I earned $0.14 for my effort. It is incredibly defeating and unfair that PGE is allowed to continuous make millions in essentially protected profits while Oregonians sacrifice their comfort and still struggle to pay afford their most basic utilities. It's time to put our foot down with PGE and set the expectation that not every one of their rate increases will be approved. Force them to take a cut from their profits - just like Oregonians are taking a cut to their monthly budgets!
NA	NA	ESTACADA	The rate increases for PGE are making it difficult for families to afford electricity. PGE sells power to other states and those families pay was less than we do for electricity. We can't afford raise the rates anymore.
Steven	Liddane	SALEM	As a PGE customer I oppose the exorbitant rate hikes of this utility. These hikes contribute to driving citizens into homelessness which further degrades our general way of life. Having lived in other districts not served by PGE, I can honestly say, PGE has the highest rates of any Oregon public utility and I personally do not see PGE doing anything to reduce their costs of generating power, most notably selling their power to other out of state districts at lower per/KW hours and expecting Oregon customers to foot the bill.
Justina	Lynch	PORTLAND	Hello, I oppose the PGE electric utilities rate hikes that have been proposed! It has already been a 40% rate hike since 2021!! The utility needs to accept responsibility for the wildfires and legal judgments and not try to pass it off to already struggling consumers. Shareholders and the company should pay those legal fees, not the public. I strongly oppose further rate hikes and urge you to deny them. Thank you, Justina Lynch
NA	NA	BEAVERTON	Asking the public to pay more when we are already having a hard enough time paying for basic necessities. This is just crazy.

First Name	Last Name	City	Comment
Mary Ann	Swanson	ESTACADA	As a retired, single homeowner, I do not support any rate increases for utilities from PGE. Last year's increase was difficult for me to pay. Any further increases would cause me to use my savings accounts. I am on fixed income. PGE needs to carefully use their money to make improvements when they have enough money to do so. DO NOT LET PGE HAVE ANY RATE INCREASES!
markas	oneth	BEAVERTON	hey guys, thanks for giving pge stock holders our money. every rate increase because pge cant run its business properly, i guess the customers will pay for. im sure none of that money slips into your pockets. 40% increase...... jesus, i hope god takes pity on your greedy souls.
Christina	Smith	SAINT PAUL	To Whom It May Concern, Recent news reports have suggested that yet ANOTHER increase has been approved for PGE. While I believe Portland General Electric provides excellent service, the commission needs to be cognizant of what price increases are doing to the average consumer. While we are people that are very middle income, and able to absorb this, the recent cost increase has cost us $60 more per month with another one coming. I do not know how those already struggling can handle many more of these substantial increases. I personally am working in a school district where a recent administrative mess has caused us to take 8 furlough days! This leaves us with a 1% COLA increase after these cuts. This does not even come close to keeping up with the rising costs of EVERYTHING. I cannot imagine if these rate increases continue when we retire and are on a very fixed income. Please consider the people who are barely making ends meet, many of the families I serve in the schools, when approving these rate increases. Sincerely, Chris Smith
Jessica	Murdoch	BEAVERTON	I can't switch power companies. PGE is the only option. And they are making electricity too expensive. What are my other options?? Not have electricity? This isn't fair. They shouldn't keep raising prices
Karen	Long	CLACKAMAS	In regards to PGE requesting a 10.9 percent increase in the coming year, this is reaching a point of no return. Average people are taking an unfair hit and this is not sustainable. Rates have gone up 40 percent since 2021 and show no sign of stopping. The cost of living in Oregon is becoming outrageous and it's sad to wonder how much longer it's doable.
Amanda	Goodwin	PORTLAND	The 10% increase from PGE would create a financial burden and impact how comfortably I'm able to live in my house. I was always under the impression that public utilities were kept at affordable rates as they are essential to the health and well being of the community. But what concerns me even is how this will impact my entire community, from families who are barely making ends meet to businesses that make Portland a wonderful and unique place. Many simply cannot afford this increase. We need a rate freeze to help the community. And an investment into renewal and more affordable energy sources. This will have a dangerous and damaging impact on Portland and Oregon.
Leah	Tuor	OREGON CITY	The rate increases for PGE are insurmountable and it is almost criminal that people who can't pay are being cut-off. These rate increases are far exceeding inflation and I myself may wind up powering my house with my gas generator given how ridiculously expensive utilities have become. My water rate also just increased by about 20%, garbage by 15%. I forget what the NW Natural percentage is, and now PGE is doing the most egregious hike ever"¦.and wants to do another on top of that?!?!? No!!!! Someone needs to audit PGE. I imagine they will not be able to pass an audit as money is lining someone's pocket.
Brent	Echols	PORTLAND	I strongly urge the request for an additional rate increase to be denied. PGE recently received a substantial rate increase the cost of living in Portland and the state of Oregon is becoming untenable driving folks to leave. PGE may need to make internal personal adjustments or streamline their business plan rather than asking folks to increase rates yet again.
Connie	Hasan	HILLSBORO	PGE rates have increased already and this is why so many people are experiencing disconnections. We do not have the income to support the high cost of living plus high utility rates. I appose another increase.

First Name	Last Name	City	Comment
Nicola	Corl	PORTLAND	I request that the gross overpayment of executives and massive profits for investors be stopped rather than give a rate hike to consumers that have no choice but to get their electricity from PGE. Record numbers of folks have had their electricity cut off when the CEO made $6.97 million last year and investors made a 200% profit increase. Or if you really want to charge for electricity consumption, take a look at those who consume the most before hurting the people with the least? Issue a surcharge to those who consume excessively. Why can't someone who makes over $6 million take a pay cut rather than cutting people off who can't afford their basic utilities? This is outrageous and inhumane.
David	Goodwin	SALEM	UE 435 - I am upset about the electrical rates increasing, it's too much! I am on equal pay with company and last month sent notice balance $38 "" so expect to balance out over next few months. Then today I got letter about equal pay amounts being adjusted based on rates and usage, so my equal pay rates are going to go up $37. I was looking forward to having my rates reduced. I think there are too many rate increases and they are too high. I am retired and on a fixed income. There are people out there drowning and can't afford these high utility bills.
M	M	PORTLAND	864 square feet. Baseboard heating, single pane windows with storm windows to help keep heat in during the winter. These are the stats for my home. My electric bill is now on an equal pay of $329 per month. This is up from $287 just a few months ago which was an increase from $234 a few months prior. These monthly invoices are getting very hard to meet month and yet another increase could create an even larger hardship for meeting the expenses. When is PGE going to held accountable for the way the funds are used? What is the justification multiple increases in such a short period of time? I would like to see a stop to the ask of multiple increase within a two year period of time. Please do not allow this requested increase to be approved. We are struggling to make ends meet already.
Nan	Curtis	PORTLAND	The rate increases are simply unmanageable! I have been paying $351 (already high!) on Equal Pay. The rates went up 36% (PGE's info from my bill) over the past year and then 8% (PGE's info from my bill) in the last month - A TOTAL OF 44% IN A YEAR!!!! What the heck!?! And now they are asking for another rate hike - absolutely not!!! Us everyday folks cannot bear this financial burden, someone - the city/state needs to step in. This is simply too much for citizens to bear! My September bill is $1472.13 because of the 'annual review balance' and the increase. OMG!
Michele	Vanderyacht	SALEM	I understand what PGE is trying to prepare for with their newest rate hike, but WE CAN'T ABSORB IT into our budget, AGAIN! Couple that with high groceries, gas, mortgages, our insurances and the normal family is already having to live paycheck to paycheck, especially after the 18% PGE hike last January, on top of the year before. I can't even begin to imagine what another rate hike would do to seniors and single parent families. Let the economy come out of its slump first!!!
Michele	Vanderyacht	SALEM	I understand what PGE is trying to prepare for with their newest rate hike, but WE CAN'T ABSORB IT into our budget, AGAIN! Couple that with high groceries, gas, mortgages, our insurances and the normal family is already having to live paycheck to paycheck, especially after the 18% PGE hike last January, on top of the year before. I can't even begin to imagine what another rate hike would do to seniors and single parent families. Let the economy come out of its slump first!!!
Debbie	NA	GRESHAM	I do not agree with the proposal to raise PGE rates again. Why is it necessary to continue gouging your customers by continually raising rates? All consumers have to live on a budget and prioritize -- PGE should learn to do the same. At this rate soon people and companies will be moving out of the region to avoid the high electric bills (and reducing your customer base). Or is this just a case of PGE filling stockholders pockets while harming your customers?

First Name	Last Name	City	Comment
NA	NA	NA	I am writing to you to express my anger toward PGE and another proposed rate hike. PGE Board Members and Stake holders are making millions of dollars in profits off the backs of the working people of Oregon. Please vote no for another rate hike. These so-called programs to help people that can't pay their bills are my tax dollars, so not only do I have to pay taxes that support programs for those that can't afford to pay their utility bills, I have to pay my own utility bills, it is like I am paying twice. Thank you for your time and consideration. Darlene Sprecher
NA	NA	NA	To whom this may concern: I am a lifelong, 60 year old resident of Oregon. I was born and raised in the Northern Willamette Valley, grew up on a small farm a few miles outside of Oregon City, and have been proud to call myself an Oregonian all these years. However, there seems to be an ever increasing and rather troubling propensity in this great state for certain sectors of the government and the corporations that they help to create to make sweeping decisions that greatly impact the residents herein in a most negative manner, be it the scam that was Covid and all that then Governor Brown did to stifle and even destroy the lives and livelihoods of countless thousands in Oregon alone to the resulting supply chain disruptions and unmitigated spending and currency issuance carried out by the federal government that has only helped to make matters worse with what is becoming near runaway inflation of the US dollar. Add to all of that the current state of affairs concerning energy costs that are near if not at the top of the list of offences. It surely seems to me that the Oregon PUC has become a rubber stamp for the utility companies and that there is no electricity rate increase too high for their approval. A myriad of reasons, or better yet, excuses, are given to the public, indeed if any reason is given at all, as to why our energy costs, specifically electricity costs, continue to rise annually by double-digit percentages. We are told that "renewable" and "green energy" is the end-all to save all and that we just need to tighten our belts a bit more, stave off that urge to have anything more than what we can scrounge up for homes, food or clothing, and otherwise to simply expect the current electricity generating monopoly in the NW portion of the state, namely Portland General Electric, to have our best interests in mind while they see to it that the only alternative for access to electricity are the useless wind and solar grifts that they routinely hound their customers about, having the audacity to call them up every so often to solicit them for extra money next to their monthly bills to fund these utopian con-jobs. Here in the western part of Oregon there is no energy more "renewable" than hydroelectric. However, after the greenie left and their all-too-willing accomplices in the "alternative energy" circles finished up beating people over the head about how bad coal-fired electric generating plants were, allowing the likes of Kate Brown to put the final nail in that coffin for Oregon, their sights are firmly set on hydroelectric dams and the relative convenience that they provide for millions of people reliant on electricity for the betterment of their everyday lives. PGE's customers pay dearly for the electricity that is generated and distributed to them, as well as for CEO Patricia Poppe's purported 17 million dollars in salary and stipends just for fiscal year 2023, alone, but apparently that is not enough. PGE wants to pay for "better" and "more sustainable" electricity options, but they want to do it at the expense of the livelihoods of their customers. To top it all off, when the PUC simply signs off on whatever demands said monopoly expects, the public is left holding the bag of ever increasing living costs; costs that will very likely send people packing or squarely into destitution. This latest "request" for a 10.9% rate increase for 2025 is simply ludicrous on its face, and if the Oregon PUC signs off on this request it will be more than obvious that they are part of the problem and not the solution that would see Oregonians getting the much-needed financial relief that many of them so desperately need. You can only squeeze turnips for blood for so long. Eventually, the turnips might fight back. Do not grant PGE another rate hike, and, it's high time that the PUC holds them accountable for their extremely unethical business practices. If the Oregon PUC can't get this simple job done, then it's time for a changing of the guard.

First Name	Last Name	City	Comment
Paul	Hosey	NA	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Paul Hosey
NA	NA	NA	I moved to Portland in 2023. My rates have increased triple and my usage has not change. I was mortified to learn the CEO of PGE makes over 17million dollars. I can only imagine what kickbacks and other ethical issues stem from the PUC. Outrageous!
Marsha	Hunter	NA	As a PGE customer I would like to say that the PUC allowing PGE another rate hike is absolutely ridiculous. They had one in 2020, 2022, 2023 and 2024. And now they want yet another one next year?! Who else gets that kind of a raise all of the time? Companies will pass on the increase to their customers but what will the general public do and retired people? We don't get any where near that kind of a cost of living increase, ever!! Please tell PGE they are going to have to come up with the money some other way. Maybe they don't need to pay the higher ups as much of a salary or they can cut a few employees? Whatever it takes, but not from the general public. Thank you for listening. Marsha Hunter
Brice	Suprenant	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Brice Suprenant
Linda	Staggs	NA	High Hello, I'm writing to complain about the rate increases by PGE, since 2020. In 2020, the increase was 2%, 2022- 11%, 2023- 7%, 2024 - 18% =38% increase. Earlier this year they requested a 7.4% increase effective 2025. Then they have the audacity to change that to 10.9%! That would make the total increase since 2020, either 45.40% (7.4%) or 48.90 (10.9%). Please, as the utility commissioner, deny any rate increases from PGE for 2025. If rate increases from PGE continue people will be moving out of Oregon in droves. The cost of living in Oregon is becoming unsustainable. In the meantime, the top 5 executives at PGE collectively made 14.9 million in 2023 in compensation with salary, bonuses and stock awards. Maria Pope CEO $6,8 million, Benjamin Felton, COO $3.1 million, James Ajelio, CFO $2.1 million, Angelica Espinosa, Senior VP - 1.5 million, John Kochavatr, VP CIO - 1.4 million. Maybe PGE should trim the compensation for their executives instead of raising rates if they can't stay within their budget. I hold the CEO & the other 4 top executives responsible for this arrogance & the belief that they are entitled to ask for these high rate increases year after year. We need to send a message to PGE - ENOUGH! Sincerely, Linda Staggs
Vince	Gonsalves	NA	To whom it may concern, Can you explain why the CEO needs to make 7 million dollars a year while our rates go up almost yearly? I am trying to be very frugal with our utilities but the last time there was an incentive to avoid using appliances like from 5 pm to 9 pm we saved about 50 cents. Does that seem fair to you? PUC should look out for citizens and vote NO on a rate increase. -- Vince Gonsalves
NA	NA	NA	The PGE CEO made $17,000,000.00 in 2023. 1000s of disconnections. Record numbers? How would you grade yourselves? Be critical. This council has no public trust. Does that matter to you folks? Hopefully for the good of the citizens you say you are looking out for there will be no rate hike. You are the people's voice and the people can't afford more hikes, the people need a break. $17,000,000.00 in CEO pay for what? Power outages and rate hikes... For $17mm you would think the CEO would be a better problem solver but they aren't looking to solve the problem. The money is in the problem... Thank you for your time.

First Name	Last Name	City	Comment
Ann	Vandehey	OREGON CITY	People cannot afford these kinds of increases ! This is Killing the middle low and income .
Justin	Phillips	TROUTDALE	PGE needs to get better at spending the money they have instead of passing on every cost increase and bad decision that they make into its customers. This is a Public utility, they need to make money but they can operate closer towards a nonprofit than they currently do right now.
Carrie	Ebling	PORTLAND	I've lived in Portland for over 20 years and thought it was my forever home. Until the cost of living and quality of living changed. Another double digit increase in power might be the break point that causes my middle class family to move. While we are not at risk of having our power shut off, this seems like another mismanagement issue and executive leadership of PGE should take a double digit cut in pay and benefits before asking customers to pay more
Dave	Shankar	BEAVERTON	Opposing PGE 10.9 % increase in consumer bill.
COURTNEY	DIPPEL	BEAVERTON	Hi there, I've been a loyal PGE customer since I first moved to Oregon in 2002. The rate increase that was approved last year was significant and very much felt by this household, particularly during the winter months. For PGE to request another significant rate increase so soon is unconscionable. It seems that PGE sought to do so during a time of inflation to go along with all other raising their rates. Electricity is a basic human need - approving a 40% increase in two short years is morally wrong and will mean that many Oregonians will have to go without this winter.
Shannon	Wells-Moran	PORTLAND	I work in connecting vulnerable populations to resources related to housing and utility assistance. We take hundreds of calls a day from people across Oregon struggling with their cost of living. One consistent issue is that people in our state cannot afford their utility costs, when they are also dealing with rising costs of food, rent and transportation. In the wake of the last round of rate hikes from PGE, many of the community resources meant to help with electric bills got completely overwhelmed and have closed their appointment lines, which is already causing members of our community to spend months without power, or to face eviction because having connected electricity is a requirement of their lease. Make no mistake- a 10% increase to PGE bills WILL cause hundreds of our friends and neighbors to lose their housing, putting even further stress on our already overwhelmed shelter system, especially in the wake of the rate hikes put in place earlier this year.
Jacob	Pletcher	WOODBURN	This is just wrong of them to do. They have pushed the power cost so high. The last 2 increases from this year and last hurts enough as is. Our farm needs to water crops and they are making that harder and harder. I'm very scared for the power bill this year during harvest which we run 22 hours a day and 25 days straight.
Jordan	Benner	PORTLAND	I opposed the suggested PGE rate hike. Their rates have gone up by 40% in the last three years, and their outages are more numerous than ever. Inflation rates were 3.4 in 2023 and tracking at 3% this year. And yet these same years have seen rate hikes at 3-5 times that. PGE seems to be opportunisitcally raising rates, despite the struggles of their customer base, and a track record that shows their service is getting progressively worse. Please do what you can to deny this rate increase, and limit future rate increases
Thad	Conwell	SALEM	I oppose PGE's proposed 10.9% rate increase for 2025.
Miriam	Smith	GRESHAM	I don't understand how PGE is allowed to continue to increase rates so much every year. Even middle income homes are no longer going to be able to afford their bills and they won't get assistance. I almost can't afford our energy bill anymore. What can we do to stop them from raising the bill even more. There has to be a breaking point and I feel like we are past that point. Enough is enough.

First Name	Last Name	City	Comment
Alexander	Everhart	PORTLAND	I am writing to oppose PGE's renewed proposed rate hike for 2025, which last time I heard is now a massive 10.9% increase, unless it's even higher than the last time I heard. A very generous and burdensome rate increase went into effect January 2024 and in the few months since then there are a record number of electricity disconnections due to the suffocating cost of electricity on defenseless citizens of Oregon, especially those in the Portland Metro area. I myself have been having to cut back on food and other spending in order to pay some of the most expensive electricity rates per KwH in the entire Country. The ones who are hurt the most are the poor, like myself, who live in homes that do not have modern insulation, or energy efficient heating or cooling. Even my Primary Physician has been hurt by the massive increases since January 2024 and now PGE wants even more burdensome and draconian rate increases. I have noticed that the stock holders have been getting very healthy dividends while the rest of us are absolutely struggling. If this rate increase is approved than that will be a massive 40% + increase in electric prices in the last four years, all in favor of PGE and stock holder profits. Reject this proposed burdensome and draconian rate increase and put a stop to PGE's reckless spending and their wanton disregard to the poor quality of life their horrendous rate increases are causing on the citizens of Oregon. When a Government fails to listen to its people it stops being a Government and becomes a dictatorship. Don't be a dictatorship, reject this rate increase before it forces more people into severe poverty, or at the very least lead to a very poor quality of life in favor of profits for elitists.
TERRY	BOUIE	SALEM	Oregon Public Utility Commission PO Box 1088 Salem, OR 97308-1088 Subject: Opposition to Portland General Electric's Proposed 10.9% Rate Increase for 2025 Dear Members of the Oregon Public Utility Commission, I am writing to express my strong opposition to Portland General Electric's (PGE) proposed 10.9% rate increase for all customers in 2025. As a concerned resident and customer of PGE, this rate hike is both unreasonable and detrimental to the well-being of many residential households in our community. The proposed increase comes at a time when many families are already struggling to make ends meet due to rising living costs and economic uncertainties. An additional 10.9% increase in electricity rates would place an undue burden on low- and middle-income households, forcing them to make difficult choices between essential needs such as food, medicine, and utilities. There is a cause and effect to such rate increases. For example, in 2024 PGE shutoff power to resident's who could not pay their bill; February 2,424, March, 2,681, and April 4,712. That is 9,817 residents. This is particularly concerning given that PGE has already implemented significant rate increases totaling 30% in recent years. Moreover, the justification for this rate hike, which includes investments in grid modernization and resilience, while important, should not come at the expense of customers who are already facing financial hardships. PGE must explore alternative funding mechanisms for their executives. For example, The CEO of PGE salary in 2020 was $3,342,937, in 2021 it rose to $5,358,971, in 2022 it rose to $6,256,599, and in 2023 it rose to 6,810,654. What I find so interesting is the CEO bonuses starting in 2021 received a 20.8% bonus equalling $1,114,840 and every year since has received bonuses totaling $2,198,563 MILLION dollars. I urge the Oregon Public Utility Commission to carefully consider the impact of this proposed rate increase on the community and to reject PGE's request. It is crucial that we prioritize the financial stability and well-being of Oregon residents over corporate profits. Thank you for your attention to this matter. I hope that the Commission will act in the best interest of the public and deny this rate increase.
Sherrie	Williamson	WEST LINN	Please... no more taxes !

First Name	Last Name	City	Comment
Dave	Budeau	TURNER	Oregon PUC: RE: Docket 435 I offer a few reasons to oppose PGE's proposed rate-payer fee increase of 10.9%. First, electric utilities are monopolies. Rate-payers simply don't have a choice from whom they buy power. This lack of choice is a very strong argument for having only not-for-profit electric cooperatives. I'm particularly troubled by investor-owned utilities that attempt to provide a high rate of return to their shareholders. In March of this year, I heard PGE's Kristen Sheeran on OPB's Think Out Loud attempt to defend rate of returns of nearly 10% for PGE investors. Wouldn't we all like to see returns of 9.75%? If such returns are required to entice investors as Ms. Sheeran argued, why do people ever buy T-bills, which are currently hovering around 4%? PGE's public facing summary document (e.g., https://portlandgeneral.com/2025-rate-case) regarding the 2025 rate review doesn't say anything about increasing ROI for investors from what I read, instead, they talk of increasing power "resiliency"modernizing transmission infrastructure, and creating battery storage. Second, from my personal experience, PGE tries to pass along infrastructure upgrades to individual customers. In November 2019, we were attempting to have an average sized (7.9 kW) residential solar system installed on our garage. The interconnection agreement cost estimate from PGE was $693,600! No, that is not a typo, and it wasn't a joke. In follow up conversations with PGE, they said the cost estimate was justified because our proposed solar system would require them to make substation upgrades. Why does PGE need additional funds for infrastructure upgrades when they try to saddle individual customers for the cost of improvements? Third, during the summer of 2023, PGE was replacing power poles on about a mile of Cloverdale, Parrish Gap, and Hennies Rds in S. Marion Co. (We live on Hennies Rd). The project went on for several weeks and it seemed like most of the "work" occurred between 10 am and 2 pm, except during the time for lunch. In fairness, we don't know what was required of the project or what the crews were doing for remainder of the day, but I can say what we observed did not instill much confidence that rate-payer funds were being spent efficiently by PGE. (Contrarily we were impressed with PGE's response the one time our transformer failed.) Fourth, PGE just received a rate increase of 18% (and 12% the year before) and PGE is now requesting a 10.9% increase. More than a 40% increase over 3 years far exceeds inflation or other reasonable explanation. I personally believe PGE has failed to justify another rate increase and such an increase is not warranted. I respectfully encourage Oregon PUC to deny PGE's rate increase for 2025. And as a hail mary, I would encourage the Oregon PUC to consider if current PGE customers would be better served by a non-profit electric cooperative.
Carole	Crowley	DAMASCUS	With my PGE bills continuing to increase I am very concerned that I will not be able to pay these bills! We are retired and on a fixed income. Our bill is already $380.00 per month and even this is a stretch for us. Please do not allow PGE another increase. This would be the final straw for many people. Thank you
David	Heffner	OREGON CITY	Since this is a privately owned company all lawsuits involving economic damages should be the responsibility of the shareholders. Just because it is a regulated utility does not mean that return on investment is guaranteed despite errors and judgement decisions made by the corporate leaders. If this was a public utility then the general public can be responsible since we can have some say by election of leaders. We have no input on decisions made by private companies since we have no checks in their corporate governance.
Alicia	Schubert	BEAVERTON	I am deeply concerned about PGE seeking a 10.9% rate hike starting in 2025. Rate payers are weary of increase after increase. Utilities are taking up too large a portion of people's income after rising 40% since 2021. I volunteer at an organization that provides rent and utility assistance and see how many people are struggling both with increasing rent and utility prices. As is mentioned in a recent OPB article, there have been a record number of disconnections in the past year. People need electricity. It is dangerous for families to live without it. Summer has record heat, winter cold is too much for older people to bare. Not having electricity is a public health issue. Please, do not allow another large increase in rates at this stage. It sinks too many families into poverty. Thank you.
Jerry	Myrick	EAGLE CREEK	Please "¦ no more PGE rate hikes!!!
Linda	Myrick	EAGLE CREEK	Can't afford more rate increases. Discounts would be great!!!
Andrea	Bean	PORTLAND	The continual increases of PGE should be regulated. Their costs to make their power with renewable resources should not be put on their customers. It feels like they're bleeding us dry with no way out of it all. It's very disconcerting and infuriating.

First Name	Last Name	City	Comment
Pedro	Meza	SALEM	Prices are already at an all time high. People are already struggling to make payments.. raising prices again is not ideal right now.
Sarah	Eastman-Flores	PORTLAND	Dear Commissioners, Portland General Electric is requesting another enormous rate increase and I implore you to reject their request. In my home, we try to be very mindful about our electricity usage, but we have seen our power bill go sky high since 2020. Even if I can convince my family to eat by candle light, it wouldn't make a big dent. Unfortunately, we are dependent on electricity. We are fortunate enough to be able to pay our bill, but I know that many customers have had their power shut off in recent years due to lack of payment. Money that we have to spend on our higher utility bills (it's not just PGE, we have Northwest Natural and live within the Portland Water Bureau service area as well), means that we save less, and we don't spend as much money in the local economy. PGE is greedy. It's that simple. Customers should not be responsible for funding PGE's overdue maintenance.
Jorge	Flores	PORTLAND	I disagree with an electricity rate hike for average households in Portland. As residents we don't get increases of salaries of over 10% year over year. And even as much as we want to save energy this means that basic modern activities are going to be unaffordable for people in the city. If PGE needs to upgrade their infrastructure, that should be treated as an investment, and they could call people to invest in and of course own and get dividends from those investments. PGE's plan of renewable energy is causing to limit electricity supply, in a growing demand environment, they should focus on increasing the supply by using coal or any other resource available to produce electricity. A lot of this growing demand are due to EV owners that are sucking up energy for luxury cars, so PGE should discriminate EV owners and make them pay for the infrastructure and the supply they need for their EVs, it is completely unfair for the rest of the residents to have to bear the costs for something we don't use. This is going to drive more people out of housing in an already stretched budget for families. Enough is enough, PGE already increased rates for over 40% since 2021, coincidently after Oregon closed a coal power plant in 2020. This was a terrible decision, solar and wind is not going to supply the energy for the growing demand in Oregon, and they are also not good for the environment as in order to produce them it requires a lot of metals mining, which is not exactly environmentally friendly.
NIKKIE	ADAMS	CLACKAMAS	Please stop increasing our power rates! I am hard pressed to pay at the current rates. They have been raised close to 40"° over past few years. Enough is enough.
Jerian	Abel	PORTLAND	Dear Commission Members, I oppose PGE's current rate increase proposal. The proposal specifies an "increase of an average 7.4% for customers" but does not explain how the average was obtained. I encourage the commission and PGE to clearly define the rate triers and how equity will be addressed. For example, under-resourced communities and families on limited incomes afforded lower rates than families makes $100,000 annually? I would like to see the rate increase tied to income levels. While PGE provide an "Income-Qualified Bill Discount Program", my recommendation would augment this approach to all levels of income and ability to pay.
Mary Ann	Rogers	SALEM	They just raised their rates less than a year ago and made unaffordable on top of rent increases. Now they (PGE) are asking for another major increase? How are people supposed to pay electric, rent that is astronomical while wages are not increasing? This is being out right greedy. There are so many homeless because of this and so many lives lost because of this? How long must this go on for? I dont make horrible wages but when I rent a 2 bedroom house and my electric is almost $500 a month, I cant imagine a 3-4 bedroom. Again how how do average the average people working for minimum wage live in Oregon when rent and utilities keep going up like this?
Hunter	Koskondy	SALEM	Stop rising the price.
Karla	Anderson	PORTLAND	Highly oppose this rate increase.
Mert	Edgar	SILVERTON	Folks Please don't tell me you are considering to give PGE another rate increase to please thier sharholders. Us common people just can't afford any more rate hikes. /s/ Mert Edgar
David	Corkran	PORTLAND	Dear P.U.C. I hope you will limit rate hikes for Oregon utilities. I realize rate increases are necessary but investors as well as customers should pay for needed grid improvements. Please limit future utility rate increases to 7% for customers and make sure electric utilities pay their share of rate increases. Thank you, /s/ David & Charlotte Corkran Portland PGE Customer

First Name	Last Name	City	Comment
Edward	Maurina	HILLSBORO	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Mr. Edward Maurina
Noreen	Lesage	LAKE OSWEGO	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I am staunchly opposed to PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers have not yet recovered from the rate increase and ice storm bills this January. We have seen record disconnections from customers unable to pay these exorbitant rates and yet PGE continues to ask your permission to gouge us for more. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. That is just unconscionable! It's not like we have a choice to go to another provider for our electric needs. In PGE's 2023 Annual Report they touted the following under their VALUES: We serve We put our customers at the center of everything we do. We listen, empathize, and respond with creativity and urgency They have not listened to their customers as we plead with them to not raise rates again, they seem to have no empathy as they are unwilling to acknowledge the hardship they have placed on their customers monthly budgets, and their response has been anything but creative or urgent as they ignore their customers requests for no more rate hikes. People cannot afford these increases. Now is not the time to approve PGE's highly unreasonable request to raise bills again. Please put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Noreen Lesage
Kelly	Bowen	TALENT	I live in Talent Oregon. I completely understand fire prevention. Yet our part of town has had 9 outages in the first half of August. 8 in July. Meanwhile, the neighboring town of Ashland only 4 miles away has had no outages. It's becoming a daily occurrence. Our electronics and appliances are beginning to fail with the repeated losses of power and there's no answer from pacific power. My work is impacted as I work from home. This is isn't just "higher senstitiviy settings for fire season."�This is beyond egregious. Something needs to be done.
Tracy	Kosina	LAKE OSWEGO	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). As a PGE customer, I strongly encourage the Commission to reject PGE's request to raise rates by 10.9% for Oregon customers. Thousands of PGE customers are still reeling from the rate increase and ice storm bills this January. PGE's rates for Oregon households have already gone up by 30% from December 2022 to January 2024. We have seen record disconnections People cannot afford these increases. Now is not the time to approve PGE's unreasonable request to raise bills. We are counting on you, the Commission, to put a stop to this and protect customers like me. Please do not approve PGE's rate increase request. Sincerely, Ms. Tracy Kosina

First Name	Last Name	City	Comment
Josiah	Hernandez	HAPPY VALLEY	We Oregonians have reached our breaking point. I unequivocally oppose any further severe rate increases moving forward. This situation is outrageous and should not be tolerated. Pacific Gas and Electric (PGE) has had ample time to upgrade our grid without exploiting people who are already struggling to manage with the exorbitant price hikes imposed by these profit-driven companies. Not even two years ago, in 2022, PGE reported a record $478 million in revenue"”an amount far exceeding what is necessary for both maintaining and generating electricity. We possess the technology to produce electric energy nearly indefinitely, yet we are being told by the same company running it that is raking in record profits that they need even more money. Where have those multi-million-dollar government grants gone? This situation is unjust, driven solely by greed and the relentless pursuit of extracting every possible penny from working families. These price increases are debilitating. We are struggling to afford basic necessities like food, we hesitate to seek medical care due to the fear of crushing debt, and now we are expected to pay even more for electricity"”the most fundamental of utilities? Price caps must be implemented, or we will soon reach a point where PGE loses more revenue from unpaid bills than it gains from those who can pay. No one should have to choose between keeping the lights on and feeding their children, but that is precisely where these rate hikes are leading us. PGE is responsible for system upgrades and has been provided ample funds to make significant improvements; instead, they have chosen to shift these costs onto customers. We fulfill our obligation by paying our bills; what PGE does with that money is not our responsibility. Let it be clear that I am vehemently opposed to this situation. I have endured every price increase up to this point, but this latest hike is unacceptable. Just this month, my bill showed that my family used 2 percent less electricity than the previous month, yet our bill increased by $50. This is absurd, and the justifications and excuses provided for such hikes are no longer acceptable and should not be tolerated in the state
Kelli	Hernandez	HAPPY VALLEY	These rate hikes are insanity. Example, this last month we used 1% less electricity and yet our bill is HIGHER than last month. I am very low income as are my roommates and these increases are creating massive hardship for all of us. This last months bill means each of us are paying close too 100 EACH. Another rate hikes and we will be deciding whether to pay this monstrosity or eat! No more rate hikes!
Levi	Cook	CLACKAMAS	I am deeply disturbed by the asinine price hikes PGE has been implementing. I have 5 roomates and have for years barely been able to afford the cost of electricity even after splitting it 5 ways. I have frequently had to cover their shares because after other expenses they are left overdrafted. Rent is bad enough, food costs, internet, and transportation are bad enough but these egregious electric price hikes are going to further the homeless crisis. Once people are down its really hard for them to get back up, especially since the recent ban on "urban camping" effectively made it illegal for people to be homeless. These price hikes are going to devastate our economy which is already in dire straits for the average person. If you care about business this is going to make any kind of consumption unaffordable. I cannot cut my personal expenses any further to accommodate the exponential cost of living increase across the board. Our electricity usage was down 2% from the last billing cycle and yet our bill itself was $50 higher. I am not convinced by the explanations PGE has given for their rate increases. PGE has had all the money they could possibly need to improve infrastructure and create green energy generation and much like the telecoms industry it appears they are squandering or pocketing it. The costs should be trending down, not up. We can literally get free power from the sun and wind, which should have very cheap maintenance costs relative to fossil fuels. I cannot understate how dangerous these price hikes are for the stability of our society. We need to not only stop increasing the rates but start DECREASING them. It boggles the mind that legislators, governors and supervisory boards would let it get this bad. Electric bill rates have gone up 40% since 2021. Who has had a wage increase that has gone up that much? Certainly not the working class. PGE's greed has been unchecked and unmitigated for too long. If these price hikes are not curbed politically, I worry for the stability and well being of our state and its people. People are dying from exposure because they cannot afford to live. PGE needs to do its part and act like the responsible utility they are supposed to be instead of the parasitic entity they are currently behaving as.

First Name	Last Name	City	Comment
Josiah	Hernandez	HAPPY VALLEY	We Oregonians have reached our breaking point. I unequivocally oppose any further severe rate increases moving forward. This situation is outrageous and should not be tolerated. Pacific Gas and Electric (PGE) has had ample time to upgrade our grid without exploiting people who are already struggling to manage with the exorbitant price hikes imposed by these profit-driven companies. Not even two years ago, in 2022, PGE reported a record $478 million in revenue"”an amount far exceeding what is necessary for both maintaining and generating electricity. We possess the technology to produce electric energy nearly indefinitely, yet we are being told by the same company running it that is raking in record profits that they need even more money. Where have those multi-million-dollar government grants gone? This situation is unjust, driven solely by greed and the relentless pursuit of extracting every possible penny from working families. These price increases are debilitating. We are struggling to afford basic necessities like food, we hesitate to seek medical care due to the fear of crushing debt, and now we are expected to pay even more for electricity"”the most fundamental of utilities? Price caps must be implemented, or we will soon reach a point where PGE loses more revenue from unpaid bills than it gains from those who can pay. No one should have to choose between keeping the lights on and feeding their children, but that is precisely where these rate hikes are leading us. PGE is responsible for system upgrades and has been provided ample funds to make significant improvements; instead, they have chosen to shift these costs onto customers. We fulfill our obligation by paying our bills; what PGE does with that money is not our responsibility. Let it be clear that I am vehemently opposed to this situation. I have endured every price increase up to this point, but this latest hike is unacceptable. Just this month, my bill showed that my family used 2 percent less electricity than the previous month, yet our bill increased by $50. This is absurd, and the justifications and excuses provided for such hikes are no longer acceptable and should not be tolerated in the state of Oregon.
Dawn	Shipley	PORTLAND	Hello, I am one of the many residents living in Portland, serviced by Portland General Electric, that is at or very below poverty line. I currently get $943 a month and that has to go to many more bills then power. I tell you this because people lije me can not afford another rate hike like we had in January. I live on in a third floor apartment in a five story building, before January I had never had a bill above maybe $60/65. My bill for January was above $80 and if my church has not paid my power bill that month I would not have been able to pay it. I have since applied for and gotten PGE's payment assistance, but I was surprised to see that that did not cover very much. I already struggle to pay my bills and buy food on top of everything, $152 in SNAP benefis does not go very far, and if we have another increase like we did in January of this year I will not longer be able to afford to pay for my power. The only reason I ran my heat this past January was so that my cats did not freeze, and if my church had not have learned if my struggle January's bill probably would not have gotten paid. For the sake of those at, below, and very far below poverty line, please do not let PGE once again raise rates at this high of a percentage for a forth year in a row.
NA	NA	NA	Please do NOT approve the rate increase!! Jessica Wiltse 503.269.6258 Sent from my iPhone
David	Lehman	WOOD VILLAGE	PGE needs to learn how to budget their money better. Someone needs to take a pay cut in the upper management to save some money because it looks like they don't know how to manage the company. With rate increases like these I make cut back on what I spend or use, like front porch lights, heat, spending at local businesses. I look at cheaper prices online for products that I purchase which means less money spent locally. That means less for the city, county and state. Senior citizens can only afford so much.

First Name	Last Name	City	Comment
April	Dobson	HAPPY VALLEY	Dear Commissioners: I am writing in opposition to the pending rate hike requested by Portland General Electric (file UE 435). It is unreasonable to grant an increase that is nearly 4.2 times the current rate of inflation at a time when Oregonians and small businesses are having a tough time making ends meet. This new double-digit rate increase is unconscionable in the wake of the 30% rate hike PGE has imposed on its customers over the last two years. The most recent rate hike was the largest in 20 years. Given where our state is economically, I feel strongly that the proposed increase in the profit margin (Return on Equity) is extremely unwarranted. Only a tiny fraction of the proposed increase is for the purposes of increasing battery storage. If the Commission does decide to raise rates, I urge that the effective date (of this or any other future rate increase) fall at a time of relatively lower electrical usage (outside of the dead of winter or the peak cooling season). The combination of increased rates AND increased usage creates an overly harmful impact on stretched household budgets and small businesses' bottom lines. Finally, I urge that any large increase that significantly outpaces the Consumer Price Index be phased in over time. Oregon families in general and PGE customers in particular are already facing a record number of power shutoffs. Our community needs PGE to be doing more to avoid making the problem worse and pushing people towards homelessness. Sincerely, April Dobson Happy Valley OR
David	NA	OREGON CITY	I oppose another rate increase for PGE customers. Instead of paying high salaries and sharing the profits, they should have upgrading their infrastructure all along. Now it has come time to pay the piper. They want to pass costs through to the customers. The increase in number of shutoffs shows that more and more members of our community cannot afford these rate hikes. And what about the people that we don't hear about? The ones that are paying their bills but having to cut out other necessary items in their home budgets.
Carrie	Overton	OREGON CITY	Hello PUC, I appreciate your service in this industry. I am sure like many I am frustrated at our constant utility rate hikes. Our PGE bill is outrageous. I've had them at my home for three separate energy audits, which of course was listed as my misuse and my inability to control our usage. They told me our furnace was fine (well it wasn't, it was somehow wired to our electric panel directly) they failed to mention that. My bill is so high per month (600+) for a family of four, where most of us are gone during the weekdays. Should I mention that we lose our power for weeks at a time? We live in Oregon City less than two miles from 205? You call and they don't help and honestly they aren't even empathetic. PGE posted a record setting profit in 2023 of 2.2 billion. 2.2 billion! Do they honestly need another rate hike? For what? More profit? It's not like they are cutting costs, hiring less, making our electricity more efficient, or dare I say rebates for consumers? Please, please stop these rate hikes. I can not see any improvements being made in our area to help alleviate outages and over usage. Sincerely, Carrie Overton Oregon City, OR
Summit	Lee	PORTLAND	It's summer and the temperatures have been moderate this summer so we haven't been using the AC as much, and still I just paid a $205 for 1 month electric bill through PGE. I can't believe that they want to, again, drastically increase our bills. Our water bill has also gone up 6%. So my utility bills including trash and garbage this month have been $573. How does the average income worker get beyond this? I'm not low income so I don't get the break and I'm positive that the reduction in low income homes has been passed on to those of us who can't claim that deduction. Instead of again raising our rates why shouldn't PGE pass that cost on to it's shareholders, executive team, who didn't stop their raises this year, and stop giving it's employees a 15% discount? The federal government is also providing IRA funds for upgrades on the grid. It's not our fault that utilities were reckless in maintaining their systems and wildfires started as a result. All of this to say stop making us further victims while this company reps the benefits of us falling farther and farther behind! Their approach seems lazy and not inventive. OPUC please see the light here and stop this greed.
Dottie	Reynolds	KEIZER	Please do not allow a price increase in electric bills. No one can afford it right now! Thank you.
Eric	Trauman	TIGARD	No more rate hikes.
NA	NA	GRESHAM	Ridiculous. This rate increase completely ignores the financial burden this puts on customers. This will only create more bills going unpaid and will result in more disconnections. PGE appears to be out of touch with the reality of it's customers current financial conditions.

First Name	Last Name	City	Comment
Dan	Molyneux	LAKE OSWEGO	We, the consumers, cannot tolerate or accept these huge rate hikes without justification. Simply put, we have access to some of the cheapest forms of energy and renewable on the planet - namely hydro and natural gas. Wind and solar are not truly functional and require incredible infrastructure upgrades for minimal benefit along with decreased reliability and performance. Both natural gas and hydro are plentiful and environmentally friendly. Batteries and wind may not emit, but there are huge supply chain environmental concerns. I know many of these changes are due to legislative and regulatory requirements, but we cannot continue to have exponential rate hikes year after year. It's getting to the point where I'm considering leaving Oregon because the cost of living here is too high. Idaho has similar production means as Oregon and their rates are much less than Oregon's. You need to stay competitive in the market. Figure it out without gouging your customers.
London	Lunoux	PORTLAND	No more price increases! It's already unaffordable and unsustainable for working class people.
Matthew	Bradford	ESTACADA	Absolutely no rate increase with current economic turmoil especially when premise for increase is political propaganda. According to official economic data inflation is 3-4%. A rate of increase of 7 is unjustified.
James	Flynn	PORTLAND	We now know that green energy is expensive and unreliable. We need hydro, gas-fired and nuclear power plants. Do not shove the green new deal garbage down our throats. It does nothing to keep our energy costs reasonable.
Lori	Martino	SALEM	No more rate increases! Do what the rest of us have been forced to due the last few years and cut out all the unnecessary. Make the budget public and we the citizens will tell you what to cut.
Mark	Cach	PORTLAND	Dear Public Comments Oregon Public Utility Commission, I am writing to comment on the Portland General Electric rate case (UE 435). Please decrease your rate increase petition because your proposed increase is too large. Thank you, Please do not approve PGE's rate increase request. Sincerely, Mr. Mark Cach
NA	NA	NA	I took some PUC representives around before on more the ounce. But I don't see the same approach any more when it comes to holding the utilities responsible. I know how it all works. It has to change.
NA	NA	NA	The PUC has to get PGE back to the basics. What happened the the wrong doing regarding loosing like 270million in the stock trading? That money should has slowed rate increase but no PGE got a pass and rates now have went up like 28%. Also part the rate increase was because of the fires But PGE got federal funding for that already. So why was it allowed to be part of the rate increase.
Clark	Moss	PORTLAND	I'm not sure the docket number, but this is a comment on PGE's interest in raising their rates another 10.9%. I'm not sure how they were allowed to increase 40% since 2021. Normal COLA raises do not account for such adjustments. It's impossible to get anywhere when your yearly raise is dwarfed by utility rate increases. The Oregon Public Utilities Commission and the Oregon Citizens' Utility Board should be doing more to protect the public from such outrageous and careless rate increases. How can PGE be allowed these increases when the problem is obviously gross mismanagement? A business, especially a public utility, should be monitoring and planning for their maintenance needs. It should not be a surprise and put on the backs of the public. Also mismanagement is apparent in their need to raise rates due to disconnects - are they so poor at managing their utility they can't see that the disconnects are due to the rate increases? Higher rates will just lead to more disconnects. Instead of offering "bill discount programs to improve energy affordability" why not keep the rates affordable and having the city, country, state give PGE the funding needed to fix their maintenance issues.
Jackie	Beyer	MOLALLA	No more raises for this corrupted company! Enough is enough! Tell the people the truth! Stop allowing the corrupted environmentalist groups to control you! It is disgusting what you are willing to do for corrupt government agencies, instead of being honest! When SHTF, none of what you are doing will save a single citizen! You should all be ashamed for supporting the corrupt politicians instead of preparing citizens for life without electricity!

First Name	Last Name	City	Comment
William	Sherbaugh	PORTLAND	I am concerned about another rate increase. The request for the rate increase is ridiculous as PGE just had one last year and the year before. People are already struggling with the economy and 35% in the last three years is too much!
Greg	Dirks	WOOD VILLAGE	I wish to express my deep concerns regarding PGE's proposed rate increases, which I believe are both unsustainable and unwarranted. 1. Executive Compensation vs. Ratepayer Burden: It is alarming that PGE's CEO earned over $7 million last year, while the executive team collectively earned nearly $1 million each. This stark contrast highlights a troubling imbalance. While executives are richly compensated, ratepayers""who have no alternative options""are left bearing the brunt of increasing utility bills. 2. Shareholder Responsibility: The request for rate increases is to fund necessary improvements and enhance the resilience of the system. However, these improvements should primarily be funded by shareholders rather than ratepayers. Shareholders benefit from annual dividends and consistent returns on their investments. Given their financial gains, it is only fair that they should absorb a greater portion of the costs associated with system upgrades and maintenance. 3. Ratepayer Impact: Ratepayers are increasingly burdened with rising bills, despite efforts to mitigate costs through alternatives such as solar power. For instance, even though my organization produced more power than it consumed, we still faced a $350 bill due to demand charges and monthly connection fees. This scenario underscores a critical issue: ratepayers are essentially trapped with escalating costs, irrespective of their efforts to reduce consumption. 4. Historical Context and Fairness: Over the past four years, ratepayers have shouldered significant financial strain. It is imperative that PGE reassesses its approach to funding system improvements and considers a more equitable distribution of costs. In summary, the financial responsibilities for system improvements should be more equitably shared, with a greater emphasis on shareholder contributions. Ratepayers, who have been significantly impacted by rising costs, should not continue to bear the disproportionate burden. I urge a reconsideration of the proposed rate increases and a fairer allocation of financial responsibilities.
Bandana	Shrestha, State Director, AARP Oregon	PORTLAND	PGE Rate Case (PUC Docket UE 435) COMMENTS OF AARP OREGON August 27, 2024 AARP Oregon on behalf of its 500, 000 members (many of whom are PGE customers) hereby submits comments on the 2024 PGE rate case. Many of our members live on low or fixed incomes. Others live on Social Security alone. The rapid rise in PGE electricity rates is alarming. Indeed, PGE just increased rates earlier this year by a record 18% only to now ask for another 7% increase this year. This trajectory of continuous rate increases must be slowed or stopped. AARP Oregon has the following comments on the rate case: -The investment recovery mechanism should be rejected. Such flow through spending mechanisms bypass traditional regulatory scrutiny and fast track rate increases, making a bad situation worse. They also bypass offsetting costs reductions. We agree with CUB that the battery costs should not be included in the renewable energy recovery clause for these reasons. A new Seaside battery tracker mechanism should be similarly rejected. -The residential basic charge of $13 a month should not be increased further. High fixed charges make controlling your electric bill difficult which is why AARP opposes such increases in proceedings across the country. -The 9.75 percent return requested is too high and should be reduced. High returns inflate the rate increase. -The PUC should carefully review proposed generation, transmission, and distribution capital spending to ensure such spending is justified. AARP recommends rejection of uneconomic projects or use of Federal infrastructure dollars if available as an alternative to ratepayer dollars. We appreciate this opportunity to comment. Submitted on behalf of Bandana Shrestha, State Director, AARP Oregon, bshrestha@aarp.org
Ross	Chase	PORTLAND	The Bonniville Dam is paid for, the water is free, lines paid for and some upkeep, but since shareholders own the company, why aren't they investing in the company? Why do the rate payers have power shut off if can't pay a bill but City of Portland doesn't get a billed? Since only one power company in the area it's a monopoly. Seems to be if the company wants to invest in new technology shouldn't the share holders pay for it and not the rate payers?

First Name	Last Name	City	Comment
Kate	Delany	SILVERTON	This additional rate hike is too much for residential customers to afford. PGE touts a price reduction for low-income customers as the solution for those struggling to pay their electric bills, but if this was an effective solution then why did they disconnect a record number of customers last year? (https://www.kgw.com/article/money/business/pge-rate-hike-2025/283-b259b944-d6b0-45cc-ba6c-42e879a5e71d) All these prices increases seem like a result of mismanagement that we are expected to suffer the brunt of without complaint. The tech data centers with exorbitant profits and exorbitant energy usage should be footing the bill for these upgrades. Especially since they were already given a billion dollar tax break to start with (https://www.governing.com/resilience/oregons-rural-power-utility-has-become-a-big-polluter). I really liked House Bill 2816 proposed in 2023; it's a shame officials let Amazon kill it (https://www.oregonlive.com/business/2023/03/amazon-fights-oregon-data-center-clean-energy-bill.html). And here is another great article to prove my point: https://oregoncapitalchronicle.com/2024/08/26/energy-demand-from-data-centers-growing-faster-than-west-can-supply-experts-say/. Make the data centers pay for the upgrades!!!!
Ricki	Ruiz	GRESHAM	Dear Commissioners: We are writing in opposition to the pending rate hike requested by Portland General Electric (file UE 435). It is unreasonable to grant an increase that is nearly 4.2 times the current rate of inflation at a time when Oregonians and small businesses are having a tough time making ends meet. This new double-digit rate increase is unconscionable in the wake of the 30% rate hike PGE has imposed on its customers over the last two years. The most recent rate hike was the largest in 20 years. Given where our state is economically, we strongly feel that the proposed increase in the profit margin (Return on Equity) is extremely unwarranted. Only a tiny fraction of the proposed increase is for the purposes of increasing battery storage. If the Commission does decide to raise rates, we urge that the effective date (of this or any other future rate increase) fall at a time of relatively lower electrical usage (outside of the dead of winter or the peak cooling season). The combination of increased rates AND increased usage creates an overly harmful impact on stretched household budgets and small businesses' bottom lines. Finally, we urge that any large increase that significantly outpaces the Consumer Price Index be phased in over time. Oregon families in general and PGE customers, in particular, are already facing a record number of power shutoffs. We need PGE to be doing more to avoid making the problem worse and pushing people towards homelessness. Sincerely, The Honorable Annessa Hartman Oregon House of Representatives, District 40 Gladstone, OR The Honorable Ricki Ruiz Oregon House of Representatives, District 50 Gresham, OR The Honorable Zach Hudson Oregon House of Representatives, District 49 Troutdale, OR
Alan	Chew	ALOHA	PGE had net incomes this first quarter of $109 MILLION dollars this year per their earnings call. Portlanders are struggling to pay bills, especially with increased extreme heat and cold weather events, this puts citizens life at risk. If PGE was struggling to survive and turn a profit, then maybe this could be justified. They simply want to increase the return for their shareholders. Pure greed at the cost of the average citizen. PGE is a PUBLIC UTILITY, not a money printing machine, it should provide a service, and have some earnings to keep it competitive and improving. It should not be maximizing profit. I strongly urge the commission to vote against this rate increase and side with Oregonians instead of shareholders.
Alan	NA	ALOHA	I oppose this docket proposal. Per PGE's earning call they have made a profit of $109 million dollars in the first quarter of this year. They should provide a public good not maximize profit. I have a lengthier message that I accidentally submitted as a general comment. Overall is message below. I urge the commission to support the everyday Oregonian and not shareholders looking for profit. Do not approve of this rate hike please.
Christine	Novotny	PORTLAND	We just received our latest PGE bill, and are taken aback with the significant increase in our bill. Over the past year, our equal pay amount has increased 27%, while our consumption has remained consistent. As we are living on a fixed income, the recent monthly increase of $36 hits our budget. While we appreciate the escalation in costs for the utility, we ask that PGE tighten its own belts and look for internal cost cutting opportunities before the ask for continued rate increases. The continued ask for rate increases is not sustainable. Sincerely, Chris Novotny

First Name	Last Name	City	Comment
Marie	NA	LAFAYETTE	To Whom it Concerns, My name is Marie, I live in Lafayette. My husband and I moved here with dreams of starting and raising our family right before the beginning of the pandemic. Throughout the pandemic, there have been a number of struggles due to shortages and inflation, but we were finally able to start our family and bring our first little one into the world in 2022. As the world continues to grow crazier, I dream of the day I can become a stay at home mom and welcome another child into our family. My husband and I work hard everyday to make these dreams a reality, my husband has even gone back to school to finish his degree in order to take his career to the next level; however, it seems despite all our efforts inflation continues to raise and simple necessities such as water and power keep setting us back even further. I decided to share my story because these rate increases will continue to ultimately play apart of our story. I know increases are inevitable; however, these houses that use your services aren't just numbered houses on a power grid, they're homes to families of all kinds, each with a unique story. We're all feeling it. Please consider us, the people, your customers as you continue to make decisions. Thank you for your time, Marie
Linda	Watkins	LAFAYETTE	PGE Dear Chair Torgerson and PGE Board Members, This letter comes to you on behalf of the citizens and business owners of the City of Carlton. We understand, and appreciate that PGE has gone a number of years without a rate increase, and with. climate change and the devastation wreaked by recent wild-fire seasons the company is looking at ways to recoup and cover fire suppression and prevention costs. However, burdening your customers with not one, but two double-digit rate increases in consecutive years is more likely to stymie that goal. Like many small, rural communities in Oregon, our residents' median income is barely at levels considered a living wage for families. Living in a small community also means the shared costs of city services and infrastructure repair and maintenance are higher for our neighbors, with fewer customers to divide the burden. Add to this PGE's intention to impose another double-digit increase a year after the last one and we may well see our city's population become even smaller as more families are forced to leave because they can't afford to stay -which increases burden on those who will try to stay... until the next increases drive out more neighbors. This is how communities die, instead of growing and prospering, which is what we all want to encourage. In light of the financial hardships our residents are facing, we add our voice to those of other Oregon small cities who are encouraging PGE to explore alternative approaches to alleviate the effect these rate increases will impose on already stretched budgets while still enabling your own service goals. PGE has been a valued partner to the City of Carlton for many years, and we want to see that partnership continue for more years to come.
Jacqueline	Quiroz	LAFAYETTE	Hello, My name is Jacqueline Quiroz and I am a citizen of Lafayette. Inflation has really taken a toll on my family this year and the continual rate increases from PGE are no exception. My family is living paycheck to paycheck like many Americans and continued increase in cost of services are affecting our mental health and well being. I implore you to reconsider the rate increases and find other avenues of revenue. Sincerely, Jacqueline Quiroz
Vickie	Marshall	LAFAYETTE	To whom it may concern. I'm a retired individual that has worked since my teens. I recently had to return to work part time because the cost of living is quickly out pacing my social security. This ADDITIONAL increase proposed by PGE will dramatically affect my ability to continue paying my bills. This will dramatically affect our lifestyle, we don't take trips so that's not an option to cut out, so we will be forced to start cutting food and playing Russian roulette with which bill gets paid this month. Thanks for listening. Vicki Marshall
Sarah	Chapman	LAFAYETTE	Hi! My husband and i regularly joke that while we make ok money it feels like we get poorer and poorer each year due to increased of everything. Our electric bill is over $350 a month for a 1200 sq foot house. That's insane. And another increase soon? Maybe I'll just feed my kids twice a day instead of three times to come up with the extra money. The Chapmans

First Name	Last Name	City	Comment
Donna	Peter	Bloch	Hello Ms. Pope, First, I would like to thank you for agreeing to meet with our Mayor, the City Council members and the City Administrator of Lafayette. It is nice to know that we can reach out to Portland General Electric and be heard. My husband and I retired to Lafayette in the spring of 2020 to escape the traffic and high taxes of the Portland Metro area. We have loved living in this much smaller comm unity, surrounded byvineyards, but survival keeps getting much more difficult everywhere, with the ongoing economic crisis. We live on our Social Security and a small cottage business, since retiring in 2020. Recently, I we realized that the small increase that we received from Social Security in 2024 disappeared quickly to cover just some of the increases for insurance and utilities, which didn't help with the rising cost of food and gas and other expenses at all. So, imagine the sticker shock, when we found out that there will be a planned consecutive double digit increase on our electric bill. I don't think we have ever been late to pay an electric or other utility bill in the 44years of our marriage, but I can't imagine how we will be able to pay a higher bill in the near future. There is nothing left in our budget that we can cut. Like a lot of other residents in Lafayette we have home maintenance needs that we are unable to take care of without going into debt. We are not alone. A significant demographic in Lafayette are retired seniors, who are really struggling every single day, to make ends meet in this economy. Thank you for your time, Donna & Peter Bloch
Valerie	Parsons	LAFAYETTE	Subject: PGE Rate Increase Madam Mayor, Thank you for the opportunity to make a statement to PGE CEO Maria Pope. I am sure that PGE and the Oregon PUC have gotten lots of feedback, but this is great to have the chance to personally address the potential rate increase. I live in a manufactured home that I moved to in 2020. I have taken advantage of the Oregon Energy Trust Incentives for my home and encouraged my neighbors to participate. The first year in the house I did not have a heat pump and my electric bills were sky high. The following year I purchased a heat pump with the rebate and the bills dropped significantly. This year I will get more insulation through the program in an attempt to keep my bill somewhat manageable. Obviously the 18% increase in addition to the yearly increases since 2020 have had a huge impact on my electric bill. Sadly, every single bill has gone up. Water, property tax, land fee (10% yearly) for the house, Comcast, Recology, home/car/medical insurance. And then there is gas, food and basic necessities. I am 69 years old. I work 2 jobs. When I purchased the house, I had a plan for retirement. That plan isn't happening. I am losing my main job (bookkeeper) in June. I will increase hours at my part time job at Target. My neighbors who are in their BO's do not have that option. You At Target I work with a lot of people in their 20's. We joke that we are in the same sinking boat. Most of them are working over 30 hours a week, in school full time, live in a 2-bedroom apt with numerous roommates, and carrying a lot of student debt. They know they will never be able to buy a home, because that has become impossible. Heck, they can't even afford an apt. without having a roommate(s). This is sad. And it isn't right. The apt. complexes they live in have horrible insulation and heating bills are super high. In 2019 my average PGE bill was over $220 in the winter because of the old building with no insulation and baseboard heater (thermostat was set at 67). I can't imagine what people are paying now after 4 years of increases. I understand infrastructure issues, I get that the fires and storms have caused havoc for PGE. But I can't comprehend another increase on top of 18% this year. And yes, I do realize you have low-income discounts, but the threshold is way too low. A single person with a home or apt. cannot live on $33,427.00 per year. It's like the Social Security 3.2% increase, which did not make a dent in the cost-of-living reality. I hope that Ms. Pope will visit various counties in the state and give residents the opportunity to respond to the proposed increase. These are scary times; you can only stretch a dollar so far. I hope she can see how these increases are impacting lives in the big cities and rural communities - seniors, families and kids just starting out need a break. It's tough out there for all of us. Best, Valerie Parsons Lafayette, Oregon

First Name	Last Name	City	Comment
Michael	Factor	LAFAYETTE	Impact from PGE rate increase Hilary We live at redacted. We feel like PGE needs to tone down rate increases, as hey just increased rates by 17-20%. What was their reasoning behind a drastic increase like this and maybe they would share exactly why that kind of a jump with the economic crisis and inflation , it is hard enough to keep up with food costs skyrocketing, and utllities in general. We understand increases are needed, however 3-5% a year over a set number of years maybe 5 years instead of all at one time would have been much simpler to balance a typical family with usual bills and the extra out of nowhere things that happen in life. We personally feel that PGE is just going to increase homelessness and putting people in a position no one wants to be in " do I pay my rent/house payment / buy food or my electricity'? Also PGE's " income policy for who qualifies does not align with YCAPs food program specifically in Yamhill County... People in Yamhill for instance a family of 4- making less than 74K can get food assistance, but according to PGE if you are a family of 4 you can only make 63K .. where did they get their #'s from? They claim to have boosted the avail,3bility from 30-65% of families but when you look deeper, they are actually less families now able to qualify because cost of living is so high and in order to afford anything the average family of 4 makes just above their thresh hold. We personally my wife and I are disgusted at the entire way PGE has handled themselves and set their "qualified income " at and see no explanation of how they chose those numbers .. Thank you and hopefully this is one of many others that agree another increase is not feasible to most and they need to explain and show the public where the 17-20% increase is going to or being used for. Michael Factor

CASE: UE 435
WITNESS: ITAYI CHIPANERA

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 2700

REDACTED
Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Itayi Chipanera. I am a Senior Financial Analyst employed in the Accounting and Finance Section of the Commission's Energy Program. My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Exhibit No. Staff/300 and my Witness Qualifications Statement is provided in Exhibit No. Staff/301.

Q. What is the purpose of your testimony?

A. I am the revenue requirement summary analyst, and the purpose of my testimony is to present changes in revenue requirement associated with the Company's Reply Testimony and Staff's Rebuttal Testimony. I also respond to the Company's Reply Testimony regarding my Opening Testimony positions on cash working capital and OPUC fees.

Q. Did you prepare any exhibits for this docket?

A. No.

Q. How is your testimony organized?

A. My testimony is organized as follows:

Q. Does the Company agree with any issues that were introduced in your Opening Testimony?

A. Yes. Staff and PGE agree that the Company should use the new OPUC Fee rate of 0.45 percent for Test Year OPUC fee expenses, which is reflected in the

Company's updated revenue requirement. The OPUC fee rate is a revenue sensitive item, and its final value will ultimately depend on the final revenue requirement; therefore, Staff is not proposing an adjustment in this Reply Testimony other than the one necessary to calculate the Staff proposed Company revenue requirement.

ISSUE 1. REVENUE REQUIREMENT

Q. Please discuss the overall changes to revenue requirement proposed in PGE's Reply Testimony compared to its Opening Testimony.

A. In its Opening Testimony the Company proposed $2.944 billion[1] in base sales to customers, up from $2.699 billion,[2] reflecting a $245.391 million[3] increase that would impact customers on January 1, 2025. This amount includes the proposed Net Variable Power Costs (NVPC) at issue in Docket No. UE 436. In its Reply Testimony, the Company is proposing base sales to customers of $2.985 billion,[4] an increase of $285.783 million.[5] Overall, the Company's incremental revenue requirement request has increased by $40.392 million.[6] The increase in the incremental revenue requirement reflects two net variable power cost updates that increase the revenue requirement by $57.06 million.[7] The net variable power cost updates are as of April 1, 2024, and July 15, 2024. There will be further power cost updates in Docket No. UE 436 that will affect the final rates customers will pay beginning on January 1, 2025.

Q. What is the overall percent rate change inclusive of all other proposed or settled changes expected on January 1, 2025.

1 PGE / 201, Batzler - Ferchland / 3, Row label "Base Sales to Consumers (Rev Req)",column 8.
2 UE 435 / PGE / 201, Batzler - Ferchland / 1, Row label "Base Sales to Consumers (Rev Req)", column 1.
3 $2.944 billion - $2.699 billion = $245.391 million.
4 PGE / 1301, Batzler - Meeks / 1.
5 $2.985 billion - $2.699 billion = $285.783 million.
6 $285.783 million - $245.391 million = $40.392 million.
7 Integrated PGE RevReq_PGE_Reply workpaper.

A. The overall percent change that will impact PGE's customers on January 1, 2025, is 7.6 percent.[8] According to the Company, this percentage change includes the revenue requirement cited in its Reply Testimony, the July net variable power costs update, as well as the impact of three other supplemental schedules.[9]

Q. What is the change in base, non-power costs revenue requirement proposed by PGE in its Reply Testimony compared to its Opening Testimony?

A. In its Opening Testimony the Company requested a base business revenue increase of $202.0 million.[10] In its Reply Testimony, the Company lowered its requested base business increase to $190.528 million.[11] Should the Seaside battery tracker be approved with the associated costs at their proposed level, Staff expects an additional base increase of approximately $49 million once the tracker becomes effective in mid-2025, based on the workpapers filed in the Company's Opening Testimony.

Q. What are the drivers of the change in base, non-power costs revenue requirement between the Company's Opening Testimony and Reply Testimony?

A. The Company reduced its requested return on equity from 9.75 percent to

8 PGE response to Staff data request 754.
9 Id
10 PGE / 200, Batzler - Ferchland / 2.
11 PGE / 1300, Batzler - Meeks / 1.

9.65 percent, resulting in a revenue requirement reduction impact of $5.21 million. The Company says the proposed reduction in return on equity is an effort to work collaboratively with stakeholders, maintain a lens on affordability and reduce the overall price request in this case, and narrow the issues "[i]n this proceeding[.]"[12] Additionally, PGE made several updates that reduce the base business revenue requirement, including reductions where the Company agreed with Staff and Intervenor opening positions. The Company says that with these changes and the impact of the reduced return on equity, it reduced its base rate revenue requirement by $18.159 million.[13] Table 1 below summarizes all the base business revenue requirement made by the Company in its Reply Testimony.

12 PGE / 1800, Figueroa - Liddle / 3.
13 PGE / 1300, Batzler - Meeks / 10.

Table 1.

Summary of Company's Adjustments to Revenue Requirement in Reply Testimony

Adjustment	Revenue Requirement Impact
May 1 Plant Update	3,097
CO2 Allowances	(195)
Boardman COR ADIT	(585)
Accrued Incentive ADIT	(489)
PTC Carryforwards	(4,937)
OPUC Fees	685
OCAT	(1,905)
ITC in Constable RevReq	(6,811)
Memberships	(49)
Meals & Entertainment	(148)
Amazon Pay	(27)
TriMet UM 1811 Capital	(0.3)
Clearwater Fee	(2,080)
ROE	(5,210)
Cost of Debt	495
Total	**(18,159)**

Q. How does the Company explain the discrepancy in the base rate change from \$202.0 million to \$190.528 million, a reduction of \$11.5 million, compared to the \$18.159 million reduction it outlined in its Reply Testimony?

A. In a data response to Staff inquiries, the Company explained this discrepancy as follows,

> The difference can be attributed to a revision of the load adjusted NVPC impact that occurred following the filing of PGE's initial revenue requirement and testimony. This revision was the result of more analysis to identify the amount of load benefit that should be attributed to the costs associated with NVPC. This revision impacted base power costs by increasing the load benefit attributed to base NVPC by approximately \$6.0

> million. Additionally, the power cost benefit attributed to Constable was also revised such that it equaled the NVPC impacts of the project. The impact of this was approximately $0.7 million. When added to the approximate $11.5 million calculated between $202.0 million originally filed and $190.528 million currently requested, you arrive at approximately $18.2 million.[14]

Q. Has Staff resolved any proposed adjustments to the Company's revenue requirement with PGE?

A. No. Staff has not resolved any proposed adjustments with the Company.

Q. What is the adjustment to revenue requirement recommended by Staff in this Rebuttal Testimony?

A. Staff proposes to reduce the Company's requested revenue requirement increase based on a range of return on equity (ROE) values. Staff proposes to reduce the requested $190.528 million increase to an amount within the following range: **[BEGIN CONFIDENTIAL]**

- [redacted]
- [redacted]. **[END CONFIDENTIAL]**

Q. Summarize Staff's proposed adjustments to the Company's revenue requirement?

A. Staff's adjustments are presented in the table below.

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[14] PGE response to Staff data request 753.

Table 2

PGE
STAFF ISSUE SUMMARY
Twelve Months Ended December 31, 2025
($000)

Total Incremental Revenue Requirement to Base Rates Initially Filed by the Company	**$ 202,000**	**$ 202,000**
Company Reply Testimony: - May 1 Plant Update	$ 3,097	$ 3,097
Company Reply Testimony: - CO2 Allowances	$ (195)	$ (195)
Company Reply Testimony: - Boardman COR ADIT	$ (585)	$ (585)
Company Reply Testimony: - Accrued Incentive ADIT	$ (489)	$ (489)
Company Reply Testimony: - PTC Carryforwards	$ (4,937)	$ (4,937)
Company Reply Testimony: - OPUC Fees	$ 685	$ 685
Company Reply Testimony: - OCAT	$ (1,905)	$ (1,905)
Company Reply Testimony: - ITC in Constable RevReq	$ (6,811)	$ (6,811)
Company Reply Testimony: - Memberships	$ (49)	$ (49)
Company Reply Testimony: - Meals & Entertainment	$ (148)	$ (148)
Company Reply Testimony: - Amazon Pay	$ (27)	$ (27)
Company Reply Testimony: - TriMet UM 1811 Capital	$ (0)	$ (0)
Company Reply Testimony: - Clearwater Fee	$ (2,080)	$ (2,080)
Company Reply Testimony: - ROE (Reduced from 9.65% to 9.50%)	$ (5,210)	$ (5,210)
Company Reply Testimony: - Cost of Debt (Increased from 4.628% to 4.641%)	$ 495	$ 495
Company Reply Testimony: - Other Adjustments	$ 6,687	$ 6,687
Total Current Base Rate (Non-NPC Related) Price Change Requested	**$ 190,528**	**$ 190,528**

Testimony	Issue No.	Staff	Staff Adjustments	Revenue	Expense	Rate Base	Revenue Requirement Effect @ ROE 9.22%	Revenue Requirement Effect @ ROE 9.46%
2800	ROE	Matt Muldoon	Return on Equity	-	-	-	(14,565)	(2,081)
2900	COD	Rose Pileggi	Cost of Debt	-	-	-	-	-
2300	S-23	Curtis Dlouhy	Electric Plant In Service - Constable	-	-	(14,000)	(1,251)	(1,275)
2300	S-24	Curtis Dlouhy	VPP - Operation Supervision and Engineering	-	(1,500)	-	(1,554)	(1,554)
2700	S-1	Itayi Chipanera	Interest Expense Sychronization	-	-	-	3,718	3,718
2700	S-2	Itayi Chipanera	Cash Working Capital	-	-	(22,949)	(2,051)	(2,090)
2700	S-3	Itayi Chipanera	OPUC Fees	-	-	-	-	-
3000	S-37	Brett Stevens	Rate Base - Average of Averages	-	-	(199,065)	(17,788)	(18,126)
3200	S-30	Eric Shierman	CapEx: Buildings	-	-	(20,700)	(1,850)	(1,885)
3200	S-31	Eric Shierman	CapEx: Motor Vehicles	-	-	(3,684)	(329)	(335)
3200	S-32	Eric Shierman	OpEx: Distribution Maintenance	[redacted]				
3200	S-33	Eric Shierman	CapEx: Electric Plant in Service	-	-	(1,090)	(97)	(99)
3200	S-34	Eric Shierman	CapEx: Installations on Customer Property	-	-	(1,752)	(157)	(160)
3200	S-35	Eric Shierman	CapEx: TE Database	-	-	(177)	(16)	(16)
3200	S-36	Eric Shierman	OpEx: Customer Service and Assistance	-	(463)	-	(480)	(480)
3300	S-15	Stephanie Yamada	Wages and Salaries - O&M Adjustments	-	(27,996)	-	(29,003)	(29,003)
3300	S-16	Stephanie Yamada	Wages and Salaries - Capital Adjustments	-	-	(19,508.6)	(1,743.2)	(1,776.4)
3400	S-4	Dustin Ball	Property Insurance	[redacted]				
3400	S-5	Dustin Ball	Casualty Insurance	[redacted]				
3400	S-6	Dustin Ball	Transmission and Distribution Capital	-	-	(36,416)	(3,254)	(3,316)
3400	S-7	Dustin Ball	Generation Capital	-	-	(17,846)	(1,595)	(1,625)
3400	S-8	Dustin Ball	Information Technology Capital	-	-	(3,341)	(299)	(304)
3500	S-17	Luz Mondragon	Routine Vegitation Management Transmission	-	(86)	-	(89)	(89)
3500	S-18	Luz Mondragon	Routine Vegitation Management Distribution	-	(6,085)	-	(6,304)	(6,304)
3500	S-19	Luz Mondragon	Utility Asset Management Transmission Expense	-	(193)	-	(200)	(200)
3500	S-20	Luz Mondragon	Utility Asset Management Distribution Expense	-	(5,693)	-	(5,898)	(5,898)
3600	S-21	Julie Dyck	Fuel Stock	-	-	(6,678)	(597)	(608)
3700	S-9	Laurel Anderson	Generation Non Labor O&M Expense	-	-	-	-	-
3800	S-10	Nicola Peterson	Customer Records & Collections	-	(2,000)	-	(2,072)	(2,072)
3800	S-11	Nicola Peterson	Customer Assistance Expenses	-	(1,500)	-	(1,554)	(1,554)
3800	S-12	Nicola Peterson	Office Supplies Expenses	-	(1,780)	-	(1,844)	(1,844)
3800	S-13	Nicola Peterson	O&M Overhead	-	(600)	-	(622)	(622)
3800	S-14	Nicola Peterson	Payroll Overhead	-	(485)	-	(502)	(502)
3800	S-25	Nicola Peterson	Customer Expenses - Amazon Pay*	-	-	-	-	-
3900	S-22	Mitch Moore	Non-Fuel Materials and Supplies	-	-	(19,272)	(1,722)	(1,755)
4000	S-26	David Abraham	Rent Property - Joint Pole	732	-	-	(758)	(758)
4000	S-27	David Abraham	Other Revenue - Steam Sales	1,695	-	-	(1,756)	(1,756)
4100	S-28	Paul Rossow	Memberships and Dues	-	(302)	-	(313)	(313)
4100	S-29	Paul Rossow	Meals and Entertainment	-	-	-	-	-
Total Staff Adjustments				[redacted]				
Staff-Calculated Revenue Requirements Change:				[redacted]				

*Staff Issue S-25, Customer Assistance-Amazon Pay, was assigned to Staff Witness Scott Shearer in Opening Testimony

ISSUE 2. CASH WORKING CAPITAL

Q. Summarize Staff's Opening Testimony position regarding the Company's Test Year cash working capital amount.

A. Staff proposed to reduce the company's Test Year cash working capital from $103.697 million to $80.485 million, a proposed reduction of $23.212 million. Staff's proposed reduction is based on reducing the Company's cash working capital factor from 4.222 percent to 4.208 percent, as well as removing depreciation and amortization expenses from the annual expense used to calculate cash working capital.

Q. What is Staff's response to the Company's argument that its method of calculating the service lag using cycle meter days is more aligned to the billing days on customer bills versus Staff's proposed method?

A. For this general rate case, Staff accepts PGE's more detailed method of estimating the service lag and will therefore withdraw its proposal to adjust the Company's cash working capital factor through an adjustment of the Company's service lag.

Q. Summarize the Company's arguments in favor of including depreciation and amortization expenses into the cash working capital calculation?

A. The Company says its investors deserve additional compensation from rate payers for the time they must wait to fully recover their investments through the depreciation and amortization mechanism. PGE argues that asset purchases require an upfront cash outlay while depreciation and amortization recovery are gradual and therefore this timing difference creates a compensation lag. The Company also argues that including depreciation and amortization expenses in the cash working capital calculation "also serve as a proxy for the lag on interest expense payment."[15]

Q. Does Staff agree with PGE's assertion that rate payers must pay the Company's investors for a depreciation and amortization compensation lag through excess cash working capital holdings?

A. No. Staff does not agree with this argument. The risk of investment for PGE's investors, and the associated compensation the investors must receive for assuming that risk, is properly reflected in the Company's return on equity. In particular, the Company's approved return on equity contemplates an equity premium that is aimed at compensating investors for assuming risks that are above the market return. Customers must not pay a "waiting premium" return on PGE's excess cash working capital holdings.

Q. Is holding excess cash working capital the proper mechanism for addressing the depreciation and amortization investor compensation lag cited by PGE?

A. No. Cash working capital is intended to fund the short-term gap between the Company's operating cash inflows and cash outflows; it is a reserve for the Company's daily operations. Staff reiterates its view that cash working capital is a product of net lag days and average daily cost of service and PGE has no daily cash need to fund depreciation and amortization expenses.

[15] PGE / 1300, Batzler - Meeks / 45.

Q. Is Staff's view of cash working capital as a product of net lag days and average daily cost of service consistent with PGE's own calculation?

A. Yes.

Q. Please demonstrate.

A. PGE calculated its cash working capital as follows.

$$1. \mathit{Cash\ Working\ Capital} = \mathit{Working\ Cash\ Factor} * \mathit{Annual\ Expense}$$

Alternatively, equation (1) above can be restated as follows,

$$2. CWC = \left(\frac{\mathit{Revenue\ Lag} - \mathit{Expense\ Lag}}{365}\right) * \mathit{Annual\ Expense}$$

PGE labels the quantity in parenthesis in the equation (2) above as "Working Cash Factor".

Staff rearranges the equation (2) above as follows

$$3. CWC = (\mathit{Revenue\ Lag} - \mathit{Expense\ Lag}) * \left(\frac{\mathit{Annual\ Expense}}{365}\right)$$

The quantity in the first parenthesis in equation (3) above is the net lag and the quantity in the second parenthesis is the average daily cost of service. Staff's characterization of cash working capital as the product of net lag and average daily of cost of service is consistent with PGE's own calculation.

Q. What is Staff's response to the assertion that holding excess cash working capital driven by the inclusion of depreciation and amortization expenses is a proxy for the Company's debt expense payments?

A. The Company did not include the debt expense lag in its lead lag study and its claims of including depreciation and amortization expenses in cash working capital as a proxy for debt expense payments are unsubstantiated. PGE has simply not demonstrated any meaningful correlation between its debt expense payments and the annual depreciation and amortization expenses under discussion. It is uncertain how the inclusion of debt expense payments in the lead-lag study as part of calculating a cash working capital factor compares to the inclusion of depreciation and amortization as part of annual cash expenses, therefore, Staff rejects this argument. If the Company needed to account for debt expense payments, it should have properly studied the timing of these payments and properly include them in the lead-lag study.

Q. What is Staff's revised adjustment to the Company's Test Year cash working capital amount?

A. Staff accepts the Company's filed cash working capital factor of 4.222 percent but maintains its proposal to remove depreciation and amortization expenses from the cash working capital calculation. Staff's revised proposal is to reduce the Company's cash working capital from the amount filed in its Reply Testimony of $105.827 million to $82.878 million, a reduction of $22.949 million.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2800

Rebuttal Testimony
Rate of Return

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Matt Muldoon. I am a Manager employed in the Accounting and Finance Section of the Commission's Energy Program. My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is provided in Exhibit Staff/400 and my Witness Qualifications Statement is provided in Exhibit Staff/401.

Q. What is the purpose of your testimony?

A. I update Staff's Return on Equity (ROE) modeling and overall Rate of Return (ROR) to incorporate recent data, and rebut elements of PGE's (PGE, POR (Stock Ticker Symbol), or Company) Reply Testimony regarding the Company's ROE modeling and rebut PGE's review of my Opening Testimony. I also recap intervenor testimony on these issues.

Further detail on Cost of Long-Term (LT) Debt is found in Rose Pileggi's testimony in Exhibit Staff/2900.

Q. How is your testimony organized?

A. My testimony is organized as follows:

Q. Did you prepare exhibits for this testimony?

A. Yes. I prepared the following exhibits:

Other Supporting Exhibits Updating Information from Opening Testimony

Q. PGE reduced the Company's requested ROE from 9.75 percent to 9.65 percent in Reply Testimony?[1] Does this represent a significant improvement in affordability for Oregon utility customers from current Commission authorized Cost of Capital for PGE?

A. No. Viewed from Staff perspective, this looks like a request to increase PGE's ROE 15 basis points (bps) over Commission authorized ROE for rates effective January 1, 2024. Meanwhile according to the Oregonian and financial news feeds, Oregon has a variety of economic headwinds both for families and for employers.[2]

1 PGE/1000, Ferchland-Liddle/7 and PGE/1800, Figueroa-Liddle/1.
2 See Staff/2810 Muldoon/1,6,36,40,60,66,90,93,98,101,105,109,122,125,128,130,132, 139, 140, 144,150,202,218,221,229,239.

Q. The Company says it finds itself in a rising interest rate environment looking forward to the Test Year.[3] Is that certain?

A. No. If PGE is arguing that the Commission should be promptly responsive to U.S. Federal Reserve (Fed) actions regarding interest rate changes, the Company has yet to clarify if PGE's recommendation is bidirectional. The Commission may observe the Fed reducing rather than raising interest rates as the Commission prepares its final order in this UE 435 general rate case. There may be less urgency to increase ROE to address "rising" interest rates if interest rates are falling and expected to fall further prior to end of the UE 435 Test Year.[4]

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[3] PGE/1800, Figueroa-Liddle/4.

[4] See Staff/2810, Muldoon/32,44,53,56,78,117,140,155,163,177,193,235.

1. OVERALL RATE OF RETURN (ROR)

Q. What is PGE's proposal for its overall Rate of Return in the Company's Reply Testimony?

A. The Company now proposes a rate of return (ROR) of 7.146 percent, with a capital structure comprised of 50 percent Common Equity and 50 percent Long-Term Debt, a 4.641 percent cost of long-term debt, and a 9.65 percent return on equity (ROE).[5]

Q. Have you prepared tables showing the RORs established for PGE's current Commission-authorized rates and proposed in the Opening Testimony submitted by the Company, Staff, and AWEC, as well as in the Company Rebuttal Testimony?

A. Yes. The following tables provide that information.

TABLE 1

PGE Current OPUC Authorized (UE 416 Order No. 23-386)			PGE
Component	**Percent of Total**	**Stipulated or Implied Cost**	**Weighted Average**
Long-Term Debt	50%	4.485%	2.243%
Preferred Stock	0%	0.00%	0.000%
Common Stock	50%	9.50%	4.750%
	100%	**ROR**	**6.993%**

[5] PGE proposes to reduce its requested ROE from 9.75 percent to 9.65 percent. See PGE/600, Figueroa-Liddle/2, Table 1.

TABLE 2[6]

PGE Requested – UE 435		PGE Direct Testimony		
Component	Percent of Total	Cost	Weighted Average	ROR vs. Current
Long-Term Debt	50%	4.628%	2.314%	0.197%
Preferred Stock	0%	0.00%	0.000%	
Common Stock	50%	9.75%	4.875%	
	100%	ROR	7.189%	

TABLE 3[7]

Staff Proposed – UE 435		Staff Opening Testimony		
Component	Percent of Total	Cost	Weighted Average	ROR vs. Current
Long-Term Debt	50%	4.641%	2.321%	-0.072%
Preferred Stock	0%	0.00%	0.000%	
Common Stock	50%	9.20%	4.600%	
	100%	ROR	6.921%	

TABLE 4[8]

AWEC Proposed – UE 435		AWEC Opening Testimony		
Component	Percent of Total	Cost	Weighted Average	ROR vs. Current
Long-Term Debt	55.4%	4.630%	2.565%	-0.302%
Preferred Stock	0%	0.00%	0.000%	
Common Stock	44.6%	9.25%	4.126%	
	100%	ROR	6.691%	

6 PGE/600, Figueroa-Liddle/2, Table 1.
7 Staff/400, Muldoon/4.
8 AWEC/200, Kaufman/75, Table 29 dated July 15, 2024, with Staff's rounding.

TABLE 5[9]

PGE Requested – UE 435		PGE Reply Testimony		
Component	**Percent of Total**	**Cost**	**Weighted Average**	**ROR vs. Current**
Long-Term Debt	50%	**4.641%**	2.321%	**0.153%**
Preferred Stock	0%	0.00%	0.000%	
Common Stock	50%	**9.65%**	4.825%	
	100%	**ROR**	**7.146%**	

TABLE 6[10]

Staff Proposed – UE 435		Staff Rebuttal Testimony		
Component	**Percent of Total**	**Cost**	**Weighted Average**	**ROR vs. Current**
Long-Term Debt	50%	**4.641%**	2.321%	**-0.002%**
Preferred Stock	0%	0.00%	0.000%	
Common Stock	50%	**9.34%**	4.670%	
	100%	**ROR**	**6.991%**	

9 PGE/1800, Figueroa-Liddle/5, Table 1.

10 Note that this ROE is for illustrative purposes only. Staff recommends a range of reasonable ROEs of 9.22 percent to 9.46 percent. This example ROE within that range would produce an overall ROR that is very slightly below than the Commission has currently authorized for PGE in Order No. 23-386 in Docket No. UE 416.

2. CAPITAL STRUCTURE & COST OF LONG-TERM DEBT

Q. Has Staff reviewed both AWEC's Opening Testimony and the Company's Reply Testimony regarding capital Structure?

A. Yes. AWEC calculates a 44.6 percent equity layer for its recommended capital structure shown in Table 4 above. In contrast, the Company recommends a 50 percent equity layer as shown in Table 5 above.

Q. Has Staff's position changed from Opening Testimony?

A. No. Staff will monitor the Company's capital structure going forward. However PGE has a long history since the Company refloated its Common Stock after becoming independent of Enron of oscillating around a balanced 50 percent equity layer capital structure.

Q. Is Staff saying it trusts PGE's representation that it is targeting a 50 percent equity layer in capital structure looking forward over about a five-year period?

A. Yes. Staff notes the Company's consistent messaging in PGE's filings with the U.S. Security and Exchange Commission and with customers and investment banks in earnings calls is entirely consistent with the Company having this goal in PGE's financing its utility operations.[11]

Moreover one can observe that PGE is issuing common stock on an ongoing basis in equity forwards, at the market and in other forms of equity flotation.[12]

[11] See Exhibit Staff/2815,2816,2818.

[12] See Exhibit Staff/2814 for a PGE (POR) SEC 8K Current Report regarding issuance of $400 million value issuance of common stock at the market. Also see: Staff/2817 Muldoon/8.

Cost of Long-Term Debt

Q. Did Staff analyze the Company's Cost of Long-Term Debt?

A. Yes. See Exhibit Staff/2900 for Staff Senior Utility Analyst Rose Pileggi's Rebuttal Testimony regarding the Company's outstanding and planned proforma debt issuances, and her recommendations for a 4.641 (Placeholder) percent Cost of Long-Term Debt. As explained therein, Staff has updated its components of Cost of Capital in Rebuttal Testimony to capture most current available financial market information.

3. RETURN ON EQUITY (ROE)

Q. What range of reasonable ROEs does Staff recommend, and within that range, what point ROE?

A. Staff observes in its updated modeling a range of reasonable ROEs of 9.22 percent to 9.46 percent, with a mean ROE of 9.34 percent, derived from Staff's two separate updated Three-Stage Discounted-Cash-Flow (DCF) models. Staff does not have a recommended point ROE estimate in this case, which Staff noted in Opening Testimony is a departure from its typical practice.

Q. Did you perform a check on the results of Staff's Three-Stage DCF models?

A. Yes. Staff employed two simpler models to check the reasonableness of its findings:

1. An updated Single-Stage DCF or Gordon Growth Model; and
2. An updated Capital Asset Pricing Model (CAPM).

Q. What results did these models generate?

A. The Gordon Growth Model generated a mean ROE of 8.6 percent using Staff's peer electric utilities and 8.5 percent with the Company's peer electric utilities. If Staff sensitivity screening that permits a wider range of capital structures is used Staff's results would be increased by 10 basis points (bps) to 8.7 percent. This model points to the lower end of Staff's three-stage discounted cash flow results.

The CAPM using Staff's geometric market return with reinvested dividends generated a mean ROE of 9.7 percent using Staff's peer electric utilities and 9.8 percent with the Company's peer electric utilities. If Staff sensitivity screening permitting a wider range of capital structures is used, Staff's CAPM results would remain 9.7 percent. This model points to the upper end of Staff's three-stage discounted cash flow results.

Based on these checks, Staff utilizes the illustrative midpoint estimate of 9.34 percent for ROE in Table 6 above. However, any point within Staff's range of reasonable ROEs from 9.22 percent to 9.46 percent would be supportive of a just and reasonable decision by the Commission regarding ROE.

Q. Does your recommended ROE meet appropriate standards?

A. Yes. The range of reasonable ROEs Staff recommends is appropriate for overall rates that are reflective of forward looking conditions in conjunction with Staff's adjustments and meets the *Hope* and *Bluefield* standards, as well as the requirements of ORS 756.040.[13] Staff's recommendations are consistent with establishing, "fair and reasonable rates," that are both, "commensurate with the return on investments in other enterprises having corresponding risks," and, "sufficient to ensure confidence in the financial integrity of the utility, allowing the utility to maintain its credit and attract capital."[14]

CUB recommends that the Commission authorized ROE in this rate case be selected from the lower end of the range of reasonable ROEs.[15] Staff's

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13 *See Federal Power Commission v. Hope Natural Electric Co*., 320 U.S. 591 (1944) and *Bluefield* Water *Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923).

14 *See* ORS 756.040(1)(a) and (b).

15 Cub/100, Jenks.

recommendations would also appear to be consistent with Walmart's concerns raised.[16]

Peer Screen

Q. How did you select comparable companies (peers) in your updated screening to estimate PGE's ROE?

A. Staff used companies that met the following criteria as peer utilities to the regulated electric utility activities of PGE:

1. Covered by Value Line (VL) as an electric utility; [17]
2. Forecasted by VL to have positive dividend growth, meaning that the slope of forward dividends projected by VL is positive, even if for a given annual projection the dividend holds steady;
3. LT Issuer Credit Rating from A1 to Baa2 inclusive from Moody's and from A to BBB- inclusive from S&P;
4. No decline in annual dividend in last five years based on VL;
5. Has heavily regulated electric utility revenue according to EEI;[18]
6. Has LT Debt from 45 percent to 55 percent inclusive in VL Capital Structure;[19]
7. Has no major recent merger and acquisition (M&A) activity; and[20]
8. Other screening as shown in Exhibit No. Staff/2801, Muldoon/2.

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[16] Walmart/100, Perry.

[17] Note that recent investor interest in artificial intelligence (AI) increased speculative interest in investor-owned electric utilities (electric IOU) rate basing of AI chip data centers that currently have higher energy consumption than earlier Intel chips that data centers relied on. Therefore, Staff did NOT apply a ceiling of a VL beta of 1.0 in selecting its peer group.

[18] See Staff/2811 for Edison Electric Institutes (EEI) report with these assessments.

[19] Staff also performs sensitivity analysis looking at a peer screen of 40 percent to 60 percent long-term debt in capital structure. Sensitivity analysis does not impact Staff's modeling results but does answer questions looking at alternative inputs and scenarios.

[20] See Staff/2810, Muldoon/9,10,23,228 for examples of financial news on mergers and acquisitions (M&A) monitored by Staff. Financial investors propose to purchase Allete and take that utility private.

Q. What peer groups of electric utilities did Staff and Company ROE modeling primarily depend on, and were there similarities?

A. The peer groups used by the Company and Staff in Reply and Rebuttal Testimony, respectively, are drawn from electric utilities covered by VL are shown in Table 7 below. In Staff Exhibit 2802, page 2, Staff flags electric utilities not selected as it shows how each element of its screening was applied.

Q. Did the Company apply some different criteria?

A. Yes. However, there was much overlap between PGE's and Staff's screening criteria.[21]

Q. PGE calls Staff's ROE Modeling methodologies "arbitrary".[22] Does Staff agree that its peer screening and other methods are arbitrary?

A. No. As one can readily see, Staff's ROE modeling methodologies are well considered and well vetted by the Commission. One has only to look at Exhibit Staff/401 to see the dockets in which the Commission reviewed these methods.

Q. PGE also calls Staff's treatment of Stock Prices and averaging of dividends in ROE Modeling methodologies "arbitrary".[23] Does Staff agree that its peer screening and other methods are arbitrary?

A. No. These are well reasoned and well vetted methodologies that the Commission has also reviewed repeatedly over the past 15 years.

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21 Staff/2802, Table 2.
22 See PGE/1800, Figueroa-Liddle/16@14.
23 See PGE/1800, Figueroa-Liddle/16@20@13-18.

Q. What happens to Staff's ROE modeling recommendations were PGE's peer screen[24] utilized instead of Staff's peer utilities?

A. Were Staff to choose not to select peer utilities most like PGE, as PGE recommends, that would significantly reduce Staff's ROE modeling recommendations. PGE's Reply Testimony recommendations if adopted by the Commission would reduce PGE's authorized ROE were the Company's peer group employed in lieu of Staff's.

Q. Are there other rather odd disconnects between PGE's filings with the SEC and the Company's communication with investors on the one hand, and PGE's Reply Testimony on the other regarding ROE?

A. Yes. PGE criticizes Staff's peer screening methods while expressing concern about business risk. Yet PGE selects a company with almost $150 billion capitalization, NextEra, as a reasonable comparator for the operational challenges and business profile most like PGE's $5 billion capitalization. Further PGE selects DTE and PPL in the Company's peer screen, both of which utilities have had dividend declines in the past five years.

As peer screening is the art of selecting peer utilities that the practitioner believes are most like the company examined, there is a serious disconnect between the Company's Reply Testimony and its SEC filings and earnings presentations.[25]

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[24] Including Allete.
[25] Ess Exhibits: Staff 2815,2816,2817,2818.

PGE also states that the Company is only concerned "6 months back for completed or terminated transactions."[26] Staff believes that this is problematic because not all executed mergers and acquisitions are successful. For example the following mergers were executed but not considered successful by Bloomberg:

- America Online and Time Warner (2001): US$65 billion
- Daimler-Benz and Chrysler (1998): US$36 billion
- Google and Motorola (2012): US$12.5 billion
- Microsoft and Nokia (2013): US$7 billion
- KMart and Sears (2005): US$11 billion
- eBay and Skype (2005): US$2.6 billion
- Bank of America and Countrywide (2008): US$2 billion
- Mattel and the Learning Company (1998): US$3.8 billion

In the Northwest, for a recent utility example, Hydro One, Ontario, Canada's largest transmission and distribution provider, proposed to acquire Avista Corporation for U.S. $5.3 billion. After a significant change of government and approach toward regulation in Ontario, regulators in Washington and Idaho denied permanent merger authorization requests and in January of 2019, Hydro One and Avista dropped their merger applications including in Oregon. The then executive team of Hydro One and its Board of Directors materially changed over the next three years.

Q. Does PGE in its communications to the SEC and investors suggest that the Company feels comfortable dropping its dividends temporarily and resuming growth in dividends after a short while?

[26] PGE/1800, Figueroa-Liddle/19@12-13.

A. No. PGE dropping its dividends would be a material event for the Company and would need to be reported to the SEC. But as you can see in a PGE Current Report Form 8-K and a Quarterly Report Form 10-Q PGE senior officers of the Company are not alerting investors and regulators that the Company might need to drop its dividends like DTE and PPL have done in the past five years. Nor does the Company suggest that it is entertaining a buyout of the Company by investors who want to take the Company private. Instead PGE presents itself as a financially sound utility whose dividends are highly predictable for investing money managers that need to be able to depend on PGE dividend income stream to offset future cash flow obligations.

Q. How then does PGE present its perspective on dividend growth to investors?

A. In a recent PGE investor presentation PGE shows an unbroken growth of dividends since 2015 increasing at a Compound Average Growth Rate (CAGR) of 5.9 percent. This matches how Staff screens for PGE peers. The attributes that PGE depicts in its investor presentation are like what Staff uses to select peer utilities for modeling PGE's required return on equity.[27]

Q. Are there any departures in Staff's methodologies from its well-vetted proven approaches to ROE modeling?

A. Yes. Historically Staff screened for peer utilities with a Value Line Beta of less than one, exhibiting less volatility in financial performance than a referent index

[27] Staff/2818, Muldoon/18.

like the S&P 500 on average. That made sense as the majority of PGE's common shares are held by institutional investors.[28]

However, new chips made by Nvidia used in data centers supporting artificial intelligence (AI) technology, consume much more energy than older Intel chips.[29] This has spurred new and more speculative investors in utilities with a shorter time perspective and has increased volatility in certain electric utility stocks with exposure to AI data center activity.[30]

Because PGE indicates in its investor presentations that it is the fifth largest data center market nationally, Staff now has relaxed its peer screening for PGE ROE modeling to electric utilities covered by Value Line (VL) and for which VL has calculated a beta.[31] This now screens out fewer potential peer utilities but still screens out Exelon for whom VL shows NMF to indicate it does not calculate a beta value.

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28 See: https://finance.yahoo.com/quote/POR/holders/.
29 Staff/2810, Muldoon/108.
30 See: https://finance.yahoo.com/quote/NVDA/profile/ and Staff/2810, Muldoon/159,187.
31 See Staff/2818, Muldoon/7.

TABLE 7[32]

Abbreviated Utility	UE 435 PGE	UE 435 Staff	UE 435 Staff
Allete	**Yes	No	No
Alliant	Yes	No	Yes
Ameren	Yes	Yes	Yes
AEP	Yes	No	Yes
Avangrid	No	No	No
Avista	Yes	Yes	Yes
Black Hills	Yes	Yes	Yes
CenterPoint	No	No	No
CMS	Yes	No	No
Consol Ed	No	Yes	Yes
Dominion	No	No	No
DTE	Yes	No	No
Duke	Yes	No	Yes
Edison Int'l	Yes	No	No
Entergy	Yes	No	No
Evergy	Yes	Yes	Yes
Eversource	No	No	Yes
Exelon	Yes	No	No
First Energy	No	No	No
Fortis	No	No	No
Hawaiian	No	No	No
IDACORP	Yes	Yes	Yes
MGE	Yes	No	No
NextEra	Yes	No	No
NorthWestern	Yes	Yes	Yes
OGE	Yes	Yes	Yes
Otter Tail	Yes	No	No
PG&E	No	No	No
PGE	Yes	Yes	Yes
Pinnacle	Yes	Yes	Yes
PNM	No	No	No
PPL	Yes	No	No
Public Serv.	Yes	Yes	Yes
Sempra	Yes	Yes	Yes
Southern	Yes	No	No
WEC	Yes	Yes	Yes
Xcel	Yes	No	Yes

[32] See Exhibit Staff 2801, Muldoon/2 for the full peer screening table. Staff's sensitivity group is selected with a relaxed capital structure requirement as shown therein.

A comparison of the peer groups used by Staff and PGE is set forth in Table 7 above. Staff excluded some of the companies used by PGE based on the Staff screening criteria described above. PGE also excludes some of the companies used by Staff. Twelve companies were relied upon by both Staff in its primary screening and PGE.

Model Results

Q. What are the results of your updated multistage DCF models?

A. See Table 8 below for the results from Staff's Three-Stage DCF modeling.

TABLE 8 – RESULTS OF STAFF'S 3-STAGE DCF MODELING[33]

Staff Range of Reasonable ROEs:	9.22%	**to**	9.46%
	Midpoint	9.34%	**ROE**

Exhibit Staff/2403, Muldoon/1 shows step-by-step how Staff's updated Hamada adjusted[34] Three-Stage DCF modeling, using Staff peers and growth rates, generates a higher recommended ROE than using PGE's peer electric utility group. Note that Staff results, rounded upward, would generate a top of range value of 9.5 percent ROE, the Company's current Commission-authorized ROE.

Q. Does AWEC's point estimate for ROE in Opening Testimony fall within Staff's range of reasonable ROEs?

A. Yes. AWEC's recommendation for a 9.25 percent ROE falls therein.

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[33] See Exhibit Staff/2803, Muldoon/1 for the results of Staff three-stage DCF modeling.

[34] As Staff explains in more detail above, Staff applies the Hamada equation to better compare companies with different capital structures.

Q. Does CUBs point estimate for ROE in Opening Testimony fall within Staff's range of reasonable ROEs?

A. Yes. CUB's recommendation for a 9.2 percent ROE falls at the low end therein.

Q. Does Staff agree with PGE's assertion that the Company's requested ROE of 9.65 percent is reasonable and reflective of the Company's efforts to address affordability?[35]

A. No. PGE's request for a 15 basis point (bps) increase in Commission authorized ROE is significant, particularly in the context of compounding rate pressures facing customers. Staff notes that raising electricity costs as requested by the Company can harshly impact energy burdened customers, an observation which is captured in Staff's financial newsfeeds.[36]

Further, PGE's analysis in support of its ROE recommendation concludes a range of 10.25 percent to 11.25 percent with a recommended point estimate of 10.75 percent would somehow be reasonable.[37] It would appear that even the Company is finding the conclusions of its cost of capital analysis are excessive and generally unsupportable.

Q. Doesn't PGE take the opportunity of its Reply Testimony to update its ROE modeling to pull in fresh market data?

A. Not exactly. PGE says that its unchanged extremely high range and point ROEs reflect current market conditions but does not demonstrate that in the

[35] PGE/1000 Ferchland-Liddle/4.
[36] See Staff/2810, Muldoon.
[37] See Exhibit PGE/1800, Figueroa-Liddle/6.

Company's Reply Testimony. PGE apparently chooses to leave its ROE analysis entirely divorced from its ROE recommendation, rather than now remedying the inputs the Company uses to generate outsized ROE modeling results.

Q. Is it plausible that PGE "takes into consideration changes in market conditions since the filing of the … direct testimony?"[38]

A. No. Staff keeps the Company's peer screen as shown in PGE's Opening Testimony, but as a simple example, PGE retains Allete in its peer utilities (presumably after incorporating current market data and learning that Allete plans to go private).

This implies that PGE's finance group is unaware of the Canada Pension Plan Investment Board (CPP), and Global Infrastructure Partners (GIP) long-standing plan to purchase Allete and take it private in an all-cash offering. Rather, it appears that other participants in UE 435 will have to wait for PGE to actually update its ROE modeling after Staff and intervenors lose the ability to provide feedback to the Commission on PGE's updated ROE modeling methods and results.

Q. The Company says that with PGE's adjustments made to Staff's analysis, Staff's analysis would also support a tremendous jump in PGE's authorized ROE to something extraordinary like PGE modeling results presented in the Company's Opening Testimony.[39] **Does Staff**

[38] See Exhibit PGE/1800, Figueroa-Liddle/6 at 16-17.
[39] See Exhibit PGE/1800, Figueroa-Liddle.

believe that the Company's adjustments are reasonable or well informed?

A. No. The PGE/1800 testimony proposes changes to Staff's work on ROE, but these changes are not reasonable. Again Staff's methods are well vetted.

Q. Has Staff updated its risk premium for Capital Asset Pricing Model (CAPM) modeling?

A. Yes. Staff has updated its inputs for its CAPM inputs, but the Company has not done so as shown in Table 9 below.

Table 9

PGE	4.20%	Rf Rate as shown in Exhibit PGE/605C Figueroa-Liddle/39	
Direct	10.57%	PGE Mkt Return	
Testimony	6.37%	PGE Mkt Risk Premium (MRP)	
Staff	4.085%	R_f Aug 21, 2024 30-Yr UST Yield /WSJ	www.wsj.com/market-data/bonds
	10.14%	30-Year S&P 500 Proxy Market Return	Geometric Return 1993-2023
	6.06%	Staff 30-Yr Mkt Risk Premium (MRP)	

Q. Please show a Capital Asset Pricing Model with Staff's and other more inflated inputs that may be preferred by the Company.

A. In Table 9 below one can see how applying inputs from the table above to all the peer utilities changes ROE results of CAPM modeling.

Q. Has the Commission established a precedent of using a geometric rather than an arithmetic market return for CAPM ROE modeling?

A. Yes.[40]

[40] See: OPUC Docket UT 43 Order 87–406 PAC NW Bell (March 31, 1987), and OPUC Docket UT 113 Order 94-336 GTE NW (February 22, 1994).

Q. Does the Company provide an erroneous legal interpretation of the Commission's determinations regarding use of CAPM modeling to inform its ROE decisions?[41]

A. Legal opinions might be best addressed in briefs. However, I believe the Company's use of CAPM modeling inflates the market risk premium and artificially inflates the Company's calculated ROE under the CAPM Model. [42]

Q. The Company also cites various textbooks[43] like the work of Dr. Roger Morin regarding use of an arithmetic mean in calculating a risk free (Rf) rate for use in CAPM modeling. Has he personally appeared before the Commission?

A. Yes. The Commission considered his arguments regarding Arithmetic vs. Geometric Means in calculating a Rf Rate for CAPM, and determined in Order No. 94-336 that: "A geometric average should be used to derive the market risk premium when CAPM is focused on a holding period greater than one year." That is consistent with practitioners who have found that use of a geometric average injects an upward bias into ROE modeling.[44]

Q. Is Staff saying that the Company's failure to apply Oregon precedent helps PGE inflate ROE modeling results?

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41 PGE/1800 Figueroa-Liddle/30.

42 See: OPUC Docket UT 43 Order 87–406 PAC NW Bell (March 31, 1987), and OPUC Docket UT 113 Order 94-336 GTE NW (February 22, 1994).

43 PGE/1800 Figueroa-Liddle/35.

44 "Geometric or Arithmetic Mean: A Reconsideration" by Eric Jacquier, Alex Kane, and Alan J. Marcus notes that "Compounding at the arithmetic average historic return … results in an upwardly biased forecast"- 2005 Journal of Financial Economics as an example.

A. Yes. Please see Staff's updated CAPM modeling example below.

TABLE 10 – CAPITAL ASSET PRICING MODEL (CAPM) EXAMPLE

$R_{PGE} = R_f$+Beta*MRP

	Screen #	Abbreviated Utility	UE 435 PGE	UE 435 Staff	LT Debt UE 435 Sensitivity	Ticker	VL Q3 2024 Beta	Staff MRP 30 Yr ROE w VL Beta CAPM	PGE MRP PGE/600 ROE w VL Beta CAPM	Screen #	
1	1	Allete	**Yes	No	No	ALE	0.95	9.84%	10.25%	1	1
2	2	Alliant	Yes	No	Yes	LNT	0.90	9.53%	9.93%	2	2
3	3	Ameren	Yes	Yes	Yes	AEE	0.90	9.53%	9.93%	3	3
4	4	AEP	Yes	No	Yes	AEP	0.85	9.23%	9.61%	4	4
5	6	Avista	Yes	Yes	Yes	AVA	0.95	9.84%	10.25%	6	5
6	7	Black Hills	Yes	Yes	Yes	BKH	1.05	10.44%	10.89%	7	6
7	9	CMS	Yes	No	No	CMS	0.85	9.23%	9.61%	9	7
8	10	Consol Ed	No	Yes	Yes	ED	0.80	8.93%	9.30%	10	8
9	12	DTE	Yes	No	No	DTE	1.00	10.14%	10.57%	12	9
10	13	Duke	Yes	No	Yes	DUK	0.90	9.53%	9.93%	13	10
11	14	Edison Int'l	Yes	No	No	EIX	1.00	10.14%	10.57%	14	11
12	15	Entergy	Yes	No	No	ETR	1.00	10.14%	10.57%	15	12
13	16	Evergy	Yes	Yes	Yes	EVRG	0.95	9.84%	10.25%	16	13
14	17	Eversource	No	No	Yes	ES	0.95	9.84%	10.25%	17	14
15	18	Exelon	Yes	No	No	EXC	NMF			18	15
16	22	IDACORP	Yes	Yes	Yes	IDA	0.85	9.23%	9.61%	22	16
17	24	NextEra	Yes	No	No	NEE	1.05	10.44%	10.89%	24	17
18	25	NorthWestern	Yes	Yes	Yes	NWE	0.95	9.84%	10.25%	25	18
19	26	OGE	Yes	Yes	Yes	OGE	1.05	10.44%	10.89%	26	19
20	27	Otter Tail	Yes	No	No	OTTR	0.95	9.84%	10.25%	27	20
21	29	PGE	Yes	Yes	Yes	POR	0.90	9.53%	9.93%	29	21
22	30	Pinnacle	Yes	Yes	Yes	PNW	0.95	9.84%	10.25%	30	22
23	32	PPL	Yes	No	No	PPL	1.15	11.05%	11.53%	32	23
24	33	Public Serv.	Yes	Yes	Yes	PEG	0.95	9.84%	10.25%	33	24
25	34	Sempra	Yes	Yes	Yes	SRE	1.00	10.14%	10.57%	34	25
26	35	Southern	Yes	No	No	SO	0.95	9.84%	10.25%	35	26
27	36	WEC	Yes	Yes	Yes	WEC	0.85	9.23%	9.61%	36	27
28	37	Xcel	Yes	No	Yes	XEL	0.85	9.23%	9.61%	37	28
		No. of Peers:	25	13	18			VL Betas	VL Betas		
						Company Screen	Mean	9.8%	10.3%	ROE	
						Staff Screen	Mean	9.7%	10.2%	ROE	
						Staff Sensitivity Screen	Mean	9.7%	10.1%	ROE	

Staff usually relies on a U.S. Treasury (UST) 30-year bond as reported by the Wall Street Journal (WSJ) and 30-year monthly geometric returns for the Standard and Poor's (S&P) 500 index as a proxy for market returns. If one instead uses an extreme arithmetic market return one can inflate the results of a CAPM model with few inputs.[45]

Q. Walmart suggests that the Company's 10.25 to 11.25 percent range of "reasonable" ROEs and PGE's point estimate of 10.75 percent are

[45] See Staff/2404, Muldoon/1 for this updated CAPM modeling example.

inconsistent with recent state commission authorized ROEs.[46] **Is that accurate?**

A. Walmart is correct. Regulatory Research Associates (RRA), an affiliate of Standard and Poor's Global Market Intelligence, in its July 29, 2024, report shows that for the first half of 2024, the average return authorized by state regulatory commissions was 9.68 percent, roughly what PGE now requests the Commission to authorize for the Company in this rate case.[47] This compares to a 9.60 percent average for full year 2023.

However, PGE's now recommended 9.65 percent ROE is still a sizable increase to the Commission's last authorized 9.5 percent ROE.

Q. Did Staff update its two three-stage DCF models on which you primarily rely?

A. Yes. Staff's ROE modeling has been updated since its Opening Testimony to reflect current market conditions and inputs.

TABLE 11 – GROWTH RATES STAFF RELIED UPON

Stage 3 – Long-Term Annual Dividend and EPS Growth Rates						
Component	Real Rate	TIPS Inflation Forecast	20-Yr Nominal Rate	Weight	Weighted Rate	
Energy Information Administration (EIA)	1.90%	2.32%	4.26%	20.0%	0.85%	
Organization for Economic Co-operation and Development (OECD)	1.81%	2.32%	4.17%	20.0%	0.83%	
Social Security Administration (SSA)	1.95%	2.32%	4.32%	20.0%	0.86%	
Congressional Budget Office (CBO)	1.70%	2.32%	4.06%	20.0%	0.81%	
BEA Nominal Historical,1994 Q2 – 2024 Q1	2.21%	2.32%	4.58%	20.0%	0.92%	
Composite				100%	4.28%	Composite
Congressional Budget Office (CBO) Long-Term 20-Year Budget Outlook	1.70%	2.32%	4.06%	100.0%	4.06%	CBO
BEA Nominal Historical,1994 Q2 – 2024 Q1	2.21%	2.32%	4.58%	100.0%	4.58%	BEA

46 See Exhibit Walmart/100.

47 Exhibit Staff/2812.

Q. What was the general direction of the above referent entities' updated U.S. Gross Domestic Product (GDP) long-term growth rates?

A. Downward. The CBO underscores long-term U.S. challenges regarding labor productivity and working-age population participating in the workforce. The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds flags concerns around U.S. birth rates and their importance to a growing GDP.[48]

Q Did the Company's testimony reflect downward expectations for GDP growth, due to the above concerns raised by agencies responsible for monitoring these concerns?

A. No.

Q Did your analysis reflect an updated synthetic forward curve?

A. Yes. Staff utilized an updated synthetic forward curve using U.S. Treasury (UST) TIPS break-even points. This reflects implied market-based inflationary expectations. Staff's recommendations are consistent with market activity indicating investor expectations of future inflation.

Staff again assumes, for purposes of its Three-Stage DCF modeling, that investor-owned electric utility growth is bounded by the growth of the U.S. economy, and more specifically impacted by challenges regarding U.S. population, workforce participation, and productivity in the long-run (20-year) modeling period.

[48] See Staff/2410, Muldoon/89,168.

Q. Does Staff's updated analysis capture the expectations of an investor who expects GDP growth in the future to be like that of the past 30 years?

A. Yes. Staff's updated analysis of BEA information now examines a 30-year historical record. That is also consistent with accounting and finance matching principles which look for financial practitioners to match time periods where practicable.

Hamada Equation

Q. PGE is critical of Staff's use of the Hamada Equation to address differences in peer utility capital structure, in particular Staff's use of proxy companies' book capital structure rather than their market value capital structure. Do those criticisms and Company proposed remedies have any merit?

A. No. Staff updates its Hamada Equation adjustments appropriately in this testimony. Staff notes that its testing a greater range of capital structures in peer screen is a sensitivity and not Staff's primary analysis.

Q. Staff standardizes on Value Line and certain other data sources. Why is that?

A. Standardization on data sources helps to prevent "data shopping." As an example, Staff's use of Value Line betas provides a consistent use of data across Commission jurisdictional utility rate cases.

In contrast, the Company may look at beta calculations from a variety of different sources, each with a different method for calculating reversion to mean over time and other factors. Staff's standardization on data sources allows the Commission to avoid choosing among competing opinions in each rate case and instead rely on a standard calculation.

Q. Is that why Staff standardizes on reliance on S&P and Moody's credit ratings?

A. Yes. In addition to variations due to divergent analytic methodologies, companies with a strong sell-side presence and potentially poor separation between their analytic and marketing group can have a sell-side bias. As an example, an investor might have thought in 2017 that a five-star rating by Morningstar would indicate that a mutual fund was a top performer. It wasn't.[49]

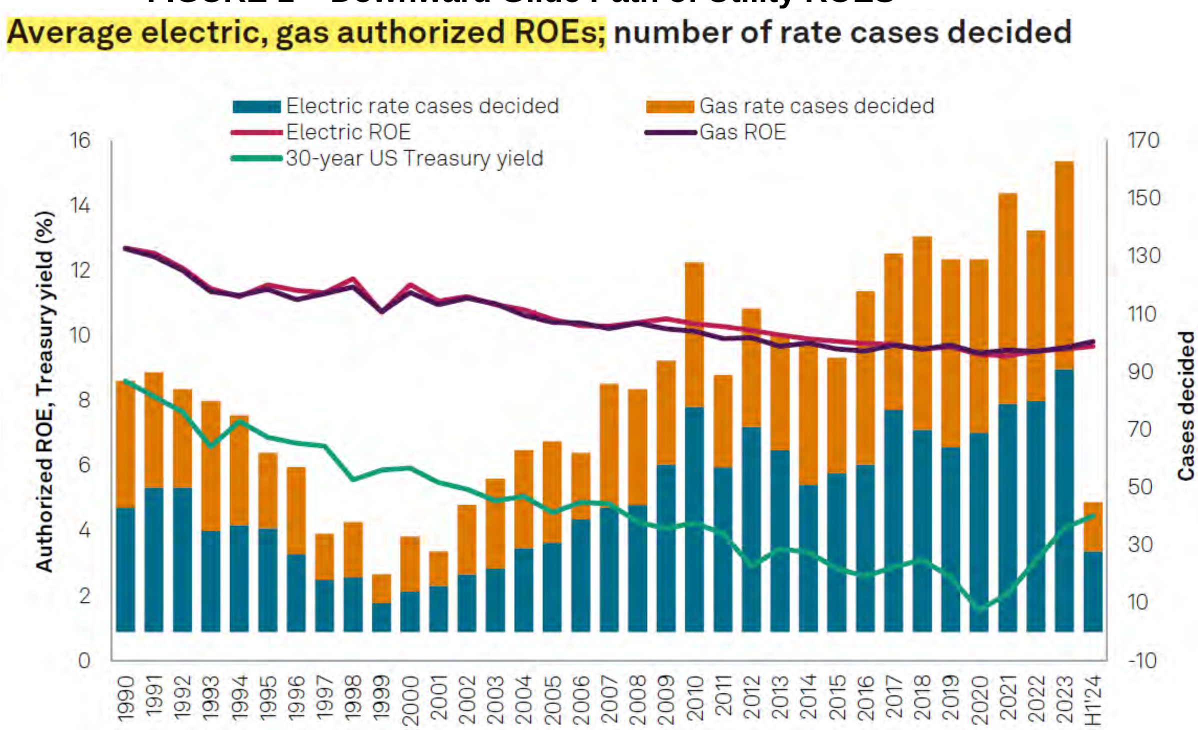
Of funds awarded a coveted Morningstar five-star overall rating, only 12 percent did well enough over the next five years to earn a top rating for that period; 10 percent performed so poorly they were branded with a rock-bottom one-star rating. The Wall Street Journal (WSJ) analysis also found Morningstar analysts' ratings of funds were overwhelmingly positive. That bias identified by the WSJ generally causes Staff to avoid excessive reliance on Morningstar owned products – easily avoided by Staff's standardization on S&P and Moody's for credit ratings.

Q. In Opening Testimony, you indicated that financial news was focused on the U.S. Federal Reserve (Fed) lowering rather than raising interest rates. Has that changed?

[49] See, "The Morningstar Mirage" by Kirsten Grind, Tom McGinty and Sarah Krouse – WSJ – Oct 25, 2017, provided in Exhibit Staff/2414, Muldoon/1 as an example of sell-side bias.

A. No. The U.S. Federal Reserve still expects to lower interest rates in the next year.[50] Further, interest rates and ROEs are likely still both declining when looked at over a 30-year time frame. Those are two separate downward forces, near term Fed action and long-term reductions in U.S. GDP growth. The downward glide path for ROE in Figure 1 below – updated on July 23, 2024, around the time PGE filed its Reply Testimony – is not linear and may fluctuate through these uncertainties, but long-run GDP growth rates are mostly determined by the long future U.S. working age population and its productivity. These are downward pressures on GDP growth.

FIGURE 1 – Downward Glide Path of Utility ROES[51]



Q. What trend is Staff seeing?

[50] See Staff/2810, Muldoon.
[51] See Exhibit Staff/2812.

A. Since 1990, according to Regulatory Research Associates (RRA), Electric and Electric Utility authorized ROEs have declined as the 30-year US Treasury (UST) has also declined. While the Fed recently raised interest rates, the Fed now anticipates loosening money supply soon.

GORDON GROWTH MODEL – As Check on ROE Findings

Q. Did Staff update its Gordon Growth model as part of this testimony?

A. Yes. Staff updated its Gordon Growth model (or Single Stage DCF model).

Q. What are the results of Staff's Gordon Growth model?

A. Using Staff's peer utility screen, the average required ROE under Staff's Gordon Growth model is 8.6 percent as shown in Table 12 below.

TABLE 12[52]

	Screen #	Abbreviated Utility	UE 435 PGE	UE 435 Staff	LT Debt UE 435 Sensitivity	Ticker	Recent Stock $ Price	Current Dividend Yield	Next VL Annual Dividend	Anticipated Dividend Yield	VL Dividend Growth	Investord ROE	Screen #	
1	1	Allete	**Yes	No	No	ALE	61.77	4.6%	2.93	4.7%	3.7%	8.5%	1	1
2	2	Alliant	Yes	No	Yes	LNT	50.73	3.8%	2.04	4.0%	6.0%	10.1%	2	2
3	3	Ameren	Yes	Yes	Yes	AEE	73.00	3.7%	2.86	3.9%	5.7%	9.7%	3	3
4	4	AEP	Yes	No	Yes	AEP	88.50	4.1%	3.81	4.3%	4.6%	8.9%	4	4
5	6	Avista	Yes	Yes	Yes	AVA	35.83	5.4%	2.00	5.6%	4.1%	9.7%	6	5
6	7	Black Hills	Yes	Yes	Yes	BKH	55.35	4.7%	2.70	4.9%	3.8%	8.7%	7	6
7	9	CMS	Yes	No	No	CMS	60.76	3.4%	2.16	3.6%	3.8%	7.3%	9	7
8	10	Consol Ed	No	Yes	Yes	ED	92.43	3.6%	3.40	3.7%	3.8%	7.4%	10	8
9	12	DTE	Yes	No	No	DTE	112.23	3.6%	4.34	3.9%	4.7%	8.6%	12	9
10	13	Duke	Yes	No	Yes	DUK	100.85	4.1%	4.22	4.2%	1.3%	5.5%	13	10
11	14	Edison Int'l	Yes	No	No	EIX	72.92	4.3%	3.29	4.5%	5.5%	10.0%	14	11
12	15	Entergy	Yes	No	No	ETR	108.17	4.2%	4.70	4.3%	3.4%	7.7%	15	12
13	16	Evergy	Yes	Yes	Yes	EVRG	53.31	4.9%	2.74	5.1%	4.6%	9.7%	16	13
14	17	Eversource	No	No	Yes	ES	59.29	4.8%	3.03	5.1%	5.9%	11.0%	17	14
15	18	Exelon	Yes	No	No	EXC	36.53	4.2%	1.62	4.4%	5.2%	9.6%	18	15
16	22	IDACORP	Yes	Yes	Yes	IDA	94.30	3.5%	3.46	3.7%	5.7%	9.4%	22	16
17	24	NextEra	Yes	No	No	NEE	72.07	2.9%	2.25	3.1%	9.0%	12.1%	24	17
18	25	NorthWestern	Yes	Yes	Yes	NWE	50.62	5.1%	2.64	5.2%	1.5%	6.7%	25	18
19	26	OGE	Yes	Yes	Yes	OGE	35.53	4.8%	1.73	4.9%	2.0%	6.9%	26	19
20	27	Otter Tail	Yes	No	No	OTTR	87.64	2.1%	1.97	2.2%	4.9%	7.1%	27	20
21	29	PGE	Yes	Yes	Yes	POR	43.78	4.5%	2.08	4.8%	5.7%	10.4%	29	21
22	30	Pinnacle	Yes	Yes	Yes	PNW	75.86	4.7%	3.61	4.8%	1.8%	6.5%	30	22
23	32	PPL	Yes	No	No	PPL	28.21	3.7%	1.10	3.9%	1.7%	5.6%	32	23
24	33	Public Serv.	Yes	Yes	Yes	PEG	72.66	3.3%	2.52	3.5%	5.0%	8.5%	33	24
25	34	Sempra	Yes	Yes	Yes	SRE	74.54	3.3%	2.58	3.5%	5.2%	8.7%	34	25
26	35	Southern	Yes	No	No	SO	77.30	3.7%	2.96	3.8%	2.3%	6.2%	35	26
27	36	WEC	Yes	Yes	Yes	WEC	80.49	4.1%	3.57	4.4%	4.7%	9.1%	36	27
28	37	Xcel	Yes	No	Yes	XEL	53.83	4.1%	2.30	4.3%	5.6%	9.9%	37	28
		No. of Peers:	**25**	**13**	**18**							**Mean**		
											Company Screen	8.5%	**ROE**	
											Staff Screen	**8.6%**	**ROE**	
											Staff Sensitivity Screen	8.7%	**ROE**	

The average required ROE decreased to 8.5 percent if the Company's Reply Testimony peer screen is used. Staff's sensitivity peer group allowing for debt up to 60 percent of capital structure increases the modeling result to

52 See Exhibit Staff/2805, Muldoon/1 for Staff's updated Gordon Growth Model.

8.7 percent. Findings in Table 10 above support selection in the lower end of Staff’s range of reasonable ROEs.

CAPM – As Check on ROE Findings

Q. Did Staff update its Capital Asset Pricing Model (CAPM)?

A. Yes. Staff updated its CAPM modeling herein.

Q. Did Staff continue to rely on Value Line Beta estimates?

A. Yes. The perils of switching between Beta estimates, known as "Data shopping," were earlier addressed in this testimony.

Q. For some of the Company's ROE modeling, PGE suggests growth rates for full earnings should be used in lieu of dividends. Would that double count the same money that the Company uses for both dividend payout to investors and for other corporate purposes?

A. Yes. Logically, free cash to the firm would be used for either dividends or retained earnings to create capital appreciation through increasing the value of the Company. Money is fungible but decisions in its use can preclude alternative uses of the same funds.

Q. In Opening Testimony, Staff showed that investors holding peer utility stocks to generate income for other uses of the investors would expect a lower ROE than generated by Staff's three-stage DCF Modeling. What if the investors generally reinvested all dividends received and were instead seeking to maximize the value of their stock holdings over time?

A. Staff's updated CAPM modeling now shows dividends as entirely rather than only partially reinvested in peer utility stocks. Instead of the early scenario envisioned by Staff where some investors reinvested dividends in these stocks, and some needed income, Staff now looks at the scenario where all investors immediately reinvest all dividends back into the peer utility stocks.

Q. Does Staff believe that this is how investors actually behave?

A. No. However, this allows Staff to look at a most frugal investor scenario to consider maximum reasonable outcomes of its CAPM modeling. This approach boosts Staff's model outputs to 9.8 percent ROE for Staff's peer screen, and 9.7 percent for each of Staff's sensitivity screen and for the Company's peer screen.

Q. Staff previously pointed out that the Company uses an arithmetic mean which is unsupported by industry experts or past Commission practices. What is the effect of using this method?

A. Using the Company's questionable method and PGE peer screen results to 10.3 percent ROE as shown earlier in Table 10.

Q. Does Staff agree that wherever it did not directly rebut a PGE criticism of its work regarding cost of capital, that Staff was unable to do so or agreed with the Company.

A. No. Staff addressed the most pertinent criticisms to its work and believes that the record sufficiently shows why Staff's recommended range of ROEs are fair, just, and reasonable.

4. CONCLUSION

Q. What is Staff's recommendation regarding ROE?

A. Staff recommends that the Commission select a point ROE from within Staff's range of reasonable ROEs from 9.22 percent to 9.46 percent from Staff's updated ROE modeling.

Q. What Rate of Return (ROR) is generated by the Staff's aggregated Cost of Capital recommendations on Capital Structure, ROE, and Cost of Long-Term Debt?

A. Staff provides an illustrative 6.991 percent Overall Rate of Return (ROR), based on the midpoint of Staff's range of reasonable ROEs of 9.34 percent, a 50 percent equity layer Capital Structure and a 4.641 percent Cost of Long-Term Debt.

Q. What recommendation does Staff have regarding a point estimate within Staff's range of reasonable ROEs.

A. Staff finds that recommending a range is appropriate rather than any single point estimate. The range is from 9.22 percent to 9.46 percent. The range provides values from which the Commission can balance the interests of shareholders and energy affordability for Oregon utility customers and still meet statutory requirements to provide for a fair return on equity.

Q. Does that conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2801

ROE – Three-Stage DCF: Peer Screen, Dividends, Earnings per Share (EPS), and Hamada Equation

September 10, 2024

Acronyms and Abbreviations Used

BOE U.S. Bureau of Economic Analysis
CBO U.S. Congressional Budget Office
CIK SEC Central Index Key
EDGAR SEC Electronic Data Gathering, Analysis and Retrieval System
EEI Edison Electric Institute
EIN IRS Employer Identification Number
IRS U.S. Internal Revenue Service
SEC U.S. Securities and Exchange Commission
SIC Standard Industrial Code
SPG Standard & Poors Global Market Intelligence
TIPS UST Treasury Inflation-Protected Securities
U.S. United States of America
UST U.S. Treasuries
VL Value Line Investment Survey

Moody's		S&P		Fitch		DBRS		
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	
Aaa	P-1	AAA	A-1+	AAA	F1+	AAA	R-1H	High Grade
Aa1		AA+		AA+		AA(high)		High grade
Aa2		AA		AA		AA	R-1M	
Aa3		AA-		AA-		AA(low)		
A1		A+	A-1	A+	F1	A(high)	R-1L	Upper medium grade
A2		A		A		A		
A3	P-2	A-	A-2	A-	F2	A(low)		
Baa1		BBB+		BBB+		BBB(high)	R-2H	Lower medium grade
Baa2	P-3	BBB	A-3	BBB	F3	BBB	R-2M	
Baa3		BBB-		BBB-		BBB(low)	R-2L, R-3	
Ba1	Not prime	BB+	B	BB+	B	BB(high)	R-4	Non-investment grade speculative
Ba2		BB		BB		BB		
Ba3		BB-		BB-		BB(low)		
B1		B+		B+		B(high)		Highly speculative
B2		B		B		B	R-5	
B3		B-		B-		B(low)		
Caa1		CCC+				CCC(high)		Substantial risks
Caa2		CCC				CCC		
Caa3		CCC-				CCC(low)		
						CC(high)		
		CC	C	CCC	C	CC		

S Small Cap Under 2 Billion
M Mid Cap 2 to 10 Billion
L Large Cap Over 10 Billion

1	2	3	4	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
												Moody's	S&P				Sensitivity	
											VL	7/23/2024	7/23/2024	+ / -	EEI	VL	VL	VL
				LT Debt		VL $B	VL		Yahoo Fin.	Covered by	7/22/2024	A1 to Baa2	A to BBB-	2	7/23/2024	7/23/2024	7/23/2024	7/23/2024
				Sensitivity	VL	7/22/2024	7/22/2024	Yahoo Fin.	7/23/2024	Value Line	No Div	Local LT	Local LT	Notches	80%+	LT Debt	LT Debt	Div. Growth
VL	Abbreviated	UE 435	UE 435	UE 435	7/22/2024	Mkt Cap	S,M,L	7/23/2024	Mkt Cap	7/22/2024	Declines	Unsecured Debt		S&P &	Regulated	45% - 55%	40% - 60%	5 Yr Rate
#	Utility	PGE	Staff	Staff	Beta	$ Billions	CAP	Beta	$ Billions	(VL)	5 years	Rating	Rating	Moody's	Assets	of Capital	of Capital	Forecast > 0%
1	Allete	**Yes	No	No	0.95	3.60	M	0.79	3.72	Yes	Pass	Baa1	BBB	Pass	50% to 80%	39.5%	39.5%	Yes
2	Alliant	Yes	No	Yes	0.90	12.80	L	0.56	14.11	Yes	Pass	Baa2	A-	Pass	80% +	56.5%	56.5%	Yes
3	Ameren	Yes	Yes	Yes	0.90	19.00	L	0.45	20.12	Yes	Pass	Baa1	BBB+	Pass	80% +	53.5%	53.5%	Yes
4	AEP	Yes	No	Yes	0.85	46.90	L	0.52	49.57	Yes	Pass	Baa2	BBB+	Pass	80% +	58.0%	58.0%	Yes
5	Avangrid	No	No	No	0.95	14.20	L	0.56	13.73	Yes	Pass	Baa2	BBB+	Pass	50% to 80%	36.5%	36.5%	Fail
6	Avista	Yes	Yes	Yes	0.95	2.80	M	0.46	2.94	Yes	Pass	Baa2	BBB	Pass	80% +	51.0%	51.0%	Yes
7	Black Hills	Yes	Yes	Yes	1.05	3.70	M	0.68	4.02	Yes	Pass	Baa2	BBB+	Pass	80% +	54.5%	54.5%	Yes
8	CenterPoint	No	No	No	1.15	18.90	L	0.92	18.49	Yes	Fail	Baa2	BBB+	Pass	80% +	63.5%	63.5%	Yes
9	CMS	Yes	No	No	0.85	18.30	L	0.38	18.43	Yes	Pass	Baa2	BBB+	Pass	80% +	65.0%	65.0%	Yes
10	Consol Ed	No	Yes	Yes	0.80	32.50	L	0.34	32.49	Yes	Pass	Baa1	A-	Pass	80% +	51.0%	51.0%	Yes
11	Dominion	No	No	No	0.90	42.80	L	0.59	42.77	Yes	Fail	Baa2	BBB+	Pass	80% +	53.0%	44.0%	Fail
12	DTE	Yes	No	No	1.00	23.40	L	0.67	24.15	Yes	Fail	Baa2	BBB+	Pass	80% +	61.5%	61.5%	Yes
13	Duke	Yes	No	Yes	0.90	76.10	L	0.44	83.16	Yes	Pass	Baa2	BBB+	Pass	80% +	58.5%	58.5%	Yes
14	Edison Int'l	Yes	No	No	1.00	27.20	L	0.92	29.00	Yes	Pass	Baa2	BBB	Pass	80% +	64.0%	64.0%	Yes
15	Entergy	Yes	No	No	1.00	23.30	L	0.71	23.62	Yes	Pass	Baa2	BBB+	Pass	80% +	61.0%	61.0%	Yes
16	Evergy	Yes	Yes	Yes	0.95	12.30	L	0.58	12.76	Yes	Pass	Baa2	BBB+	Pass	80% +	51.5%	51.5%	Yes
17	Eversource	No	No	Yes	0.95	21.10	L	0.60	21.58	Yes	Pass	Baa2	A-	Pass	80% +	62.5%	62.5%	Yes
18	Exelon	Yes	No	No	NMF	37.70	L	0.59	35.99	Yes	Fail	Baa2	BBB+	Pass	80% +	61.0%	61.0%	Yes
19	First Energy	No	No	No	0.90	22.30	L	0.48	22.99	Yes	Pass	Baa3	BBB	Fail	80% +	65.5%	65.5%	Yes
20	Fortis	No	No	No	0.75	26.80	L	0.19	19.98	Yes	Pass	Baa3	A-	Fail	N/A	53.0%	53.0%	Yes
21	Hawaiian	No	No	No	1.00	1.20	S	0.58	1.81	Yes	Fail	Ba3	B-	Fail	50% to 80%	60.0%	60.0%	Fail
22	IDACORP	Yes	Yes	Yes	0.85	4.70	M	0.58	4.81	Yes	Pass	Baa2	BBB	Pass	80% +	49.0%	49.0%	Yes
23	MGE	Yes	No	No	0.80	2.80	M	0.69	3.03	Yes	Pass	A1	AA-	Fail	80% +	37.0%	37.0%	Yes
24	NextEra	Yes	No	No	1.05	138.00	L	0.54	148.05	Yes	Pass	Baa1	A-	Pass	50% to 80%	58.5%	58.5%	Yes
25	NorthWestern	Yes	Yes	Yes	0.95	3.10	M	0.47	3.20	Yes	Pass	Baa2	BBB	Pass	80% +	50.0%	50.0%	Yes
26	OGE	Yes	Yes	Yes	1.05	7.10	M	0.73	7.49	Yes	Pass	Baa1	BBB	Pass	80% +	52.0%	52.0%	Yes
27	Otter Tail	Yes	No	No	0.95	3.80	M	0.55	4.02	Yes	Pass	Baa2	BBB	Pass	50% to 80%	41.0%	41.0%	Yes
28	PG&E	No	No	No	1.10	35.90	L	1.09	47.55	No	Fail	Ba1	BB	Fail	80% +	64.0%	64.0%	Yes
29	PGE	Yes	Yes	Yes	0.90	4.20	M	0.59	4.83	Yes	Pass	A3	BBB+	Pass	80% +	58.5%	58.5%	Yes
30	Pinnacle	Yes	Yes	Yes	0.95	8.40	M	0.50	9.36	Yes	Pass	Baa2	BBB+	Pass	80% +	52.5%	52.5%	Yes
31	PNM	No	No	No	0.90	3.40	M	0.36	3.62	Yes	Pass	Baa3	BBB	Fail	80% +	66.0%	66.0%	Yes
32	PPL	Yes	No	No	1.15	20.30	L	0.83	21.22	Yes	Fail	Baa1	BBB+	Pass	80% +	51.0%	51.0%	Yes
33	Public Serv.	Yes	Yes	Yes	0.95	34.20	L	0.61	37.62	Yes	Pass	Baa2	BBB+	Pass	80% +	54.5%	54.5%	Yes
34	Sempra	Yes	Yes	Yes	1.00	44.70	L	0.75	49.19	Yes	Pass	Baa2	BBB+	Pass	80% +	50.0%	50.0%	Yes
35	Southern	Yes	No	No	0.95	81.20	L	0.50	88.95	Yes	Pass	Baa2	BBB+	Pass	80% +	64.0%	64.0%	Yes
36	WEC	Yes	Yes	Yes	0.85	25.50	L	0.41	25.83	Yes	Pass	Baa1	A-	Pass	80% +	55.0%	55.0%	Yes
37	Xcel	Yes	No	Yes	0.85	30.00	L	0.38	30.64	Yes	Pass	Baa1	BBB+	Pass	80% +	60.5%	60.5%	Yes
	No. of Peers:	26	13	18	0.94													
		*26																

* Note Value Line has not consistently covered MGE this year
** Active Proposal to take Allete private

	Moody's	S&P
PGE	A3	BBB+
Range	A1 to Baa2	A to BBB-

Edision Electric Instutute (EEI)

Assets	EEI	Meaning
80% Plus	R	Regulated
50% to 80%	MR	Mostly Regulated
Under 50%	D	Diversified

EEI Updates each June to end of prior year.

1	2	3	4	27	
S	Small Cap	Under 2 Billion			
M	**Mid Cap**	**2 to 10 Billion**			
L	Large Cap	Over 10 Billion			
VL #	**Abbreviated Utility**	**UE 435 PGE**	**UE 435 Staff**	**No M&A Executed in Last 5 Years**	**#**
1	Allete	****Yes**	**No**	****CPP & GIP Plan to Take Allete Private with target transaction close 2025 Q3.**	1
2	Alliant	Yes	**No**		2
3	Ameren	Yes	**Yes**		3
4	AEP	Yes	**No**	Sale of KY Power Subsidiary for **$1.45 Billion** expected to be completed in 2022 Q2, 2024 Sale of Distributed Energy Bix for **$315 Million**	4
5	Avangrid	No	**No**	Avangrid terminated the attempt to buy PNM for $8.3 Billion.	5
6	Avista	Yes	**Yes**	H1 Failed to Buy Avista 2019	6
7	Black Hills	Yes	**Yes**		7
8	CenterPoint	No	**No**	CenterPoint Acquired Vectren Feb 2019 $6 B Deal, Sold 2 Gas Utilities in AR and OK 2022 In 2024 Sold Gas Utilities in LA and MS to Bernard Capital 's Delta Utilities for $1.2B	8
9	CMS	Yes	**No**		9
10	Consol Ed	No	**Yes**		10
11	Dominion	No	**No**	**2019 Buy Scana, 2020 Sell gas pipeline/storage $9.7B toBRK Energy, 2023 Sell gas distribution utilities $14B.**	11
12	DTE	Yes	**No**	2021 Spun Off subsidiary into DT Midstream NYSE:DTM	12
13	Duke	Yes	**No**	12/27/22 GIC purchased stake Duke Energy Indiana for **$2.05B** brings total interest to 19.9%.	13
14	Edison Int'l	Yes	**No**	Aug **2000** Bought Citizens Power, Nuclear Gen w San Onofre Nuclear Generation Station (SONGS)	14
15	Entergy	Yes	**No**	**Sold Natural Gas for $1.2B Gas Utility Assets to Bernard Capital 's Delta Ultilities**	15
16	Evergy	Yes	**Yes**		16
17	Eversource	No	**No**		17
18	Exelon	Yes	**No**	**Exelon completed Spin Off of Nonutility Opertions on Feb. 1, 2022**	18
19	First Energy	No	**No**		19
20	Fortis	No	**No**		20
21	Hawaiian	No	**No**		21
22	IDACORP	Yes	**Yes**		22
23	MGE	Yes	**No**		23
24	**NextEra**	Yes	**No**		24
25	NorthWestern	Yes	**Yes**		25
26	OGE	Yes	**Yes**		26
27	Otter Tail	Yes	**No**		27
28	PG&E	No	**No**	**2019 Chapter 11 bankruptcy liability for 2017 and 2018 wildfires in CA**	28
29	PGE	Yes	**Yes**		29
30	Pinnacle	Yes	**Yes**		30
31	PNM	No	**No**	Avangrid terminated attempt to buy PNM for $8.3B 2/6/2023.	31
32	PPL	Yes	**No**	**2021 Sold operations in UK, Buying Narragansett Electric for $3.8B**	32
33	Public Serv.	Yes	**Yes**		33
34	Sempra	Yes	**Yes**		34
35	Southern	Yes	**No**		35
36	WEC	Yes	**Yes**		36
37	Xcel	Yes	**No**		37
	No. of Peers:	**26**	**13**	*20% of MKT Cap will pass the M&A screen test.	
		***26**			

* **Note Value Line has not consiste**

** **Active Proposal to take Allete priv**

** Canada Pension Plan Investment Board (CPP), Global Infrastructure Partners (GIP)

Value Line
Historical and Near Term
Dividends Declared per Share
(Div)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Staff Sensitivity															
	Screen #	Abbreviated Utility	UE 435 PGE	UE 435 Staff	UE 435 LT Debt	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019 Yr	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020 Yr	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2021 Yr
1	1	Allete	**Yes	No	No	0.5875	0.5875	0.5875	0.5875	2.35	0.6175	0.6175	0.6175	0.6175	2.47	0.630	0.630	0.630	0.630	2.52
2	2	Alliant	Yes	No	Yes	0.355	0.355	0.355	0.355	1.42	0.38	0.38	0.38	0.38	1.52	0.4025	0.4025	0.4025	0.4025	1.61
3	3	Ameren	Yes	Yes	Yes	0.4750	0.4750	0.4750	0.495	1.92	0.495	0.495	0.495	0.515	2.00	0.550	0.550	0.550	0.550	2.20
4	4	AEP	Yes	No	Yes	0.670	0.670	0.670	0.700	2.71	0.700	0.700	0.700	0.740	2.84	0.740	0.740	0.740	0.780	3.00
5	6	Avista	Yes	Yes	Yes	0.3875	0.3875	0.3875	0.3875	1.55	0.4050	0.4050	0.4050	0.4050	1.62	0.4225	0.4225	0.4225	0.4225	1.69
6	7	Black Hills	Yes	Yes	Yes	0.505	0.505	0.505	0.535	2.05	0.535	0.535	0.535	0.565	2.17	0.565	0.565	0.565	0.5950	2.29
7	9	CMS	Yes	No	No	0.383	0.383	0.383	0.383	1.53	0.4075	0.4075	0.4075	0.4075	1.63	0.435	0.435	0.435	0.435	1.74
8	10	Consol Ed	No	Yes	Yes	0.740	0.740	0.740	0.740	2.96	0.765	0.765	0.765	0.765	3.06	0.775	0.775	0.775	0.775	3.10
9	12	DTE	Yes	No	No	0.945	0.945	0.945	0.945	3.78	1.0125	1.0125	1.0125	1.0125	4.05	0.9225	0.9225	0.9225	0.825	3.59
10	13	Duke	Yes	No	Yes	0.928	0.928	0.945	0.945	3.75	0.945	0.945	0.965	0.965	3.82	0.965	0.965	0.985	0.985	3.90
11	14	Edison Int'l	Yes	No	No	0.613	0.613	0.613	0.613	2.45	0.6375	0.6375	0.6375	0.6375	2.55	0.6625	0.6625	0.6625	0.6625	2.65
12	15	Entergy	Yes	No	No	0.910	0.910	0.910	0.930	3.66	0.930	0.930	0.930	0.950	3.74	0.950	0.950	0.950	1.010	3.86
13	16	Evergy	Yes	Yes	Yes	0.475	0.475	0.475	0.505	1.93	0.505	0.505	0.505	0.535	2.05	0.535	0.535	0.535	0.5725	2.18
14	17	Eversource	No	No	Yes	0.535	0.535	0.535	0.535	2.14	0.5675	0.5675	0.5675	0.5675	2.27	0.6025	0.6025	0.6025	0.6025	2.41
15	18	Exelon	Yes	No	No	0.363	0.363	0.363	0.363	1.45	0.3825	0.3825	0.3825	0.3825	1.53	0.3825	0.3825	0.3825	0.3825	1.53
16	22	IDACORP	Yes	Yes	Yes	0.630	0.630	0.630	0.6700	2.56	0.670	0.670	0.670	0.710	2.72	0.710	0.710	0.710	0.750	2.88
17	24	NextEra	Yes	No	No	0.3125	0.3125	0.3125	0.3125	1.25	0.350	0.350	0.350	0.350	1.40	0.385	0.385	0.385	0.385	1.54
18	25	NorthWestern	Yes	Yes	Yes	0.575	0.575	0.575	0.575	2.30	0.600	0.600	0.600	0.600	2.40	0.620	0.620	0.620	0.620	2.48
19	26	OGE	Yes	Yes	Yes	0.3650	0.3650	0.3650	0.388	1.48	0.3875	0.3875	0.3875	0.4025	1.57	0.4025	0.4025	0.4025	0.4100	1.62
20	27	Otter Tail	Yes	No	No	0.350	0.350	0.350	0.3500	1.40	0.370	0.370	0.370	0.370	1.48	0.390	0.390	0.390	0.390	1.56
21	29	PGE	Yes	Yes	Yes	0.363	0.363	0.385	0.385	1.50	0.385	0.385	0.385	0.4075	1.56	0.4075	0.4075	0.430	0.430	1.68
22	30	Pinnacle	Yes	Yes	Yes	0.737	0.738	0.738	0.782	3.00	0.783	0.783	0.783	0.830	3.18	0.830	0.830	0.830	0.850	3.34
23	32	PPL	Yes	No	No	0.41	0.4125	0.4125	0.4125	1.65	0.413	0.415	0.415	0.415	1.66	0.415	0.415	0.415	0.415	1.66
24	33	Public Serv.	Yes	Yes	Yes	0.47	0.47	0.47	0.47	1.88	0.49	0.49	0.49	0.49	1.96	0.51	0.51	0.51	0.51	2.04
25	34	Sempra	Yes	Yes	Yes	0.448	0.484	0.484	0.484	1.90	0.484	0.523	0.523	0.523	2.05	0.523	0.550	0.550	0.550	2.17
26	35	Southern	Yes	No	No	0.600	0.620	0.620	0.620	2.46	0.620	0.640	0.640	0.640	2.54	0.640	0.660	0.660	0.660	2.62
27	36	WEC	Yes	Yes	Yes	0.5900	0.5900	0.5900	0.5900	2.36	0.6325	0.6325	0.6325	0.6325	2.53	0.6775	0.6775	0.6775	0.6775	2.71
28	37	Xcel	Yes	No	Yes	0.380	0.405	0.405	0.405	1.60	0.405	0.430	0.430	0.430	1.70	0.430	0.4575	0.4575	0.4575	1.80
		No. of Peers:	25	13	18															
		** Allete propoal to take private																		

2	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
												Value Line Estimated Dividends						VL	VL % Div Growth		
Abbreviated Utility	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2022 Yr	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2023 Yr	2021 - 23 Average	2024 Yr	2025 Yr	2026 Yr	2027 Yr	2028 Yr	2029 Yr	2027 - 29 Average	2027 - 29 vs. 2021 - 23	Screen #	
Allete	0.650	0.650	0.650	0.650	2.60	0.6775	0.6775	0.6775	0.6775	2.71	2.61	2.82	2.93	3.03	3.14	3.25	3.36	3.25	3.7%	1	1
Alliant	0.4275	0.4275	0.4275	0.4275	1.71	0.4525	0.4525	0.4525	0.4525	1.81	1.71	1.92	2.04	2.16	2.29	2.43	2.57	2.43	6.0%	2	2
Ameren	0.590	0.590	0.590	0.590	2.36	0.630	0.630	0.630	0.630	2.52	2.36	2.68	2.86	3.00	3.15	3.30	3.45	3.30	5.7%	3	3
AEP	0.780	0.780	0.780	0.830	3.17	0.830	0.830	0.830	0.880	3.37	3.18	3.60	3.81	3.92	4.04	4.16	4.28	4.16	4.6%	4	4
Avista	0.4400	0.4400	0.4400	0.4400	1.76	0.4600	0.4600	0.4600	0.4600	1.84	1.76	1.92	2.00	2.08	2.16	2.25	2.34	2.25	4.1%	6	5
Black Hills	0.595	0.595	0.595	0.625	2.41	0.625	0.625	0.625	0.625	2.50	2.40	2.60	2.70	2.80	2.90	3.00	3.10	3.00	3.8%	7	6
CMS	0.46	0.46	0.46	0.46	1.84	0.4875	0.4875	0.4875	0.4875	1.95	1.84	2.08	2.16	2.21	2.25	2.30	2.35	2.30	3.8%	9	7
Consol Ed	0.790	0.790	0.790	0.790	3.16	0.810	0.810	0.810	0.810	3.24	3.17	3.32	3.40	3.57	3.76	3.95	4.14	3.95	3.8%	10	8
DTE	0.885	0.885	0.885	0.885	3.54	0.9525	0.9525	0.9525	1.020	3.88	3.67	4.08	4.34	4.50	4.66	4.83	5.00	4.83	4.7%	12	9
Duke	0.985	0.985	1.005	1.005	3.98	1.005	1.005	1.025	1.025	4.06	3.98	4.14	4.22	4.25	4.27	4.30	4.33	4.30	1.3%	13	10
Edison Int'l	0.70	0.70	0.70	0.70	2.80	0.7375	0.7375	0.7375	0.7375	2.95	2.80	3.14	3.29	3.47	3.66	3.86	4.06	3.86	5.5%	14	11
Entergy	1.010	1.010	1.010	1.070	4.10	1.070	1.070	1.070	1.130	4.34	4.10	4.56	4.70	4.80	4.90	5.00	5.10	5.00	3.4%	15	12
Evergy	0.5725	0.5725	0.5725	0.6125	2.33	0.6125	0.6125	0.6125	0.6425	2.48	2.33	2.61	2.74	2.84	2.94	3.05	3.16	3.05	4.6%	16	13
Eversource	0.6375	0.6375	0.6375	0.6375	2.55	0.6750	0.6750	0.6750	0.6750	2.70	2.55	2.86	3.03	3.21	3.40	3.60	3.80	3.60	5.9%	17	14
Exelon	0.3375	0.3375	0.3375	0.3375	1.35	0.360	0.360	0.360	0.360	1.44	1.44	1.52	1.62	1.72	1.83	1.95	2.07	1.95	5.2%	18	15
IDACORP	0.750	0.750	0.750	0.790	3.04	0.790	0.790	0.790	0.830	3.20	3.04	3.34	3.46	3.71	3.97	4.25	4.53	4.25	5.7%	22	16
NextEra	0.425	0.425	0.425	0.425	1.70	0.4675	0.4675	0.4675	0.4675	1.87	1.70	2.06	2.25	2.43	2.63	2.85	3.07	2.85	9.0%	24	17
NorthWestern	0.630	0.630	0.630	0.630	2.52	0.640	0.640	0.640	0.640	2.56	2.52	2.60	2.64	2.68	2.72	2.76	2.80	2.76	1.5%	25	18
OGE	0.4100	0.4100	0.4100	0.41	1.64	0.4141	0.4141	0.4141	0.4182	1.66	1.64	1.69	1.73	1.77	1.81	1.85	1.89	1.85	2.0%	26	19
Otter Tail	0.4125	0.4125	0.4125	0.4125	1.65	0.4375	0.4375	0.4375	0.4375	1.75	1.65	1.87	1.97	2.04	2.12	2.20	2.28	2.20	4.9%	27	20
PGE	0.430	0.430	0.4525	0.4525	1.77	0.4525	0.4525	0.4750	0.4750	1.86	1.77	1.98	2.08	2.20	2.33	2.46	2.59	2.46	5.7%	29	21
Pinnacle	0.85	0.85	0.85	0.865	3.42	0.87	0.87	0.87	0.88	3.48	3.41	3.55	3.61	3.67	3.73	3.79	3.85	3.79	1.8%	30	22
PPL	0.42	0.20	0.225	0.225	1.07	0.225	0.24	0.24	0.24	0.95	1.22	1.03	1.10	1.18	1.26	1.35	1.44	1.35	1.7%	32	23
Public Serv.	0.54	0.54	0.54	0.54	2.16	0.57	0.57	0.57	0.57	2.28	2.16	2.40	2.52	2.64	2.77	2.90	3.03	2.90	5.0%	33	24
Sempra	0.550	0.573	0.573	0.573	2.27	0.573	0.595	0.595	0.595	2.36	2.27	2.48	2.58	2.74	2.90	3.08	3.26	3.08	5.2%	34	25
Southern	0.66	0.68	0.68	0.68	2.70	0.68	0.70	0.70	0.70	2.78	2.70	2.86	2.96	3.01	3.05	3.10	3.15	3.10	2.3%	35	26
WEC	0.7275	0.7275	0.7275	0.7275	2.91	0.7800	0.7800	0.7800	0.7800	3.12	2.91	3.34	3.57	3.65	3.74	3.83	3.92	3.83	4.7%	36	27
Xcel	0.4575	0.4875	0.4875	0.4875	1.92	0.4875	0.5200	0.5200	0.5200	2.05	1.92	2.19	2.30	2.42	2.54	2.67	2.80	2.67	5.6%	37	28

	Mean
Company Screen	4.3%
Staff Screen	4.1%
Staff LT Screen	4.3%

Value Line
Historical and Near Term
Earnings Per Share
(EPS)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
					Staff Sensitivity											Value Line Estimated EPS																					VL	VL EPS Growth		
	Screen	Abbreviated	UE 435	UE 435	UE 435	2020	2020	2020	2020	2020	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2023	2023	2023	2023	2023	2024	2024	2024	2024	2024	2022 - 24	2025	2026	2027	2028	2029	2027 - 29	2027 - 29 vs.	Screen	
	#	Utility	PGE	Staff	LT Debt	Q1	Q2	Q3	Q4	Yr	Q1	Q2	Q3	Q4	Yr	Q1	Q2	Q3	Q4	Yr	Q1	Q2	Q3	Q4	Yr	Q1	Q2	Q3	Q4	Yr	Average	Yr	Yr	Yr	Yr	Yr	Average	2022 - 24	#	
1	1	Allete	**Yes	No	No	1.28	0.39	0.78	0.90	3.35	0.99	0.53	0.53	1.18	3.23	1.24	0.67	0.59	0.90	3.40	1.02	0.90	1.49	0.89	4.30	0.88	0.85	0.80	1.22	3.75	3.82	4.10	4.42	4.77	5.15	5.53	5.15	6.2%	1	1
2	2	Alliant	Yes	No	Yes	0.72	0.54	0.94	0.26	2.46	0.68	0.57	1.02	0.35	2.62	0.77	0.63	0.90	0.43	2.73	0.65	0.64	1.02	0.47	2.78	0.62	0.66	1.10	0.67	3.05	2.85	3.25	3.45	3.67	3.90	4.13	3.90	6.4%	2	2
3	3	Ameren	Yes	Yes	Yes	0.59	0.98	1.47	0.46	3.50	0.91	0.80	1.65	0.48	3.84	0.97	0.80	1.74	0.63	4.14	1.00	0.90	1.87	0.60	4.37	0.98	0.95	2.00	0.67	4.60	4.37	4.90	5.23	5.58	5.95	6.32	5.95	6.4%	3	3
4	4	AEP	Yes	No	Yes	1.00	1.05	1.50	0.87	4.42	1.15	1.15	1.59	1.07	4.96	1.22	1.20	1.62	1.05	5.09	1.11	1.13	1.77	1.23	5.24	1.27	1.25	1.80	1.28	5.60	5.31	6.00	6.38	6.78	7.20	7.62	7.20	6.3%	4	4
5	6	Avista	Yes	Yes	Yes	0.72	0.26	0.07	0.85	1.90	0.98	0.20	0.20	0.71	2.09	0.99	0.16	-0.08	1.05	2.12	0.73	0.23	0.19	1.08	2.23	0.95	0.20	0.20	1.05	2.40	2.25	2.60	2.70	2.80	2.90	3.00	2.90	5.2%	6	5
6	7	Black Hills	Yes	Yes	Yes	1.59	0.33	0.58	1.23	3.73	1.54	0.40	0.70	1.11	3.75	1.82	0.52	0.54	1.11	3.99	1.73	0.35	0.67	1.17	3.92	1.70	0.40	0.58	1.22	3.90	3.94	4.10	4.31	4.52	4.75	4.98	4.75	3.8%	7	6
7	9	CMS	Yes	No	No	0.85	0.48	0.76	0.55	2.64	1.09	0.55	0.54	0.40	2.58	1.20	0.50	0.56	0.58	2.84	0.69	0.67	0.60	1.05	3.01	0.96	0.65	0.70	0.99	3.30	3.05	3.50	3.58	3.66	3.75	3.84	3.75	4.2%	9	7
8	10	Consol Ed	No	Yes	Yes	1.35	0.60	1.48	0.74	4.17	1.44	0.53	1.41	1.00	4.38	1.47	0.64	1.63	0.81	4.55	1.82	0.61	1.61	1.00	5.04	1.85	0.65	1.80	1.00	5.30	4.96	5.60	5.92	6.25	6.60	6.95	6.60	5.9%	10	8
9	12	DTE	Yes	No	No	1.76	1.44	2.26	1.42	6.88	1.65	0.60	0.30	1.55	4.10	2.03	0.19	1.99	1.31	5.52	2.16	0.97	1.61	2.02	6.76	1.51	1.20	1.90	2.09	6.70	6.33	7.20	7.71	8.26	8.85	9.44	8.85	6.9%	12	9
10	13	Duke	Yes	No	Yes	1.14	1.08	1.87	1.03	5.12	1.26	1.15	1.88	0.94	5.23	1.30	1.14	1.78	1.11	5.33	1.20	0.91	1.94	1.51	5.56	1.40	1.05	2.05	1.50	6.00	5.63	6.35	6.74	7.16	7.60	8.04	7.60	6.2%	13	10
11	14	Edison Int'l	Yes	No	No	0.63	1.00	1.67	1.19	4.49	0.79	0.94	1.69	1.16	4.58	1.07	0.94	1.48	1.15	4.64	1.09	1.01	1.38	1.28	4.76	1.15	1.05	1.45	1.30	4.95	4.78	5.50	5.83	6.18	6.55	6.92	6.55	6.5%	14	11
12	15	Entergy	Yes	No	No	0.59	1.79	2.59	1.93	6.90	1.66	1.30	2.63	1.28	6.87	1.36	0.78	2.74	0.51	5.39	1.47	1.84	3.14	4.66	11.11	0.35	1.05	2.95	0.95	5.30	7.27	6.85	7.23	7.63	8.05	8.47	8.05	2.1%	15	12
13	16	Evergy	Yes	Yes	Yes	0.31	0.59	1.60	0.22	2.72	0.84	0.81	1.95	0.23	3.83	0.53	0.84	1.86	0.03	3.26	0.62	0.78	1.53	0.24	3.17	0.53	0.85	1.75	0.47	3.60	3.34	4.00	4.19	4.39	4.60	4.81	4.60	6.6%	16	13
14	17	Eversource	No	No	Yes	1.02	0.76	1.01	0.85	3.64	1.15	0.79	1.02	0.91	3.87	1.30	0.86	1.01	0.92	4.09	1.41	1.00	0.97	0.95	4.33	1.45	1.03	1.07	1.05	4.60	4.34	4.85	5.15	5.46	5.80	6.14	5.80	6.0%	17	14
15	18	Exelon	Yes	No	No	0.87	0.55	1.04	0.76	3.22	-0.06	0.89	1.09	0.90	2.82	0.64	0.44	0.75	0.43	2.26	0.70	0.41	0.67	0.60	2.38	0.70	0.45	0.80	0.50	2.45	2.36	2.60	2.76	2.92	3.10	3.28	3.10	5.6%	18	15
16	22	IDACORP	Yes	Yes	Yes	0.74	1.19	2.02	0.74	4.69	0.89	1.38	1.93	0.65	4.85	0.91	1.27	2.10	0.83	5.11	1.11	1.35	2.07	0.61	5.14	1.10	1.35	2.10	0.85	5.40	5.22	5.75	6.04	6.34	6.65	6.96	6.65	5.0%	22	16
17	24	NextEra	Yes	No	No	0.59	0.65	0.67	0.40	2.31	0.67	0.71	0.75	0.41	2.54	0.74	0.81	0.85	0.51	2.91	0.84	0.88	0.94	0.52	3.18	0.91	0.93	0.99	0.57	3.40	3.16	3.65	3.93	4.23	4.55	4.87	4.55	7.5%	24	17
18	25	NorthWestern	Yes	Yes	Yes	1.00	0.43	0.58	1.21	3.22	1.24	0.59	0.70	0.97	3.50	1.08	0.58	0.47	1.16	3.29	1.10	0.32	0.48	1.32	3.22	1.25	0.50	0.60	1.15	3.50	3.34	3.70	3.87	4.06	4.25	4.44	4.25	5.0%	25	18
19	26	OGE	Yes	Yes	Yes	0.23	0.51	1.04	0.30	2.08	0.26	0.56	1.26	0.28	2.36	0.33	0.36	1.31	0.25	2.25	0.19	0.44	1.20	0.24	2.07	0.09	0.45	1.30	0.26	2.10	2.14	2.30	2.43	2.56	2.70	2.84	2.70	4.8%	26	19
20	27	Otter Tail	Yes	No	No	0.60	0.42	0.87	0.45	2.34	0.73	1.01	1.26	1.23	4.23	1.72	2.05	2.01	1.00	6.78	1.49	1.95	2.19	1.37	7.00	1.77	1.70	1.75	1.13	6.35	6.71	4.65	4.51	4.38	4.25	4.12	4.25	-8.7%	27	20
21	29	PGE	Yes	Yes	Yes	0.91	0.43	0.84	0.57	2.75	1.07	0.36	0.56	0.73	2.72	0.67	0.72	0.65	0.70	2.74	0.80	0.44	0.46	0.67	2.37	0.95	0.60	0.70	0.80	3.05	2.72	3.25	3.44	3.64	3.85	4.06	3.85	7.2%	29	21
22	30	Pinnacle	Yes	Yes	Yes	0.27	1.71	3.07	-0.17	4.88	0.32	1.91	3.00	0.24	5.47	0.15	1.45	2.88	-0.21	4.27	-0.03	0.94	3.50	Nil	4.41	0.05	1.25	3.40	Nil	4.70	4.46	5.00	5.31	5.65	6.00	6.35	6.00	6.1%	30	22
23	32	PPL	Yes	No	No	0.72	0.45	0.50	0.38	2.05	0.26	-0.20	0.27	0.19	0.52	0.41	0.30	0.41	0.28	1.40	0.48	0.29	0.43	0.40	1.60	0.50	0.30	0.45	0.45	1.70	1.57	1.80	1.94	2.09	2.25	2.41	2.25	7.5%	32	23
24	33	Public Serv.	Yes	Yes	Yes	1.03	0.79	0.96	0.65	3.43	1.28	0.70	0.98	0.69	3.65	1.33	0.64	0.86	0.64	3.47	1.39	0.70	0.85	0.54	3.48	1.31	0.77	0.95	0.62	3.65	3.53	3.90	4.14	4.39	4.65	4.91	4.65	5.6%	33	24
25	34	Sempra	Yes	Yes	Yes	1.27	0.79	0.66	0.94	3.66	1.48	0.82	0.85	1.08	4.23	1.46	0.99	0.99	1.18	4.62	1.46	0.94	1.08	1.13	4.61	1.46	0.99	1.13	1.22	4.80	4.68	5.15	5.51	5.89	6.30	6.71	6.30	6.1%	34	25
26	35	Southern	Yes	No	No	0.81	0.75	1.18	0.51	3.25	1.09	0.67	1.22	0.44	3.42	0.97	1.07	1.31	0.26	3.61	0.79	0.79	1.42	0.64	3.64	0.90	1.00	1.45	0.65	4.00	3.75	4.30	4.55	4.82	5.10	5.38	5.10	6.3%	35	26
27	36	WEC	Yes	Yes	Yes	1.43	0.76	0.84	0.76	3.79	1.61	0.87	0.92	0.71	4.11	1.79	0.91	0.96	0.80	4.46	1.61	0.92	1.00	1.10	4.63	1.97	0.75	1.05	1.13	4.90	4.66	5.25	5.61	5.99	6.40	6.81	6.40	6.5%	36	27
28	37	Xcel	Yes	No	Yes	0.56	0.54	1.14	0.54	2.78	0.67	0.58	1.13	0.58	2.96	0.70	0.60	1.18	0.69	3.17	0.76	0.52	1.23	0.83	3.34	0.80	0.60	1.35	0.80	3.55	3.35	3.80	4.08	4.38	4.70	5.02	4.70	7.0%	37	28
		No. of Peers:	25	13	18																																			

	Mean
Company Screen	5.3%
Staff Screen	5.7%
Staff Sensitivity Screen	5.9%

Note MGE (excluded) is No Longer Covered by Value Line

** Allete propoal to take private

$$B_U = \frac{B_L}{[1 + (1 - T_C) \times (D/E)]}$$

	1	2	3	4		5	6	7	8	9	10	11	13	14	15	19	20	22	24	26	27		
							Yahoo Finance $ Stock Closing Price 1st Trading Day of Month					VL	VL Cap Structure Percentages						2024 Relevered		Hamada 2024		
	Screen #	Abbreviated Utility	PGE **Yes	Staff No	LT Debt Staff Sensitivity	Ticker	May 5/1/2024	Jun. 6/3/2024	Jul. 7/1/2024	3-Day Avg $ Stock Price	Div Yield at Recent Price	2024 Return on Common Equity	2024 % LT Debt	2024 Common Equity	2024 Preferred Stock	VL Beta	VL 2024 Tax Rate	2024 Unlevered Beta	Beta Equity at 50.0%	Equity Risk Premium	Adjustment Equity at 50.0%	Screen #	
1	1	Allete	**Yes	No	No	ALE	60.34	62.83	62.14	61.77	4.6%	8.0%	39.5	60.5	0.0	0.95	0.0%	0.57	1.15	4.50%	0.90%	1	1
2	2	Alliant	Yes	No	Yes	LNT	50.36	51.10	50.74	50.73	3.8%	11.0%	56.5	43.5	0.0	0.90	2.0%	0.40	0.78	4.50%	-0.52%	2	2
3	3	Ameren	Yes	Yes	Yes	AEE	74.49	73.77	70.75	73.00	3.7%	11.0%	53.5	46.0	0.5	0.90	12.0%	0.44	0.83	4.50%	-0.30%	3	3
4	4	AEP	Yes	No	Yes	AEP	88.15	90.08	87.28	88.50	4.1%	10.0%	58.0	42.0	0.0	0.85	21.0%	0.41	0.73	4.50%	-0.55%	4	4
5	6	Avista	Yes	Yes	Yes	AVA	36.64	36.64	34.20	35.83	5.4%	7.5%	51.0	49.0	0.0	0.95	15.0%	0.50	0.93	4.50%	-0.08%	6	5
6	7	Black Hills	Yes	Yes	Yes	BKH	55.60	56.34	54.10	55.35	4.7%	8.0%	54.5	45.5	0.0	1.05	8.5%	0.50	0.96	4.50%	-0.41%	7	6
7	9	CMS	Yes	No	No	CMS	60.84	62.64	58.80	60.76	3.4%	12.5%	65.0	35.0	0.0	0.85	15.5%	0.33	0.61	4.50%	-1.08%	9	7
8	10	Consol Ed	No	Yes	Yes	ED	94.80	93.68	88.81	92.43	3.6%	8.5%	51.0	49.0	0.0	0.80	18.0%	0.43	0.79	4.50%	-0.07%	10	8
9	12	DTE	Yes	No	No	DTE	111.33	116.24	109.12	112.23	3.6%	11.5%	61.5	38.5	0.0	1.00	5.0%	0.40	0.77	4.50%	-1.01%	12	9
10	13	Duke	Yes	No	Yes	DUK	99.78	103.41	99.35	100.85	4.1%	9.0%	58.5	41.0	0.5	0.90	9.0%	0.39	0.74	4.50%	-0.70%	13	10
11	14	Edison Int'l	Yes	No	No	EIX	71.28	76.28	71.19	72.92	4.3%	13.0%	64.0	28.0	8.0	1.00	13.0%	0.31	0.58	4.50%	-1.90%	14	11
12	15	Entergy	Yes	No	No	ETR	106.98	111.78	105.74	108.17	4.2%	1.0%	61.0	39.0	0.0	1.00	23.0%	0.45	0.80	4.50%	-0.89%	15	12
13	16	Evergy	Yes	Yes	Yes	EVRG	52.94	54.29	52.71	53.31	4.9%	9.0%	51.5	48.5	0.0	0.95	9.0%	0.48	0.92	4.50%	-0.12%	16	13
14	17	Eversource	No	No	Yes	ES	61.62	59.68	56.56	59.29	4.8%	11.0%	62.5	37.0	0.5	0.95	24.0%	0.41	0.73	4.50%	-1.00%	17	14
15	18	**Exelon**	Yes	No	No	EXC	37.84	37.20	34.55	36.53	4.2%	10.0%	61.0	39.0	0.0	NMF	15.0%			4.50%		18	15
16	22	IDACORP	Yes	Yes	Yes	IDA	95.97	94.70	92.22	94.30	3.5%	9.0%	49.0	51.0	0.0	0.85	13.0%	0.46	0.87	4.50%	0.07%	22	16
17	24	NextEra	Yes	No	No	NEE	68.61	77.71	69.90	72.07	2.9%	14.0%	58.5	41.5	0.0	1.05	18.0%	0.49	0.89	4.50%	-0.74%	24	17
18	25	NorthWestern	Yes	Yes	Yes	NWE	50.85	51.82	49.19	50.62	5.1%	7.5%	50.0	50.0	0.0	0.95	6.0%	0.49	0.95	4.50%	0.00%	25	18
19	26	OGE	Yes	Yes	Yes	OGE	35.05	36.19	35.36	35.53	4.8%	12.5%	52.0	48.0	0.0	1.05	12.0%	0.54	1.01	4.50%	-0.18%	26	19
20	27	Otter Tail	Yes	No	No	OTTR	86.71	89.90	86.30	87.64	2.1%	13.0%	41.5	58.5	0.0	0.95	20.0%	0.61	1.09	4.50%	0.63%	27	20
21	29	PGE	Yes	Yes	Yes	POR	43.92	44.39	43.02	43.78	4.5%	9.0%	58.5	41.5	0.0	0.90	17.5%	0.42	0.76	4.50%	-0.63%	29	21
22	30	Pinnacle	Yes	Yes	Yes	PNW	74.94	76.92	75.72	75.86	4.7%	8.0%	52.5	47.5	0.0	0.95	14.0%	0.49	0.91	4.50%	-0.20%	30	22
23	32	PPL	Yes	No	No	PPL	28.00	29.26	27.36	28.21	3.7%	8.5%	51.0	49.0	0.0	1.15	21.0%	0.63	1.13	4.50%	-0.09%	32	23
24	33	Public Serv.	Yes	Yes	Yes	PEG	69.81	74.54	73.63	72.66	3.3%	11.5%	54.5	45.5	0.0	0.95	20.0%	0.49	0.87	4.50%	-0.35%	33	24
25	34	Sempra	Yes	Yes	Yes	SRE	71.95	76.71	74.97	74.54	3.3%	10.0%	50.0	48.5	1.5	1.00	19.0%	0.54	0.97	4.50%	-0.12%	34	25
26	35	Southern	Yes	No	No	SO	74.52	80.39	77.00	77.30	3.7%	13.0%	64.0	36.0	0.0	0.95	15.0%	0.38	0.70	4.50%	-1.13%	35	26
27	36	WEC	Yes	Yes	Yes	WEC	82.59	81.18	77.69	80.49	4.1%	12.5%	55.0	44.5	0.5	0.85	19.0%	0.42	0.77	4.50%	-0.38%	36	27
28	37	Xcel	Yes	No	Yes	XEL	53.78	55.28	52.43	53.83	4.1%	10.5%	60.5	39.5	0.0	0.85	0.0%	0.34	0.67	4.50%	-0.80%	37	28
		No. of Peers:	25	13	18																		

	Mean		Mean
Company Screen	43.8%	Company Screen	-0.48%
Staff Screen	47.3%	Staff Screen	-0.21%
Staff Sensitivity Screen	45.4%	Staff Sensitivity Screen	-0.35%

Unlevered Beta = Levered Beta / (1 + ((1 – Tax Rate) x (Debt/Equity)))

Levered Beta = Unlevered Beta x (1 + ((1 – Tax Rate) x (Debt/Equity)))

** Allete propoal to take private

Note VL does NOT calculate a Beta for Exelon

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2802

ROE – Three-Stage DCF:
Models X and Model Y

September 10, 2024

4.28% Annual Growth Rate - Stage 3

Dividend Growth with Terminal Value as Perpetuity

E.O.Y. Cash Flows Staff Model X

	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Screen #	Abbreviated Utility	PGE **Yes	Staff No	LT Debt Staff Sensitivity	IRR	Terminal Value as % of NPV_{DIV}	NPV @ IRR	Recent Price*	2025 Initial Stage	2026	2027	2028	2029	2030 Transition Stage	2031	2032	2033	2034
1	1	Allete	**Yes	No	No	9.2%	26.9%	0.00	(61.77)	2.93	3.03	3.14	3.25	3.36	3.61	3.85	4.07	4.28	4.46
2	2	Alliant	Yes	No	Yes	8.9%	29.0%	0.00	(50.73)	2.04	2.16	2.29	2.43	2.57	2.81	3.03	3.24	3.41	3.56
3	3	Ameren	Yes	Yes	Yes	8.6%	31.2%	0.00	(73.00)	2.86	3.00	3.15	3.30	3.45	3.77	4.06	4.33	4.57	4.76
4	4	AEP	Yes	No	Yes	8.7%	30.5%	0.00	(88.50)	3.81	3.92	4.04	4.16	4.28	4.63	4.96	5.26	5.54	5.77
5	6	Avista	Yes	Yes	Yes	10.1%	20.9%	0.00	(35.83)	2.00	2.08	2.16	2.25	2.34	2.52	2.69	2.85	3.00	3.13
6	7	Black Hills	Yes	Yes	Yes	9.3%	25.9%	0.00	(55.35)	2.70	2.80	2.90	3.00	3.10	3.33	3.56	3.76	3.95	4.12
7	9	CMS	Yes	No	No	7.8%	38.7%	0.00	(60.76)	2.16	2.21	2.25	2.30	2.35	2.52	2.69	2.84	2.99	3.12
8	10	Consol Ed	No	Yes	Yes	8.3%	34.0%	0.00	(92.43)	3.40	3.57	3.76	3.95	4.14	4.45	4.74	5.02	5.27	5.50
9	12	DTE	Yes	No	No	8.3%	33.5%	0.00	(112.23)	4.34	4.50	4.66	4.83	5.00	5.41	5.80	6.16	6.48	6.76
10	13	Duke	Yes	No	Yes	8.0%	35.6%	0.00	(100.85)	4.22	4.25	4.27	4.30	4.33	4.56	4.79	5.02	5.25	5.47
11	14	Edison Int'l	Yes	No	No	9.4%	25.9%	0.00	(72.92)	3.29	3.47	3.66	3.86	4.06	4.42	4.76	5.07	5.34	5.57
12	15	Entergy	Yes	No	No	8.5%	31.7%	0.00	(108.17)	4.70	4.80	4.90	5.00	5.10	5.46	5.81	6.14	6.45	6.72
13	16	Evergy	Yes	Yes	Yes	9.7%	23.8%	0.00	(53.31)	2.74	2.84	2.94	3.05	3.16	3.41	3.66	3.88	4.08	4.26
14	17	Eversource	No	No	Yes	10.1%	21.3%	0.00	(59.29)	3.03	3.21	3.40	3.60	3.80	4.15	4.48	4.78	5.04	5.26
15	18	Exelon	Yes	No	No	9.4%	25.6%	0.00	(36.53)	1.62	1.72	1.83	1.95	2.07	2.24	2.41	2.57	2.70	2.82
16	22	IDACORP	Yes	Yes	Yes	8.7%	31.1%	0.00	(94.30)	3.46	3.71	3.97	4.25	4.53	4.94	5.33	5.68	5.99	6.25
17	24	NextEra	Yes	No	No	8.4%	34.2%	0.00	(72.07)	2.25	2.43	2.63	2.85	3.07	3.42	3.76	4.06	4.30	4.49
18	25	NorthWestern	Yes	Yes	Yes	9.1%	26.7%	0.00	(50.62)	2.64	2.68	2.72	2.76	2.80	2.96	3.11	3.26	3.41	3.56
19	26	OGE	Yes	Yes	Yes	9.0%	28.0%	0.00	(35.53)	1.73	1.77	1.81	1.85	1.89	2.00	2.11	2.22	2.33	2.43
20	27	Otter Tail	Yes	No	No	6.7%	52.3%	(0.00)	(87.64)	1.97	2.04	2.12	2.20	2.28	2.47	2.65	2.82	2.96	3.09
21	29	PGE	Yes	Yes	Yes	9.7%	23.8%	0.00	(43.78)	2.08	2.20	2.33	2.46	2.59	2.83	3.05	3.25	3.43	3.57
22	30	Pinnacle	Yes	Yes	Yes	8.7%	29.6%	0.00	(75.86)	3.61	3.67	3.73	3.79	3.85	4.07	4.29	4.51	4.72	4.92
23	32	PPL	Yes	No	No	8.7%	30.7%	0.00	(28.21)	1.10	1.18	1.26	1.35	1.44	1.52	1.60	1.68	1.76	1.83
24	33	Public Serv.	Yes	Yes	Yes	8.1%	35.9%	0.00	(72.66)	2.52	2.64	2.77	2.90	3.03	3.29	3.53	3.76	3.96	4.13
25	34	Sempra	Yes	Yes	Yes	8.3%	34.5%	0.00	(74.54)	2.58	2.74	2.90	3.08	3.26	3.54	3.80	4.05	4.27	4.45
26	35	Southern	Yes	No	No	7.9%	37.3%	(0.00)	(77.30)	2.96	3.01	3.05	3.10	3.15	3.34	3.53	3.72	3.90	4.06
27	36	WEC	Yes	Yes	Yes	8.7%	30.1%	0.00	(80.49)	3.57	3.65	3.74	3.83	3.92	4.24	4.54	4.82	5.08	5.29
28	37	Xcel	Yes	No	Yes	9.1%	28.0%	0.00	(53.83)	2.30	2.42	2.54	2.67	2.80	3.05	3.29	3.50	3.69	3.85
		No. of Peers:	25	13	18	Mean													
						8.71%	30.98%	0.00%	Company Screen										
						8.95%	28.88%	0.00%	Staff Screen										
						8.96%	28.89%	0.00%	Staff Sensitivity Screen										

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
	2035 Final Stage	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054 Terminal Value	2054 Div	2054 Perpetuity	Screen #	
1	4.65	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.88	230.51	10.31	220.21	1	1
2	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	192.30	8.23	184.07	2	2
3	4.97	5.18	5.40	5.63	5.87	6.12	6.39	6.66	6.94	7.24	7.55	7.87	8.21	8.56	8.93	9.31	9.71	10.13	10.56	274.20	11.01	263.19	3	3
4	6.02	6.28	6.55	6.83	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	10.82	11.29	11.77	12.27	12.80	328.98	13.35	315.63	4	4
5	3.26	3.40	3.54	3.70	3.85	4.02	4.19	4.37	4.56	4.75	4.96	5.17	5.39	5.62	5.86	6.11	6.37	6.65	6.93	135.80	7.23	128.57	6	5
6	4.30	4.48	4.67	4.87	5.08	5.30	5.53	5.76	6.01	6.27	6.54	6.82	7.11	7.41	7.73	8.06	8.41	8.77	9.14	207.02	9.53	197.49	7	6
7	3.25	3.39	3.53	3.69	3.84	4.01	4.18	4.36	4.54	4.74	4.94	5.15	5.37	5.60	5.84	6.09	6.35	6.63	6.91	222.21	7.21	215.00	9	7
8	5.73	5.98	6.24	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.89	10.31	10.75	11.21	11.69	12.19	343.22	12.71	330.50	10	8
9	7.04	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.27	10.71	11.17	11.65	12.15	12.67	13.21	13.77	14.36	14.98	416.50	15.62	400.88	12	9
10	5.71	5.95	6.21	6.47	6.75	7.04	7.34	7.66	7.98	8.32	8.68	9.05	9.44	9.84	10.27	10.71	11.16	11.64	12.14	364.60	12.66	351.94	13	10
11	5.81	6.06	6.32	6.59	6.87	7.17	7.47	7.79	8.13	8.47	8.84	9.21	9.61	10.02	10.45	10.90	11.36	11.85	12.36	276.98	12.88	264.10	14	11
12	7.01	7.31	7.62	7.95	8.29	8.64	9.01	9.40	9.80	10.22	10.66	11.11	11.59	12.09	12.60	13.14	13.71	14.29	14.90	398.06	15.54	382.52	15	12
13	4.44	4.63	4.83	5.04	5.25	5.48	5.71	5.96	6.21	6.48	6.75	7.04	7.34	7.66	7.99	8.33	8.68	9.06	9.44	201.02	9.85	191.17	16	13
14	5.48	5.72	5.96	6.21	6.48	6.76	7.05	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.28	10.72	11.18	11.65	228.51	12.15	216.35	17	14
15	2.94	3.07	3.20	3.33	3.48	3.63	3.78	3.94	4.11	4.29	4.47	4.66	4.86	5.07	5.29	5.51	5.75	6.00	6.25	139.11	6.52	132.59	18	15
16	6.52	6.79	7.09	7.39	7.70	8.03	8.38	8.74	9.11	9.50	9.91	10.33	10.77	11.24	11.72	12.22	12.74	13.29	13.85	356.79	14.45	342.35	22	16
17	4.68	4.88	5.09	5.31	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	275.07	10.38	264.69	24	17
18	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	185.39	8.23	177.16	25	18
19	2.53	2.64	2.75	2.87	2.99	3.12	3.25	3.39	3.54	3.69	3.85	4.01	4.18	4.36	4.55	4.75	4.95	5.16	5.38	130.67	5.61	125.06	26	19
20	3.22	3.36	3.51	3.66	3.81	3.98	4.15	4.32	4.51	4.70	4.90	5.11	5.33	5.56	5.80	6.05	6.30	6.57	6.86	318.52	7.15	311.37	27	20
21	3.73	3.89	4.05	4.22	4.41	4.59	4.79	5.00	5.21	5.43	5.67	5.91	6.16	6.42	6.70	6.99	7.28	7.60	7.92	167.39	8.26	159.13	29	21
22	5.13	5.35	5.58	5.82	6.07	6.33	6.60	6.88	7.17	7.48	7.80	8.13	8.48	8.84	9.22	9.62	10.03	10.46	10.91	277.42	11.37	266.04	30	22
23	1.91	1.99	2.08	2.17	2.26	2.36	2.46	2.56	2.67	2.79	2.91	3.03	3.16	3.30	3.44	3.59	3.74	3.90	4.07	105.02	4.24	100.78	32	23
24	4.30	4.49	4.68	4.88	5.09	5.30	5.53	5.77	6.02	6.27	6.54	6.82	7.11	7.42	7.74	8.07	8.41	8.77	9.15	270.06	9.54	260.52	33	24
25	4.64	4.84	5.04	5.26	5.48	5.72	5.96	6.22	6.49	6.76	7.05	7.35	7.67	8.00	8.34	8.70	9.07	9.46	9.86	278.97	10.28	268.69	34	25
26	4.24	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	281.12	9.40	271.72	35	26
27	5.52	5.76	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.93	10.35	10.79	11.26	11.74	298.79	12.24	286.55	36	27
28	4.02	4.19	4.37	4.55	4.75	4.95	5.16	5.38	5.62	5.86	6.11	6.37	6.64	6.92	7.22	7.53	7.85	8.19	8.54	203.41	8.90	194.51	37	28

B.O.Y. Cash Flows Staff Model X

	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Screen #	Abbreviated Utility	PGE **Yes	Staff No	LT Debt Staff Sensitivity	IRR	Terminal Value as % of NPV_{DIV}	NPV @ IRR	Recent Price*	2025 Initial Stage	2026	2027	2028	2029	2030 Transition Stage	2031	2032	2033	2034
1	1	Allete	**Yes	No	No	N/A	N/A	N/A	(61.77)	3.03	3.14	3.25	3.36	3.61	3.85	4.07	4.28	4.46	4.65
2	2	Alliant	Yes	No	Yes	9.2%	27.2%	0.00	(50.73)	2.16	2.29	2.43	2.57	2.81	3.03	3.24	3.41	3.56	3.71
3	3	Ameren	Yes	Yes	Yes	8.8%	29.5%	0.00	(73.00)	3.00	3.15	3.30	3.45	3.77	4.06	4.33	4.57	4.76	4.97
4	4	AEP	Yes	No	Yes	8.9%	29.0%	0.00	(88.50)	3.92	4.04	4.16	4.28	4.63	4.96	5.26	5.54	5.77	6.02
5	6	Avista	Yes	Yes	Yes	10.4%	19.5%	0.00	(35.83)	2.08	2.16	2.25	2.34	2.52	2.69	2.85	3.00	3.13	3.26
6	7	Black Hills	Yes	Yes	Yes	9.5%	24.4%	0.00	(55.35)	2.80	2.90	3.00	3.10	3.33	3.56	3.76	3.95	4.12	4.30
7	9	CMS	Yes	No	No	7.9%	37.2%	0.00	(60.76)	2.21	2.25	2.30	2.35	2.52	2.69	2.84	2.99	3.12	3.25
8	10	Consol Ed	No	Yes	Yes	8.5%	32.3%	0.00	(92.43)	3.57	3.76	3.95	4.14	4.45	4.74	5.02	5.27	5.50	5.73
9	12	DTE	Yes	No	No	8.5%	31.9%	0.00	(112.23)	4.50	4.66	4.83	5.00	5.41	5.80	6.16	6.48	6.76	7.04
10	13	Duke	Yes	No	Yes	8.2%	34.4%	0.00	(100.85)	4.25	4.27	4.30	4.33	4.56	4.79	5.02	5.25	5.47	5.71
11	14	Edison Int'l	Yes	No	No	9.6%	24.2%	0.00	(72.92)	3.47	3.66	3.86	4.06	4.42	4.76	5.07	5.34	5.57	5.81
12	15	Entergy	Yes	No	No	8.7%	30.3%	0.00	(108.17)	4.80	4.90	5.00	5.10	5.46	5.81	6.14	6.45	6.72	7.01
13	16	Evergy	Yes	Yes	Yes	9.9%	22.3%	0.00	(53.31)	2.84	2.94	3.05	3.16	3.41	3.66	3.88	4.08	4.26	4.44
14	17	Eversource	No	No	Yes	10.4%	19.6%	0.00	(59.29)	3.21	3.40	3.60	3.80	4.15	4.48	4.78	5.04	5.26	5.48
15	18	Exelon	Yes	No	No	9.7%	23.9%	0.00	(36.53)	1.72	1.83	1.95	2.07	2.24	2.41	2.57	2.70	2.82	2.94
16	22	IDACORP	Yes	Yes	Yes	8.9%	29.2%	0.00	(94.30)	3.71	3.97	4.25	4.53	4.94	5.33	5.68	5.99	6.25	6.52
17	24	NextEra	Yes	No	No	8.6%	32.1%	0.00	(72.07)	2.43	2.63	2.85	3.07	3.42	3.76	4.06	4.30	4.49	4.68
18	25	NorthWestern	Yes	Yes	Yes	9.3%	25.4%	0.00	(50.62)	2.68	2.72	2.76	2.80	2.96	3.11	3.26	3.41	3.56	3.71
19	26	OGE	Yes	Yes	Yes	9.2%	26.7%	0.00	(35.53)	1.77	1.81	1.85	1.89	2.00	2.11	2.22	2.33	2.43	2.53
20	27	Otter Tail	Yes	No	No	6.8%	50.8%	0.00	(87.64)	2.04	2.12	2.20	2.28	2.47	2.65	2.82	2.96	3.09	3.22
21	29	PGE	Yes	Yes	Yes	10.0%	22.1%	0.00	(43.78)	2.20	2.33	2.46	2.59	2.83	3.05	3.25	3.43	3.57	3.73
22	30	Pinnacle	Yes	Yes	Yes	8.9%	28.3%	0.00	(75.86)	3.67	3.73	3.79	3.85	4.07	4.29	4.51	4.72	4.92	5.13
23	32	PPL	Yes	No	No	8.9%	29.0%	0.00	(28.21)	1.18	1.26	1.35	1.44	1.52	1.60	1.68	1.76	1.83	1.91
24	33	Public Serv.	Yes	Yes	Yes	8.3%	34.2%	0.00	(72.66)	2.64	2.77	2.90	3.03	3.29	3.53	3.76	3.96	4.13	4.30
25	34	Sempra	Yes	Yes	Yes	8.5%	32.6%	0.00	(74.54)	2.74	2.90	3.08	3.26	3.54	3.80	4.05	4.27	4.45	4.64
26	35	Southern	Yes	No	No	8.0%	35.9%	0.00	(77.30)	3.01	3.05	3.10	3.15	3.34	3.53	3.72	3.90	4.06	4.24
27	36	WEC	Yes	Yes	Yes	8.9%	28.6%	0.00	(80.49)	3.65	3.74	3.83	3.92	4.24	4.54	4.82	5.08	5.29	5.52
28	37	Xcel	Yes	No	Yes	9.3%	26.3%	0.00	(53.83)	2.42	2.54	2.67	2.80	3.05	3.29	3.50	3.69	3.85	4.02
		No. of Peers:	25	13	18	Mean													
						8.91%	29.40%	0.01%	Company Screen										
						9.16%	27.32%	0.00%	Staff Screen										
						9.16%	27.31%	0.00%	Staff Sensitivity Screen										

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
	2035 Final Stage	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054 Terminal Value	2054 Div	2054 Perpetuity	Screen #	
1	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.88	10.31	#VALUE!	10.75	#VALUE!	1	1
2	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	8.23	191.72	8.58	183.14	2	2
3	5.18	5.40	5.63	5.87	6.12	6.39	6.66	6.94	7.24	7.55	7.87	8.21	8.56	8.93	9.31	9.71	10.13	10.56	11.01	273.78	11.48	262.29	3	3
4	6.28	6.55	6.83	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	10.82	11.29	11.77	12.27	12.80	13.35	329.39	13.92	315.47	4	4
5	3.40	3.54	3.70	3.85	4.02	4.19	4.37	4.56	4.75	4.96	5.17	5.39	5.62	5.86	6.11	6.37	6.65	6.93	7.23	135.85	7.54	128.32	6	5
6	4.48	4.67	4.87	5.08	5.30	5.53	5.76	6.01	6.27	6.54	6.82	7.11	7.41	7.73	8.06	8.41	8.77	9.14	9.53	207.23	9.94	197.29	7	6
7	3.39	3.53	3.69	3.84	4.01	4.18	4.36	4.54	4.74	4.94	5.15	5.37	5.60	5.84	6.09	6.35	6.63	6.91	7.21	222.69	7.51	215.18	9	7
8	5.98	6.24	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.89	10.31	10.75	11.21	11.69	12.19	12.71	342.89	13.26	329.63	10	8
9	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.27	10.71	11.17	11.65	12.15	12.67	13.21	13.77	14.36	14.98	15.62	416.63	16.29	400.34	12	9
10	5.95	6.21	6.47	6.75	7.04	7.34	7.66	7.98	8.32	8.68	9.05	9.44	9.84	10.27	10.71	11.16	11.64	12.14	12.66	366.56	13.20	353.36	13	10
11	6.06	6.32	6.59	6.87	7.17	7.47	7.79	8.13	8.47	8.84	9.21	9.61	10.02	10.45	10.90	11.36	11.85	12.36	12.88	276.35	13.44	262.91	14	11
12	7.31	7.62	7.95	8.29	8.64	9.01	9.40	9.80	10.22	10.66	11.11	11.59	12.09	12.60	13.14	13.71	14.29	14.90	15.54	399.22	16.21	383.01	15	12
13	4.63	4.83	5.04	5.25	5.48	5.71	5.96	6.21	6.48	6.75	7.04	7.34	7.66	7.99	8.33	8.68	9.06	9.44	9.85	201.14	10.27	190.87	16	13
14	5.72	5.96	6.21	6.48	6.76	7.05	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.28	10.72	11.18	11.65	12.15	227.76	12.67	215.09	17	14
15	3.07	3.20	3.33	3.48	3.63	3.78	3.94	4.11	4.29	4.47	4.66	4.86	5.07	5.29	5.51	5.75	6.00	6.25	6.52	138.65	6.80	131.85	18	15
16	6.79	7.09	7.39	7.70	8.03	8.38	8.74	9.11	9.50	9.91	10.33	10.77	11.24	11.72	12.22	12.74	13.29	13.85	14.45	355.40	15.07	340.34	22	16
17	4.88	5.09	5.31	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	273.50	10.82	262.68	24	17
18	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	8.23	186.37	8.58	177.79	25	18
19	2.64	2.75	2.87	2.99	3.12	3.25	3.39	3.54	3.69	3.85	4.01	4.18	4.36	4.55	4.75	4.95	5.16	5.38	5.61	131.15	5.85	125.30	26	19
20	3.36	3.51	3.66	3.81	3.98	4.15	4.32	4.51	4.70	4.90	5.11	5.33	5.56	5.80	6.05	6.30	6.57	6.86	7.15	318.52	7.45	311.07	27	20
21	3.89	4.05	4.22	4.41	4.59	4.79	5.00	5.21	5.43	5.67	5.91	6.16	6.42	6.70	6.99	7.28	7.60	7.92	8.26	166.91	8.61	158.30	29	21
22	5.35	5.58	5.82	6.07	6.33	6.60	6.88	7.17	7.48	7.80	8.13	8.48	8.84	9.22	9.62	10.03	10.46	10.91	11.37	278.67	11.86	266.81	30	22
23	1.99	2.08	2.17	2.26	2.36	2.46	2.56	2.67	2.79	2.91	3.03	3.16	3.30	3.44	3.59	3.74	3.90	4.07	4.24	104.78	4.42	100.36	32	23
24	4.49	4.68	4.88	5.09	5.30	5.53	5.77	6.02	6.27	6.54	6.82	7.11	7.42	7.74	8.07	8.41	8.77	9.15	9.54	269.77	9.95	259.83	33	24
25	4.84	5.04	5.26	5.48	5.72	5.96	6.22	6.49	6.76	7.05	7.35	7.67	8.00	8.34	8.70	9.07	9.46	9.86	10.28	278.28	10.72	267.56	34	25
26	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	9.40	282.11	9.80	272.32	35	26
27	5.76	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.93	10.35	10.79	11.26	11.74	12.24	299.39	12.76	286.63	36	27
28	4.19	4.37	4.55	4.75	4.95	5.16	5.38	5.62	5.86	6.11	6.37	6.64	6.92	7.22	7.53	7.85	8.19	8.54	8.90	203.04	9.29	193.76	37	28

Average B.O.Y. & E.O.Y. Cash Flows Model X

	1	2	3	4		5	6	7	8	9		
	Screen #	Abbreviated Utility	PGE **Yes	Staff No	LT Debt Staff Sensitivity	Average IRR	Terminal Value as % of NPV_{DIV}	Average 2025 - 2029 Dividend Growth Rates EOY	BOY	Average	Screen #	
1	1	Allete	**Yes	No	No	9.2%	26.9%	3.5%	4.4%	4.0%	1	1
2	2	Alliant	Yes	No	Yes	9.1%	28.1%	5.9%	6.7%	6.3%	2	2
3	3	Ameren	Yes	Yes	Yes	8.7%	30.4%	4.8%	5.9%	5.3%	3	3

** Allete propoal to take private

Staff included ALLETE in Company's Peer Screen per their OT.

4	4	AEP	Yes	No	Yes	8.8%	29.7%	3.0%	4.2%	3.6%	4	4
5	6	Avista	Yes	Yes	Yes	10.3%	20.2%	4.0%	4.9%	4.4%	6	5
6	7	Black Hills	Yes	Yes	Yes	9.8%	22.6%	4.0%	4.5%	4.2%	7	6
7	9	CMS	Yes	No	No	8.6%	31.5%	3.5%	3.4%	3.5%	9	7
8	10	Consol Ed	No	Yes	Yes	8.1%	35.5%	2.1%	5.6%	3.9%	10	8
9	12	DTE	Yes	No	No	8.4%	33.0%	5.1%	4.7%	4.9%	12	9
10	13	Duke	Yes	No	Yes	8.3%	34.0%	3.6%	1.8%	2.7%	13	10
11	14	Edison Int'l	Yes	No	No	9.0%	28.8%	3.6%	6.2%	4.9%	14	11
12	15	Entergy	Yes	No	No	8.4%	32.9%	0.6%	3.3%	2.0%	15	12
13	16	Evergy	Yes	Yes	Yes	9.2%	27.0%	2.1%	4.7%	3.4%	16	13
14	17	Eversource	No	No	Yes	10.0%	21.7%	3.6%	6.6%	5.1%	17	14
15	18	Exelon	Yes	No	No	9.9%	22.6%	5.8%	6.8%	6.3%	18	15
16	22	IDACORP	Yes	Yes	Yes	9.2%	27.4%	6.3%	7.5%	6.9%	22	16
17	24	NextEra	Yes	No	No	8.6%	31.6%	7.0%	8.9%	7.9%	24	17
18	25	NorthWestern	Yes	Yes	Yes	9.2%	26.0%	1.5%	2.5%	2.0%	25	18
19	26	OGE	Yes	Yes	Yes	9.1%	27.3%	2.2%	3.2%	2.7%	26	19
20	27	Otter Tail	Yes	No	No	6.7%	51.5%	3.7%	4.8%	4.3%	27	20
21	29	PGE	Yes	Yes	Yes	9.8%	23.0%	5.7%	6.5%	6.1%	29	21
22	30	Pinnacle	Yes	Yes	Yes	8.8%	29.0%	1.6%	2.6%	2.1%	30	22
23	32	PPL	Yes	No	No	8.8%	29.8%	6.9%	6.6%	6.8%	32	23
24	33	Public Serv.	Yes	Yes	Yes	8.2%	35.1%	4.7%	5.6%	5.2%	33	24
25	34	Sempra	Yes	Yes	Yes	8.4%	33.6%	6.0%	6.6%	6.3%	34	25
26	35	Southern	Yes	No	No	8.0%	36.6%	1.5%	2.7%	2.1%	35	26
27	36	WEC	Yes	Yes	Yes	8.8%	29.4%	2.4%	3.8%	3.1%	36	27
28	37	Xcel	Yes	No	Yes	9.2%	27.2%	5.0%	6.0%	5.5%	37	28
		No. of Peers:	**25**	**13**	**18**		**Mean**					
						8.84%	29.93%	4.50%	**Company Screen**			
						9.05%	28.18%	4.28%	**Staff Screen**			
						9.05%	28.17%	4.38%	**Staff Sensitivity Screen**			

But Staff does not include Allete in Staff's Peer Screens because New Owners propose to take Allete Private

Note: Transaction is not complete.

4.28% Annual Growth Rate - Stage 3 **EPS Growth to Determine a Sale Terminal Value** **EPS Growth**

E.O.Y. Cash Flows Staff Model Y

	Screen #	Abbreviated Utility	PGE Peers	Staff Peers	LT Debt Staff Sensitivity	IRR	Terminal Value as % of NPV_{DIV}	NPV @ IRR	Recent Price*	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2046 Terminal Value	2054 Div	2054 Sale	2055	Screen #	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
										Initial Stage					Transition Stage					Final Stage																								
1	1	Allete	**Yes	No	No	9.6%	30.1%	0.00	(61.77)	2.93	3.03	3.14	3.25	3.36	3.61	3.85	4.07	4.28	4.46	4.65	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.88	289.40	10.31	279.10		1	1
				e	e					4.10	4.42	4.77	5.15	5.53	6.05	6.54	6.98	7.37	7.68	8.01	8.35	8.71	9.09	9.47	9.88	10.30	10.74	11.20	11.68	12.18	12.70	13.25	13.82	14.41	15.02	15.67	16.34	17.04		17.76		18.53		
2	2	Alliant	Yes	No	Yes	9.2%	31.3%	0.00	(50.73)	2.04	2.16	2.29	2.43	2.57	2.81	3.03	3.24	3.41	3.56	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	225.43	8.23	217.20		2	2
				e	e					3.25	3.45	3.67	3.90	4.13	4.53	4.90	5.24	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.41	8.77	9.15	9.54	9.95	10.38	10.82	11.28	11.77	12.27	12.80		13.34		13.91		
3	3	Ameren	Yes	Yes	Yes	9.0%	33.9%	0.00	(73.00)	2.86	3.00	3.15	3.30	3.45	3.77	4.06	4.33	4.57	4.76	4.97	5.18	5.40	5.63	5.87	6.12	6.39	6.66	6.94	7.24	7.55	7.87	8.21	8.56	8.93	9.31	9.71	10.13	10.56	327.90	11.01	316.89		3	3
				e	e					4.90	5.23	5.58	5.95	6.32	6.93	7.50	8.01	8.46	8.82	9.20	9.59	10.00	10.43	10.88	11.34	11.83	12.34	12.86	13.41	13.99	14.59	15.21	15.86	16.54	17.25	17.99	18.76	19.56		20.40		21.27		
4	4	AEP	Yes	No	Yes	9.0%	33.1%	0.00	(88.50)	3.81	3.92	4.04	4.16	4.28	4.63	4.96	5.26	5.54	5.77	6.02	6.28	6.55	6.83	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	10.82	11.29	11.77	12.27	12.80	391.04	13.35	377.70		4	4
				e	e					6.00	6.38	6.78	7.20	7.62	8.35	9.03	9.65	10.18	10.62	11.07	11.55	12.04	12.56	13.10	13.66	14.24	14.85	15.49	16.15	16.84	17.56	18.31	19.10	19.91	20.76	21.65	22.58	23.55		24.55		25.61		
5	6	Avista	Yes	Yes	Yes	10.2%	21.6%	0.00	(35.83)	2.00	2.08	2.16	2.25	2.34	2.52	2.69	2.85	3.00	3.13	3.26	3.40	3.54	3.70	3.85	4.02	4.19	4.37	4.56	4.75	4.96	5.17	5.39	5.62	5.86	6.11	6.37	6.65	6.93	143.43	7.23	136.21		6	5
				e	e					2.60	2.70	2.80	2.90	3.00	3.26	3.51	3.73	3.93	4.10	4.28	4.46	4.65	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09		9.48		9.88		
6	7	Black Hills	Yes	Yes	Yes	9.5%	27.0%	0.00	(55.35)	2.70	2.80	2.90	3.00	3.10	3.33	3.56	3.76	3.95	4.12	4.30	4.48	4.67	4.87	5.08	5.30	5.53	5.76	6.01	6.27	6.54	6.82	7.11	7.41	7.73	8.06	8.41	8.77	9.14	224.89	9.53	215.36		7	6
				e	e					4.10	4.31	4.52	4.75	4.98	5.35	5.70	6.04	6.34	6.62	6.90	7.20	7.50	7.82	8.16	8.51	8.87	9.25	9.65	10.06	10.49	10.94	11.41	11.90	12.41	12.94	13.49	14.07	14.67		15.30		15.95		
7	9	CMS	Yes	No	No	7.8%	38.7%	0.00	(60.76)	2.16	2.21	2.25	2.30	2.35	2.52	2.69	2.84	2.99	3.12	3.25	3.39	3.53	3.69	3.84	4.01	4.18	4.36	4.54	4.74	4.94	5.15	5.37	5.60	5.84	6.09	6.35	6.63	6.91	222.22	7.21	215.01		9	7
				e	e					3.50	3.58	3.66	3.75	3.84	4.13	4.42	4.68	4.93	5.14	5.36	5.59	5.82	6.07	6.33	6.61	6.89	7.18	7.49	7.81	8.15	8.49	8.86	9.24	9.63	10.04	10.47	10.92	11.39		11.88		12.39		
8	10	Consol Ed	No	Yes	Yes	8.6%	36.2%	0.00	(92.43)	3.40	3.57	3.76	3.95	4.14	4.45	4.74	5.02	5.27	5.50	5.73	5.98	6.24	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.89	10.31	10.75	11.21	11.69	12.19	395.06	12.71	382.34		10	8
				e	e					5.60	5.92	6.25	6.60	6.95	7.59	8.19	8.73	9.21	9.61	10.02	10.45	10.89	11.36	11.85	12.35	12.88	13.43	14.01	14.61	15.23	15.89	16.57	17.28	18.01	18.79	19.59	20.43	21.30		22.21		23.16		
9	12	DTE	Yes	No	No	8.8%	36.8%	0.00	(112.23)	4.34	4.50	4.66	4.83	5.00	5.41	5.80	6.16	6.48	6.76	7.04	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.27	10.71	11.17	11.65	12.15	12.67	13.21	13.77	14.36	14.98	515.89	15.62	500.27		12	9
				e	e					7.20	7.71	8.26	8.85	9.44	10.39	11.27	12.08	12.76	13.31	13.88	14.47	15.09	15.74	16.41	17.12	17.85	18.61	19.41	20.24	21.11	22.01	22.95	23.93	24.96	26.03	27.14	28.30	29.51		30.78		32.09		
10	13	Duke	Yes	No	Yes	8.4%	38.5%	0.00	(100.85)	4.22	4.25	4.27	4.30	4.33	4.56	4.79	5.02	5.25	5.47	5.71	5.95	6.21	6.47	6.75	7.04	7.34	7.66	7.98	8.32	8.68	9.05	9.44	9.84	10.27	10.71	11.16	11.64	12.14	440.81	12.66	428.15		13	10
				e	e					6.35	6.74	7.16	7.60	8.04	8.80	9.51	10.16	10.72	11.18	11.66	12.16	12.68	13.22	13.79	14.38	14.99	15.63	16.30	17.00	17.73	18.49	19.28	20.10	20.97	21.86	22.80	23.77	24.79		25.85		26.96		
11	14	Edison Int'l	Yes	No	No	9.6%	28.0%	0.00	(72.92)	3.29	3.47	3.66	3.86	4.06	4.42	4.76	5.07	5.34	5.57	5.81	6.06	6.32	6.59	6.87	7.17	7.47	7.79	8.13	8.47	8.84	9.21	9.61	10.02	10.45	10.90	11.36	11.85	12.36	322.22	12.88	309.34		14	11
				e	e					5.50	5.83	6.18	6.55	6.92	7.59	8.22	8.79	9.28	9.68	10.09	10.52	10.97	11.44	11.93	12.44	12.98	13.53	14.11	14.72	15.34	16.00	16.69	17.40	18.15	18.92	19.73	20.58	21.46		22.38		23.33		
12	15	Entergy	Yes	No	No	8.7%	32.8%	0.00	(108.17)	4.70	4.80	4.90	5.00	5.10	5.46	5.81	6.14	6.45	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	9.40	9.80	10.22	10.66	11.11	11.59	12.09	12.60	13.14	13.71	14.29	14.90	429.91	15.54	414.37		15	12
				e	e					6.85	7.23	7.63	8.05	8.47	8.98	9.48	9.97	10.44	10.88	11.35	11.83	12.34	12.87	13.42	13.99	14.59	15.22	15.87	16.55	17.26	18.00	18.77	19.57	20.41	21.28	22.19	23.14	24.13		25.16		26.24		
13	16	Evergy	Yes	Yes	Yes	9.8%	25.3%	0.00	(53.31)	2.74	2.84	2.94	3.05	3.16	3.41	3.66	3.88	4.08	4.26	4.44	4.63	4.83	5.04	5.25	5.48	5.71	5.96	6.21	6.48	6.75	7.04	7.34	7.66	7.99	8.33	8.68	9.06	9.44	226.38	9.85	216.53		16	13
				e	e					4.00	4.19	4.39	4.60	4.81	5.28	5.72	6.12	6.46	6.74	7.03	7.33	7.64	7.97	8.31	8.66	9.04	9.42	9.83	10.25	10.68	11.14	11.62	12.12	12.63	13.17	13.74	14.33	14.94		15.58		16.25		
14	17	Eversource	No	No	Yes	10.4%	23.0%	0.00	(59.29)	3.03	3.21	3.40	3.60	3.80	4.15	4.48	4.78	5.04	5.26	5.48	5.72	5.96	6.21	6.48	6.76	7.05	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.28	10.72	11.18	11.65	262.58	12.15	250.43		17	14
				e	e					4.85	5.15	5.46	5.80	6.14	6.70	7.24	7.72	8.15	8.50	8.86	9.24	9.63	10.05	10.48	10.93	11.39	11.88	12.39	12.92	13.47	14.05	14.65	15.28	15.93	16.61	17.32	18.07	18.84		19.65		20.49		
15	18	Exelon	Yes	No	No	9.6%	27.5%	0.00	(36.53)	1.62	1.72	1.83	1.95	2.07	2.24	2.41	2.57	2.70	2.82	2.94	3.07	3.20	3.33	3.48	3.63	3.78	3.94	4.11	4.29	4.47	4.66	4.86	5.07	5.29	5.51	5.75	6.00	6.25	159.08	6.52	152.56		18	15
				e	e					2.60	2.76	2.92	3.10	3.28	3.57	3.84	4.10	4.32	4.50	4.70	4.90	5.11	5.33	5.55	5.79	6.04	6.30	6.57	6.85	7.14	7.45	7.77	8.10	8.44	8.81	9.18	9.58	9.99		10.41		10.86		
16	22	IDACORP	Yes	Yes	Yes	8.8%	32.4%	0.00	(94.30)	3.46	3.71	3.97	4.25	4.53	4.94	5.33	5.68	5.99	6.25	6.52	6.79	7.09	7.39	7.70	8.03	8.38	8.74	9.11	9.50	9.91	10.33	10.77	11.24	11.72	12.22	12.74	13.29	13.85	388.67	14.45	374.22		22	16
				e	e					5.75	6.04	6.34	6.65	6.96	7.55	8.11	8.62	9.08	9.46	9.87	10.29	10.73	11.19	11.67	12.17	12.69	13.23	13.80	14.39	15.01	15.65	16.32	17.02	17.75	18.51	19.30	20.12	20.98		21.88		22.82		
17	24	NextEra	Yes	No	No	8.8%	37.6%	0.00	(72.07)	2.25	2.43	2.63	2.85	3.07	3.42	3.76	4.06	4.30	4.49	4.68	4.88	5.09	5.31	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	341.19	10.38	330.82		24	17
				e	e					3.65	3.93	4.23	4.55	4.87	5.39	5.87	6.30	6.66	6.95	7.25	7.56	7.88	8.22	8.57	8.93	9.32	9.72	10.13	10.57	11.02	11.49	11.98	12.49	13.03	13.59	14.17	14.77	15.41		16.07		16.75		
18	25	NorthWestern	Yes	Yes	Yes	9.3%	28.2%	0.00	(50.62)	2.64	2.68	2.72	2.76	2.80	2.96	3.11	3.26	3.41	3.56	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	207.27	8.23	199.04		25	18
				e	e					3.70	3.87	4.06	4.25	4.44	4.81	5.17	5.50	5.79	6.03	6.29	6.56	6.84	7.14	7.44	7.76	8.09	8.44	8.80	9.18	9.57	9.98	10.40	10.85	11.31	11.80	12.30	12.83	13.38		13.95		14.55		
19	26	OGE	Yes	Yes	Yes	9.2%	29.9%	0.00	(35.53)	1.73	1.77	1.81	1.85	1.89	2.00	2.11	2.22	2.33	2.43	2.53	2.64	2.75	2.87	2.99	3.12	3.25	3.39	3.54	3.69	3.85	4.01	4.18	4.36	4.55	4.75	4.95	5.16	5.38	148.80	5.61	143.19		26	19
				e	e					2.30	2.43	2.56	2.70	2.84	3.07	3.30	3.50	3.69	3.84	4.01	4.18	4.36	4.55	4.74	4.94	5.15	5.38	5.61	5.85	6.10	6.36	6.63	6.91	7.21	7.52	7.84	8.17	8.52		8.89		9.27		
20	27	Otter Tail	Yes	No	No	5.6%	44.8%	0.00	(87.64)	1.97	2.04	2.12	2.20	2.28	2.47	2.65	2.82	2.96	3.09	3.22	3.36	3.51	3.66	3.81	3.98	4.15	4.32	4.51	4.70	4.90	5.11	5.33	5.56	5.80	6.05	6.30	6.57	6.86	199.50	7.15	192.35		27	20
				e	e					4.65	4.51	4.38	4.25	4.12	3.99	3.94	3.96	4.06	4.23	4.41	4.60	4.80	5.01	5.22	5.44	5.68	5.92	6.17	6.44	6.71	7.00	7.30	7.61	7.94	8.28	8.63	9.00	9.39		9.79		10.21		
21	29	PGE	Yes	Yes	Yes	9.9%	25.9%	0.00	(43.78)	2.08	2.20	2.33	2.46	2.59	2.83	3.05	3.25	3.43	3.57	3.73	3.89	4.05	4.22	4.41	4.59	4.79	5.00	5.21	5.43	5.67	5.91	6.16	6.42	6.70	6.99	7.28	7.60	7.92	195.16	8.26	186.90		29	21
				e	e					3.25	3.44	3.64	3.85	4.06	4.48	4.87	5.22	5.52	5.75	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.92	10.35	10.79	11.25	11.73	12.24	12.76		13.31		13.88		
22	30	Pinnacle	Yes	Yes	Yes	9.1%	32.3%	0.00	(75.86)	3.61	3.67	3.73	3.79	3.85	4.07	4.29	4.51	4.72	4.92	5.13	5.35	5.58	5.82	6.07	6.33	6.60	6.88	7.17	7.48	7.80	8.13	8.48	8.84	9.22	9.62	10.03	10.46	10.91	334.10	11.37	322.72		30	22
				e	e					5.00	5.31	5.65	6.00	6.35	6.95	7.51	8.02	8.46	8.82	9.20	9.59	10.00	10.43	10.88	11.34	11.83	12.34	12.86	13.41	13.99	14.59	15.21	15.86	16.54	17.25	17.99	18.76	19.56		20.40		21.27		
23	32	PPL	Yes	No	No	9.1%	34.4%	0.00	(28.21)	1.10	1.18	1.26	1.35	1.44	1.52	1.60	1.68	1.76	1.83	1.91	1.99	2.08	2.17	2.26	2.36	2.46	2.56	2.67	2.79	2.91	3.03	3.16	3.30	3.44	3.59	3.74	3.90	4.07	134.09	4.24	129.85		32	23
				e	e					1.80	1.94	2.09	2.25	2.41	2.66	2.90	3.11	3.30	3.44	3.58	3.74	3.90	4.06	4.24	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62		7.95		8.29		
24	33	Public Serv.	Yes	Yes	Yes	8.4%	38.2%	0.00	(72.66)	2.52	2.64	2.77	2.90	3.03	3.29	3.53	3.76	3.96	4.13	4.30	4.49	4.68	4.88	5.09	5.30	5.53	5.77	6.02	6.27	6.54	6.82	7.11	7.42	7.74	8.07	8.41	8.77	9.15	313.40	9.54	303.86		33	24
				e	e					3.90	4.14	4.39	4.65	4.91	5.36	5.77	6.15	6.49	6.76	7.05	7.36	7.67	8.00	8.34	8.70	9.07	9.46	9.86	10.29	10.73	11.18	11.66	12.16	12.68	13.23	13.79	14.38	15.00		15.64		16.31		
25	34	Sempra	Yes	Yes	Yes	8.7%	37.3%	0.00	(74.54)	2.58	2.74	2.90	3.08	3.26	3.54	3.80	4.05	4.27	4.45	4.64	4.84	5.04	5.26	5.48	5.72	5.96	6.22	6.49	6.76	7.05	7.35	7.67	8.00	8.34	8.70	9.07	9.46	9.86	335.57	10.28	325.29		34	25
				e	e					5.15	5.51	5.89	6.30	6.71	7.34	7.93	8.47	8.94	9.32	9.72	10.14	10.57	11.02	11.49	11.99	12.50	13.03	13.59	14.17	14.78	15.41	16.07	16.76	17.48	18.22	19.00	19.82	20.67		21.55		22.47		
26	35	Southern	Yes	No	No	8.3%	40.0%	0.00	(77.30)	2.96	3.01	3.05	3.10	3.15	3.34	3.53	3.72	3.90	4.06	4.24	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	334.72	9.40	325.32		35	26
				e	e					4.30	4.55	4.82	5.10	5.38	5.90	6.38	6.82	7.20	7.51	7.83	8.16	8.51	8.87	9.25	9.65	10.06	10.49	10.94	11.41	11.90	12.41	12.94	13.50	14.07	14.68	15.30	15.96	16.64		17.35		18.10		
27	36	WEC	Yes	Yes	Yes	9.1%	33.0%	0.00	(80.49)	3.57	3.65	3.74	3.83	3.92	4.24	4.54	4.82	5.08	5.29	5.52	5.76	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.93	10.35	10.79	11.26	11.74	364.50	12.24	352.26		36	27
				e	e					5.25	5.61	5.99	6.40	6.81	7.47	8.09	8.65	9.14	9.53	9.94	10.36	10.81	11.27	11.75	12.25	12.78	13.33	13.90	14.49	15.11	15.76	16.43	17.14	17.87	18.63	19.43	20.26	21.13		22.03		22.98		
28	37	Xcel	Yes	No	Yes	9.4%	31.1%	0.00	(53.83)	2.30	2.42	2.54	2.67	2.80	3.05	3.29	3.50	3.69	3.85	4.02	4.19	4.37	4.55	4.75	4.95	5.16	5.38	5.62	5.86	6.11	6.37	6.64	6.92	7.22	7.53	7.85	8.19	8.54	250.98	8.90	242.07		37	28
				e	e					3.80	4.08	4.38	4.70	5.02	5.53	6.00	6.43	6.80	7.09	7.39	7.71	8.04	8.38	8.74	9.11	9.50	9.91	10.33	10.78	11.24	11.72	12.22	12.74	13.29	13.86	14.45	15.07	15.71		16.39		17.09		

No. of Peers:	25	13	18		

Mean			
8.94%	32.79%	0.00%	Company Screen
9.21%	30.87%	0.00%	Staff Screen
9.23%	31.02%	0.00%	Staff Sensitivity Screen

B.O.Y. Cash Flows Staff Model Y EPS Growth

	#	Abbreviated Utility	PGE Peers	Staff Peers	LT Debt Staff Sensitivity	IRR	Terminal Value as % of NPV_{DIV}	NPV @ IRR	Recent Price*	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2046 Terminal Value	2054 Div	2054 Sale	2055	#	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
										Initial Stage					Transition Stage					Final Stage																								
1	1	Allete	**Yes	No	No	9.8%	28.6%	0.00	(61.77)	3.03	3.14	3.25	3.36	3.61	3.85	4.07	4.28	4.46	4.65	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.88	10.31	289.84	10.75	279.10		1	1
				e	e					4.10	4.42	4.77	5.15	5.53	6.05	6.54	6.98	7.37	7.68	8.01	8.35	8.71	9.09	9.47	9.88	10.30	10.74	11.20	11.68	12.18	12.70	13.25	13.82	14.41	15.02	15.67	16.34	17.04		17.76		18.53		
2	2	Alliant	Yes	No	Yes	9.5%	29.5%	0.00	(50.73)	2.16	2.29	2.43	2.57	2.81	3.03	3.24	3.41	3.56	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	8.23	225.79	8.58	217.20		2	2
				e	e					3.25	3.45	3.67	3.90	4.13	4.53	4.90	5.24	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.41	8.77	9.15	9.54	9.95	10.38	10.82	11.28	11.77	12.27	12.80		13.34		13.91		
3	3	Ameren	Yes	Yes	Yes	9.2%	32.2%	0.00	(73.00)	3.00	3.15	3.30	3.45	3.77	4.06	4.33	4.57	4.76	4.97	5.18	5.40	5.63	5.87	6.12	6.39	6.66	6.94	7.24	7.55	7.87	8.21	8.56	8.93	9.31	9.71	10.13	10.56	11.01	328.37	11.48	316.89		3	3
				e	e					4.90	5.23	5.58	5.95	6.32	6.93	7.50	8.01	8.46	8.82	9.20	9.59	10.00	10.43	10.88	11.34	11.83	12.34	12.86	13.41	13.99	14.59	15.21	15.86	16.54	17.25	17.99	18.76	19.56		20.40		21.27		
4	4	AEP	Yes	No	Yes	9.2%	31.5%	0.00	(88.50)	3.92	4.04	4.16	4.28	4.63	4.96	5.26	5.54	5.77	6.02	6.28	6.55	6.83	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	10.82	11.29	11.77	12.27	12.80	13.35	391.62	13.92	377.70		4	4
				e	e					6.00	6.38	6.78	7.20	7.62	8.35	9.03	9.65	10.18	10.62	11.07	11.55	12.04	12.56	13.10	13.66	14.24	14.85	15.49	16.15	16.84	17.56	18.31	19.10	19.91	20.76	21.65	22.58	23.55		24.55		25.61		
5	6	Avista	Yes	Yes	Yes	10.5%	20.1%	0.00	(35.83)	2.08	2.16	2.25	2.34	2.52	2.69	2.85	3.00	3.13	3.26	3.40	3.54	3.70	3.85	4.02	4.19	4.37	4.56	4.75	4.96	5.17	5.39	5.62	5.86	6.11	6.37	6.65	6.93	7.23	143.74	7.54	136.21		6	5
				e	e					2.60	2.70	2.80	2.90	3.00	3.26	3.51	3.73	3.93	4.10	4.28	4.46	4.65	4.85	5.06	5.27	5.50	5.73	5.98	6.23	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09		9.48		9.88		
6	7	Black Hills	Yes	Yes	Yes	9.7%	25.5%	0.00	(55.35)	2.80	2.90	3.00	3.10	3.33	3.56	3.76	3.95	4.12	4.30	4.48	4.67	4.87	5.08	5.30	5.53	5.76	6.01	6.27	6.54	6.82	7.11	7.41	7.73	8.06	8.41	8.77	9.14	9.53	225.30	9.94	215.36		7	6
				e	e					4.10	4.31	4.52	4.75	4.98	5.35	5.70	6.04	6.34	6.62	6.90	7.20	7.50	7.82	8.16	8.51	8.87	9.25	9.65	10.06	10.49	10.94	11.41	11.90	12.41	12.94	13.49	14.07	14.67		15.30		15.95		
7	9	CMS	Yes	No	No	7.9%	37.2%	(0.00)	(60.76)	2.21	2.25	2.30	2.35	2.52	2.69	2.84	2.99	3.12	3.25	3.39	3.53	3.69	3.84	4.01	4.18	4.36	4.54	4.74	4.94	5.15	5.37	5.60	5.84	6.09	6.35	6.63	6.91	7.21	222.53	7.51	215.01		9	7
				e	e					3.50	3.58	3.66	3.75	3.84	4.13	4.42	4.68	4.93	5.14	5.36	5.59	5.82	6.07	6.33	6.61	6.89	7.18	7.49	7.81	8.15	8.49	8.86	9.24	9.63	10.04	10.47	10.92	11.39		11.88		12.39		
8	10	Consol Ed	No	Yes	Yes	8.8%	34.5%	0.00	(92.43)	3.57	3.76	3.95	4.14	4.45	4.74	5.02	5.27	5.50	5.73	5.98	6.24	6.50	6.78	7.07	7.37	7.69	8.02	8.36	8.72	9.09	9.48	9.89	10.31	10.75	11.21	11.69	12.19	12.71	395.60	13.26	382.34		10	8
				e	e					5.60	5.92	6.25	6.60	6.95	7.59	8.19	8.73	9.21	9.61	10.02	10.45	10.89	11.36	11.85	12.35	12.88	13.43	14.01	14.61	15.23	15.89	16.57	17.28	18.01	18.79	19.59	20.43	21.30		22.21		23.16		
9	12	DTE	Yes	No	No	9.0%	35.1%	0.00	(112.23)	4.50	4.66	4.83	5.00	5.41	5.80	6.16	6.48	6.76	7.04	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.27	10.71	11.17	11.65	12.15	12.67	13.21	13.77	14.36	14.98	15.62	516.55	16.29	500.27		12	9
				e	e					7.20	7.71	8.26	8.85	9.44	10.39	11.27	12.08	12.76	13.31	13.88	14.47	15.09	15.74	16.41	17.12	17.85	18.61	19.41	20.24	21.11	22.01	22.95	23.93	24.96	26.03	27.14	28.30	29.51		30.78		32.09		
10	13	Duke	Yes	No	Yes	8.6%	37.2%	0.00	(100.85)	4.25	4.27	4.30	4.33	4.56	4.79	5.02	5.25	5.47	5.71	5.95	6.21	6.47	6.75	7.04	7.34	7.66	7.98	8.32	8.68	9.05	9.44	9.84	10.27	10.71	11.16	11.64	12.14	12.66	441.35	13.20	428.15		13	10
				e	e					6.35	6.74	7.16	7.60	8.04	8.80	9.51	10.16	10.72	11.18	11.66	12.16	12.68	13.22	13.79	14.38	14.99	15.63	16.30	17.00	17.73	18.49	19.28	20.10	20.97	21.86	22.80	23.77	24.79		25.85		26.96		

11	14	Edison Int'l	Yes	No	No	9.9%	26.3%	0.00	(72.92)	3.47	3.66	3.86	4.06	4.42	4.76	5.07	5.34	5.57	5.81	6.06	6.32	6.59	6.87	7.17	7.47	7.79	8.13	8.47	8.84	9.21	9.61	10.02	10.45	10.90	11.36	11.85	12.36	12.88	322.78	13.44	309.34		14	11
				e	e					5.50	5.83	6.18	6.55	6.92	7.59	8.22	8.79	9.28	9.68	10.09	10.52	10.97	11.44	11.93	12.44	12.98	13.53	14.11	14.72	15.34	16.00	16.69	17.40	18.15	18.92	19.73	20.58	21.46		22.38		23.33		
12	15	Entergy	Yes	No	No	8.8%	31.4%	0.00	(108.17)	4.80	4.90	5.00	5.10	5.46	5.81	6.14	6.45	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	9.40	9.80	10.22	10.66	11.11	11.59	12.09	12.60	13.14	13.71	14.29	14.90	15.54	430.57	16.21	414.37		15	12
				e	e					6.85	7.23	7.63	8.05	8.47	8.98	9.48	9.97	10.44	10.88	11.35	11.83	12.34	12.87	13.42	13.99	14.59	15.22	15.87	16.55	17.26	18.00	18.77	19.57	20.41	21.28	22.19	23.14	24.13		25.16		26.24		
13	16	Evergy	Yes	Yes	Yes	10.1%	23.8%	0.00	(53.31)	2.84	2.94	3.05	3.16	3.41	3.66	3.88	4.08	4.26	4.44	4.63	4.83	5.04	5.25	5.48	5.71	5.96	6.21	6.48	6.75	7.04	7.34	7.66	7.99	8.33	8.68	9.06	9.44	9.85	226.80	10.27	216.53		16	13
				e	e					4.00	4.19	4.39	4.60	4.81	5.28	5.72	6.12	6.46	6.74	7.03	7.33	7.64	7.97	8.31	8.66	9.04	9.42	9.83	10.25	10.68	11.14	11.62	12.12	12.63	13.17	13.74	14.33	14.94		15.58		16.25		
14	17	Eversource	No	No	Yes	10.6%	21.4%	0.00	(59.29)	3.21	3.40	3.60	3.80	4.15	4.48	4.78	5.04	5.26	5.48	5.72	5.96	6.21	6.48	6.76	7.05	7.35	7.66	7.99	8.33	8.69	9.06	9.45	9.85	10.28	10.72	11.18	11.65	12.15	263.10	12.67	250.43		17	14
				e	e					4.85	5.15	5.46	5.80	6.14	6.70	7.24	7.72	8.15	8.50	8.86	9.24	9.63	10.05	10.48	10.93	11.39	11.88	12.39	12.92	13.47	14.05	14.65	15.28	15.93	16.61	17.32	18.07	18.84		19.65		20.49		
15	18	Exelon	Yes	No	No	9.9%	25.8%	0.00	(36.53)	1.72	1.83	1.95	2.07	2.24	2.41	2.57	2.70	2.82	2.94	3.07	3.20	3.33	3.48	3.63	3.78	3.94	4.11	4.29	4.47	4.66	4.86	5.07	5.29	5.51	5.75	6.00	6.25	6.52	159.36	6.80	152.56		18	15
				e	e					2.60	2.76	2.92	3.10	3.28	3.57	3.84	4.10	4.32	4.50	4.70	4.90	5.11	5.33	5.55	5.79	6.04	6.30	6.57	6.85	7.14	7.45	7.77	8.10	8.44	8.81	9.18	9.58	9.99		10.41		10.86		
16	22	IDACORP	Yes	Yes	Yes	9.1%	30.6%	0.00	(94.30)	3.71	3.97	4.25	4.53	4.94	5.33	5.68	5.99	6.25	6.52	6.79	7.09	7.39	7.70	8.03	8.38	8.74	9.11	9.50	9.91	10.33	10.77	11.24	11.72	12.22	12.74	13.29	13.85	14.45	389.28	15.07	374.22		22	16
				e	e					5.75	6.04	6.34	6.65	6.96	7.55	8.11	8.62	9.08	9.46	9.87	10.29	10.73	11.19	11.67	12.17	12.69	13.23	13.80	14.39	15.01	15.65	16.32	17.02	17.75	18.51	19.30	20.12	20.98		21.88		22.82		
17	24	NextEra	Yes	No	No	9.0%	35.5%	0.00	(72.07)	2.43	2.63	2.85	3.07	3.42	3.76	4.06	4.30	4.49	4.68	4.88	5.09	5.31	5.53	5.77	6.02	6.28	6.54	6.82	7.12	7.42	7.74	8.07	8.42	8.78	9.15	9.54	9.95	10.38	341.64	10.82	330.82		24	17
				e	e					3.65	3.93	4.23	4.55	4.87	5.39	5.87	6.30	6.66	6.95	7.25	7.56	7.88	8.22	8.57	8.93	9.32	9.72	10.13	10.57	11.02	11.49	11.98	12.49	13.03	13.59	14.17	14.77	15.41		16.07		16.75		
18	25	NorthWestern	Yes	Yes	Yes	9.5%	26.9%	0.00	(50.62)	2.68	2.72	2.76	2.80	2.96	3.11	3.26	3.41	3.56	3.71	3.87	4.04	4.21	4.39	4.58	4.77	4.98	5.19	5.41	5.64	5.89	6.14	6.40	6.67	6.96	7.26	7.57	7.89	8.23	207.62	8.58	199.04		25	18
				e	e					3.70	3.87	4.06	4.25	4.44	4.81	5.17	5.50	5.79	6.03	6.29	6.56	6.84	7.14	7.44	7.76	8.09	8.44	8.80	9.18	9.57	9.98	10.40	10.85	11.31	11.80	12.30	12.83	13.38		13.95		14.55		
19	26	OGE	Yes	Yes	Yes	9.4%	28.5%	0.00	(35.53)	1.77	1.81	1.85	1.89	2.00	2.11	2.22	2.33	2.43	2.53	2.64	2.75	2.87	2.99	3.12	3.25	3.39	3.54	3.69	3.85	4.01	4.18	4.36	4.55	4.75	4.95	5.16	5.38	5.61	149.04	5.85	143.19		26	19
				e	e					2.30	2.43	2.56	2.70	2.84	3.07	3.30	3.50	3.69	3.84	4.01	4.18	4.36	4.55	4.74	4.94	5.15	5.38	5.61	5.85	6.10	6.36	6.63	6.91	7.21	7.52	7.84	8.17	8.52		8.89		9.27		
20	27	Otter Tail	Yes	No	No	5.7%	43.3%	0.00	(87.64)	2.04	2.12	2.20	2.28	2.47	2.65	2.82	2.96	3.09	3.22	3.36	3.51	3.66	3.81	3.98	4.15	4.32	4.51	4.70	4.90	5.11	5.33	5.56	5.80	6.05	6.30	6.57	6.86	7.15	199.80	7.45	192.35		27	20
				e	e					4.65	4.51	4.38	4.25	4.12	3.99	3.94	3.96	4.06	4.23	4.41	4.60	4.80	5.01	5.22	5.44	5.68	5.92	6.17	6.44	6.71	7.00	7.30	7.61	7.94	8.28	8.63	9.00	9.39		9.79		10.21		
21	29	PGE	Yes	Yes	Yes	10.2%	24.2%	0.00	(43.78)	2.20	2.33	2.46	2.59	2.83	3.05	3.25	3.43	3.57	3.73	3.89	4.05	4.22	4.41	4.59	4.79	5.00	5.21	5.43	5.67	5.91	6.16	6.42	6.70	6.99	7.28	7.60	7.92	8.26	195.52	8.61	186.90		29	21
				e	e					3.25	3.44	3.64	3.85	4.06	4.48	4.87	5.22	5.52	5.75	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.92	10.35	10.79	11.25	11.73	12.24	12.76		13.31		13.88		
22	30	Pinnacle	Yes	Yes	Yes	9.3%	31.0%	0.00	(75.86)	3.67	3.73	3.79	3.85	4.07	4.29	4.51	4.72	4.92	5.13	5.35	5.58	5.82	6.07	6.33	6.60	6.88	7.17	7.48	7.80	8.13	8.48	8.84	9.22	9.62	10.03	10.46	10.91	11.37	334.58	11.86	322.72		30	22
				e	e					5.00	5.31	5.65	6.00	6.35	6.95	7.51	8.02	8.46	8.82	9.20	9.59	10.00	10.43	10.88	11.34	11.83	12.34	12.86	13.41	13.99	14.59	15.21	15.86	16.54	17.25	17.99	18.76	19.56		20.40		21.27		
23	32	PPL	Yes	No	No	9.3%	32.6%	0.00	(28.21)	1.18	1.26	1.35	1.44	1.52	1.60	1.68	1.76	1.83	1.91	1.99	2.08	2.17	2.26	2.36	2.46	2.56	2.67	2.79	2.91	3.03	3.16	3.30	3.44	3.59	3.74	3.90	4.07	4.24	134.27	4.42	129.85		32	23
				e	e					1.80	1.94	2.09	2.25	2.41	2.66	2.90	3.11	3.30	3.44	3.58	3.74	3.90	4.06	4.24	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62		7.95		8.29		
24	33	Public Serv.	Yes	Yes	Yes	8.6%	36.5%	0.00	(72.66)	2.64	2.77	2.90	3.03	3.29	3.53	3.76	3.96	4.13	4.30	4.49	4.68	4.88	5.09	5.30	5.53	5.77	6.02	6.27	6.54	6.82	7.11	7.42	7.74	8.07	8.41	8.77	9.15	9.54	313.80	9.95	303.86		33	24
				e	e					3.90	4.14	4.39	4.65	4.91	5.36	5.77	6.15	6.49	6.76	7.05	7.36	7.67	8.00	8.34	8.70	9.07	9.46	9.86	10.29	10.73	11.18	11.66	12.16	12.68	13.23	13.79	14.38	15.00		15.64		16.31		
25	34	Sempra	Yes	Yes	Yes	8.8%	35.5%	0.00	(74.54)	2.74	2.90	3.08	3.26	3.54	3.80	4.05	4.27	4.45	4.64	4.84	5.04	5.26	5.48	5.72	5.96	6.22	6.49	6.76	7.05	7.35	7.67	8.00	8.34	8.70	9.07	9.46	9.86	10.28	336.01	10.72	325.29		34	25
				e	e					5.15	5.51	5.89	6.30	6.71	7.34	7.93	8.47	8.94	9.32	9.72	10.14	10.57	11.02	11.49	11.99	12.50	13.03	13.59	14.17	14.78	15.41	16.07	16.76	17.48	18.22	19.00	19.82	20.67		21.55		22.47		
26	35	Southern	Yes	No	No	8.4%	38.6%	0.00	(77.30)	3.01	3.05	3.10	3.15	3.34	3.53	3.72	3.90	4.06	4.24	4.42	4.61	4.81	5.01	5.23	5.45	5.68	5.93	6.18	6.44	6.72	7.01	7.31	7.62	7.95	8.29	8.64	9.01	9.40	335.12	9.80	325.32		35	26
				e	e					4.30	4.55	4.82	5.10	5.38	5.90	6.38	6.82	7.20	7.51	7.83	8.16	8.51	8.87	9.25	9.65	10.06	10.49	10.94	11.41	11.90	12.41	12.94	13.50	14.07	14.68	15.30	15.96	16.64		17.35		18.10		
27	36	WEC	Yes	Yes	Yes	9.3%	31.5%	0.00	(80.49)	3.65	3.74	3.83	3.92	4.24	4.54	4.82	5.08	5.29	5.52	5.76	6.00	6.26	6.53	6.81	7.10	7.40	7.72	8.05	8.39	8.75	9.13	9.52	9.93	10.35	10.79	11.26	11.74	12.24	365.02	12.76	352.26		36	27
				e	e					5.25	5.61	5.99	6.40	6.81	7.47	8.09	8.65	9.14	9.53	9.94	10.36	10.81	11.27	11.75	12.25	12.78	13.33	13.90	14.49	15.11	15.76	16.43	17.14	17.87	18.63	19.43	20.26	21.13		22.03		22.98		
28	37	Xcel	Yes	No	Yes	9.7%	29.4%	0.00	(53.83)	2.42	2.54	2.67	2.80	3.05	3.29	3.50	3.69	3.85	4.02	4.19	4.37	4.55	4.75	4.95	5.16	5.38	5.62	5.86	6.11	6.37	6.64	6.92	7.22	7.53	7.85	8.19	8.54	8.90	251.36	9.29	242.07		37	28
				e	e					3.80	4.08	4.38	4.70	5.02	5.53	6.00	6.43	6.80	7.09	7.39	7.71	8.04	8.38	8.74	9.11	9.50	9.91	10.33	10.78	11.24	11.72	12.22	12.74	13.29	13.86	14.45	15.07	15.71		16.39		17.09		
		No. of Peers:	25	13	18																																							

Mean			
9.13%	31.18%	0.00%	Company Screen
9.41%	29.29%	0.00%	Staff Screen
9.44%	29.43%	0.00%	Staff Sensitivity Screen

Average B.O.Y. & E.O.Y. Cash Flows

Model Y EPS Growth

	1	2	3	4		5	6	7	8	9		
	Screen #	Abbreviated Utility	PGE Peers	Staff Peers	LT Debt Staff Sensitivity	Average IRR	Terminal Value as % of NPV_{DIV}	Average 2025 - 2029 Dividend Growth Rates EOY	BOY	Average	Screen #	
1	1	Allete	**Yes	No	No	9.7%	29.3%	3.5%	4.4%	4.0%	1	1
2	2	Alliant	Yes	No	Yes	9.4%	30.4%	5.9%	6.7%	6.3%	2	2
3	3	Ameren	Yes	Yes	Yes	9.1%	33.0%	4.8%	5.9%	5.3%	3	3
4	4	AEP	Yes	No	Yes	9.1%	32.3%	3.0%	4.2%	3.6%	4	4
5	6	Avista	Yes	Yes	Yes	10.4%	20.9%	4.0%	4.9%	4.4%	6	5
6	7	Black Hills	Yes	Yes	Yes	9.6%	26.2%	3.5%	4.5%	4.0%	7	6
7	9	CMS	Yes	No	No	7.8%	37.9%	2.1%	3.4%	2.8%	9	7
8	10	Consol Ed	No	Yes	Yes	8.7%	35.3%	5.1%	5.6%	5.3%	10	8
9	12	DTE	Yes	No	No	8.9%	36.0%	3.6%	4.7%	4.2%	12	9
10	13	Duke	Yes	No	Yes	8.5%	37.9%	0.6%	1.8%	1.2%	13	10
11	14	Edison Int'l	Yes	No	No	9.8%	27.1%	5.4%	6.2%	5.8%	14	11
12	15	Entergy	Yes	No	No	8.8%	32.1%	2.1%	3.3%	2.7%	15	12
13	16	Evergy	Yes	Yes	Yes	10.0%	24.6%	3.6%	4.7%	4.2%	16	13
14	17	Eversource	No	No	Yes	10.5%	22.2%	5.8%	6.6%	6.2%	17	14
15	18	Exelon	Yes	No	No	9.8%	26.6%	6.3%	6.8%	6.6%	18	15
16	22	IDACORP	Yes	Yes	Yes	9.0%	31.5%	7.0%	7.5%	7.2%	22	16
17	24	NextEra	Yes	No	No	8.9%	36.6%	8.0%	8.9%	8.5%	24	17
18	25	NorthWestern	Yes	Yes	Yes	9.4%	27.6%	1.5%	2.5%	2.0%	25	18
19	26	OGE	Yes	Yes	Yes	9.3%	29.2%	2.2%	3.2%	2.7%	26	19
20	27	Otter Tail	Yes	No	No	5.6%	44.0%	3.7%	4.8%	4.3%	27	20
21	29	PGE	Yes	Yes	Yes	10.1%	25.0%	5.7%	6.5%	6.1%	29	21
22	30	Pinnacle	Yes	Yes	Yes	9.2%	31.6%	1.6%	2.6%	2.1%	30	22
23	32	PPL	Yes	No	No	9.2%	33.5%	6.9%	6.6%	6.8%	32	23
24	33	Public Serv.	Yes	Yes	Yes	8.5%	37.4%	4.7%	5.6%	5.2%	33	24
25	34	Sempra	Yes	Yes	Yes	8.7%	36.4%	6.0%	6.6%	6.3%	34	25
26	35	Southern	Yes	No	No	8.3%	39.3%	1.5%	2.7%	2.1%	35	26
27	36	WEC	Yes	Yes	Yes	9.2%	32.3%	2.4%	3.8%	3.1%	36	27
28	37	Xcel	Yes	No	Yes	9.6%	30.2%	5.0%	6.0%	5.5%	37	28
		No. of Peers:	25	13	18							

Mean			
9.04%	31.99%	4.51%	Company Screen
9.31%	30.08%	4.46%	Staff Screen
9.33%	30.23%	4.49%	Staff Sensitivity Screen

** Allete propoal to take private

Staff included ALLETE in Company's Peer Screen per their OT.
But Staff does not include Allete in Staff's Peer Screens because New Owners propose to take Allete Private
Note: Transaction is not complete.

CASE: UE 435
WITNESS: MATT MULDOON

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STAFF EXHIBIT 2803

ROE – Three-Stage DCF:
Summary and Recommendation

September 10, 2024

UE 435 Staff ROE Summary

Stage 3 – Long-Term Annual Dividend and EPS Growth Rates						
Component	Real Rate	TIPS Inflation Forecast	20-Yr Nominal Rate	Weight	Weighted Rate	
Energy Information Administration (EIA)	1.90%	2.32%	4.26%	20.0%	0.85%	
Organization for Economic Co-operation and Development (OECD)	1.81%	2.32%	4.17%	20.0%	0.83%	
Social Security Administration (SSA)	1.95%	2.32%	4.32%	20.0%	0.86%	
Congressional Budget Office (CBO)	1.70%	2.32%	4.06%	20.0%	0.81%	
BEA Nominal Historical,1994 Q2 – 2024 Q1	2.21%	2.32%	4.58%	20.0%	0.92%	
Composite				100%	4.28%	**Composite**
Congressional Budget Office (CBO) Long-Term 20-Year Budget Outlook	1.70%	2.32%	4.06%	100.0%	4.06%	**CBO**
BEA Nominal Historical,1994 Q2 – 2024 Q1	2.21%	2.32%	4.58%	100.0%	4.58%	**BEA**

	Model X: 3 Stage DCF - Dividend Growth with Terminal Value as Perpetuity						
	X	CBO	4.06%	Composite	4.28%	BEA	4.58%
1	Company Peer Screen	8.67%		8.84%		9.10%	
2	Staff Peer Screen	8.86%		9.05%		9.31%	
3	Staff Sensitivity Peer Screen	8.86%		9.05%		9.31%	

Hamada →

Model X: 3 Stage DCF - Dividend Growth with Terminal Value as Perpetuity (Hamada Adjusted)							
X	CBO	4.06%	Composite	4.28%	BEA	4.58%	
Company Peer Screen	8.19%		8.36%		8.62%		1
Staff Peer Screen	8.65%		8.84%		9.10%		2
Staff Sensitivity Peer Screen	8.51%		8.70%		8.96%		3

	Model Y: 3 Stage DCF - Dividend Growth with Terminal Value as Sales based upon EPS Growth and Terminal Stock Sale						
	Y	CBO	4.06%	Composite	4.28%	BEA	4.58%
1	Company Peer Screen	8.86%		9.04%		9.28%	
2	Staff Peer Screen	9.13%		9.31%		9.55%	
3	Staff Sensitivity Peer Screen	9.16%		9.33%		9.58%	

Hamada →

Model Y: 3 Stage DCF - Dividend & EPS Growth with Terminal Value as Stock Sale (Hamada Adjusted)							
Y	CBO	4.06%	Composite	4.28%	BEA	4.58%	
Company Peer Screen	8.38%		8.56%		8.80%		1
Staff Peer Screen	8.92%		9.10%		9.34%		2
Staff Sensitivity Peer Screen	8.81%		8.98%		9.23%		3

Best Fit Range of Reasonable ROEs	9.10%	to	9.34%	ROE
Common Stock Flotation Costs Adjustment Shifts Range of Reasonable ROE's Upward by :				12.5 bps
Staff Range of Reasonable ROEs:	9.22%	to	9.46%	ROE
	Midpoint	9.34%	ROE	Testimony

CAPM and Single Stage DCF point to the middle to lower end of Staff's Three Stage DCF Modeling Results

CASE: UE 435
WITNESS: MATT MULDOON

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STAFF EXHIBIT 2804

ROE:
Capital Asset Pricing Model (CAPM)

September 10, 2024

Staff's CAPM Modeling Results

PGE	4.20%	Rf Rate as shown in Exhibit PGE/605C Figueroa-Liddle/39
Direct	10.57%	PGE Mkt Return
Testimony	6.37%	PGE Mkt Risk Premium (MRP)
Staff	4.085%	R_f Aug 21, 2024 30-Yr UST Yield /WSJ www.wsj.com/market-data/bonds
	10.14%	30-Year S&P 500 Proxy Market Return Geometric Return 1993-2023 (with dividends reinvested)
	6.06%	Staff 30-Yr Mkt Risk Premium (MRP)

$R_{PGE} = R_f + Beta*MRP$

	Screen #	Abbreviated Utility	UE 435 PGE	UE 435 Staff	LT Debt UE 435 Sensitivity	Ticker	VL Q3 2024 Beta	Staff MRP 30 Yr ROE w VL Beta CAPM	PGE MRP PGE/600 ROE w VL Beta CAPM	Screen #	
1	1	Allete	**Yes	No	No	ALE	0.95	9.84%	10.25%	1	1
2	2	Alliant	Yes	No	Yes	LNT	0.90	9.53%	9.93%	2	2
3	3	Ameren	Yes	Yes	Yes	AEE	0.90	9.53%	9.93%	3	3
4	4	AEP	Yes	No	Yes	AEP	0.85	9.23%	9.61%	4	4
5	6	Avista	Yes	Yes	Yes	AVA	0.95	9.84%	10.25%	6	5
6	7	Black Hills	Yes	Yes	Yes	BKH	1.05	10.44%	10.89%	7	6
7	9	CMS	Yes	No	No	CMS	0.85	9.23%	9.61%	9	7
8	10	Consol Ed	No	Yes	Yes	ED	0.80	8.93%	9.30%	10	8
9	12	DTE	Yes	No	No	DTE	1.00	10.14%	10.57%	12	9
10	13	Duke	Yes	No	Yes	DUK	0.90	9.53%	9.93%	13	10
11	14	Edison Int'l	Yes	No	No	EIX	1.00	10.14%	10.57%	14	11
12	15	Entergy	Yes	No	No	ETR	1.00	10.14%	10.57%	15	12
13	16	Evergy	Yes	Yes	Yes	EVRG	0.95	9.84%	10.25%	16	13
14	17	Eversource	No	No	Yes	ES	0.95	9.84%	10.25%	17	14
15	18	Exelon	Yes	No	No	EXC	NMF			18	15
16	22	IDACORP	Yes	Yes	Yes	IDA	0.85	9.23%	9.61%	22	16
17	24	NextEra	Yes	No	No	NEE	1.05	10.44%	10.89%	24	17
18	25	NorthWestern	Yes	Yes	Yes	NWE	0.95	9.84%	10.25%	25	18
19	26	OGE	Yes	Yes	Yes	OGE	1.05	10.44%	10.89%	26	19
20	27	Otter Tail	Yes	No	No	OTTR	0.95	9.84%	10.25%	27	20
21	29	PGE	Yes	Yes	Yes	POR	0.90	9.53%	9.93%	29	21
22	30	Pinnacle	Yes	Yes	Yes	PNW	0.95	9.84%	10.25%	30	22
23	32	PPL	Yes	No	No	PPL	1.15	11.05%	11.53%	32	23
24	33	Public Serv.	Yes	Yes	Yes	PEG	0.95	9.84%	10.25%	33	24
25	34	Sempra	Yes	Yes	Yes	SRE	1.00	10.14%	10.57%	34	25
26	35	Southern	Yes	No	No	SO	0.95	9.84%	10.25%	35	26
27	36	WEC	Yes	Yes	Yes	WEC	0.85	9.23%	9.61%	36	27
28	37	Xcel	Yes	No	Yes	XEL	0.85	9.23%	9.61%	37	28
		No. of Peers:	25	13	18			VL Betas	VL Betas		
					Company Screen		Mean	9.8%	10.3%	ROE	
					Staff Screen		Mean	9.7%	10.2%	ROE	
					Staff Sensitivity Screen		Mean	9.7%	10.1%	ROE	

Points to Upper End of Staff's 3-Stage DCF Results

CASE: UE 435
WITNESS: MATT MULDOON

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STAFF EXHIBIT 2805

ROE:
Gordon Growth – Single Stage DCF

September 10, 2024

Staff's Representative Single Stage (Gordon Growth) Discounted Cash Flow (DCF) Model

Presumes the Peer Utility will pay its divident as a fixed multiple of growth into the future as it is now.

The results would be true only if the utility stock's dividends were to grow at a constant rate forever.

Value of Stock (P_0) = D_1 / (k- g) Stock Price Now = Next Year's Dividend / (Required Stock Return - Growth in Dividends)

k = (D_1 / P_0) + g Required Rate of Return on Utility Equity = (Next Year's VL Dividend / Recent Stock Price) - Perpetual Growth

This Model Implies: **Points toward Lower End of Staff's 3-Stage DCF Modeling Results**

	1		2	3	4	5	6	7	8	9	10	11	12
												= 9 + 10	
	Screen #	Abbreviated Utility	UE 435 PGE	UE 435 Staff	LT Debt UE 435 Sensitivity	Ticker	Recent Stock $ Price	Current Dividend Yield	Next VL Annual Dividend	Anticipated Dividend Yield	VL Dividend Growth	Investor Required ROE	Screen #
1	1	Allete	**Yes	No	No	ALE	61.77	4.6%	2.93	4.7%	3.7%	8.5%	1
2	2	Alliant	Yes	No	Yes	LNT	50.73	3.8%	2.04	4.0%	6.0%	10.1%	2
3	3	Ameren	Yes	Yes	Yes	AEE	73.00	3.7%	2.86	3.9%	5.7%	9.7%	3
4	4	AEP	Yes	No	Yes	AEP	88.50	4.1%	3.81	4.3%	4.6%	8.9%	4
5	6	Avista	Yes	Yes	Yes	AVA	35.83	5.4%	2.00	5.6%	4.1%	9.7%	6
6	7	Black Hills	Yes	Yes	Yes	BKH	55.35	4.7%	2.70	4.9%	3.8%	8.7%	7
7	9	CMS	Yes	No	No	CMS	60.76	3.4%	2.16	3.6%	3.8%	7.3%	9
8	10	Consol Ed	No	Yes	Yes	ED	92.43	3.6%	3.40	3.7%	3.8%	7.4%	10
9	12	DTE	Yes	No	No	DTE	112.23	3.6%	4.34	3.9%	4.7%	8.6%	12
10	13	Duke	Yes	No	Yes	DUK	100.85	4.1%	4.22	4.2%	1.3%	5.5%	13
11	14	Edison Int'l	Yes	No	No	EIX	72.92	4.3%	3.29	4.5%	5.5%	10.0%	14
12	15	Entergy	Yes	No	No	ETR	108.17	4.2%	4.70	4.3%	3.4%	7.7%	15
13	16	Evergy	Yes	Yes	Yes	EVRG	53.31	4.9%	2.74	5.1%	4.6%	9.7%	16
14	17	Eversource	No	No	Yes	ES	59.29	4.8%	3.03	5.1%	5.9%	11.0%	17
15	18	Exelon	Yes	No	No	EXC	36.53	4.2%	1.62	4.4%	5.2%	9.6%	18
16	22	IDACORP	Yes	Yes	Yes	IDA	94.30	3.5%	3.46	3.7%	5.7%	9.4%	22
17	24	NextEra	Yes	No	No	NEE	72.07	2.9%	2.25	3.1%	9.0%	12.1%	24
18	25	NorthWestern	Yes	Yes	Yes	NWE	50.62	5.1%	2.64	5.2%	1.5%	6.7%	25
19	26	OGE	Yes	Yes	Yes	OGE	35.53	4.8%	1.73	4.9%	2.0%	6.9%	26
20	27	Otter Tail	Yes	No	No	OTTR	87.64	2.1%	1.97	2.2%	4.9%	7.1%	27
21	29	PGE	Yes	Yes	Yes	POR	43.78	4.5%	2.08	4.8%	5.7%	10.4%	29
22	30	Pinnacle	Yes	Yes	Yes	PNW	75.86	4.7%	3.61	4.8%	1.8%	6.5%	30
23	32	PPL	Yes	No	No	PPL	28.21	3.7%	1.10	3.9%	1.7%	5.6%	32
24	33	Public Serv.	Yes	Yes	Yes	PEG	72.66	3.3%	2.52	3.5%	5.0%	8.5%	33
25	34	Sempra	Yes	Yes	Yes	SRE	74.54	3.3%	2.58	3.5%	5.2%	8.7%	34
26	35	Southern	Yes	No	No	SO	77.30	3.7%	2.96	3.8%	2.3%	6.2%	35
27	36	WEC	Yes	Yes	Yes	WEC	80.49	4.1%	3.57	4.4%	4.7%	9.1%	36
28	37	Xcel	Yes	No	Yes	XEL	53.83	4.1%	2.30	4.3%	5.6%	9.9%	37
		No. of Peers:	25	13	18							Mean	
											Company Screen	8.5%	ROE
											Staff Screen	8.6%	ROE
											Staff Sensitivity Screen	8.7%	ROE

Points toward lower end of Staff's 3 Stage DCF Modeling results.

CASE: UE 435
WITNESS: MATT MULDOON

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STAFF EXHIBIT 2806

ROE: BEA Historical
GDP Growth

September 10, 2024

Bureau of Economic Analysis (BEA)

Staff Accessed
July 22, 2024

Current-Dollar and "Real" Gross Domestic Product (GDP)

Annual https://fred.stlouisfed.org/series/GDPA Quarterly https://fred.stlouisfed.org/series/GDP https://fred.stlouisfed.org/series/GDPC

https://fred.stlouisfed.org/series/GDPCA

(Seasonally adjusted annual rates)

Yr	GDP in billions of current dollars	GDP in billions of chained 2017 dollars
1947	249.616	2184.614
1948	274.468	2274.627
1949	272.475	2261.928
1950	299.827	2458.532
1951	346.914	2656.32
1952	367.341	2764.803
1953	389.218	2894.411
1954	390.549	2877.708
1955	425.478	3083.026
1956	449.353	3148.765
1957	474.039	3215.065
1958	481.229	3191.216
1959	521.654	3412.421
1960	542.382	3500.272
1961	562.209	3590.066
1962	603.922	3810.124
1963	637.45	3976.142
1964	684.46	4205.277
1965	742.289	4478.555
1966	813.414	4773.931
1967	859.959	4904.864
1968	940.651	5145.914
1969	1017.615	5306.594
1970	1073.303	5316.391
1971	1164.85	5491.445
1972	1279.11	5780.048
1973	1425.376	6106.371
1974	1545.243	6073.363
1975	1684.904	6060.875
1976	1873.412	6387.437
1977	2081.826	6682.804
1978	2351.599	7052.711
1979	2627.333	7275.999
1980	2857.307	7257.316
1981	3207.041	7441.485
1982	3343.789	7307.314
1983	3634.038	7642.266
1984	4037.613	8195.295
1985	4338.979	8537.004
1986	4579.631	8832.611
1987	4855.215	9137.745
1988	5236.438	9519.427
1989	5641.58	9869.003
1990	5963.144	10055.129
1991	6158.129	10044.238
1992	6520.327	10398.046
1993	6858.559	10684.179
1994	7287.236	11114.647
1995	7639.749	11413.012
1996	8073.122	11843.599
1997	8577.552	12370.299
1998	9062.817	12924.876
1999	9631.172	13543.774
2000	10250.952	14096.033
2001	10581.929	14230.726
2002	10929.108	14472.712
2003	11456.45	14877.312
2004	12217.196	15449.757
2005	13039.197	15987.957
2006	13815.583	16433.148
2007	14474.228	16762.445
2008	14769.862	16781.485
2009	14478.067	16349.11
2010	15048.97	16789.75
2011	15599.731	17052.41
2012	16253.97	17442.759
2013	16880.683	17812.167
2014	17608.138	18261.714
2015	18295.019	18799.622
2016	18804.913	19141.672
2017	19612.102	19612.102
2018	20656.516	20193.896
2019	21521.395	20692.087
2020	21322.95	20234.074
2021	23594.031	21407.692
2022	25744.108	21822.037
2023	27360.935	22376.906

Quarter	GDP in billions of current dollars	GDP in billions of chained 2017 dollars	Qtr#
1947Q1	243.164	2182.681	1
1947Q2	245.968	2176.892	2
1947Q3	249.585	2172.432	3
1947Q4	259.745	2206.452	4
1948Q1	265.742	2239.682	5
1948Q2	272.567	2276.690	6
1948Q3	279.196	2289.770	7
1948Q4	280.366	2292.364	8
1949Q1	275.034	2260.807	9
1949Q2	271.351	2253.128	10
1949Q3	272.889	2276.424	11
1949Q4	270.627	2257.352	12
1950Q1	280.828	2346.104	13
1950Q2	290.383	2417.682	14
1950Q3	308.153	2511.127	15
1950Q4	319.945	2559.214	16
1951Q1	336.000	2593.967	17
1951Q2	344.090	2638.898	18
1951Q3	351.385	2693.259	19
1951Q4	356.178	2699.156	20
1952Q1	359.820	2727.954	21
1952Q2	361.030	2733.800	22
1952Q3	367.701	2753.517	23
1952Q4	380.812	2843.941	24
1953Q1	387.980	2896.811	25
1953Q2	391.749	2919.206	26
1953Q3	391.171	2902.785	27
1953Q4	385.970	2858.845	28
1954Q1	385.345	2845.192	29
1954Q2	386.121	2848.305	30
1954Q3	390.996	2880.482	31
1954Q4	399.734	2936.852	32
1955Q1	413.073	3020.746	33
1955Q2	421.532	3069.910	34
1955Q3	430.221	3111.379	35
1955Q4	437.092	3130.068	36
1956Q1	439.746	3117.922	37
1956Q2	446.010	3143.694	38
1956Q3	451.191	3140.874	39
1956Q4	460.463	3192.570	40
1957Q1	469.779	3213.011	41
1957Q2	472.025	3205.970	42
1957Q3	479.490	3237.386	43
1957Q4	474.864	3203.894	44
1958Q1	467.540	3120.724	45
1958Q2	471.978	3141.224	46
1958Q3	485.841	3213.884	47
1958Q4	499.555	3289.032	48
1959Q1	510.330	3352.129	49
1959Q2	522.653	3427.667	50
1959Q3	525.034	3430.057	51
1959Q4	528.600	3439.832	52
1960Q1	542.648	3517.181	53
1960Q2	541.080	3498.246	54
1960Q3	545.604	3515.385	55
1960Q4	540.197	3470.278	56
1961Q1	545.018	3493.703	57
1961Q2	555.545	3553.021	58
1961Q3	567.664	3621.252	59
1961Q4	580.612	3692.289	60
1962Q1	594.013	3758.147	61
1962Q2	600.366	3792.149	62
1962Q3	609.027	3838.776	63
1962Q4	612.280	3851.421	64
1963Q1	621.672	3893.482	65
1963Q2	629.752	3937.183	66
1963Q3	644.444	4023.755	67
1963Q4	653.938	4050.147	68
1964Q1	669.822	4135.553	69
1964Q2	678.674	4180.592	70
1964Q3	692.031	4245.918	71
1964Q4	697.319	4259.046	72
1965Q1	717.790	4362.111	73
1965Q2	730.191	4417.225	74
1965Q3	749.323	4515.427	75
1965Q4	771.857	4619.458	76
1966Q1	795.734	4731.888	77
1966Q2	804.981	4748.046	78
1966Q3	819.638	4788.254	79
1966Q4	833.302	4827.537	80
1967Q1	844.170	4870.299	81
1967Q2	848.983	4873.287	82
1967Q3	865.233	4919.392	83
1967Q4	881.439	4956.477	84
1968Q1	909.387	5057.553	85
1968Q2	934.344	5142.033	86
1968Q3	950.825	5181.859	87
1968Q4	968.030	5202.212	88
1969Q1	993.337	5283.597	89
1969Q2	1009.020	5299.625	90
1969Q3	1029.956	5334.600	91
1969Q4	1038.147	5308.556	92
1970Q1	1051.200	5300.652	93
1970Q2	1067.375	5308.164	94
1970Q3	1086.059	5357.077	95
1970Q4	1088.608	5299.672	96
1971Q1	1135.156	5443.619	97
1971Q2	1156.271	5473.059	98
1971Q3	1177.675	5518.072	99
1971Q4	1190.297	5531.032	100
1972Q1	1230.609	5632.649	101
1972Q2	1266.369	5760.470	102
1972Q3	1290.566	5814.854	103
1972Q4	1328.904	5912.220	104
1973Q1	1377.490	6058.544	105
1973Q2	1413.887	6124.506	106
1973Q3	1433.838	6092.301	107
1973Q4	1476.289	6150.131	108
1974Q1	1491.209	6097.258	109
1974Q2	1530.056	6111.751	110
1974Q3	1560.026	6053.978	111
1974Q4	1599.679	6030.464	112
1975Q1	1616.116	5957.035	113
1975Q2	1651.853	5999.610	114
1975Q3	1709.820	6102.326	115
1975Q4	1761.831	6184.530	116
1976Q1	1820.487	6323.649	117
1976Q2	1852.332	6370.025	118
1976Q3	1886.558	6404.895	119
1976Q4	1934.273	6451.177	120
1977Q1	1988.648	6527.703	121
1977Q2	2055.909	6654.466	122
1977Q3	2118.473	6774.457	123
1977Q4	2164.270	6774.592	124
1978Q1	2202.760	6796.260	125
1978Q2	2331.633	7058.920	126
1978Q3	2395.053	7129.915	127
1978Q4	2476.949	7225.750	128
1979Q1	2526.610	7238.727	129
1979Q2	2591.247	7246.454	130
1979Q3	2667.565	7300.281	131
1979Q4	2723.883	7318.535	132
1980Q1	**2789.842**	**7341.557**	133
1980Q2	2797.352	7190.289	134
1980Q3	2856.483	7181.743	135
1980Q4	2985.557	7315.677	136
1981Q1	3124.206	7459.022	137
1981Q2	3162.532	7403.745	138
1981Q3	3260.609	7492.405	139
1981Q4	3280.818	7410.768	140
1982Q1	3274.302	7295.631	141
1982Q2	3331.972	7328.912	142
1982Q3	3366.322	7300.896	143
1982Q4	3402.561	7303.817	144
1983Q1	3473.413	7400.066	145
1983Q2	3578.848	7568.456	146
1983Q3	3689.179	7719.746	147
1983Q4	3794.706	7880.794	148
1984Q1	3908.054	8034.847	149
1984Q2	4009.601	8173.670	150
1984Q3	4084.250	8252.465	151
1984Q4	4148.551	8320.199	152
1985Q1	4230.168	8400.820	153
1985Q2	4294.887	8474.787	154

1994 Q2 thru 2024 Q1

Period	Ln(Real GDP)	
1	9.300	1994
2	9.314	
3	9.319	
4	9.331	
5	9.334	1995
6	9.337	
7	9.346	
8	9.353	
9	9.360	1996
10	9.377	
11	9.385	
12	9.396	
13	9.402	1997
14	9.419	
15	9.431	
16	9.440	
17	9.450	1998
18	9.459	
19	9.471	
20	9.487	
21	9.497	1999
22	9.505	
23	9.518	
24	9.534	
25	9.538	2000
26	9.556	
27	9.557	
28	9.563	
29	9.560	2001
30	9.566	
31	9.562	
32	9.565	
33	9.573	2002
34	9.579	
35	9.583	
36	9.584	
37	9.590	2003
38	9.599	
39	9.615	
40	9.627	
41	9.632	2004
42	9.640	
43	9.649	
44	9.660	
45	9.671	2005
46	9.676	
47	9.683	
48	9.689	
49	9.702	2006
50	9.705	
51	9.706	
52	9.715	
53	9.718	2007
54	9.724	
55	9.730	
56	9.736	
57	9.732	2008
58	9.738	
59	9.732	
60	9.710	
61	9.699	2009
62	9.697	
63	9.701	
64	9.711	
65	9.716	2010
66	9.726	
67	9.733	
68	9.739	
69	9.736	2011
70	9.743	
71	9.743	
72	9.754	
73	9.762	2012
74	9.767	
75	9.768	
76	9.769	
77	9.779	2013
78	9.782	
79	9.790	
80	9.799	
81	9.796	2014
82	9.808	
83	9.820	
84	9.826	
85	9.834	2015
86	9.841	
87	9.845	
88	9.847	
89	9.852	2016
90	9.855	
91	9.863	
92	9.868	
93	9.873	2017
94	9.879	
95	9.886	
96	9.898	
97	9.906	2018
98	9.911	
99	9.917	
100	9.919	
101	9.924	2019
102	9.932	
103	9.944	
104	9.950	
105	9.936	2020
106	9.854	
107	9.929	
108	9.939	
109	9.952	2021
110	9.967	
111	9.975	
112	9.992	
113	9.987	2022
114	9.985	
115	9.992	
116	9.998	
117	10.004	2023
118	10.009	
119	10.021	
120	10.029	
121	10.033	2024

Long Run Historical GDP Growth Rate

30 Year Historical Experience

Annualized Real LN GPD Q 1994 Q2 Q2 thru 2024 Q1

2.21%

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.989738496
R Square	0.979582291
Adjusted R Square	0.979465618
Standard Error	0.048616772
Observations	177

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	19.84468432	19.84468432	8395.990972	8.1254E-150
Residual	175	0.413628334	0.00236359		
Total	176	20.25831265			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.927174893	0.007339599	1216.302838	0	8.912689369	8.941660417	8.912689369	8.941660417
Period	0.006553296	7.15194E-05	91.62964025	8.1254E-150	0.006412144	0.006694447	0.006412144	0.006694447

SUMMARY OUTPUT 30 Year Stats

Regression Statistics	
Multiple R	0.985818952
R Square	0.971839006
Adjusted R Square	0.971600353
Standard Error	0.032600101
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	4.32779052	4.32779052	4072.192969	2.51425E-93
Residual	118	0.125406454	0.001062767		
Total	119	4.453196974			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9.065308794	0.010524165	861.3803184	5.6114E-226	9.044468081	9.086149506	9.044468081	9.086149506
Period	0.005482352	8.59118E-05	63.81373652	2.51425E-93	0.005312224	0.005652481	0.005312224	0.005652481

Note **July 31, 2013, 14th Comprehensive Significant Revision:**
BEA revised its tables back to 1929 in to order to count:
1 Artistic Works
2 Research and Development
as Capital Investments that Depreciate Over Time
rather than one time expenditures

From an Economy based on
(Industry and Manufacturing)
to one based on
(Knowledge and Information)

1985Q3	4386.773	8604.220	155
1985Q4	4444.094	8668.188	156
1986Q1	4507.894	8749.127	157
1986Q2	4545.340	8788.524	158
1986Q3	4607.669	8872.601	159
1986Q4	4657.627	8920.193	160
1987Q1	4722.156	8986.367	161
1987Q2	4806.160	9083.256	162
1987Q3	4884.555	9162.024	163
1987Q4	5007.994	9319.332	164
1988Q1	5073.372	9367.502	165
1988Q2	5190.036	9490.594	166
1988Q3	5282.835	9546.206	167
1988Q4	5399.509	9673.405	168
1989Q1	5511.253	9771.725	169
1989Q2	5612.463	9846.293	170
1989Q3	5695.365	9919.228	171
1989Q4	5747.237	9938.767	172
1990Q1	5872.701	10047.386	173
1990Q2	5960.028	10083.855	174
1990Q3	6015.116	10090.569	175
1990Q4	6004.733	9998.704	176
1991Q1	6035.178	9951.916	177
1991Q2	6126.862	10029.510	178
1991Q3	6205.937	10080.195	179
1991Q4	6264.540	10115.329	180
1992Q1	6363.102	10236.435	181
1992Q2	6470.763	10347.429	182
1992Q3	6566.641	10449.673	183
1992Q4	6680.803	10558.648	184
1993Q1	6729.459	10576.275	185
1993Q2	6808.939	10637.847	186
1993Q3	6882.098	10688.606	187
1993Q4	7013.738	10833.987	188
1994Q1	7115.652	10939.116	189
1994Q2	7246.931	11087.361	190
1994Q3	7331.075	11152.176	191
1994Q4	7455.288	11279.932	192
1995Q1	7522.289	11319.951	193
1995Q2	7580.997	11353.721	194
1995Q3	7683.125	11450.310	195
1995Q4	7772.586	11528.067	196
1996Q1	7868.468	11614.418	197
1996Q2	8032.840	11808.140	198
1996Q3	8131.408	11914.063	199
1996Q4	8259.771	12037.775	200
1997Q1	8362.655	12115.472	201
1997Q2	8518.825	12317.221	202
1997Q3	8662.823	12471.010	203
1997Q4	8765.907	12577.495	204
1998Q1	8866.480	12703.742	205
1998Q2	8969.699	12821.339	206
1998Q3	9121.097	12982.752	207
1998Q4	9293.991	13191.670	208
1999Q1	9411.682	13315.597	209
1999Q2	9526.210	13426.748	210
1999Q3	9686.626	13604.771	211
1999Q4	9900.169	13827.980	212
2000Q1	10002.179	13878.147	213
2000Q2	10247.720	14130.908	214
2000Q3	10318.165	14145.312	215
2000Q4	10435.744	14229.765	216
2001Q1	10470.231	14183.120	217
2001Q2	10599.000	14271.694	218
2001Q3	10598.020	14214.516	219
2001Q4	10660.465	14253.574	220
2002Q1	10783.500	14372.785	221
2002Q2	10887.460	14460.848	222
2002Q3	10984.040	14519.633	223
2002Q4	11061.433	14537.580	224
2003Q1	11174.129	14614.141	225
2003Q2	11312.766	14743.567	226
2003Q3	11566.669	14988.782	227
2003Q4	11772.234	15162.760	228
2004Q1	11923.447	15248.680	229
2004Q2	12112.815	15366.850	230
2004Q3	12305.307	15512.619	231
2004Q4	12527.214	15670.880	232
2005Q1	12767.286	15844.727	233
2005Q2	12922.656	15922.782	234
2005Q3	13142.642	16047.587	235
2005Q4	13324.204	16136.734	236
2006Q1	13599.160	16353.835	237
2006Q2	13753.424	16396.151	238
2006Q3	13870.188	16420.738	239
2006Q4	14039.560	16561.866	240
2007Q1	14215.651	16611.690	241
2007Q2	14402.082	16713.314	242
2007Q3	14564.117	16809.587	243
2007Q4	14715.058	16915.191	244
2008Q1	14706.538	16843.003	245
2008Q2	14865.701	16943.291	246
2008Q3	14898.999	16854.295	247
2008Q4	14608.208	16485.350	248
2009Q1	14430.901	16298.262	249
2009Q2	14381.236	16269.145	250
2009Q3	14448.882	16326.281	251
2009Q4	14651.249	16502.754	252
2010Q1	14764.610	16582.710	253
2010Q2	14980.193	16743.162	254
2010Q3	15141.607	16872.266	255
2010Q4	15309.474	16960.864	256
2011Q1	15351.448	16920.632	257
2011Q2	15557.539	17035.114	258
2011Q3	15647.680	17031.313	259
2011Q4	15842.259	17222.583	260
2012Q1	16068.805	17367.010	261
2012Q2	16207.115	17444.525	262
2012Q3	16319.541	17469.650	263
2012Q4	16420.419	17489.852	264
2013Q1	16648.189	17662.400	265
2013Q2	16728.687	17709.671	266
2013Q3	16953.838	17860.450	267
2013Q4	17192.019	18016.147	268
2014Q1	17197.738	17953.974	269
2014Q2	17518.508	18185.911	270
2014Q3	17804.228	18406.941	271
2014Q4	17912.079	18500.031	272
2015Q1	18063.529	18666.621	273
2015Q2	18279.784	18782.243	274
2015Q3	18401.626	18857.418	275
2015Q4	18435.137	18892.206	276
2016Q1	18525.933	19001.690	277
2016Q2	18711.702	19062.709	278
2016Q3	18892.639	19197.938	279
2016Q4	19089.379	19304.352	280
2017Q1	19280.084	19398.343	281
2017Q2	19438.643	19506.949	282
2017Q3	19692.595	19660.766	283
2017Q4	20037.088	19882.352	284
2018Q1	20328.553	20044.077	285
2018Q2	20580.912	20150.476	286
2018Q3	20798.730	20276.154	287
2018Q4	20917.867	20304.874	288
2019Q1	21104.133	20415.150	289
2019Q2	21384.775	20584.528	290
2019Q3	21694.282	20817.581	291
2019Q4	21902.390	20951.088	292
2020Q1	21706.513	20665.553	293
2020Q2	19913.143	19034.830	294
2020Q3	21647.64	20511.785	295
2020Q4	22024.502	20724.128	296
2021Q1	22600.185	20990.541	297
2021Q2	23292.362	21309.544	298
2021Q3	23828.973	21483.083	299
2021Q4	24654.603	21847.602	300

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2807

ROE: TIPS Implied Inflation

September 10, 2024

2024 through 2054 TIPs-Implied Average Annual Inflation Rate: 2.32%

Implied Market-based Inflationary Expectations					
Qtr	5-Yr	7-Yr	10-Yr	20-Yr	30-Yr
2024-Q2	0.023	0.023	0.023	0.025	0.023

Source: Federal Reserve Statistical Release H.15

See H15 Qtrly Avg for data feed

Yr. End		Individually Implied Price Levels					Implied Forward Curve/Price Level					Implied	
Mo.-Yr.	Years	5-Yr	7-Yr	10-Yr	20-Yr	30-Yr	5-Yr	7-Yr	10-Yr	20-Yr	30-Yr	Price Level	Check
Jun-24	0	100.00	100.00	100.00	100.00	100.00	100.00					100.00	
Jun-25	1	102.33	102.33	102.33	102.48	102.32	102.33					102.33	
Jun-26	2	104.72	104.72	104.71	105.03	104.69	104.72					104.72	
Jun-27	3	107.16	107.16	107.14	107.64	107.12	107.16					107.16	
Jun-28	4	109.67	109.67	109.64	110.31	109.61	109.67					109.67	
Jun-29	5	112.22	112.22	112.19	113.05	112.15	112.22					112.22	
Jun-30	6		114.84	114.80	115.86	114.75		114.84				114.84	
Jun-31	7		117.52	117.47	118.73	117.42		117.52				117.52	
Jun-32	8			120.20	121.68	120.14			120.24			120.24	
Jun-33	9			123.00	124.70	122.93			123.02			123.02	
Jun-34	10			125.86	127.80	125.78			125.86			125.86	
Jun-35	11				130.97	128.70				129.18		129.18	128.78
Jun-36	12				134.23	131.68				132.59		132.59	131.76
Jun-37	13				137.56	134.74				136.09		136.09	134.81
Jun-38	14				140.98	137.86				139.69		139.69	137.93
Jun-39	15				144.48	141.06				143.38		143.38	141.13
Jun-40	16				148.06	144.33				147.16		147.16	144.40
Jun-41	17				151.74	147.68				151.05		151.05	147.75
Jun-42	18				155.51	151.11				155.03		155.03	151.17
Jun-43	19				159.37	154.61				159.13		159.13	154.67
Jun-44	20				163.33	158.20				163.33		163.33	158.25
Jun-45	21					161.87					166.59	166.59	161.92
Jun-46	22					165.63					169.91	169.91	165.67
Jun-47	23					169.47					173.30	173.30	169.51
Jun-48	24					173.40					176.75	176.75	173.44
Jun-49	25					177.42					180.28	180.28	177.45
Jun-50	26					181.54					183.87	183.87	181.56
Jun-51	27					185.75					187.54	187.54	185.77
Jun-52	28					190.06					191.28	191.28	190.07
Jun-53	29					194.47					195.09	195.09	194.48
Jun-54	30					198.98					198.98	198.98	198.98

Average Quarterly Values for FRB H15 Data

See FRB H.15 Tab for Data Feed Sources.

Staff TIPS Analysis **Quarterly Aggregation**

Average Monthly Inflation Indexed Rates by Quarter					
Qtr	TIPS-05m	TIPS-07m	TIPS-10m	TIPS-20m	TIPS-30m
2003-Q1	1.33	1.81	2.07		
2003-Q2	1.15	1.61	1.94		
2003-Q3	1.36	1.84	2.21		
2003-Q4	1.24	1.65	2.01		
2004-Q1	0.82	1.26	1.71		
2004-Q2	1.26	1.69	2.05		
2004-Q3	1.17	1.55	1.89	2.28	
2004-Q4	0.93	1.30	1.69	2.08	
2005-Q1	1.17	1.41	1.71	1.93	
2005-Q2	1.30	1.44	1.68	1.83	
2005-Q3	1.59	1.70	1.82	1.98	
2005-Q4	1.92	1.98	2.04	2.13	
2006-Q1	2.00	2.05	2.09	2.08	
2006-Q2	2.34	2.39	2.46	2.48	
2006-Q3	2.37	2.37	2.37	2.38	
2006-Q4	2.40	2.36	2.32	2.29	
2007-Q1	2.28	2.33	2.33	2.36	
2007-Q2	2.35	2.40	2.44	2.49	
2007-Q3	2.38	2.44	2.45	2.46	
2007-Q4	1.54	1.81	1.92	2.11	
2008-Q1	0.58	1.02	1.32	1.81	
2008-Q2	0.79	1.17	1.48	2.03	
2008-Q3	1.18	1.47	1.70	2.16	
2008-Q4	2.73	2.92	2.60	2.73	
2009-Q1	1.37	1.54	1.79	2.34	
2009-Q2	1.12	1.37	1.72	2.31	
2009-Q3	1.17	1.41	1.74	2.22	
2009-Q4	0.58	0.94	1.37	1.98	
2010-Q1	0.47	0.94	1.43	2.00	2.16
2010-Q2	0.46	0.91	1.36	1.77	1.88
2010-Q3	0.20	0.57	1.06	1.68	1.76
2010-Q4	-0.11	0.28	0.75	1.48	1.65
2011-Q1	0.07	0.67	1.09	1.71	2.00
2011-Q2	-0.29	0.33	0.80	1.49	1.78
2011-Q3	-0.65	-0.22	0.28	0.95	1.25
2011-Q4	-0.75	-0.39	0.05	0.61	0.85
2012-Q1	-1.02	-0.60	-0.17	0.51	0.78
2012-Q2	**-1.08**	**-0.75**	**-0.35**	**0.35**	**0.66**
2012-Q3	-1.27	-1.01	-0.63	0.02	0.43
2012-Q4	**-1.42**	**-1.15**	**-0.76**	**-0.02**	**0.36**
2013-Q1	-1.40	-0.98	-0.59	0.19	0.56
2013-Q2	**-1.04**	**-0.62**	**-0.25**	**0.47**	**0.80**
2013-Q3	-0.32	0.17	0.56	1.16	1.43
2013-Q4	**-0.29**	**0.25**	**0.57**	**1.19**	**1.50**
2014-Q1	-0.16	0.37	0.58	1.11	1.39
2014-Q2	**-0.25**	**0.27**	**0.43**	**0.88**	**1.14**
2014-Q3	-0.13	0.24	0.32	0.72	0.98
2014-Q4	**0.19**	**0.39**	**0.45**	**0.75**	**0.95**
2015-Q1	0.11	0.23	0.27	0.52	0.71
2015-Q2	**-0.10**	**0.22**	**0.30**	**0.67**	**0.91**
2015-Q3	0.26	0.48	0.57	0.92	1.14
2015-Q4	**0.36**	**0.51**	**0.66**	**1.02**	**1.24**
2016-Q1	0.15	0.32	0.49	0.88	1.11
2016-Q2	**-0.24**	**-0.05**	**0.19**	**0.62**	**0.85**
2016-Q3	-0.22	-0.09	0.08	0.44	0.62
2016-Q4	**-0.06**	**0.12**	**0.33**	**0.69**	**0.86**
2017-Q1	0.07	0.33	0.44	0.75	0.95
2017-Q2	**0.10**	**0.30**	**0.44**	**0.76**	**0.94**
2017-Q3	0.17	0.36	0.45	0.75	0.94
2017-Q4	**0.32**	**0.44**	**0.50**	**0.72**	**0.87**
2018-Q1	0.56	0.65	0.68	0.82	0.93
2018-Q2	**0.69**	**0.77**	**0.79**	**0.88**	**0.95**
2018-Q3	0.81	0.81	0.81	0.88	0.93
2018-Q4	**1.06**	**1.06**	**1.06**	**1.15**	**1.23**
2019-Q1	0.73	0.76	0.79	0.96	1.10
2019-Q2	**0.42**	**0.46**	**0.51**	**0.71**	**0.89**
2019-Q3	0.18	0.16	0.15	0.37	0.59
2019-Q4	**0.09**	**0.11**	**0.15**	**0.36**	**0.54**
2020-Q1	-0.14	-0.12	-0.06	0.14	0.29
2020-Q2	**-0.49**	**-0.50**	**-0.48**	**-0.27**	**-0.09**
2020-Q3	-1.19	-1.09	-0.94	-0.58	-0.33
2020-Q4	**-1.32**	**-1.13**	**-0.91**	**-0.50**	**-0.29**
2021-Q1	-1.70	-1.27	-0.86	-0.34	-0.09
2021-Q2	**-1.71**	**-1.18**	**-0.79**	**-0.27**	**-0.03**
2021-Q3	-1.69	-1.31	-1.02	-0.53	-0.30
2021-Q4	**-1.65**	**-1.30**	**-1.00**	**-0.58**	**-0.38**

Average Monthly Nominal UST Rates by Quarter					
Qtr	UST-05m	UST-07m	UST-10m	UST-20m	UST-30m
2003-Q1	2.91	3.46	3.92	4.90	
2003-Q2	2.57	3.13	3.62	4.59	
2003-Q3	3.14	3.72	4.23	5.17	
2003-Q4	3.25	3.78	4.29	5.16	
2004-Q1	2.99	3.52	4.02	4.89	
2004-Q2	3.72	4.18	4.60	5.36	
2004-Q3	3.51	3.92	4.30	5.07	
2004-Q4	3.49	3.85	4.17	4.87	
2005-Q1	3.88	4.09	4.30	4.76	
2005-Q2	3.87	3.99	4.16	4.55	
2005-Q3	4.04	4.11	4.21	4.51	
2005-Q4	4.39	4.42	4.49	4.77	
2006-Q1	4.55	4.55	4.57	4.76	4.64
2006-Q2	4.99	5.02	5.07	5.29	5.14
2006-Q3	4.84	4.85	4.90	5.09	4.99
2006-Q4	4.60	4.60	4.63	4.83	4.74
2007-Q1	4.65	4.65	4.68	4.90	4.80
2007-Q2	4.76	4.79	4.85	5.07	4.99
2007-Q3	4.50	4.60	4.73	5.01	4.94
2007-Q4	3.79	3.98	4.26	4.65	4.61
2008-Q1	2.75	3.15	3.66	4.40	4.41
2008-Q2	3.16	3.46	3.89	4.59	4.58
2008-Q3	3.11	3.44	3.86	4.49	4.45
2008-Q4	2.18	2.63	3.25	3.97	3.68
2009-Q1	1.76	2.23	2.74	3.69	3.45
2009-Q2	2.23	2.88	3.31	4.19	4.17
2009-Q3	2.47	3.12	3.52	4.28	4.32
2009-Q4	2.30	2.98	3.46	4.27	4.33
2010-Q1	2.42	3.16	3.72	4.49	4.62
2010-Q2	2.25	2.93	3.49	4.20	4.37
2010-Q3	1.55	2.19	2.79	3.60	3.85
2010-Q4	1.49	2.18	2.86	3.84	4.16
2011-Q1	2.12	2.83	3.46	4.32	4.56
2011-Q2	1.86	2.55	3.21	4.07	4.34
2011-Q3	1.15	1.78	2.43	3.34	3.70
2011-Q4	0.95	1.50	2.05	2.75	3.04
2012-Q1	0.90	1.44	2.04	2.80	3.14
2012-Q2	**0.79**	**1.24**	**1.82**	**2.55**	**2.94**
2012-Q3	0.67	1.08	1.64	2.37	2.75
2012-Q4	**0.69**	**1.12**	**1.71**	**2.46**	**2.86**
2013-Q1	0.83	1.32	1.95	2.75	3.14
2013-Q2	**0.92**	**1.39**	**2.00**	**2.78**	**3.15**
2013-Q3	1.51	2.12	2.71	3.44	3.72
2013-Q4	**1.44**	**2.12**	**2.75**	**3.50**	**3.79**
2014-Q1	1.60	2.22	2.76	3.42	3.68
2014-Q2	**1.66**	**2.19**	**2.62**	**3.18**	**2.88**
2014-Q3	1.70	2.16	2.50	3.01	3.26
2014-Q4	**1.60**	**2.00**	**2.28**	**2.69**	**2.97**
2015-Q1	1.45	1.77	1.97	2.32	2.55
2015-Q2	**1.52**	**1.91**	**2.17**	**2.62**	**2.89**
2015-Q3	1.55	1.94	2.22	2.65	2.96
2015-Q4	**1.59**	**1.94**	**2.19**	**2.60**	**2.96**
2016-Q1	1.37	1.69	1.92	2.32	2.72
2016-Q2	**1.24**	**1.54**	**1.75**	**2.15**	**2.57**
2016-Q3	1.13	1.40	1.56	1.91	2.28
2016-Q4	**1.61**	**1.93**	**2.13**	**2.52**	**2.82**
2017-Q1	1.94	2.25	2.44	2.78	3.04
2017-Q2	**1.81**	**2.07**	**2.26**	**2.64**	**2.90**
2017-Q3	1.82	2.06	2.24	2.58	2.82
2017-Q4	**2.07**	**2.25**	**2.37**	**2.62**	**2.82**
2018-Q1	2.54	2.69	2.76	2.91	3.03
2018-Q2	**2.77**	**2.87**	**2.92**	**3.00**	**3.08**
2018-Q3	2.81	2.88	2.93	3.00	3.07
2018-Q4	**2.88**	**2.96**	**3.03**	**3.17**	**3.27**
2019-Q1	2.47	2.55	2.65	2.85	3.01
2019-Q2	**2.12**	**2.22**	**2.33**	**2.58**	**2.78**
2019-Q3	1.63	1.71	1.80	2.08	2.28
2019-Q4	**1.62**	**1.72**	**1.79**	**2.10**	**2.26**
2020-Q1	1.16	1.29	1.38	1.71	1.88
2020-Q2	**0.36**	**0.54**	**0.69**	**1.15**	**1.38**
2020-Q3	0.27	0.46	0.65	1.15	1.36
2020-Q4	**0.37**	**0.61**	**0.86**	**1.40**	**1.62**
2021-Q1	0.60	0.98	1.32	1.92	2.07
2021-Q2	**0.84**	**1.27**	**1.59**	**2.17**	**2.26**
2021-Q3	0.80	1.10	1.32	1.86	1.93
2021-Q4	**1.18**	**1.42**	**1.54**	**1.97**	**1.95**

Implied Market-based Inflationary Expectations					
Qtr	5-Yr	7-Yr	10-Yr	20-Yr	30-Yr
2003-Q1	1.58	1.65	1.85		
2003-Q2	1.42	1.52	1.68		
2003-Q3	1.78	1.87	2.03		
2003-Q4	2.01	2.13	2.28		
2004-Q1	2.17	2.26	2.31		
2004-Q2	2.47	2.50	2.55		
2004-Q3	2.34	2.37	2.41	2.79	
2004-Q4	2.56	2.55	2.48	2.79	
2005-Q1	2.72	2.68	2.58	2.83	
2005-Q2	2.57	2.55	2.48	2.72	
2005-Q3	2.44	2.41	2.39	2.52	
2005-Q4	2.47	2.44	2.45	2.64	
2006-Q1	2.55	2.50	2.48	2.69	
2006-Q2	2.65	2.62	2.61	2.80	
2006-Q3	2.47	2.48	2.52	2.71	
2006-Q4	2.20	2.24	2.31	2.54	
2007-Q1	2.36	2.32	2.35	2.54	
2007-Q2	2.41	2.39	2.41	2.58	
2007-Q3	2.13	2.16	2.28	2.55	
2007-Q4	2.24	2.17	2.34	2.54	
2008-Q1	2.17	2.13	2.34	2.59	
2008-Q2	2.37	2.29	2.40	2.56	
2008-Q3	1.93	1.96	2.16	2.33	
2008-Q4	-0.55	-0.29	0.65	1.24	
2009-Q1	0.39	0.69	0.95	1.35	
2009-Q2	1.11	1.51	1.60	1.88	
2009-Q3	1.30	1.72	1.77	2.06	
2009-Q4	1.72	2.04	2.09	2.29	
2010-Q1	1.96	2.22	2.28	2.49	2.47
2010-Q2	1.80	2.03	2.13	2.43	2.49
2010-Q3	1.35	1.63	1.73	1.92	2.09
2010-Q4	1.59	1.90	2.12	2.36	2.51
2011-Q1	2.05	2.16	2.37	2.61	2.56
2011-Q2	2.15	2.22	2.41	2.57	2.56
2011-Q3	1.81	2.00	2.15	2.39	2.45
2011-Q4	1.71	1.89	1.99	2.14	2.19
2012-Q1	1.92	2.04	2.20	2.29	2.36
2012-Q2	**1.86**	**1.99**	**2.17**	**2.21**	**2.28**
2012-Q3	1.94	2.09	2.28	2.35	2.31
2012-Q4	**2.11**	**2.27**	**2.47**	**2.48**	**2.50**
2013-Q1	2.23	2.31	2.54	2.55	2.58
2013-Q2	**1.95**	**2.01**	**2.25**	**2.32**	**2.34**
2013-Q3	1.82	1.95	2.15	2.29	2.29
2013-Q4	**1.73**	**1.86**	**2.17**	**2.31**	**2.29**
2014-Q1	1.77	1.85	2.18	2.30	2.29
2014-Q2	**1.90**	**1.92**	**2.20**	**2.30**	**1.74**
2014-Q3	1.83	1.92	2.18	2.28	2.29
2014-Q4	**1.41**	**1.61**	**1.83**	**1.95**	**2.02**
2015-Q1	1.35	1.54	1.70	1.79	1.85
2015-Q2	**1.63**	**1.69**	**1.86**	**1.95**	**1.97**
2015-Q3	1.29	1.47	1.65	1.73	1.82
2015-Q4	**1.23**	**1.43**	**1.53**	**1.58**	**1.72**
2016-Q1	1.23	1.37	1.43	1.45	1.61
2016-Q2	**1.48**	**1.58**	**1.56**	**1.53**	**1.72**
2016-Q3	1.35	1.49	1.48	1.47	1.66
2016-Q4	**1.67**	**1.80**	**1.80**	**1.83**	**1.96**
2017-Q1	1.87	1.92	2.01	2.03	2.10
2017-Q2	**1.71**	**1.78**	**1.82**	**1.88**	**1.96**
2017-Q3	1.65	1.70	1.79	1.83	1.88
2017-Q4	**1.75**	**1.81**	**1.87**	**1.89**	**1.95**
2018-Q1	1.97	2.04	2.08	2.08	2.11
2018-Q2	**2.07**	**2.11**	**2.13**	**2.12**	**2.14**
2018-Q3	2.01	2.07	2.11	2.11	2.13
2018-Q4	**1.81**	**1.90**	**1.98**	**2.02**	**2.03**
2019-Q1	1.73	1.79	1.86	1.89	1.91
2019-Q2	**1.70**	**1.76**	**1.82**	**1.87**	**1.88**
2019-Q3	1.45	1.55	1.64	1.71	1.69
2019-Q4	**1.53**	**1.61**	**1.64**	**1.74**	**1.72**
2020-Q1	1.30	1.41	1.44	1.58	1.59
2020-Q2	**0.85**	**1.05**	**1.16**	**1.42**	**1.47**
2020-Q3	1.46	1.55	1.59	1.73	1.69
2020-Q4	**1.69**	**1.75**	**1.78**	**1.90**	**1.91**
2021-Q1	2.30	2.25	2.18	2.26	2.16
2021-Q2	**2.55**	**2.45**	**2.39**	**2.44**	**2.29**
2021-Q3	2.49	2.41	2.34	2.39	2.23
2021-Q4	**2.83**	**2.72**	**2.54**	**2.55**	**2.33**

FRB **H.15** Market Yield on U.S. Treasury (UST) Securities at Constant Maturity, Quoted on an Investment Basis in Percent per Year
Staff Accessed , Jul. 22, 2024 at: http://federalreserve.gov/releases/h15/data.htm
https://www.federalreserve.gov/datadownload/Choose.aspx?rel=H15

Monthly

TIPS-05m	5	**Year**	**Inflation Indexed**	**H.15 ID**	RIFLGFCY05_XII_N.M
TIPS-07m	7				RIFLGFCY07_XII_N.M
TIPS-10m	10				RIFLGFCY10_XII_N.M
TIPS-20m	20				RIFLGFCY20_XII_N.M
TIPS-30m	30				RIFLGFCY30_XII_N.M

Monthly

UST-05m	5	**Year**	**H.15 ID**	RIFLGFCY05_N.M
UST-07m	7			RIFLGFCY07_N.M
UST-10m	10			RIFLGFCY10_N.M
UST-20m	20			RIFLGFCY20_N.M
UST-30m	30			RIFLGFCY30_N.M

Month	TIPS-05m	TIPS-07m	TIPS-10m	TIPS-20m	TIPS-30m	Month	UST-05m	UST-07m	UST-10m	UST-20m	UST-30m
2003-01	1.65	2.10	2.29			2003-01	3.05	3.60	4.05	5.02	
2003-02	1.24	1.74	1.99			2003-02	2.90	3.45	3.90	4.87	
2003-03	1.09	1.60	1.94			2003-03	2.78	3.34	3.81	4.82	
2003-04	1.36	1.85	2.18			2003-04	2.93	3.47	3.96	4.91	
2003-05	1.18	1.61	1.91			2003-05	2.52	3.07	3.57	4.52	
2003-06	0.91	1.37	1.72			2003-06	2.27	2.84	3.33	4.34	
2003-07	1.30	1.76	2.11			2003-07	2.87	3.45	3.98	4.92	
2003-08	1.48	1.97	2.32			2003-08	3.37	3.96	4.45	5.39	
2003-09	1.29	1.80	2.19			2003-09	3.18	3.74	4.27	5.21	
2003-10	1.21	1.68	2.08			2003-10	3.19	3.75	4.29	5.21	
2003-11	1.27	1.64	1.96			2003-11	3.29	3.81	4.30	5.17	
2003-12	1.23	1.64	1.98			2003-12	3.27	3.79	4.27	5.11	
2004-01	1.09	1.48	1.89			2004-01	3.12	3.65	4.15	5.01	
2004-02	0.86	1.31	1.76			2004-02	3.07	3.59	4.08	4.94	
2004-03	0.52	0.98	1.47			2004-03	2.79	3.31	3.83	4.72	
2004-04	1.02	1.49	1.90			2004-04	3.39	3.89	4.35	5.16	
2004-05	1.34	1.77	2.09			2004-05	3.85	4.31	4.72	5.46	
2004-06	1.41	1.80	2.15	**TIPS-20**		2004-06	3.93	4.35	4.73	5.45	
2004-07	1.29	1.68	2.02	2.44		2004-07	3.69	4.11	4.50	5.24	
2004-08	1.12	1.51	1.86	2.23		2004-08	3.47	3.90	4.28	5.07	
2004-09	1.10	1.46	1.80	2.16		2004-09	3.36	3.75	4.13	4.89	
2004-10	0.97	1.35	1.73	2.13		2004-10	3.35	3.75	4.10	4.85	
2004-11	0.90	1.27	1.68	2.09		2004-11	3.53	3.88	4.19	4.89	
2004-12	0.92	1.28	1.67	2.02		2004-12	3.60	3.93	4.23	4.88	
2005-01	1.13	1.40	1.72	1.98		2005-01	3.71	3.97	4.22	4.77	
2005-02	1.08	1.33	1.63	1.85		2005-02	3.77	3.97	4.17	4.61	
2005-03	1.29	1.49	1.79	1.95		2005-03	4.17	4.33	4.50	4.89	
2005-04	1.23	1.42	1.71	1.87		2005-04	4.00	4.16	4.34	4.75	
2005-05	1.28	1.41	1.65	1.82		2005-05	3.85	3.94	4.14	4.56	
2005-06	1.39	1.49	1.67	1.80		2005-06	3.77	3.86	4.00	4.35	
2005-07	1.67	1.75	1.88	2.00		2005-07	3.98	4.06	4.18	4.48	
2005-08	1.71	1.79	1.89	2.02		2005-08	4.12	4.18	4.26	4.53	
2005-09	1.40	1.56	1.70	1.93		2005-09	4.01	4.08	4.20	4.51	
2005-10	1.70	1.82	1.94	2.09		2005-10	4.33	4.38	4.46	4.74	
2005-11	1.97	2.03	2.06	2.16		2005-11	4.45	4.48	4.54	4.83	
2005-12	2.09	2.10	2.12	2.14		2005-12	4.39	4.41	4.47	4.73	
2006-01	1.93	1.98	2.01	2.05		2006-01	4.35	4.37	4.42	4.65	**UST-30**
2006-02	1.98	2.02	2.05	2.01		2006-02	4.57	4.56	4.57	4.73	4.54
2006-03	2.09	2.15	2.20	2.17		2006-03	4.72	4.71	4.72	4.91	4.73
2006-04	2.26	2.34	2.41	2.43		2006-04	4.90	4.94	4.99	5.22	5.06
2006-05	2.30	2.36	2.45	2.48		2006-05	5.00	5.03	5.11	5.35	5.20
2006-06	2.45	2.48	2.53	2.54		2006-06	5.07	5.08	5.11	5.29	5.15
2006-07	2.46	2.48	2.51	2.52		2006-07	5.04	5.05	5.09	5.25	5.13
2006-08	2.27	2.29	2.29	2.31		2006-08	4.82	4.83	4.88	5.08	5.00
2006-09	2.38	2.35	2.32	2.31		2006-09	4.67	4.68	4.72	4.93	4.85
2006-10	2.51	2.45	2.41	2.38		2006-10	4.69	4.69	4.73	4.94	4.85
2006-11	2.41	2.35	2.29	2.23		2006-11	4.58	4.58	4.60	4.78	4.69
2006-12	2.28	2.28	2.25	2.26		2006-12	4.53	4.54	4.56	4.78	4.68
2007-01	2.47	2.47	2.44	2.42		2007-01	4.75	4.75	4.76	4.95	4.85
2007-02	2.34	2.38	2.36	2.38		2007-02	4.71	4.71	4.72	4.93	4.82
2007-03	2.04	2.14	2.18	2.27		2007-03	4.48	4.50	4.56	4.81	4.72
2007-04	2.12	2.20	2.26	2.35		2007-04	4.59	4.62	4.69	4.95	4.87
2007-05	2.29	2.32	2.37	2.45		2007-05	4.67	4.69	4.75	4.98	4.90
2007-06	2.65	2.67	2.69	2.67		2007-06	5.03	5.05	5.10	5.29	5.20
2007-07	2.60	2.63	2.64	2.62		2007-07	4.88	4.93	5.00	5.19	5.11
2007-08	2.39	2.45	2.44	2.47		2007-08	4.43	4.53	4.67	5.00	4.93
2007-09	2.14	2.24	2.26	2.30		2007-09	4.20	4.33	4.52	4.84	4.79
2007-10	2.01	2.15	2.20	2.26		2007-10	4.20	4.33	4.53	4.83	4.77
2007-11	1.35	1.65	1.77	1.99		2007-11	3.67	3.87	4.15	4.56	4.52
2007-12	1.27	1.62	1.79	2.08		2007-12	3.49	3.74	4.10	4.57	4.53
2008-01	0.86	1.24	1.47	1.81		2008-01	2.98	3.31	3.74	4.35	4.33
2008-02	0.65	1.09	1.41	1.87		2008-02	2.78	3.21	3.74	4.49	4.52
2008-03	0.23	0.73	1.09	1.76		2008-03	2.48	2.93	3.51	4.36	4.39
2008-04	0.62	1.00	1.36	1.91		2008-04	2.84	3.19	3.68	4.44	4.44
2008-05	0.79	1.16	1.46	2.00		2008-05	3.15	3.46	3.88	4.60	4.60
2008-06	0.97	1.35	1.63	2.19		2008-06	3.49	3.73	4.10	4.74	4.69
2008-07	0.84	1.24	1.57	2.09		2008-07	3.30	3.60	4.01	4.62	4.57
2008-08	1.15	1.47	1.68	2.15		2008-08	3.14	3.46	3.89	4.53	4.50
2008-09	1.55	1.71	1.85	2.25		2008-09	2.88	3.25	3.69	4.32	4.27
2008-10	2.75	2.96	2.75	2.87		2008-10	2.73	3.19	3.81	4.45	4.17
2008-11	3.69	3.84	2.89	3.00		2008-11	2.29	2.82	3.53	4.27	4.00
2008-12	1.76	1.96	2.17	2.32		2008-12	1.52	1.89	2.42	3.18	2.87
2009-01	1.59	1.72	1.91	2.46		2009-01	1.60	1.98	2.52	3.46	3.13
2009-02	1.29	1.48	1.75	2.31		2009-02	1.87	2.30	2.87	3.83	3.59
2009-03	1.23	1.43	1.71	2.26		2009-03	1.82	2.42	2.82	3.78	3.64
2009-04	1.11	1.29	1.57	2.22		2009-04	1.86	2.47	2.93	3.84	3.76
2009-05	1.07	1.34	1.72	2.36		2009-05	2.13	2.81	3.29	4.22	4.23
2009-06	1.18	1.48	1.86	2.36		2009-06	2.71	3.37	3.72	4.51	4.52
2009-07	1.18	1.44	1.82	2.31		2009-07	2.46	3.14	3.56	4.38	4.41
2009-08	1.29	1.49	1.77	2.22		2009-08	2.57	3.21	3.59	4.33	4.37
2009-09	1.03	1.29	1.64	2.13		2009-09	2.37	3.02	3.40	4.14	4.19
2009-10	0.83	1.12	1.48	2.04		2009-10	2.33	2.96	3.39	4.16	4.19
2009-11	0.48	0.84	1.28	1.90		2009-11	2.23	2.92	3.40	4.24	4.31
2009-12	0.43	0.86	1.36	1.99		2009-12	2.34	3.07	3.59	4.40	4.49
2010-01	0.42	0.85	1.37	2.00	**TIPS-30**	2010-01	2.48	3.21	3.73	4.50	4.60
2010-02	0.42	0.90	1.42	2.03	2.16	2010-02	2.36	3.12	3.69	4.48	4.62
2010-03	0.56	1.08	1.51	1.98	2.15	2010-03	2.43	3.16	3.73	4.49	4.64
2010-04	0.62	1.10	1.50	1.90	2.05	2010-04	2.58	3.28	3.85	4.53	4.69
2010-05	0.41	0.86	1.31	1.72	1.83	2010-05	2.18	2.86	3.42	4.11	4.29
2010-06	0.34	0.76	1.26	1.69	1.77	2010-06	2.00	2.66	3.20	3.95	4.13
2010-07	0.34	0.73	1.24	1.80	1.87	2010-07	1.76	2.43	3.01	3.80	3.99
2010-08	0.13	0.51	1.02	1.65	1.76	2010-08	1.47	2.10	2.70	3.52	3.80
2010-09	0.13	0.46	0.91	1.58	1.66	2010-09	1.41	2.05	2.65	3.47	3.77
2010-10	-0.32	0.02	0.53	1.32	1.44	2010-10	1.18	1.85	2.54	3.52	3.87
2010-11	-0.21	0.17	0.67	1.44	1.61	2010-11	1.35	2.02	2.76	3.82	4.19
2010-12	0.21	0.65	1.04	1.67	1.89	2010-12	1.93	2.66	3.29	4.17	4.42
2011-01	0.06	0.62	1.06	1.70	1.97	2011-01	1.99	2.72	3.39	4.28	4.52
2011-02	0.25	0.84	1.24	1.85	2.13	2011-02	2.26	2.96	3.58	4.42	4.65
2011-03	-0.09	0.54	0.96	1.58	1.89	2011-03	2.11	2.80	3.41	4.27	4.51
2011-04	-0.14	0.49	0.86	1.48	1.79	2011-04	2.17	2.84	3.46	4.28	4.50
2011-05	-0.34	0.29	0.78	1.47	1.77	2011-05	1.84	2.51	3.17	4.01	4.29
2011-06	-0.38	0.21	0.76	1.53	1.78	2011-06	1.58	2.29	3.00	3.91	4.23
2011-07	-0.49	0.09	0.62	1.36	1.62	2011-07	1.54	2.28	3.00	3.95	4.27
2011-08	-0.75	-0.36	0.14	0.81	1.10	2011-08	1.02	1.63	2.30	3.24	3.65
2011-09	-0.72	-0.39	0.08	0.69	1.02	2011-09	0.90	1.42	1.98	2.83	3.18
2011-10	-0.63	-0.28	0.19	0.72	0.99	2011-10	1.06	1.62	2.15	2.87	3.13
2011-11	-0.85	-0.46	0.00	0.55	0.78	2011-11	0.91	1.45	2.01	2.72	3.02
2011-12	-0.78	-0.44	-0.03	0.56	0.78	2011-12	0.89	1.43	1.98	2.67	2.98
2012-01	-0.92	-0.55	-0.11	0.51	0.74	2012-01	0.84	1.38	1.97	2.70	3.03
2012-02	-1.11	-0.69	-0.25	0.45	0.72	2012-02	0.83	1.37	1.97	2.75	3.11
2012-03	-1.03	-0.57	-0.14	0.56	0.87	2012-03	1.02	1.56	2.17	2.94	3.28
2012-04	**-1.06**	**-0.65**	**-0.21**	**0.50**	**0.79**	**2012-04**	**0.89**	**1.43**	**2.05**	**2.82**	**3.18**
2012-05	**-1.12**	**-0.79**	**-0.34**	**0.44**	**0.68**	**2012-05**	**0.76**	**1.21**	**1.80**	**2.53**	**2.93**
2012-06	**-1.05**	**-0.82**	**-0.50**	**0.10**	**0.50**	**2012-06**	**0.71**	**1.08**	**1.62**	**2.31**	**2.70**
2012-07	-1.15	-0.92	-0.60	-0.01	0.39	2012-07	0.62	0.98	1.53	2.22	2.59
2012-08	-1.19	-0.94	-0.59	0.06	0.47	2012-08	0.71	1.14	1.68	2.40	2.77
2012-09	-1.47	-1.17	-0.71	0.02	0.44	2012-09	0.67	1.12	1.72	2.49	2.88
2012-10	**-1.47**	**-1.18**	**-0.75**	**-0.01**	**0.41**	**2012-10**	**0.71**	**1.15**	**1.75**	**2.51**	**2.90**
2012-11	**-1.38**	**-1.13**	**-0.77**	**-0.06**	**0.35**	**2012-11**	**0.67**	**1.08**	**1.65**	**2.39**	**2.80**
2012-12	**-1.40**	**-1.13**	**-0.76**	**0.00**	**0.33**	**2012-12**	**0.70**	**1.13**	**1.72**	**2.47**	**2.88**
2013-01	-1.39	-1.04	-0.61	0.20	0.48	2013-01	0.81	1.30	1.91	2.68	3.08
2013-02	-1.39	-0.94	-0.57	0.19	0.57	2013-02	0.85	1.35	1.98	2.78	3.17
2013-03	-1.43	-0.97	-0.59	0.19	0.62	2013-03	0.82	1.32	1.96	2.78	3.16
2013-04	**-1.38**	**-0.97**	**-0.65**	**0.07**	**0.48**	**2013-04**	**0.71**	**1.15**	**1.76**	**2.55**	**2.93**
2013-05	**-1.14**	**-0.69**	**-0.36**	**0.35**	**0.72**	**2013-05**	**0.84**	**1.31**	**1.93**	**2.73**	**3.11**
2013-06	**-0.59**	**-0.21**	**0.25**	**0.98**	**1.21**	**2013-06**	**1.20**	**1.71**	**2.30**	**3.07**	**3.40**
2013-07	-0.45	0.02	0.46	1.09	1.34	2013-07	1.40	1.99	2.58	3.31	3.61
2013-08	-0.33	0.15	0.55	1.16	1.44	2013-08	1.52	2.15	2.74	3.49	3.76
2013-09	-0.17	0.34	0.66	1.22	1.50	2013-09	1.60	2.22	2.81	3.53	3.79
2013-10	**-0.41**	**0.11**	**0.43**	**1.05**	**1.37**	**2013-10**	**1.37**	**1.99**	**2.62**	**3.38**	**3.68**
2013-11	**-0.38**	**0.18**	**0.55**	**1.20**	**1.51**	**2013-11**	**1.37**	**2.07**	**2.72**	**3.50**	**3.80**
2013-12	**-0.09**	**0.47**	**0.74**	**1.32**	**1.61**	**2013-12**	**1.58**	**2.29**	**2.90**	**3.63**	**3.89**
2014-01	-0.09	0.45	0.63	1.17	1.44	2014-01	1.65	2.29	2.86	3.52	3.77
2014-02	-0.26	0.30	0.55	1.12	1.40	2014-02	1.52	2.15	2.71	3.38	3.66
2014-03	-0.14	0.37	0.56	1.05	1.33	2014-03	1.64	2.23	2.72	3.35	3.62
2014-04	**-0.11**	**0.38**	**0.54**	**0.98**	**1.23**	**2014-04**	**1.70**	**2.27**	**2.71**	**3.27**	**3.52**
2014-05	**-0.34**	**0.21**	**0.37**	**0.82**	**1.08**	**2014-05**	**1.59**	**2.12**	**2.56**	**3.12**	**3.39**
2014-06	**-0.29**	**0.23**	**0.37**	**0.84**	**1.11**	**2014-06**	**1.68**	**2.19**	**2.60**	**3.15**	**3.42**
2014-07	-0.27	0.18	0.28	0.72	0.98	2014-07	1.70	2.17	2.54	3.07	3.33
2014-08	-0.21	0.15	0.22	0.64	0.90	2014-08	1.63	2.08	2.42	2.94	3.20
2014-09	0.10	0.38	0.46	0.81	1.05	2014-09	1.77	2.22	2.53	3.01	3.26
2014-10	**0.06**	**0.32**	**0.38**	**0.74**	**0.96**	**2014-10**	**1.55**	**1.98**	**2.30**	**2.77**	**3.04**
2014-11	**0.14**	**0.37**	**0.45**	**0.77**	**0.99**	**2014-11**	**1.62**	**2.03**	**2.33**	**2.76**	**3.04**
2014-12	**0.37**	**0.47**	**0.51**	**0.73**	**0.89**	**2014-12**	**1.64**	**1.98**	**2.21**	**2.55**	**2.83**
2015-01	0.17	0.24	0.27	0.50	0.66	2015-01	1.37	1.67	1.88	2.20	2.46
2015-02	0.11	0.22	0.26	0.52	0.73	2015-02	1.47	1.79	1.98	2.34	2.57
2015-03	0.04	0.23	0.28	0.55	0.73	2015-03	1.52	1.84	2.04	2.41	2.63
2015-04	**-0.26**	**-0.01**	**0.08**	**0.42**	**0.65**	**2015-04**	**1.35**	**1.69**	**1.94**	**2.33**	**2.59**
2015-05	**-0.10**	**0.27**	**0.33**	**0.70**	**0.96**	**2015-05**	**1.54**	**1.93**	**2.20**	**2.69**	**2.96**
2015-06	**0.05**	**0.39**	**0.50**	**0.89**	**1.13**	**2015-06**	**1.68**	**2.10**	**2.36**	**2.85**	**3.11**
2015-07	0.14	0.42	0.50	0.87	1.11	2015-07	1.63	2.04	2.32	2.77	3.07
2015-08	0.31	0.49	0.56	0.87	1.08	2015-08	1.54	1.91	2.17	2.55	2.86
2015-09	0.33	0.52	0.65	1.01	1.24	2015-09	1.49	1.88	2.17	2.62	2.95
2015-10	**0.21**	**0.39**	**0.57**	**0.98**	**1.22**	**2015-10**	**1.39**	**1.76**	**2.07**	**2.50**	**2.89**
2015-11	**0.40**	**0.55**	**0.69**	**1.03**	**1.25**	**2015-11**	**1.67**	**2.02**	**2.26**	**2.69**	**3.03**
2015-12	**0.46**	**0.59**	**0.73**	**1.06**	**1.26**	**2015-12**	**1.70**	**2.04**	**2.24**	**2.61**	**2.97**
2016-01	0.33	0.49	0.67	1.05	1.26	2016-01	1.52	1.85	2.09	2.49	2.86
2016-02	0.14	0.30	0.47	0.85	1.09	2016-02	1.22	1.53	1.78	2.20	2.62
2016-03	-0.03	0.16	0.34	0.73	0.99	2016-03	1.38	1.68	1.89	2.28	2.68
2016-04	**-0.22**	**-0.03**	**0.19**	**0.60**	**0.86**	**2016-04**	**1.26**	**1.57**	**1.81**	**2.21**	**2.62**
2016-05	**-0.22**	**-0.04**	**0.21**	**0.64**	**0.86**	**2016-05**	**1.30**	**1.60**	**1.81**	**2.22**	**2.63**
2016-06	**-0.27**	**-0.07**	**0.17**	**0.63**	**0.82**	**2016-06**	**1.17**	**1.44**	**1.64**	**2.02**	**2.45**
2016-07	-0.32	-0.16	0.04	0.42	0.61	2016-07	1.07	1.33	1.50	1.82	2.23
2016-08	-0.17	-0.06	0.09	0.43	0.62	2016-08	1.13	1.40	1.56	1.89	2.26
2016-09	-0.17	-0.05	0.12	0.47	0.64	2016-09	1.18	1.46	1.63	2.02	2.35
2016-10	**-0.26**	**-0.10**	**0.10**	**0.49**	**0.69**	**2016-10**	**1.27**	**1.56**	**1.76**	**2.17**	**2.50**
2016-11	**-0.07**	**0.11**	**0.32**	**0.69**	**0.86**	**2016-11**	**1.60**	**1.93**	**2.14**	**2.54**	**2.86**
2016-12	**0.15**	**0.36**	**0.56**	**0.89**	**1.04**	**2016-12**	**1.96**	**2.29**	**2.49**	**2.84**	**3.11**
2017-01	0.03	0.27	0.42	0.74	0.92	2017-01	1.92	2.23	2.43	2.75	3.02
2017-02	0.01	0.29	0.40	0.73	0.93	2017-02	1.90	2.22	2.42	2.76	3.03
2017-03	0.18	0.42	0.49	0.79	0.99	2017-03	2.01	2.30	2.48	2.83	3.08
2017-04	**0.08**	**0.28**	**0.39**	**0.72**	**0.91**	**2017-04**	**1.82**	**2.10**	**2.30**	**2.67**	**2.94**
2017-05	**0.09**	**0.29**	**0.47**	**0.80**	**0.99**	**2017-05**	**1.84**	**2.11**	**2.30**	**2.70**	**2.96**
2017-06	**0.14**	**0.32**	**0.46**	**0.75**	**0.93**	**2017-06**	**1.77**	**2.01**	**2.19**	**2.54**	**2.80**
2017-07	0.23	0.42	0.55	0.84	1.01	2017-07	1.87	2.13	2.32	2.65	2.88
2017-08	0.16	0.35	0.43	0.74	0.93	2017-08	1.78	2.03	2.21	2.55	2.80
2017-09	0.12	0.31	0.37	0.67	0.87	2017-09	1.80	2.03	2.20	2.53	2.78
2017-10	**0.25**	**0.42**	**0.50**	**0.77**	**0.94**	**2017-10**	**1.98**	**2.20**	**2.36**	**2.65**	**2.88**
2017-11	**0.30**	**0.43**	**0.50**	**0.72**	**0.87**	**2017-11**	**2.05**	**2.23**	**2.35**	**2.60**	**2.80**
2017-12	**0.42**	**0.48**	**0.50**	**0.68**	**0.80**	**2017-12**	**2.18**	**2.32**	**2.40**	**2.60**	**2.77**

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TIPS-05a	5	**Year**	**Inflation Indexed**	**H.15 ID**	RIFLGFCY05_XII_N.A
TIPS-07a	7				RIFLGFCY07_XII_N.A
TIPS-10a	10				RIFLGFCY10_XII_N.A
TIPS-20a	20				RIFLGFCY20_XII_N.A
TIPS-30a	30				RIFLGFCY30_XII_N.A

Year	TIPS-05a	TIPS-07a	TIPS-10a	TIPS-20a	TIPS-30a
2003	1.27	1.73	2.06		
2004	1.04	1.45	1.83	2.14	
2005	1.50	1.63	1.81	1.97	
2006	2.28	2.29	2.31	2.31	
2007	2.15	2.25	2.29	2.36	
2008	1.30	1.63	1.77	2.18	
2009	1.06	1.32	1.66	2.21	
2010	0.26	0.68	1.15	1.73	1.82
2011	-0.41	0.09	0.55	1.19	1.47
2012	-1.19	-0.87	-0.48	0.22	0.56
2013	0.76	-0.29	0.07	0.75	1.07
2014	-0.09	0.32	0.44	0.86	1.11
2015	0.15	0.36	0.45	0.78	1.00
2016	-0.01	0.07	0.27	0.65	0.86
2017	0.17	0.36	0.46	0.75	0.92
2018	0.78	0.82	0.83	0.93	1.01
2019	0.35	0.37	0.40	0.60	0.78
2020	-0.79	-0.71	-0.60	-0.31	-0.11
2021	-1.69	-1.26	-0.91	-0.43	-0.2
2022	0.22	0.33	0.43	0.64	0.76
2023	1.80	1.73	1.68	1.73	1.8

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UST-05a	5	**Year**	**H.15 ID**	RIFLGFCY05_N.A
UST-07a	7			RIFLGFCY07_N.A
UST-10a	10			RIFLGFCY10_N.A
UST-20a	20			RIFLGFCY20_N.A
UST-30a	30			RIFLGFCY30_N.A

Year	UST-05a	UST-07a	UST-10a	UST-20a	UST-30a
2003	2.97	3.52	4.01	4.96	
2004	3.43	3.87	4.27	5.04	
2005	4.05	4.15	4.29	4.64	
2006	4.75	4.76	4.80	5.00	4.91
2007	4.43	4.51	4.63	4.91	4.84
2008	2.80	3.17	3.66	4.36	4.28
2009	2.20	2.82	3.26	4.11	4.08
2010	1.93	2.62	3.22	4.03	4.25
2011	1.52	2.16	2.78	3.62	3.91
2012	0.76	1.22	1.80	2.54	2.92
2013	1.17	1.74	2.35	3.12	3.45
2014	1.64	2.14	2.54	3.07	3.34
2015	1.53	1.89	2.14	2.55	2.84
2016	1.33	1.63	1.84	2.22	2.59
2017	1.91	2.16	2.33	2.65	2.89
2018	2.75	2.85	2.91	3.02	3.11
2019	1.95	2.05	2.14	2.40	2.58
2020	0.53	0.72	0.89	1.35	1.56
2021	0.86	1.20	1.45	1.98	2.06
2022	3.00	3.01	2.95	3.30	3.11
2023	4.06	4.03	3.96	4.26	4.09

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2808

ROE:
Value Line Electric Utilities

September 10, 2024

All major electric utilities located in the eastern region of the United States are reviewed in this Issue; western-based electrics, in Issue 11; and the remaining industry participants, in Issue 5. Since our last review of the Electric Utility (East) group three months ago, utility stocks covered in *The Value Line Investment Survey* increased 3.1% in value on average versus a 3.7% gain in the S&P 500. Meanwhile, the industry's Timeliness rank has moved up to 66 (of 93) from 80.

During the past year, utilities under our coverage have declined 12.1% versus a 13.6% increase in *The Value Line Arithmetic Index*. The rise in interest rates through much of 2023 weighed heavily on utility stocks. The equities have only begun to recover some in more recent months as the uptrend in rates has paused. Because U.S. debt securities provide a competitive investment vehicle to the stocks in this industry, it's important to be cognizant of the spread between the benchmark 10-year Treasury rate (4.63%) and the dividend yields on electric utilities (4.0% on average).

Though the aforementioned spread is important, expectations of where interest rates will go next is the key factor that will drive this rate-sensitive group's performance. The other major factor is how investors feel about the prospects for the economy in general. Overall, this is a defensive industry with low-Beta stocks that tend to outperform when investors rotate out of economically-sensitive, higher-Beta stocks.

Portfolio Considerations

With the uptick in share prices over the past three months, 3- to 5-year total annual return potential for electrics has fallen a bit, to 10.2% on average from 10.9%. The new level is still towards the high end of what we've witnessed over the past two to three years, and there are some decent intermediate values to be found among this group. Additionally, if interest rates begin to drop again, it's highly likely that well-positioned electrics will rebound further.

However, while many stocks within the Electric Utility (East) Industry remain depressed relative to their highs of a couple of years ago, we're not overly bullish on this group. Over the past several months, we've lowered our 3- to 5-year targeted earnings multiples and raised our dividend yield expectations, as the higher-for-longer scenario of the world's central banks seems to be the new normal. In other words, interest rates were in a secular downtrend for decades, with cyclical interruptions along the way. If that course has reversed, it's a big negative for rate-sensitive utilities.

Investors in this group can help their cause by being disciplined buyers. New commitments should only be made when the midpoint of our annual total return projection is at or above 12%. Emphasizing utilities with above-average dividend growth prospects is a good practice. The median is about 4.5% at present. Staying away from utilities in below-average regulatory climates and keeping a well-diversified group of dividend payers are also good practices to follow.

At present, we like *Eversource Energy* as it possesses all of the aforementioned qualities. We also think *FirstEnergy* is close to being a good long-term buy at the recent price and is a name to keep on the watch list. Another stock that's particularly notable in this Issue is *Avangrid*, as its majority shareholder, Iberdrola of Spain, has proposed an all-cash buyout of the public float at $34.25 per share.

INDUSTRY TIMELINESS: 66 (of 93)

Topical Subjects

Key challenges this industry is facing include the rise in interest rates and overall inflation. Due to how regulatory mechanisms work, some higher costs can rapidly be passed along to consumers. This is true of fluctuations in natural gas prices, for instance. Conventions differ among states, but most utilities suffer from some degree of regulatory lag and have to go through a rate-filing process with regulators in order to gain "rate relief." That's industry parlance for regulatory approval to charge customers, through higher delivery rates on the electric bill, for certain expenses previously or about to be incurred. Notably, some companies are better situated and benefit from near real-time pricing adjustments with little regulatory lag on grid improvements.

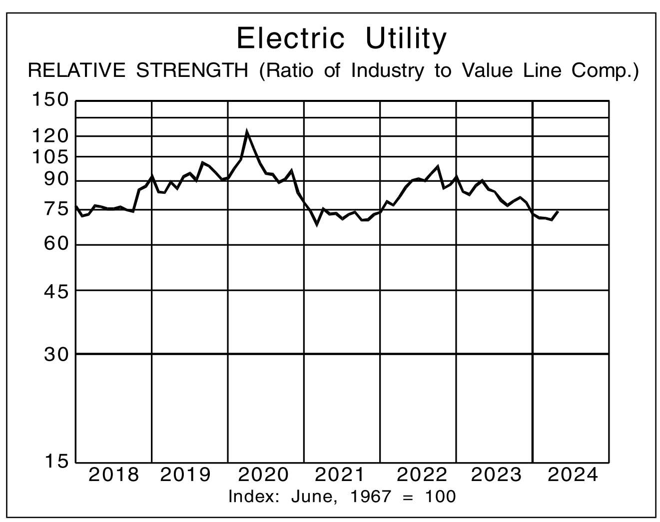
These challenges have been particularly troublesome for companies attempting to build and fund expensive and complicated renewables projects. This has been especially true of offshore wind generation, where the lead times are lengthy. The planning of those ventures took place under a different macroeconomic environment when borrowing, materials, and labor costs were far lower. As a result, many of those projects are only economic at higher electric rates than originally planned for.

Another major problem for this industry is the level of authorized return on equity (ROE) that's being set by some regulators. They're deriving ROEs based on a historically low and now out-of-date cost of capital. Note that the ROE applied to cumulative investments made in grid infrastructure (known as the rate base) is what drives revenue and profit levels for utilities.

Conclusion

Individual companies within this industry vary widely. The regulatory climate and the overall health of the underlying regional and local economies within a utility's service area are impactful. This includes demographics and migratory trends over time. States committing to progressive clean energy goals are generating a lot of invested capital opportunities for utilities, which should translate to improved earnings and dividend growth prospects. Selectivity is key for investors.

Anthony J. Glennon



All major electric utilities located in the Central region of the United States are reviewed in this Issue; Eastern-based electrics, in Issue 1; and the Western-based electrics, in Issue 11.

Electric Utility (Central) stocks covered in *The Value Line Investment Survey* increased 6.9% in value, on average since our last review three months ago, surpassing the 4.7% jump in the S&P 500.

Utilities, which have been one of the worst-performing sectors over the past few years, have started to recover of late due to elevated power demand from artificial intelligence (AI) innovations and data centers, along with the uptrend in interest rates pausing. While utility equities are typically seen as a safe competitive investment vehicle to U.S. debt securities for conservative investors, the artificial intelligence boom is changing this traditional landscape. Indeed, data centers are set to grow exponentially over the next few years, requiring record levels of electricity. Electric utilities are well positioned to take advantage of the AI boom, as well as bring in new types of investors. Too, the expectation of where interest rates will go next is starting to favor these equities in anticipation of the Federal Reserve's dovish pivot. And, the spread between the 10-year Treasury rate and dividend yields on electric utilities has narrowed since our last report.

Long-Term Prospects

Total return potential for electrics in the 3- to 5-year time frame is at the high end of what we've seen over the past couple of years. And, a number of equities continue to trade at double-digit discounts to historical valuations. But, we remain somewhat concerned with the macroeconomic backdrop, and utility investors should move forward with caution, despite a number of upcoming catalysts. We recommend buying electrics with annual total return potential of at least 12%. Investors should also keep an eye on utilities with above-average dividend growth prospects (4.5%), a strong balance sheet, and a well-diversified portfolio. While equities covered in the Electric Utility (Central) Industry do not stand out for price appreciation potential, the reduced risk of electrics adds to their appeal.

Macro Environment

Well-positioned electrics should rebound nicely for a number of reasons if interest rates begin to drop. Income-oriented investors closely monitor the spread between the yield on government bonds, such as Treasurys, and the yield on the typical electric utility. As interest rates have soared over the past few years, more and more investors have dropped utility equities in favor of Treasurys. But this may be reversing moving forward. What's more, higher interest rates, as well as wage, material, and fuel inflation, continue to negatively impact regulatory recoupments. Some stocks are better positioned than others, with rate cases and real-time pricing adjustments to minimize regulatory lag. And, the regulatory climate varies significantly by territory. Thus, it is important to be selective and look for equities with strong regional economies and regulatory environments. States that are committed to the AI infrastructure build-out and green-energy goals will probably fare better over the coming years. Indeed, *American Electric Power* recently filed a request in Ohio, which is one of the most-favorable climates regarding new data centers. The utility expects data centers to double the current power demand in the Ohio region by 2030.

INDUSTRY TIMELINESS: 81 (of 93)

Artificial Intelligence Boom

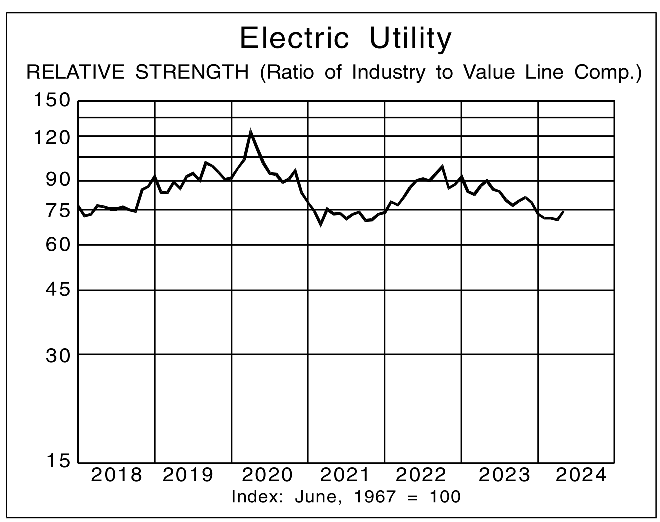
As mentioned earlier, demand for power is expected to reach record levels over the next few years due to technological innovations and the copious amounts of electricity used by AI-focused data centers. A number of electrics anticipate that power demand will more than double over the next five years. *ALLETE* recently agreed to be acquired, in part to be better positioned for the AI boom and record power demand. As a small utility in public markets, *ALLETE* was struggling to raise the necessary capital for its transmission transformation and building the grid. The pending buyout would allow *ALLETE* to take advantage of the biggest demand jump in its history, and build the infrastructure for new data centers. These technological advancements are a strong catalyst for long-term prospects and have brought a whole new group of investors to electric utilities.

Conclusion

Utilities have outpaced the broader-market averages of late. Growing electricity demand from data centers, the emerging AI boom, and the prospect of lower interest rates in the near future are positive factors. That said, other macro challenges continue to negatively impact performance from the group. We recommend that investors stay selective when committing funds.

Utilities currently have strong long-term capital appreciation potential compared to the *Value Line* median. We recommend looking for equities with 12% or greater long-term annual return potential, and average dividend growth of 4.5% or more. The favorable risk profile of electric utilities is also worth considering. Investors should also take note of states with positive data center and green energy transition regulatory environments, as companies in these regions will likely be the best positioned for the future. As always, investors should look out for future rate-setting meetings.

Zachary J. Hodgkinson



All major electric utilities located in the Western region of the United States are reviewed in this Issue; Eastern-based electrics, in Issue 1; and the remainder in Issue 5. Since our January review of the Electric Utility (West) group, utility stocks covered in *The Value Line Investment Survey* fell 3.3% in value on average, compared to a 9.2% increase in the S&P 500.

On a 12-month basis, utilities under our coverage have declined 14.6% versus a 16.2% gain in the *Value Line Arithmetic Index*. The sharp rise in interest rates through mid-October, when the 10-year Treasury yield hit 4.98%, a level last seen in 2007, depressed utility values. Treasurys provide a competitive investment vehicle, so it's important to be mindful of the spread between bond rates and the dividend yields on utilities (recently 4.02% on average). As rates fell 110 basis points, from 4.98% in mid-October to 3.88% in late December, utility stocks rallied. Year to date, however, they're back to underperforming, as the 10-year Treasury yield has risen to 4.42%.

With this year's drop in utility share prices, 3- to 5-year total annual return potential for this group has risen to 10.5% from 8.6% three months ago. Although there is a generally reduced risk level in owning utilities, given that they're regulated monopolies, we like to see the prospect of at least 10%-11% total returns for a given equity before recommending it. That level is in line with historical returns for the broader market.

Utility Portfolio Considerations

While many equities within the Electric Utility (West) Industry remain depressed relative to their highs of a few years ago, we're not overly bullish on this industry. If interest rates fall, it's highly likely that well-positioned utility stocks will perform relatively well. But, we think it's doubtful that the overly favorable backdrop for interest-rate sensitive stocks, often witnessed over the past several years, is on its way back. In long-term historical terms, if interest rates on government bonds normalized to the mid- to high-single-digit range, utilities would be relatively overvalued.

Utility investors can help their cause by being disciplined buyers. New commitments should be made when the midpoint of the annual total return projections are no less than 11%. It would also be a good practice to emphasize utilities with above-average dividend growth prospects. We'd put the industry median at about 4.5% for that measure. Staying away from utilities in a poor regulatory climate is a good practice, as is keeping a well-diversified group of dividend-paying stocks.

Topical Considerations

Key challenges electrics are facing include higher interest rates and overall inflation. Due to how the regulatory mechanisms work, some costs can rapidly be passed on to consumers, such as natural gas prices. Others cannot and have to go through a filed rate-case process with regulators. The regulatory lag before recoupment may be as short as one year or less, but in some instances can drag on for a few years. Some companies are fortunate to have a very minimal lag on a reasonable percentage of outlays, owing to their approved use of near real-time pricing mechanisms.

Another recent problem for this industry is the level of authorized return on equity (ROE) that's being set by regulators. They're looking back to a time of historically low interest rates over the past several years and using that snap shot to price returns in the present. Note that the ROE applied to investments made in grid infrastructure (known as the rate base) is what drives profits in these regulated monopolies. Utilities recoup their investment plus a return on it through the regulatory-approved delivery rates they bill for.

INDUSTRY TIMELINESS: 84 (of 93)

High purchased power costs during peak load periods have been exacerbated by the shuttering of cheap and reliable coal generation in the West. We've also seen that under certain conditions, such as mild weather, the supply of "green" energy, including hydro, can get depressed. The impact is especially problematic because open-market power purchases are not necessarily an automatic and quick pass-through to consumers. This problem also represents an opportunity, as it increasingly makes sense for more generating capacity to be approved for utility ownership.

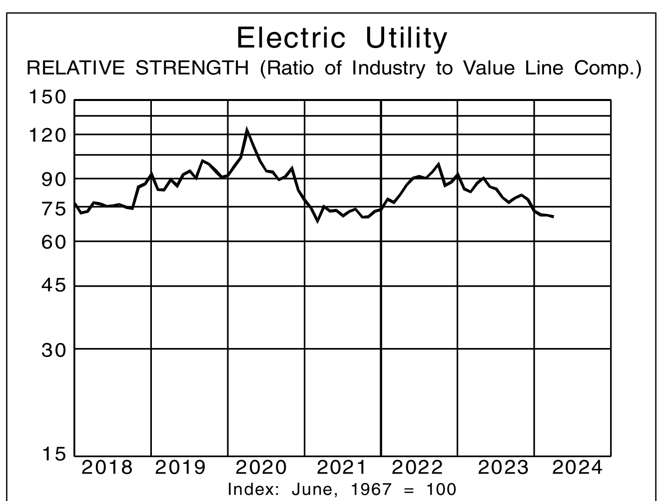
Lastly, with *PG&E Corp.* back within our coverage, and *Edison Int'l* embroiled in some new wildfire lawsuits, a discussion on business risk in California is always topical in the Electric Utility (West) Industry. Regarding the mounting lawsuits impacting *Hawaiian Electric* and to a lesser degree *Xcel Energy*, we'd refer subscribers to the respective company reviews.

The California Wildfire Fund, established in 2019, is a form of insurance for the state's three major electric utility holding corporations (*Sempra Energy* is the third), funded by the companies and their customer base up to $21 billion. Pre-2019 disasters are not covered and individual claims are paid after a $1 billion deductible is incurred. The fund covers catastrophic losses, but does not cover gross negligence. With this extra layer of protection above regular liability insurance, bankruptcy risk for the aforementioned California holding companies is very much reduced.

Conclusion

Individual utilities vary widely. Regulatory climate and the overall health of the underlying regional and local economies encompassed within a service area are impactful. And, states with progressive renewable-energy goals are providing solid growth prospects to utilities. As always, investors need to be selective.

Anthony J. Glennon



ALLETE NYSE-ALE

RECENT PRICE	62.92	P/E RATIO	16.8 (Trailing: 15.1 Median: 19.0)	RELATIVE P/E RATIO	0.94	DIV'D YLD	4.5%	VALUE LINE

TIMELINESS 3 Lowered 2/16/24
SAFETY 2 New 10/1/04
TECHNICAL 3 Raised 6/7/24
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$53-$82	$68 (5%)

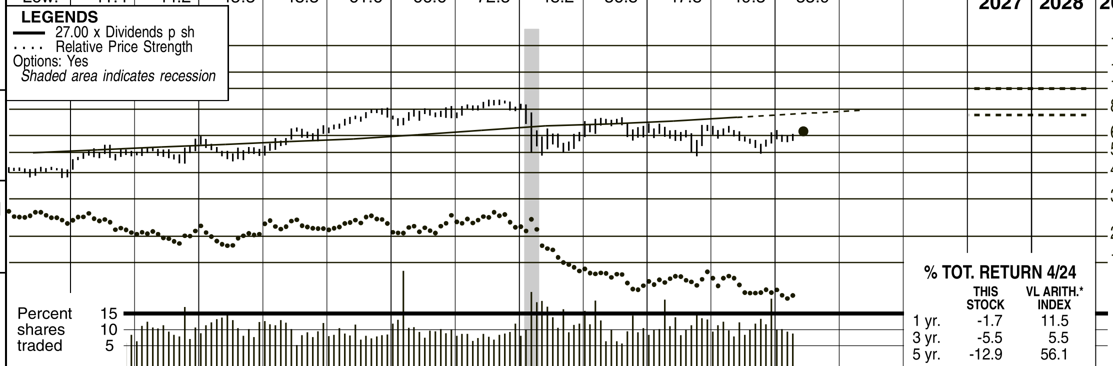
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+60%)	16%
Low	75	(+20%)	9%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	159	145	156
to Sell	123	141	153
Hld's(000)	43650	44027	44075

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	54.1	58.0	59.7	66.9	81.2	82.8	88.6	84.7	73.1	68.6	66.7	65.9
Low:	41.4	44.2	45.3	48.3	61.6	66.6	72.5	48.2	56.8	47.8	49.3	55.9



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.7	11.5
3 yr.	-5.5	5.5
5 yr.	-12.9	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.27	27.01	27.78	29.10	23.99	22.44	26.68	28.04	32.65	*29.50*	*30.50*	Revenues per sh	*32.80*
4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.79	7.08	6.59	7.37	7.24	7.52	7.54	7.70	8.67	*8.30*	*8.80*	"Cash Flow" per sh	*9.65*
2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.38	3.14	3.13	3.38	3.33	3.35	3.23	3.38	4.30	*3.75*	*4.10*	Earnings per sh A	*5.15*
1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.14	2.24	2.35	2.47	2.52	2.60	2.71	*2.82*	*2.93*	Div'd Decl'd per sh B ■ †	*3.25*
9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.84	5.35	4.08	6.07	11.55	13.78	8.90	3.64	4.92	*5.95*	*6.20*	Cap'l Spending per sh	*7.25*
25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.07	38.17	40.47	41.86	43.17	44.04	45.36	47.06	48.78	*51.25*	*52.55*	Book Value per sh C	*54.00*
32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.10	49.60	51.10	51.50	51.70	52.10	53.20	56.01	57.58	*59.00*	*59.00*	Common Shs Outst'g D	*61.00*
13.9	16.1	16.0	14.7	15.9	18.6	17.2	15.1	18.6	23.0	22.2	24.7	18.3	20.6	18.1	13.8	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
.84	1.07	1.02	.92	1.01	1.05	.91	.76	.98	1.16	1.20	1.32	.94	1.11	1.05	.79			Relative P/E Ratio	*.95*
4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	4.0%	3.6%	3.0%	3.0%	2.9%	4.0%	3.8%	4.4%	4.9%			Avg Ann'l Div'd Yield	*3.7%*
						1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	1169.1	1419.2	1570.7	1879.8	*1740*	*1800*	Revenues ($mill)	*2000*
						124.8	163.4	155.3	159.2	174.1	172.4	174.2	169.2	189.3	247.6	*220*	*240*	Net Profit ($mill)	*315*
						22.6%	19.4%	11.3%	14.8%	- -	- -	- -	NMF	NMF	NMF	*NMF*	*NMF*	Income Tax Rate	*NMF*
						6.3%	2.0%	1.4%	.8%	.7%	1.3%	1.1%	1.5%	1.4%	1.3%	*2.0%*	*1.5%*	AFUDC % to Net Profit	*1.0%*
						44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	41.0%	42.2%	40.8%	40.3%	*39.5%*	*40.0%*	Long-Term Debt Ratio	*40.5%*
						55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	59.0%	57.8%	59.6%	53.8%	*60.5%*	*60.0%*	Common Equity Ratio	*59.5%*
						2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	3887.8	4176.3	4457.5	4682.8	*4900*	*5150*	Total Capital ($mill)	*5550*
						3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	4840.8	5100.2	5004.0	5013.0	*5450*	*5500*	Net Plant ($mill)	*5675*
						5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	5.3%	4.8%	5.6%	6.5%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
						7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	7.5%	8.8%	*8.0%*	*8.0%*	Return on Shr. Equity	*9.0%*
						7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	7.5%	8.8%	*8.0%*	*8.0%*	Return on Com Equity E	*9.0%*
						2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	2.0%	1.5%	2.5%	3.5%	*2.5%*	*2.5%*	Retained to Com Eq	*3.5%*
						67%	60%	66%	68%	66%	70%	74%	78%	76%	70%	*69%*	*69%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $1797.3 mill. **Due in 5 Yrs** $390.7 mill.
LT Debt $1772.4 mill. **LT Interest** $65.9 mill.
(LT interest earned: 2.7x)

Leases, Uncapitalized Annual rentals $5.1 mill.

Pension Assets-12/22 $745.7 mill. **Oblig** $911.7 mill.

Pfd Stock None

Common Stock 57,666,069 shs.

MARKET CAP: $3.6 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-12.0	+11.5	+4.7
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw) F	1588	1557	1556
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	230	219	220

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	- -	-3.0%	*3.0%*
"Cash Flow"	4.5%	2.0%	*4.5%*
Earnings	3.0%	.5%	*6.0%*
Dividends	3.5%	3.5%	*3.5%*
Book Value	4.5%	3.0%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2021	339.2	335.6	345.4	399.0	1419.2
2022	383.5	373.1	388.3	425.8	1570.7
2023	564.9	533.4	378.8	402.7	1879.8
2024	403.3	*475*	*421.7*	*440*	*1740*
2025	*430*	*480*	*440*	*450*	*1800*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2021	.99	.53	.53	1.18	3.23
2022	1.24	.67	.59	.90	3.38
2023	1.02	.90	1.49	.89	4.30
2024	.88	*.85*	*.80*	*1.22*	*3.75*
2025	*1.05*	*.90*	*.90*	*1.25*	*4.10*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.6175	.6175	.6175	.6175	2.47
2021	.63	.63	.63	.63	2.52
2022	.65	.65	.65	.65	2.60
2023	.6775	.6775	.6775	.6775	2.71
2024	.7050	.7050			

BUSINESS: ALLETE, Inc. is the parent of Minnesota Power, which supplies electricity to 146,000 customers in northeastern MN, & Superior Water, Light & Power in northwestern WI. Electric rev. breakdown: taconite mining/processing, 26%; wholesale, 14%; residential, 13%; commercial 13% paper/wood products, 9%; other industrial, 8%; other, 17%. ALLETE Clean Energy (ACE) owns renewable energy projects. Acq'd U.S. Water Services 2/15; sold it 3/19. Generating sources: coal, 28%; wind, 10%; other, 4%; purchased, 58%. Fuel costs: 40% of revs. '23 deprec. rate: 3.1%. Has 1,400 employees. Chairman, President & CEO: Bethany M. Owen. Inc.: Minnesota. Address: 30 West Superior St., Duluth, MN 55802-2093. Tel.: 218-279-5000. Internet: www.allete.com.

ALLETE agreed to be acquired by a combination of Canada Pension Plan Investment Board and Global Infrastructure Partners. ALE stockholders would receive $67 per share in a deal to be taken private at a total value of $6.2 billion. The stock price has risen nicely of late and the transaction currently represents a very slight premium to the present quotation. The deal is expected to close in mid-2025.

The company plans to spend $4.3 billion on renewable energy over the next five years. While utilities are well positioned to benefit from artificial intelligence innovations and data centers that boost power demand, the clean-energy transition requires raising significant investments, which is very challenging for small utilities in public markets. If approved, the buyout would allow ALLETE to take advantage of the biggest demand jump in its history, and provide the utility assistance in its long-term goals. Indeed, ALLETE's largest subsidiary, Minnesota Power, has a carbon-free mandate by 2040, among other initiatives that should be easier to obtain as a private company.

We think the deal makes sense. ALLETE is looking to grow at a significant rate to keep up with the elevated demand from tech innovations. The pending acquisition should set up the company nicely in the long term to meet the all-time high power demand. This would likely not be possible as a small-cap utility in the currently volatile markets. The purchase price of $67 per share is right near the midpoint of our 18-month Target Price Range, indicating a modest premium to our future projected stock price. ALLETE plans to retain its workforce and continue to operate locally in Minnesota.

The stock is inching closer to its buyout price. Investors seem enthused with the deal and the likelihood of it being completed, accounting for the recent run-up. If the transaction does not go through, capital appreciation potential for the 3- to 5-year time frame is above average in comparison to most of ALLETE's peers. We look for the stock to trade around $75-$100 by 2027-2029. ALLETE is also ranked Above Average (2) for Safety and holds a high score for Price Stability.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted EPS. Excl. nonrec. gains (loss): '15, (46¢); '17, 25¢; '19, 26¢; '19 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred charges. In '23: $9.60/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate all'd in MN on com. eq. in '18: 9.25%; earned on avg. com. eq., '21: 7.2%. Regul. Climate: Avg. (F) Summer peak in '21.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	30
Earnings Predictability	90

ALLIANT ENERGY NDQ-LNT

RECENT PRICE 49.95 | P/E RATIO 16.4 (Trailing: 18.2 Median: 21.0) | RELATIVE P/E RATIO 0.92 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 3 Raised 5/3/24
SAFETY 2 Raised 9/28/07
TECHNICAL 4 Raised 5/31/24
BETA .90 (1.00 = Market)

18-Month Target Price Range
Low-High $43-$66 | Midpoint (% to Mid) $55 (10%)

2027-29 PROJECTIONS

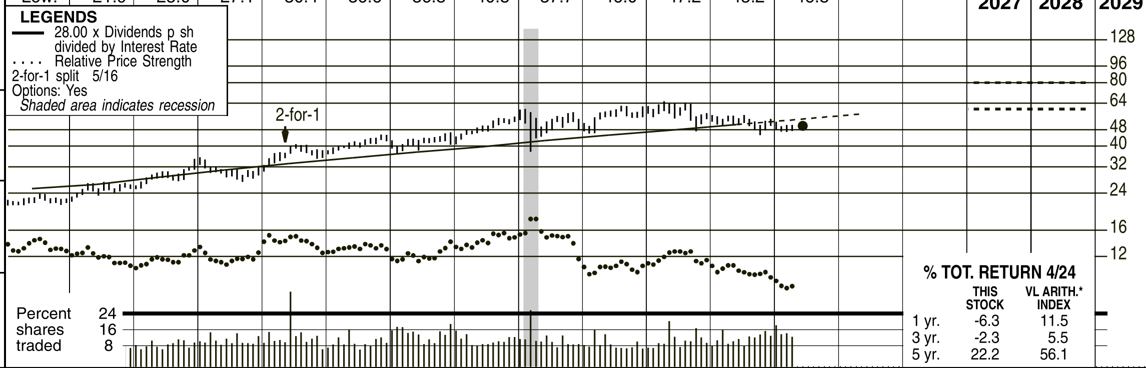
	Price	Gain	Ann'l Total Return
High	80	(+60%)	15%
Low	60	(+20%)	9%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	270	277	312
to Sell	267	282	279
Hld's(000)	196380	204187	209105

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3	62.3	65.4	56.3	52.4
Low:	21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7	46.0	47.2	45.2	46.8

LEGENDS
— 28.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/16
Options: Yes
Shaded area indicates recession



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-6.3	11.5
3 yr.	-2.3	5.5
5 yr.	22.2	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
16.67	15.51	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	13.67	14.65	16.74	15.72	*16.75*	*17.30*	Revenues per sh	*18.35*
2.28	2.10	2.60	2.75	2.95	3.34	3.49	3.45	3.43	3.97	4.32	4.59	4.92	5.25	5.40	5.38	*5.65*	*5.85*	"Cash Flow" per sh	*6.50*
1.27	.95	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.47	2.63	2.73	2.78	*3.05*	*3.25*	Earnings per sh A	*3.90*
.70	.75	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	1.61	1.71	1.81	*1.92*	*2.04*	Div'd Decl'd per sh B ■ †	*2.43*
3.98	5.43	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.92	6.69	5.47	4.67	5.91	7.24	*5.80*	*5.60*	Cap'l Spending per sh	*5.40*
12.78	12.54	13.05	13.57	14.12	14.79	15.54	16.41	16.96	18.08	19.43	21.24	22.76	23.91	24.99	26.46	*27.65*	*28.85*	Book Value per sh C	*31.90*
220.90	221.31	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	249.87	250.47	251.14	256.10	*256.70*	*256.70*	Common Shs Outst'g D	*257.00*
13.4	13.9	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	21.2	21.2	21.4	18.8	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
.81	.93	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.13	1.09	1.15	1.24	1.05	*Value Line*		Relative P/E Ratio	*1.00*
4.1%	5.7%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%	2.9%	2.9%	2.9%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*3.7%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $9667 mill. **Due in 5 Yrs** $2984 mill.
LT Debt $8524 mill. **LT Interest** $370 mill.
(LT interest earned: 2.8x)

Leases, Uncapitalized Annual rentals $3 mill.

Pension Assets-12/23 $732 mill. **Oblig** $876 mill.

Pfd Stock None

Common Stock 256,379,032 shs.

MARKET CAP: $12.8 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	3416.0	3669.0	4205.0	4027.0	*4300*	*4440*	Revenues ($mill)	*4720*
395.7	390.9	384.0	466.1	522.3	567.4	624.0	674.0	686.0	703.0	*780*	*835*	Net Profit ($mill)	*975*
10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	- -	- -	3.1%	.6%	*2.0%*	*2.0%*	Income Tax Rate	*2.0%*
8.8%	9.4%	16.3%	10.7%	14.5%	16.3%	8.8%	3.7%	8.7%	14.2%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*4.0%*
49.7%	47.3%	51.5%	47.8%	52.3%	50.6%	53.5%	52.9%	55.0%	54.8%	*56.5%*	*55.0%*	Long-Term Debt Ratio	*52.0%*
47.5%	50.0%	46.1%	49.8%	45.7%	47.6%	44.9%	47.1%	45.0%	45.2%	*43.5%*	*45.0%*	Common Equity Ratio	*48.0%*
7257.2	7446.3	8377.6	8392.8	10032	10938	12657	12725	13944	15002	*16220*	*16530*	Total Capital ($mill)	*17070*
6442.0	8970.2	9809.9	10798	12462	13527	14336	14987	16247	17157	*18300*	*18600*	Net Plant ($mill)	*19180*
6.5%	6.3%	5.6%	6.7%	6.3%	6.3%	5.9%	6.3%	6.1%	6.0%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.0%*
10.8%	10.0%	9.5%	10.6%	10.9%	10.5%	10.6%	11.3%	10.9%	10.4%	*11.0%*	*11.5%*	Return on Shr. Equity	*12.0%*
11.2%	10.2%	9.7%	10.9%	11.2%	10.7%	10.8%	11.0%	10.9%	10.4%	*11.0%*	*11.5%*	Return on Com Equity E	*12.0%*
4.6%	3.6%	2.8%	4.0%	4.4%	4.2%	4.2%	4.3%	4.1%	3.6%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
60%	66%	72%	64%	62%	61%	62%	62%	62%	65%	*63%*	*63%*	All Div'ds to Net Prof	*62%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.7	-.7	
Avg. Indust. Use (MWH)	11696	11494	11435
Avg. Indust. Revs. per KWH (¢)	7.64	8.39	8.47
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	5486	5629	5856
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.8	+.7	+.7
Fixed Charge Cov. (%)	259	NA	NA

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	.5%	1.5%	*2.5%*
"Cash Flow"	6.0%	6.5%	*2.0%*
Earnings	6.0%	7.0%	*6.0%*
Dividends	6.5%	6.5%	*6.0%*
Book Value	6.0%	6.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	901	817	1024	927	3669
2022	1068	943	1135	1059	4205
2023	1077	912	1077	961	4027
2024	1031	*975*	*1150*	*1144*	*4300*
2025	*1065*	*1005*	*1185*	*1185*	*4440*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.68	.57	1.02	.35	2.63
2022	.77	.63	.90	.43	2.73
2023	.65	.64	1.02	.47	2.78
2024	.62	*.66*	*1.10*	*.67*	*3.05*
2025	*.74*	*.69*	*1.14*	*.68*	*3.25*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.38	.38	.38	.38	1.52
2021	.4025	.4025	.4025	.4025	1.61
2022	.4275	.4275	.4275	.4275	1.71
2023	.4525	.4525	.4525	.4525	1.81
2024	.48				

BUSINESS: Alliant Energy Corporation is the parent company of Interstate Power and Light Company (IPL) and Wisconsin Power and Light Company (WPL). Together, the utility subsidiaries serve approximately one million electric and 425,000 natural gas customers in Wisconsin and Iowa. Electric revenue: residential, 36%; commercial, 25%; industrial, 29%; wholesale, 8%; other, 2%. Generating sources: coal, 32%; gas, 32%; wind, 16%; other, 1%; purchased, 19%. Fuel costs: 25% of revenues. '23 reported depreciation rates: 2.9%-6.1%. Has 3,300 employees. Chairman, President & CEO: John O. Larsen. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, WI 53718-2148. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

Alliant Energy kicked off 2024 on a fairly weak note. Indeed, earnings at the Wisconsin-based electric and gas utility fell nearly 5% in the March quarter, as unseasonably mild weather resulted in lower heating demand across the company's Midwest service area. Notably, the key markets of Cedar Rapids, Iowa and Madison, Wisconsin each had the warmest start to a year since 2012 and were 6%–9% less frigid, year over year, based on the total number of heating degree days through the first three months of 2024. On a consolidated basis, the incremental earnings hit due to the unseasonable weather was roughly $0.04 a share. Other, nonweather-related costs were a $0.02 drag.

Recent rate hikes are providing some support. Late last year, Alliant's Wisconsin Power & Light (WPL) subsidiary received regulatory authorization to raise electric and gas rates by $49 million and $13 million respectively, coinciding with capital investments in, among other things, solar power and battery storage. As we understand it, the recent quarterly benefit was roughly $0.03, net of associated increases in borrowing costs and depreciation expense.

Alliant remains a compelling long-term investment play on renewable energy. WPL was recently expected to complete the last of several projects that will increase the utility's overall solar-power capacity in the Badger State to 1.1 gigawatts. Meantime, Interstate Power & Light continues to target 400 megawatts of solar power generation by the end of this year. Importantly, these solar projects have zero fuel costs, thus reducing Alliant's susceptibility to swings in natural-gas prices and the like. Its investments in "green" power also yield significant tax credits that can be sold to regional manufacturers and other third parties looking to maintain compliance with restrictions on carbon emissions. In 2025 alone, Alliant could realize as much as $400 million from the sale of tax credits.

Alliant shares remain neutrally ranked for relative year-ahead price performance. Still, the utility company boasts both a fairly attractive dividend (current yield: 3.8%) and solid long-term total return potential.

Nils C. Van Liew *June 7, 2024*

(A) Diluted EPS. Excl. nonrecurring losses: '11, 1¢; '12, 8¢. '20 & '21 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Dividend reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '21: $1,980 mill., $7.91/sh. (D) In millions, adj. for split. (E) Rate base: Orig. cost. Rates all'd on com. eq. in IA in '20: various; in WI in '22: 10%; earned on avg. com. eq., '21: 11.3%. Regulatory Climate: Wisconsin, Above Average; Iowa, Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

AMEREN NYSE-AEE

RECENT PRICE	P/E RATIO	(Trailing / Median)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
71.34	15.5	(Trailing: 16.4; Median: 20.0)	0.87	3.8%	

TIMELINESS 4 Lowered 12/29/23
SAFETY 1 Raised 9/10/21
TECHNICAL 3 Raised 6/7/24
BETA .90 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	37.3	48.1	46.8	54.1	64.9	70.9	80.9	87.7	90.8	99.2	91.2	76.1
Low:	30.6	35.2	37.3	41.5	51.4	51.9	63.1	58.7	69.8	73.3	69.7	67.0

18-Month Target Price Range

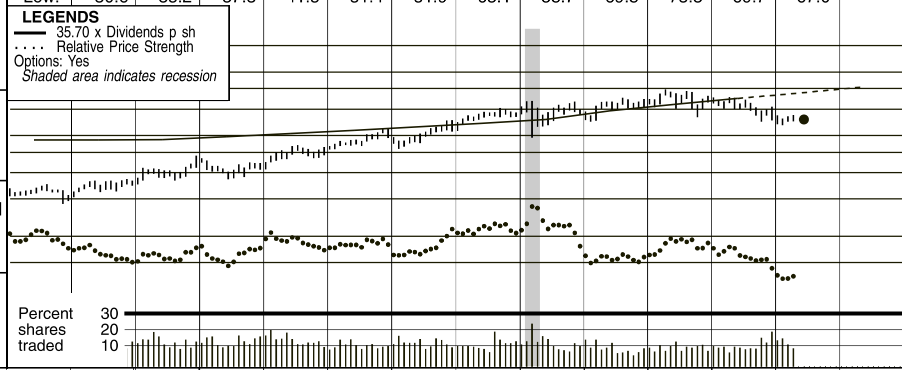
Low-High	Midpoint (% to Mid)
$62-$110	$86 (20%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	130	(+80%)	*19%*
Low	105	(+45%)	*13%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	289	280	283
to Sell	287	314	321
Hld's(000)	204708	210352	215268



Target Price Range 2027 | 2028 | 2029
160
120
100
80
60
50
40
30
20
15

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-14.2	11.5
3 yr.	-5.1	5.5
5 yr.	15.8	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	22.87	24.81	30.37	28.10	***29.00***	***30.35***	Revenues per sh	***34.05***
6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	8.08	8.89	9.59	9.99	***10.55***	***11.15***	"Cash Flow" per sh	***12.30***
2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	3.50	3.84	4.14	4.37	***4.60***	***4.90***	Earnings per sh A	***5.95***
2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	2.00	2.20	2.36	2.52	***2.68***	***2.86***	Div'd Decl'd per sh B ■	***3.30***
9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	9.56	9.92	13.02	13.67	12.79	12.87	***12.55***	***12.80***	Cap'l Spending per sh	***13.00***
32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	35.29	37.64	40.11	40.26	***42.90***	***45.95***	Book Value per sh C	***52.65***
212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	253.30	257.70	262.00	267.00	***269.00***	***272.00***	Common Shs Outst'g D	***285.00***
14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	22.2	21.4	21.5	18.8	*Bold figures are*		Avg Ann'l P/E Ratio	***20.0***
.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18	1.14	1.16	1.24	1.07	*Value Line*		Relative P/E Ratio	***1.10***
6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%	2.6%	2.7%	2.7%	3.3%	*estimates*		Avg Ann'l Div'd Yield	***3.0%***
						6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	5794.0	6394.0	7957.0	7500.0	***7800***	***8250***	Revenues ($mill)	***9700***
						593.0	585.0	659.0	683.0	821.0	834.0	877.0	995.0	1074.0	1152.0	***1235***	***1330***	Net Profit ($mill)	***1700***
						38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	15.0%	13.6%	14.0%	12.0%	***12.0%***	***12.0%***	Income Tax Rate	***12.0%***
						5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	6.0%	5.0%	6.0%	***5.0%***	***5.0%***	AFUDC % to Net Profit	***4.0%***
						47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	55.0%	56.1%	56.6%	55.7%	***53.5%***	***52.5%***	Long-Term Debt Ratio	***51.0%***
						51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	44.3%	43.3%	43.4%	43.8%	***46.0%***	***47.0%***	Common Equity Ratio	***48.5%***
						12975	13968	13840	14420	15632	17116	20158	22391	24193	24847	***25750***	***26450***	Total Capital ($mill)	***29500***
						17424	18799	20113	21466	22810	24376	26807	29261	31262	33776	***35000***	***36300***	Net Plant ($mill)	***38400***
						5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	5.3%	5.3%	5.4%	5.5%	***5.0%***	***5.0%***	Return on Total Cap'l	***6.0%***
						8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	9.7%	10.1%	10.2%	11.0%	***11.0%***	***11.0%***	Return on Shr. Equity	***10.0%***
						8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	10.2%	10.2%	11.0%	***11.0%***	***11.0%***	Return on Com Equity E	***10.0%***
						2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	4.2%	4.4%	4.4%	5.0%	***5.0%***	***5.0%***	Retained to Com Eq	***4.0%***
						67%	70%	64%	64%	56%	57%	57%	57%	57%	57%	***56%***	***56%***	All Div'ds to Net Prof	***60%***

CAPITAL STRUCTURE as of 3/31/24
Total Debt $16316 mill. **Due in 5 Yrs** $2789 mill.
LT Debt $15167 mill. **LT Interest** $450 mill.
(LT interest earned: 3.8x)
Pension Assets-12/23 $5745 mill.
Oblig $5457 mill.
Pfd Stock $129 mill. **Pfd Div'd** $5 mill.
807,595 sh. $3.50 to $5.50 cum. (no par), $100 stated val., redeem. $102.176-$110/sh.; 487,508 sh. 4.00% to 5.16%, $100 par, redeem. $100-$104.30/sh.
Common Stock 266,670,374 shs.
as of 4/30/24
MARKET CAP: $19.0 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.5	-5.6	+2.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	307	291	325

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	-1.5%	.5%	*4.0%*
"Cash Flow"	4.0%	6.5%	*5.5%*
Earnings	4.0%	8.0%	*6.5%*
Dividends	3.5%	5.0%	*6.5%*
Book Value	2.0%	5.5%	*6.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1566	1472	1811	1545	6394
2022	1879	1726	2306	2046	7957
2023	2062	1760	2060	1618	7500
2024	1816	***1830***	***2150***	***2004***	***7800***
2025	***2000***	***1900***	***2250***	***2100***	***8250***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.91	.80	1.65	.48	3.84
2022	.97	.80	1.74	.63	4.14
2023	1.00	.90	1.87	.60	4.37
2024	.98	***.95***	***2.00***	***.67***	***4.60***
2025	***1.20***	***.95***	***2.00***	***.75***	***4.90***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.495	.495	.495	.515	2.00
2021	.55	.55	.55	.55	2.20
2022	.59	.59	.59	.59	2.36
2023	.63	.63	.63	.63	2.52
2024	.67	.67			

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Has 1.2 million electric and 127,000 gas customers in Missouri; 1.2 million electric and 813,000 gas customers in Illinois. Discontinued nonregulated power-generation operation in '13. Electric revenue breakdown: residential, 49%; commercial, 34%; industrial, 8%; other, 9%. Generating sources: coal, 73%; nuclear, 11%; hydro & other, 9%; purchased, 7%. Fuel costs: 25% of revenues. Has approximately 9,250 employees. Chairman: Warner L. Baxter. President & CEO: Martin J. Lyons, Jr. Inc.: Missouri. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.

Ameren's profits should rise nicely in 2024. Higher earnings in its transmission segment from clean-energy investments, along with electric and gas rate increases, will probably be the main factors. The utility will likely also benefit from elevated power demand due to artificial intelligence innovations and data centers. Our earnings-per-share estimate remains at $4.60, which is within the company's updated outlook range of $4.52-$4.72. Management expects significant year-over-year operations and maintenance cost reductions in the second half of this year from several savings initiatives, which should prop up the bottom line.

We look for stronger bottom-line growth in 2025. Ameren will receive additional rate relief from its transmission and Illinois electric operations, which are currently under way. The utility recently updated its goal for annual earnings growth of 6%-8%, and our estimate of $4.90 a share represents an increase of 6% from our 2024 estimate. This target is supported by annual rate base growth of 8.2%.

Ameren is making progress in a number of regulatory matters in Illinois. In April, the utility filed an electric distribution annual rate request for $160 million of reconciliations for 2023 actual revenue costs. A decision is expected by the end of this year, and the full amount will likely be collected in 2025. And, in its multiyear grid plan, Ameren Illinois revised its request for an annual increase from 2023 rates of $321 million. The request is based on a return on equity of 8.72% and an equity ratio of 50%. A final order is expected by the end of 2024. Ameren Missouri is also active on the regulatory front, and recently filed a 60-day notice for its next rate review.

Risk-averse, income-oriented investors may want to take a closer look here. The dividend yield of this untimely but top-quality stock is about average by utility standards. And, long-term capital appreciation potential is attractive in comparison to most of its peers. Indeed, the midpoint of our 18-month Target Price Range indicates a 20% premium over the current quotation. And, we look for the stock to trade within $105-$130 by 2027-2029.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted EPS. Excl. nonrec. gain (losses): '10, ($2.19); '11, (32¢); '12, ($6.42); '17, (63¢); gain (loss) from discontinued ops.: '13, (92¢); '15, 21¢. Next earnings report due early Aug.
(B) Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '21: $6.60/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate allowed on com. eq. in MO in '22: elec. & gas, none specified; in IL: electric, varies; in '21: gas, 9.67%; earned on avg. com. eq., '21: 10.6%.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	75
Earnings Predictability	100

AMERICAN ELEC. PWR. NDQ-AEP

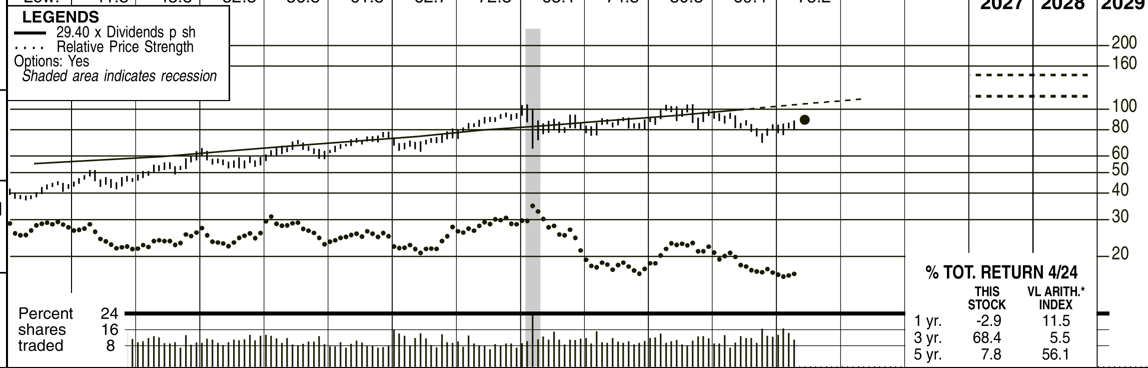
RECENT PRICE 88.97 | P/E RATIO 15.9 (Trailing: 14.8, Median: 18.0) | RELATIVE P/E RATIO 0.89 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS 3 Raised 3/15/24
SAFETY 1 Raised 3/17/17
TECHNICAL 3 Raised 6/7/24
BETA .85 (1.00 = Market)

High:	51.6	63.2	65.4	71.3	78.1	81.1	96.2	105.0	91.5	105.6	98.3	93.4
Low:	41.8	45.8	52.3	56.8	61.8	62.7	72.3	65.1	74.8	80.3	69.4	75.2

Target Price Range 2027 | 2028 | 2029

LEGENDS
— 29.40 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
\$77-\$126	\$102 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	145	(+65%)	16%
Low	115	(+30%)	10%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	596	599	628
to Sell	572	557	609
Hld's(000)	386016	391405	398265

Percent shares traded 24 16 8

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-2.9	11.5
3 yr.	68.4	5.5
5 yr.	7.8	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
35.56	28.22	30.01	31.27	30.77	31.48	34.78	33.51	33.31	31.35	32.84	31.49	30.04	33.30	38.20	36.08	*38.00*	*40.20*	Revenues per sh	*44.20*
6.84	6.32	6.29	6.83	6.92	7.02	7.57	7.98	8.47	7.95	8.77	9.35	10.28	10.98	10.72	10.92	*11.65*	*12.35*	"Cash Flow" per sh	*15.20*
2.99	2.97	2.60	3.13	2.98	3.18	3.34	3.59	4.23	3.62	3.90	4.08	4.42	4.96	5.09	5.24	*5.60*	*6.00*	Earnings per sh A	*7.20*
1.64	1.64	1.71	1.85	1.88	1.95	2.03	2.15	2.27	2.39	2.53	2.71	2.84	3.00	3.17	3.37	*3.60*	*3.81*	Div'd Decl'd per sh B ■ †	*4.16*
9.83	6.19	5.07	5.74	6.45	7.75	8.68	9.37	9.98	11.79	12.89	12.43	12.72	11.43	13.18	13.89	*14.15*	*14.10*	Cap'l Spending per sh	*14.00*
26.33	27.49	28.33	30.33	31.37	32.98	34.37	36.44	35.38	37.17	38.58	39.73	41.38	44.49	46.60	48.46	*55.05*	*58.90*	Book Value per sh C	*62.55*
406.07	478.05	480.81	483.42	485.67	487.78	489.40	491.05	491.71	492.01	493.25	494.17	496.60	504.21	513.87	526.18	*530.00*	*535.00*	Common Shs Outst'g D	*550.00*
13.1	10.0	13.4	11.9	13.8	14.5	15.9	15.8	15.2	19.3	18.0	21.4	19.6	17.1	21.1	16.2	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
.79	.67	.85	.75	.88	.81	.84	.80	.80	.97	.97	1.14	1.01	.92	1.23	.93	*Value Line*		Relative P/E Ratio	*1.00*
4.2%	5.5%	4.9%	5.0%	4.6%	4.2%	3.8%	3.8%	3.5%	3.4%	3.6%	3.1%	3.3%	3.5%	3.3%	4.5%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt \$42375 mill. **Due in 5 Yrs** \$12886 mill.
LT Debt \$38637 mill. **LT Interest** \$1400 mill.

Leases, Uncapitalized Annual rentals \$119.6 mill.

Pfd Stock None

Common Stock 527,121,759 shs.

MARKET CAP: \$46.9 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
17020	16453	16380	15425	16196	15561	14919	16792	19640	18982	*20150*	*21500*	Revenues (\$mill)	*24300*
1634.0	1763.4	2073.6	1783.2	1923.8	2019.0	2200.1	2448.1	2307.2	2208.1	*2970*	*3210*	Net Profit (\$mill)	*3960*
37.8%	35.1%	26.8%	33.7%	5.8%	.7%	1.9%	4.6%	NMF	NMF	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
9.0%	11.0%	8.0%	8.0%	10.7%	12.7%	9.7%	7.8%	7.0%	7.0%	*7.0%*	*6.5%*	AFUDC % to Net Profit	*5.0%*
49.0%	49.8%	50.0%	51.5%	53.2%	56.1%	58.5%	58.3%	58.5%	58.2%	*58.0%*	*58.0%*	Long-Term Debt Ratio	*57.5%*
51.0%	50.2%	50.0%	48.5%	46.8%	43.9%	41.5%	41.7%	42.0%	42.0%	*42.0%*	*42.0%*	Common Equity Ratio	*42.5%*
33001	35633	34775	37707	40677	44759	49537	53734	57520	62837	*68900*	*70730*	Total Capital (\$mill)	*75900*
44117	46133	45639	50262	55099	60138	63902	66001	71283	76693	*78000*	*81250*	Net Plant (\$mill)	*87300*
6.3%	6.1%	7.2%	5.9%	5.9%	5.6%	5.6%	5.6%	4.0%	3.6%	*4.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	*10.0%*	*10.0%*	Return on Shr. Equity	*11.0%*
9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	*10.0%*	*10.0%*	Return on Com Equity	*11.0%*
3.8%	3.9%	5.5%	3.2%	3.5%	3.4%	3.8%	4.3%	2.9%	2.4%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
61%	60%	54%	67%	65%	67%	65%	61%	70%	63%	*63%*	*63%*	All Div'ds to Net Prof	*61%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	- -	+3.0	- -
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	NA	NA
Fixed Charge Cov. (%)	243	272	285

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	.5%	-.5%	*3.0%*
"Cash Flow"	5.0%	5.5%	*5.5%*
Earnings	5.0%	4.0%	*6.5%*
Dividends	5.0%	5.0%	*5.5%*
Book Value	3.5%	3.5%	*6.0%*

Cal-endar	QUARTERLY REVENUES (\$ mill.) E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	4281	3826	4623	4061	16792
2022	4593	4640	5526	4881	19640
2023	4690	4373	5342	4577	18982
2024	5026	*4500*	*5350*	*5274*	*20150*
2025	*5250*	*4850*	*5800*	*5600*	*21500*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.15	1.15	1.59	1.07	4.96
2022	1.22	1.20	1.62	1.05	5.09
2023	1.11	1.13	1.77	1.23	5.24
2024	1.27	*1.25*	*1.80*	*1.28*	*5.60*
2025	*1.50*	*1.40*	*1.80*	*1.30*	*6.00*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.70	.70	.70	.74	2.84
2021	.74	.74	.74	.78	3.00
2022	.78	.78	.78	.83	3.17
2023	.83	.83	.83	.88	3.37
2024	.88	.88			

BUSINESS: American Electric Power Company Inc. (AEP), through 10 operating utilities, serves 5.5 million customers in Arkansas, Kentucky, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, & West Virginia. Has a transmission subsidiary. Electric revenue breakdown: residential, 43%; commercial, 23%; industrial, 18%; wholesale, 10%; other, 6%. Sold commercial barge operation in '15. Generating sources not available. Fuel costs: 33% of revenues. '23 reported depreciation rates (utility): 2.6%-12.5%. Has approximately 16,700 employees. Interim Chief Executive Officer: Benjamin G.S. Fowke III. Incorporated: New York. Address: 1 Riverside Plaza, Columbus, Ohio 43215-2373. Telephone: 614-716-1000. Internet: www.aep.com.

American Electric Power got off to a solid start in 2024. First-quarter earnings per share came in at \$1.27, ahead of Wall Street's expectations due to a number of rate hikes, clean-energy investment growth, and power demand increases. Accordingly, management maintained its 2024 bottom-line outlook of \$5.53 to \$5.73 and a long-term annual profit growth target of 6%-7%. Our 2024 and 2025 earnings estimates are staying put as the company should continue to benefit from rate relief, increased investments in its transmission business, and volume growth. What's more, AEP is well positioned to take advantage of the elevated demand from artificial intelligence innovations and new data centers, which we will discuss more below.

AEP filed a proposal with Ohio regulators to require data center developers to buy a majority of electricity they need upfront. Indeed, new large data centers would be required to make a 10-year commitment to pay for a minimum of 90% of the energy requested before AEP builds and invests billions on transmission. The boost in power demand from artificial intelligence innovations and data centers is set to rise exponentially through 2030. Indeed, data centers are expected to double the power demand in the utility's Ohio region within the next five years.

The company agreed to sell its AEP OnSite Partners distributed resources business to Basalt Infrastructure Partners for \$315 million in cash. OnSite Partners sells distributed energy resources to commercial and industrial customers. The deal is expected to close in the third quarter of this year, and will provide AEP with support in its transmission investments as power demand soars.

Risk-adverse, income-oriented investors may want to take a closer look here. The dividend yield of this top-quality stock stands above the utility average. Too, AEP is committed to its target payout ratio of 60%-70%. So, the dividend should continue growing nicely. Also, intermediate- and long-term return prospects are solid in comparison to most of its peers. Meanwhile, the Timeliness rank has been upgraded one notch to 3 (Average) since our March review.

Zachary J. Hodgkinson June 7, 2024

(A) Diluted EPS. Excl. nonrec. gains (losses): '08, 40¢; '10, (7¢); '11, 89¢; '12, (38¢); '13, (14¢); '16, (\$2.99); '17, 26¢; '19, (20¢); gains (loss) from disc. ops.: '06, 2¢; '08, 3¢; '15, 58¢; '16, (1¢); '22, (58¢); '23, (34¢). Next earnings report due late July. (B) Div'ds paid early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder invest. plan avail. (C) Incl. intang. In '23: \$52.5 million (D) In mill. (E) Rev. may not sum due to rounding.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	55
Earnings Predictability	95

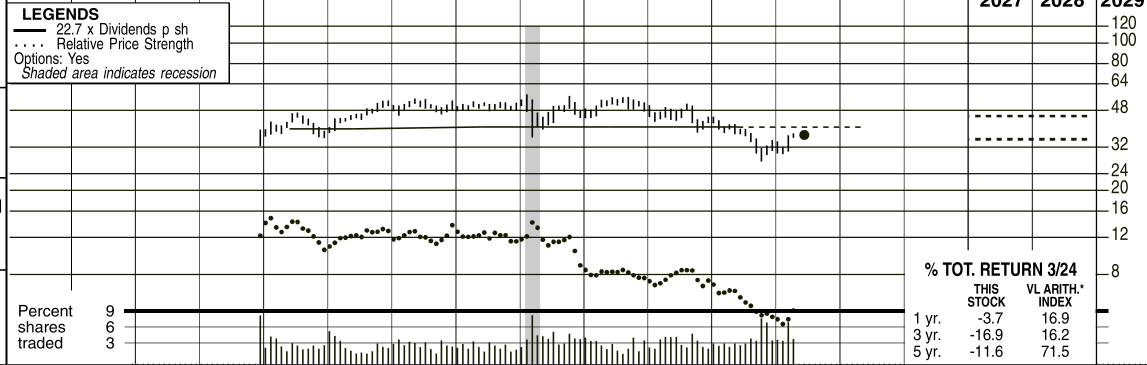
AVANGRID, INC. NYSE-AGR

RECENT PRICE **36.63** | P/E RATIO **16.3** (Trailing: 15.7 Median: NMF) | RELATIVE P/E RATIO **0.94** | DIV'D YLD **4.8%** | **VALUE LINE**

TIMELINESS – Suspended 3/22/24
SAFETY 2 Raised 5/10/24
TECHNICAL – Suspended 3/22/24
BETA .95 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	38.9	46.7	53.5	54.6	52.9	57.2	55.6	51.7	44.8	37.3	
Low:	32.4	35.4	37.4	45.2	47.4	35.6	44.0	37.6	27.5	29.7	

LEGENDS
— 22.7 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range
2027 | 2028 | 2029

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$23-$43	$33 (-10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+25%)	*9%*
Low	35	(-5%)	*4%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	146	166	142
to Sell	132	136	152
Hld's(000)	50434	51130	51016

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.7	16.9
3 yr.	-16.9	16.2
5 yr.	-11.6	71.5

Avangrid, Inc. was formed through a merger between Iberdrola USA, Inc. and UIL Holdings Corporation in December of 2015. Iberdrola S.A., a worldwide leader in the energy industry, owns 81.5% of Avangrid. The predecessor company was founded in 1852 and is headquartered in New Gloucester, Maine. It was incorportated in 1997 in New York under the name NGE Resources, Inc. Avangrid began trading on the NYSE on December 17, 2015.

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
--	14.14	19.48	19.30	20.96	20.51	20.45	18.04	20.49	21.48	*22.20*	*23.00*	Revenues per sh	*25.85*
--	3.44	4.74	4.49	4.89	5.41	5.22	4.64	5.14	5.08	*5.30*	*5.60*	"Cash Flow" per sh	*6.25*
--	1.05	1.98	1.67	1.92	2.17	2.02	2.18	2.32	2.09	*2.25*	*2.40*	Earnings per sh A	*2.70*
--	--	1.73	1.73	1.74	1.76	1.76	1.76	1.76	1.76	*1.76*	*1.76*	Div'd Decl'd per sh B ■	*1.76*
--	3.50	5.52	7.82	5.78	8.87	9.00	7.70	6.52	7.68	*7.50*	*7.60*	Cap'l Spending per sh	*8.00*
--	48.74	48.90	48.79	48.88	49.31	49.21	49.35	50.13	50.80	*51.25*	*51.90*	Book Value per sh C	*54.50*
--	308.86	308.99	309.01	309.01	309.01	309.08	386.57	386.63	386.77	*387.00*	*387.00*	Common Shs Outst'g D	*387.00*
--	33.5	20.5	27.3	26.1	23.1	23.6	23.2	19.6	17.5	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
--	1.69	1.08	1.37	1.41	1.23	1.21	1.25	1.13	.98	*Value Line*		Relative P/E Ratio	*.85*
--	--	4.3%	3.8%	3.5%	3.5%	3.7%	3.5%	3.9%	4.8%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*
4594.0	4367.0	6018.0	5963.0	6478.0	6338.0	6320.0	6974.0	7923.0	8309.0	*8600*	*8900*	Revenues ($mill)	*10000*
424.0	267.0	611.0	516.0	595.0	673.0	625.0	780.0	901.0	808.0	*870*	*930*	Net Profit ($mill)	*1050*
39.9%	11.3%	37.4%	32.4%	22.1%	17.0%	7.2%	6.2%	3.2%	7.0%	*7.0%*	*7.0%*	Income Tax Rate	*7.0%*
6.8%	12.7%	7.5%	12.4%	9.4%	15.0%	17.1%	15.5%	12.9%	17.9%	*18.0%*	*18.0%*	AFUDC % to Net Profit	*16.0%*
16.8%	23.1%	23.0%	25.6%	26.2%	30.6%	40.8%	29.3%	29.8%	33.7%	*36.5%*	*39.5%*	Long-Term Debt Ratio	*44.5%*
83.2%	76.9%	77.0%	74.4%	73.8%	69.4%	59.2%	70.7%	70.2%	66.3%	*63.5%*	*60.5%*	Common Equity Ratio	*55.5%*
14956	19583	19619	20273	20472	21953	25687	26998	27603	29632	*31375*	*33075*	Total Capital ($mill)	*38000*
17099	20711	21548	22669	23459	25218	26751	28866	30994	32857	*34575*	*36300*	Net Plant ($mill)	*41150*
3.7%	2.1%	3.8%	3.1%	3.5%	3.7%	3.0%	3.4%	3.8%	3.4%	*3.5%*	*3.5%*	Return on Total Cap'l	*3.5%*
3.4%	1.8%	4.0%	3.4%	3.9%	4.4%	4.1%	4.1%	4.6%	4.1%	*4.5%*	*4.5%*	Return on Shr. Equity	*5.0%*
3.4%	1.8%	4.0%	3.4%	3.9%	4.4%	4.1%	4.1%	4.6%	4.1%	*4.5%*	*4.5%*	Return on Com Equity E	*5.0%*
3.4%	1.8%	1.4%	NMF	.4%	.8%	.5%	.9%	1.1%	.6%	*1.0%*	*1.0%*	Retained to Com Eq	*2.0%*
--	--	66%	104%	90%	81%	87%	79%	76%	84%	*78%*	*73%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $12965 mill. **Due in 5 Yrs** $3579 mill.
LT Debt $9859 mill. **LT Interest** $409 mill.
Incl. $81 mill. finance leases.
(Total Interest coverage: 2.8x)
Leases, Uncapitalized Annual rentals $12 mill.

Pension Assets-12/23 $2159 mill. **Oblig.** $2500 mill.
Pfd Stock None

Common Stock 386,906,260 shs.
as of 4/23/24
MARKET CAP: $14.2 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (MWH)	+1.8	+.7	-3.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (MW)	NA	NA	NA
Peak Load, Summer (MW)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.1	+1.2	+.4
Fixed Charge Cov. (%)	300	247	203

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	--	--	*4.5%*
"Cash Flow"	--	1.0%	*4.0%*
Earnings	--	3.5%	*3.5%*
Dividends	--	0.5%	*Nil*
Book Value	--	0.5%	*1.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1966	1477	1598	1933	6974
2022	2133	1794	1838	2158	7923
2023	2466	1587	1974	2282	8309
2024	2417	*1733*	*2150*	*2300*	*8600*
2025	*2500*	*1800*	*2225*	*2375*	*8900*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.14	.35	.34	.44	2.18
2022	1.16	.46	.31	.39	2.32
2023	.64	.21	.27	.97	2.09
2024	.88	*.37*	*.40*	*.60*	*2.25*
2025	*.90*	*.40*	*.45*	*.65*	*2.40*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.44	.44	.44	.44	1.76
2021	.44	.44	.44	.44	1.76
2022	.44	.44	.44	.44	1.76
2023	.44	.44	.44	.44	1.76
2024	.44	.44			

BUSINESS: Avangrid, Inc. (formerly Iberdrola USA, Inc.), is a diversified energy and utility company that serves 2.3 million electric customers in New York, Connecticut, and Maine and 1.0 million gas customers in New York, Connecticut, Massachusetts & Maine. Has a nonregulated generating subsidiary focused on wind and solar power generation, with 9.3 GW of capacity and 1.3 GW under construction. Renewables segment accounted for about 22% of net profits for trailing 12 months. Power/fuel costs: 29% of rev. '23 reported depr. rate: 2.5%. Iberdrola owns 81.6% of stock. Employs about 8,000. Board Chair: Ignacio Sanchez Galan. CEO: Pedro Azagra Blazquez. Inc.: New York. Address: 180 Marsh Hill Road, Orange, CT 06477. Tel.: 207-629-1200. Web: www.avangrid.com.

Avangrid's parent company, Iberdrola S.A., has made a $34.25-per-share cash offer for the public float. The Spanish multinational power company already owns about 81.6% of Avangrid's common stock. The non-binding proposal to purchase the remaining stake was made to Avangrid's board of directors on March 6th. The company's board stated that it will review, evaluate, negotiate, and approve or disapprove of the offer based on the recommendations of its legal and financial advisers. Consummation of the proposed transaction is conditional upon the independent board's approval and a vote by minority shareholders.

We see very little potential of a competing third-party offer coming for the whole of the company. This is because of Iberdrola's majority stake and the additional regulatory constraints involved in purchasing a utility holding company such as Avangrid. Approval from the utility regulatory agencies of each of the four states it does business in plus the green light from a host of federal agencies would be necessary. Following the parent company's proposal, Avangrid's stock price has managed to remain above the buyout price, trading within a tight range of $35.50-$37.00 per share. We think the recent price mainly reflects the presumption that the independent board of directors will be able to negotiate a better deal. Ironically, the last major buyout proposed for a utility holding company that can be used as a benchmark for valuation was Avangrid's long-standing offer to purchase PNM Resources. (The merger was never able to gain regulatory approval.) Using a comparable valuation on operating profits to the PNM deal, while taking into account the varied debt levels, would imply about a $39-per-share price for Avangrid. Hence, there is a bit of room for an improved offer from Iberdrola.

Most existing shareholders should exit their positions in the open market. This can be a lengthy process and the offer is nonbinding, so there's no guarantee a deal will get done. On the other hand, there may be $1-$3 per share of upside and a few more dividends to collect. The Timeliness rank for this equity is suspended due to the buyout proposal.

Anthony J. Glennon *May 10, 2024*

(A) Diluted egs. Excl. nonrecur. gain/(loss): '16, 6¢; '17, (44¢); '19, 9¢; '20, (14¢); '21, (21¢); '22, (5¢); '23, (6¢); 1Q '24, 3¢. Qtly. EPS may not sum to full-year due to rounding. Next egs. report due late July. (B) Div'ds paid in early Jan., Apr., July and Oct. ■ Div'd reinvestment plan available. (C) Incl. intangibles. In '23: $6,214 mill., $16.07/sh. (D) In mill. (E) Rate base: Net original cost. Rate allowed on com. eq. in NY in '23: 9.2%; in CT in '23: 8.63% elec.; in CT in '19: 9.3% gas; in ME in '22: 9.25%. Regulatory Climate: Below Average.

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	35
Earnings Predictability	80

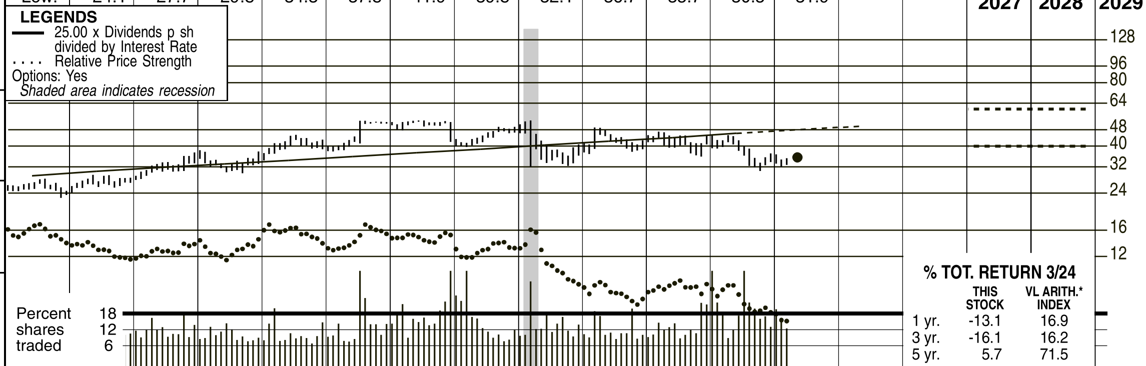
AVISTA CORP. NYSE-AVA

RECENT PRICE	P/E RATIO	(Trailing / Median)	RELATIVE P/E RATIO	DIV'D YLD
35.44	14.6	(Trailing: 15.9) (Median: 19.0)	0.79	5.4%

VALUE LINE

TIMELINESS 3 Lowered 2/9/24
SAFETY 3 Lowered 1/19/24
TECHNICAL 5 Lowered 4/19/24
BETA .95 (1.00 = Market)

High:	29.3	37.4	38.3	45.2	52.8	52.9	49.5	53.0	49.1	46.9	45.3	36.6
Low:	24.1	27.7	29.8	34.3	37.8	41.9	39.8	32.1	36.7	35.7	30.5	31.9



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$28-$55	$42 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+70%)	*18%*
Low	40	(+15%)	*9%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	109	141	146
to Sell	133	115	121
Hld's(000)	67636	65779	66647

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-13.1	16.9
3 yr.	-16.1	16.2
5 yr.	5.7	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
30.77	27.58	27.29	27.73	25.86	26.94	23.66	23.83	22.47	22.08	21.27	20.03	19.09	20.13	22.82	22.43	*21.50*	*22.00*	Revenues per sh	*23.50*
3.98	4.45	3.62	3.78	3.70	4.36	4.36	4.92	5.30	4.87	5.01	6.06	5.16	5.34	5.47	5.63	*5.85*	*6.15*	"Cash Flow" per sh	*6.50*
1.36	1.58	1.65	1.72	1.32	1.85	1.84	1.89	2.15	1.95	2.07	2.97	1.90	2.10	2.12	2.24	*2.40*	*2.60*	Earnings per sh A	*2.90*
.69	.81	1.00	1.10	1.16	1.22	1.27	1.32	1.37	1.43	1.49	1.55	1.62	1.69	1.76	1.84	*1.92*	*2.00*	Div'd Decl'd per sh B ■	*2.25*
4.09	3.86	3.64	4.20	4.61	5.05	5.47	6.46	6.34	6.30	6.46	6.59	5.84	6.15	6.03	6.39	*6.95*	*7.15*	Cap'l Spending per sh	*7.50*
18.30	19.17	19.71	20.30	21.06	21.61	23.84	24.53	25.69	26.41	26.99	28.87	29.31	30.14	31.15	31.83	*32.85*	*33.50*	Book Value per sh C	*35.00*
54.49	54.84	57.12	58.42	59.81	60.08	62.24	62.31	64.19	65.49	65.69	67.18	69.24	71.50	74.95	78.08	*79.00*	*81.00*	Common Shs Outst'g D	*85.00*
15.0	11.4	12.7	14.1	19.3	14.6	17.3	17.6	18.8	23.4	24.5	15.0	21.2	20.2	20.0	17.1	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
.90	.76	.81	.88	1.23	.82	.91	.89	.99	1.18	1.32	.80	1.09	1.09	1.16	.95	*Value Line*		Relative P/E Ratio	*.95*
3.4%	4.5%	4.8%	4.5%	4.6%	4.5%	4.0%	4.0%	3.4%	3.1%	2.9%	3.5%	4.0%	4.0%	4.2%	4.8%	*estimates*		Avg Ann'l Div'd Yield	*4.5%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $2621.0 mill. **Due in 5 Yrs** $40.0 mill.
LT Debt $2606.4 mill. **LT Interest** $150.0 mill.
Incl. $51.5 mill. debt to affiliated trusts; $39.9 mill. finance leases.
(LT interest earned: 2.1x)
Leases, Uncapitalized Annual rentals $10.4 mill.
Pension Assets-12/23 $589.3 mill. **Oblig** $585.3 mill.
Pfd Stock None

Common Stock 78,161,596 shs.
as of 1/31/24
MARKET CAP: $2.8 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
1472.6	1484.8	1442.5	1445.9	1396.9	1345.6	1321.9	1438.9	1710.2	1751.6	*1700*	*1780*	Revenues ($mill)	*1995*
114.2	118.1	137.2	126.1	136.4	197.0	129.5	147.3	155.2	171.2	*190*	*210*	Net Profit ($mill)	*245*
37.6%	36.3%	36.3%	36.5%	16.0%	13.8%	5.2%	7.5%	7.5%	NMF	*15.0%*	*15.0%*	Income Tax Rate	*15.0%*
11.1%	10.1%	8.1%	7.9%	7.7%	5.5%	8.5%	7.5%	2.4%	2.1%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
51.0%	50.0%	51.2%	47.2%	50.5%	49.4%	50.4%	47.5%	50.4%	51.2%	*51.0%*	*51.0%*	Long-Term Debt Ratio	*50.5%*
49.0%	50.0%	48.8%	52.8%	49.5%	50.6%	49.6%	52.5%	49.6%	48.8%	*49.0%*	*49.0%*	Common Equity Ratio	*49.5%*
3027.3	3060.3	3379.0	3273.2	3580.3	3834.6	4089.8	4104.7	4709.7	5091.3	*5300*	*5500*	Total Capital ($mill)	*6000*
3620.0	3898.6	4147.5	4398.8	4648.9	4797.0	4991.6	5225.5	5444.7	5700.1	*5950*	*6250*	Net Plant ($mill)	*7000*
4.9%	5.1%	5.3%	5.0%	4.8%	6.2%	4.2%	4.7%	4.6%	4.8%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
7.7%	7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	6.9%	*7.5%*	*7.5%*	Return on Shr. Equity	*8.5%*
7.7%	7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	6.9%	*7.5%*	*7.5%*	Return on Com Equity E	*8.5%*
2.4%	2.3%	3.0%	1.9%	2.2%	4.9%	.9%	1.4%	1.1%	1.2%	*1.5%*	*2.0%*	Retained to Com Eq	*2.0%*
69%	70%	64%	73%	72%	52%	85%	80%	83%	82%	*80%*	*77%*	All Div'ds to Net Prof	*77%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+4.3	+3.1	-4.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	9.98	9.99	10.58
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1889	1860	1809
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.4	-1.0	+1.4
Fixed Charge Cov. (%)	216	175	200

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-2.0%	- -	*2.0%*
"Cash Flow"	3.5%	1.5%	*3.5%*
Earnings	3.0%	1.0%	*6.0%*
Dividends	4.5%	4.5%	*4.5%*
Book Value	4.0%	3.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	412.9	298.2	296.0	431.8	1438.9
2022	462.7	378.6	359.4	509.5	1710.2
2023	474.6	379.9	379.6	517.5	1751.6
2024	*470*	*370*	*400*	*460*	*1700*
2025	*490*	*380*	*410*	*500*	*1780*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.98	.20	.20	.71	2.10
2022	.99	.16	d.08	1.05	2.12
2023	.73	.23	.19	1.08	2.24
2024	*.95*	*.20*	*.20*	*1.05*	*2.40*
2025	*1.00*	*.25*	*.25*	*1.10*	*2.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.405	.405	.405	.405	1.62
2021	.4225	.4225	.4225	.4225	1.69
2022	.44	.44	.44	.44	1.76
2023	.46	.46	.46	.46	1.84
2024	.475				

BUSINESS: Avista Corporation (formerly The Washington Water Power Company) supplies electricity & gas in eastern Washington & northern Idaho. Supplies electricity to part of Alaska & gas to part of Oregon. Customers: 416,000 electric, 381,000 gas. Acq'd Alaska Electric Light and Power 7/14. Sold Ecova energy-management sub. 6/14. Electric rev. breakdown: residential, 36%; commercial, 29%; industrial, 9%; wholesale, 21%; other, 5%. Generating sources: gas & coal, 41%; hydro, 25%; purch., 42%. Fuel costs: 35% of revs. '23 reported depr. rate (Avista Utilities): 3.5%. Has 1,858 employees. Chairman: Scott L. Morris. Pres. & CEO: Dennis Vermillion. Inc.: WA. Address: 1411 E. Mission Ave., Spokane, WA 99202-2600. Tel.: 509-489-0500. Internet: www.avistacorp.com.

Avista Utilities, a subsidiary of Avista Corporation, has pending electric and natural gas rate cases. In January, the utility filed multiyear electric and natural gas rate cases with the Washington Utilities and Transportation Commission (WUTC). These proposed adjustments aim to increase annual base electric revenues by $77.1 million (13.0%) in December 2024 and $53.7 million (11.7%) in December 2025. For natural gas, the proposed hikes are $17.3 million (13.6%) in December 2024 and $4.6 million (3.2%) in December 2025. These rate increases are based on a 10.4% return on equity with a common equity ratio of 48.5% and a rate of return on a rate base of 7.61%. Upon approval, the new rates are anticipated to take effect in December 2024 and 2025, remaining intact until 2026. The company is also seeking changes to the Energy Recovery Mechanism (ERM), intending to shift to a 95% customer and 5% company sharing of power supply costs above or below the authorized level. The decision period by WUTC for the filing is usually 11 months.

Share profits this year and next will likely advance at a mid- to high-single-digit pace. Although Avista anticipates some weakness in the bottom line due to the adverse effects of the ERM, the overall net outlook for the year and beyond appears promising. This optimism mostly stems from the continued support of results by the improved cost recovery thanks to the 2023 general rate cases. Nevertheless, power supply costs and interest rates are still on the higher side. All told, we remain cautiously optimistic.

Ongoing capital investments should pave the way for future rate cases. Avista plans to prioritize investments aimed at enhancing and expanding its infrastructure. It also remains committed to advancing clean energy goals. To mention briefly, during rate case negotiations, utilities usually present their ongoing or completed capital projects as evidence for the need for increased revenue to cover costs. All told, these efforts should justify upcoming rate increases.

Shares of Avista have good capital appreciation potential over the next 18 months. What's more, the dividend yield (5.4%) is higher than the sector's average.

Emma Jalees *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. gain (loss): '14, 9¢; '17, (16¢); gains on discont. ops.: '14, $1.17; '15, 8¢. EPS may not sum due to rounding. Next earnings report due May 1st. (B) Div'ds paid in mid-Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred chgs. In '23: $973.8 mill., $12.47/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in WA in '21: 9.4%; in ID in '21: 9.4%; in OR in '21: 9.4%; earned on avg. com. eq., '22: 7.1%. Regulatory Climate: WA, Below Avg.; ID, Above Avg.

Company's Financial Strength	B+
Stock's Price Stability	70
Price Growth Persistence	30
Earnings Predictability	70

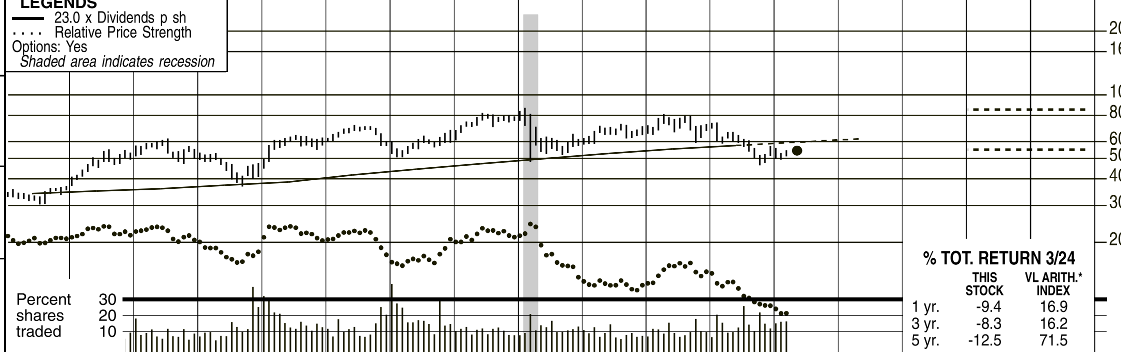
BLACK HILLS CORP. NYSE-BKH

RECENT PRICE 54.50 | P/E RATIO 14.2 (Trailing: 13.9 Median: 18.0) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.8% | VALUE LINE

TIMELINESS 3 Raised 12/1/23
SAFETY 3 Lowered 1/19/24
TECHNICAL 4 Lowered 3/22/24
BETA 1.05 (1.00 = Market)

High:	55.1	62.1	53.4	64.6	72.0	68.2	82.0	87.1	72.8	80.9	74.0	56.1
Low:	36.9	47.1	36.8	44.7	57.0	50.5	60.8	48.1	58.2	59.1	46.4	49.3

LEGENDS
— 23.0 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029
200
160
100
80
60
50
40
30
20

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$43-$85 $64 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+55%)	15%
Low	55	(Nil)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	164	162	200
to Sell	136	148	147
Hld's(000)	58479	58260	59277

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-9.4	16.9
3 yr.	-8.3	16.2
5 yr.	-12.5	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
26.03	32.58	33.29	28.96	26.55	28.67	31.20	25.48	29.47	31.38	29.24	28.22	27.02	30.11	38.60	34.18	*35.70*	*36.10*	Revenues per sh	*38.95*
2.95	5.41	4.88	4.01	5.59	5.93	6.25	5.67	6.28	7.15	6.61	7.02	7.41	7.41	7.85	7.76	*7.95*	*8.30*	"Cash Flow" per sh	*9.65*
.18	2.32	1.66	1.01	1.97	2.61	2.89	2.83	2.63	3.38	3.47	3.53	3.73	3.74	3.97	3.91	*3.90*	*4.10*	Earnings per sh A	*4.75*
1.40	1.42	1.44	1.46	1.48	1.52	1.56	1.62	1.68	1.81	1.93	2.05	2.17	2.29	2.41	2.50	*2.60*	*2.70*	Div'd Decl'd per sh B ■	*3.00*
8.51	8.90	12.04	10.03	7.90	7.97	8.92	8.90	8.89	6.09	7.62	13.31	12.22	10.47	9.14	8.15	*11.70*	*11.10*	Cap'l Spending per sh	*11.25*
27.19	27.84	28.02	27.53	27.88	29.39	30.80	28.63	30.25	31.92	36.36	38.42	40.79	43.05	45.31	47.15	*48.80*	*50.35*	Book Value per sh C	*55.75*
38.64	38.97	39.27	43.92	44.21	44.50	44.67	51.19	53.38	53.54	60.00	61.48	62.79	64.74	66.10	68.20	*70.00*	*72.00*	Common Shs Outst'g D	*75.00*
NMF	9.9	18.1	31.1	17.1	18.2	19.0	16.1	22.3	19.5	16.8	21.2	17.0	17.7	18.1	15.2	*Bold figures are*		Avg Ann'l P/E Ratio	*14.5*
NMF	.66	1.15	1.95	1.09	1.02	1.00	.81	1.17	.98	.91	1.13	.87	.96	1.05	.85	*Value Line*		Relative P/E Ratio	*.80*
4.2%	6.2%	4.8%	4.6%	4.4%	3.2%	2.8%	3.5%	2.9%	2.7%	3.3%	2.7%	3.4%	3.5%	3.4%	4.2%	*estimates*		Avg Ann'l Div'd Yield	*4.4%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $4401.2 mill. **Due in 5 Yrs** $1660.0 mill.
LT Debt $3801.2 mill. **LT Interest** $170.0 mill.
(Total Interest Coverage: 2.6x)
Leases, Uncapitalized Annual rentals $2.2 mill.

Pension Assets-12/22 $308.6 mill.
Oblig $348.1 mill.
Pfd Stock None

Common Stock 68,196,551 shs.
as of 1/31/24

MARKET CAP: $3.7 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
1393.6	1304.6	1573.0	1680.3	1754.3	1734.9	1696.9	1949.1	2551.8	2331.3	*2500*	*2600*	Revenues ($mill)	*2920*
128.8	128.3	140.3	186.5	192.5	214.5	232.9	236.7	258.4	262.2	*270*	*290*	Net Profit ($mill)	*355*
33.7%	35.8%	25.1%	28.7%	19.2%	13.0%	12.2%	2.8%	8.5%	8.5%	*8.5%*	*8.5%*	Income Tax Rate	*8.5%*
2.4%	2.7%	5.3%	2.7%	1.4%	3.3%	2.5%	2.0%	2.4%	2.4%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
47.9%	56.0%	66.5%	64.5%	57.5%	57.1%	57.9%	59.7%	54.6%	54.2%	*54.5%*	*55.0%*	Long-Term Debt Ratio	*56.0%*
52.1%	44.0%	33.5%	35.5%	42.5%	42.9%	42.1%	40.3%	45.4%	45.8%	*45.5%*	*45.0%*	Common Equity Ratio	*44.0%*
2643.6	3332.7	4825.8	4818.4	5132.4	5502.2	6089.5	6914.0	6602.3	7016.5	*7530*	*8030*	Total Capital ($mill)	*9525*
3239.4	3259.1	4469.0	4541.4	4854.9	5503.2	6019.7	6449.2	6797.9	7119.3	*7650*	*8150*	Net Plant ($mill)	*9775*
6.1%	4.9%	4.0%	5.2%	5.0%	4.9%	5.0%	4.5%	5.1%	4.9%	*4.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	*8.0%*	*8.0%*	Return on Com Equity E	*8.5%*
4.3%	3.8%	3.3%	5.3%	3.9%	3.8%	3.8%	3.3%	3.4%	2.9%	*2.5%*	*3.0%*	Retained to Com Eq	*3.0%*
54%	57%	62%	52%	55%	58%	58%	61%	61%	64%	*67%*	*66%*	All Div'ds to Net Prof	*63%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+1.5	+3.4	+1.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Yearend (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1078	1107	1101
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+.9
Fixed Charge Cov. (%)	259	281	254

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	2.5%	*2.5%*
"Cash Flow"	4.0%	3.0%	*4.0%*
Earnings	7.5%	4.0%	*3.5%*
Dividends	5.0%	6.0%	*4.0%*
Book Value	5.0%	6.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	633.4	372.6	380.6	562.5	1949.1
2022	823.6	474.2	462.6	791.4	2551.8
2023	921.2	411.3	407.1	591.7	2331.3
2024	*940*	*450*	*460*	*650*	*2500*
2025	*975*	*470*	*480*	*675*	*2600*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.54	.40	.70	1.11	3.74
2022	1.82	.52	.54	1.11	3.97
2023	1.73	.35	.67	1.17	3.91
2024	*1.70*	*.40*	*.58*	*1.22*	*3.90*
2025	*1.75*	*.40*	*.65*	*1.30*	*4.10*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.535	.535	.535	.565	2.17
2021	.565	.565	.565	.595	2.29
2022	.595	.595	.595	.625	2.41
2023	.625	.625	.625	.625	2.50
2024	.65				

BUSINESS: Black Hills Corporation is a holding company for Black Hills Energy, which serves 222,340 electric customers in CO, SD, WY and MT, and 1.12 million gas customers in NE, IA, KS, CO, WY, and AR. Has coal mining sub. Acq'd utility ops. from Aquila 7/08; SourceGas 2/16. Discontinued gas marketing in '11; gas & oil E&P in '17. Electric rev. breakdown: residential, 34%; commercial, 39%; industrial, 24%; other, 3%. Generating sources: coal, 35%; gas, 26%; wind, 9%; purchased, 30%. Fuel costs: 38% of revs. '23 deprec. rate: 2.9%-3.5%. Has 2,874 employees. Chairman: Steven R. Mills. President & CEO: Linden R. Evans. Inc.: SD. Address: 7001 Mount Rushmore Rd., P.O. Box 1400, Rapid City, SD 57709-1400. Telephone: 605-721-1700. Internet: www.blackhillscorp.com.

Black Hills will likely post flat per-share profits this year. With the fourth-quarter financial release, management provided bottom-line targets for the year ahead. The company expects to earn $3.80-$4.00 a share in 2024. This reflects a 4% increase at the midpoint from 2023's initial in-house targeted range of $3.65-$3.85 a share. Ultimately Black Hills earned $0.16 above plan last year ($3.91 versus $3.75 at the midpoint) as a result of some one-off, non-operating items that aren't expected to repeat again.

Share dilution and regulatory lag are problematic for earnings-per-share growth. We're actually forecasting a rise in net profits this year, but because the cost of borrowing has gone up so much in recent years, it's become increasingly difficult for regulated utilities to sustain their share-earnings growth rates. On the one hand, there's no lack of capital investment projects to go after, but the payoff for company's such as Black Hills is not what it was previously. Because most utilities, including this equity, are down significantly from their highs of a few years ago, they are receiving less funds and suffering more dilution when floating equity to keep the balance sheet viable. Meanwhile, regulators are looking backwards to what borrowing costs were over the past number of years and are in turn setting authorized return on equity (ROE) levels that aren't reflective of today's market. Seeing the reality of that situation, BKH management lowered its long-term expected growth rate for earnings per share, to 4%-6% from 5%-7%, last year.

The company is filing for rate relief in key service areas. Black Hills received incremental revenue increases through the regulatory process last year. They secured an additional $13.9 million annually from the Wyoming gas jurisdiction in May. They also have a $20.2 million settlement agreement in place for Colorado gas, that's expected to gain final approval this quarter. A $44 million Arkansas gas request has been submitted and BKH is preparing to file rate cases for Iowa gas and Colorado electric shortly.

The main draw here for long-term investors is reliable dividend growth and an above-average yield.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. gains/(losses): '15, ($3.54); '16, ($1.26); '17, 14¢; '18, $1.31; '19, (25¢); '20, (8¢); discont. ops.: '08, $4.12; '09, 7¢; '11, 23¢; '12, (16¢); '17, (31¢); '18, (12¢). Qtly. EPS may not sum to full year due to rounding. Next egs. report due early May. (B) Div'ds paid in early March, June, Sept., and Dec. ■ Div'd reinv. plan avail. (C) Incl. deferred chgs. and intagibles in '23: $23.64/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in SD in '15: none specified; in CO in '17: 9.37%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	35
Earnings Predictability	100

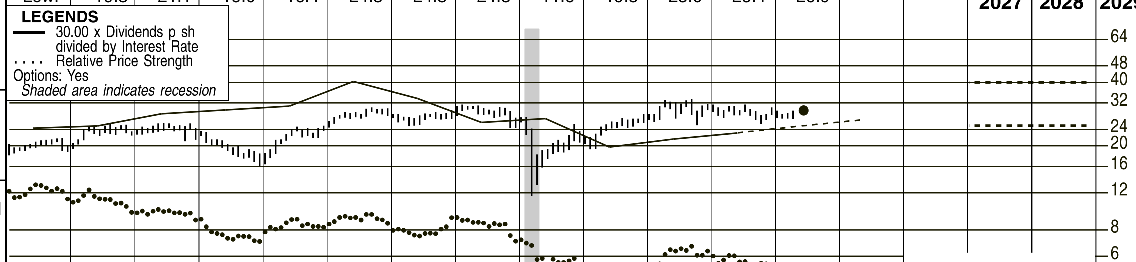
CENTERPOINT EN'RGY NYSE-CNP

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
29.51	20.4	(Trailing: 20.8 Median: 19.0)	1.14	2.7%	VALUE LINE

TIMELINESS 3 Lowered 5/24/24
SAFETY 3 Lowered 12/18/15
TECHNICAL 3 Raised 6/7/24
BETA 1.15 (1.00 = Market)

High:	25.7	25.8	23.7	25.0	30.5	29.6	31.4	27.5	28.4	33.5	31.5	30.4
Low:	19.3	21.1	16.0	16.4	24.5	24.8	24.3	11.6	19.3	25.0	25.4	26.9

Target Price Range 2027 | 2028 | 2029



18-Month Target Price Range

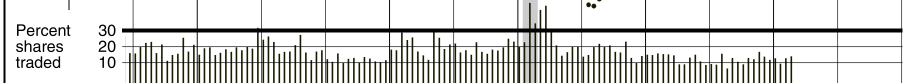
Low-High	Midpoint (% to Mid)
$26-$37	$32 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+35%)	10%
Low	25	(-15%)	-1%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	257	258	300
to Sell	272	270	251
Hld's(000)	562002	579775	591989



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.7	11.5
3 yr.	28.5	5.5
5 yr.	8.0	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
32.71	21.14	20.69	19.83	17.43	18.90	21.51	17.18	17.48	22.30	21.13	24.49	13.45	13.28	14.81	13.78	**13.75**	**14.20**	Revenues per sh	**17.00**
3.42	2.94	3.14	3.43	3.89	3.54	3.85	3.40	3.68	4.03	3.24	4.12	3.46	3.00	3.65	3.67	**3.80**	**4.00**	"Cash Flow" per sh	**4.50**
1.30	1.01	1.07	1.27	1.35	1.24	1.42	1.08	1.00	1.57	.74	1.49	1.29	.94	1.59	1.37	**1.45**	**1.55**	Earnings per sh A	**1.90**
.73	.76	.78	.79	.81	.83	.95	.99	1.03	1.35	1.12	.86	.90	.66	.72	.77	**.83**	**.89**	Div'd Decl'd per sh B ■	**1.01**
2.95	2.96	3.55	3.06	2.84	3.00	3.20	3.68	3.28	3.31	3.29	4.99	4.71	5.03	7.02	6.97	**6.85**	**5.95**	Cap'l Spending per sh	**6.50**
5.89	6.74	7.53	9.91	10.06	10.09	10.60	8.05	8.03	10.88	12.53	13.10	10.78	13.70	14.68	15.31	**16.35**	**17.10**	Book Value per sh C	**20.00**
346.09	391.75	424.70	426.03	427.44	429.00	429.00	430.00	430.68	431.04	501.20	502.24	551.36	628.92	629.54	631.23	**640.00**	**641.00**	Common Shs Outst'g D	**645.00**
11.3	11.8	13.8	14.6	14.8	18.7	17.0	18.1	21.9	17.9	37.0	19.5	15.9	26.1	18.7	21.1	*Bold figures are*	*Value Line estimates*	Avg Ann'l P/E Ratio	**18.0**
.68	.79	.88	.92	.94	1.05	.89	.91	1.15	.90	2.00	1.04	.82	1.41	1.08	1.18			Relative P/E Ratio	**1.00**
5.0%	6.4%	5.3%	4.3%	4.0%	3.6%	3.9%	5.1%	4.7%	4.8%	4.1%	3.0%	4.4%	2.7%	2.4%	2.7%			Avg Ann'l Div'd Yield	**3.1%**
						9226.0	7386.0	7528.0	9614.0	10589	12301	7418.0	8352.0	9321.0	8696.0	**8800**	**9100**	Revenues ($mill)	**11000**
						611.0	465.0	432.0	679.0	368.0	871.0	863.0	668.0	1057.0	917.0	**980**	**1055**	Net Profit ($mill)	**1285**
						31.0%	35.1%	37.0%	36.1%	28.4%	14.9%	13.4%	14.1%	25.4%	15.6%	**16.0%**	**16.0%**	Income Tax Rate	**16.0%**
						4.1%	4.7%	3.5%	2.9%	5.4%	6.7%	6.0%	9.3%	9.3%	5.0%	**6.0%**	**6.0%**	AFUDC % to Net Profit	**5.0%**
						63.8%	69.5%	68.5%	63.6%	51.9%	63.0%	58.0%	62.3%	59.6%	64.5%	**63.5%**	**62.5%**	Long-Term Debt Ratio	**59.0%**
						36.2%	30.5%	31.5%	36.4%	37.5%	29.1%	29.9%	34.5%	37.1%	35.5%	**36.5%**	**37.5%**	Common Equity Ratio	**41.0%**
						12557	11362	10992	12883	16740	22603	19869	24973	24878	27226	**28550**	**29175**	Total Capital ($mill)	**31300**
						10502	11537	12307	13057	14044	20945	22362	23484	27143	29853	**32750**	**35000**	Net Plant ($mill)	**41000**
						6.7%	6.1%	5.8%	6.8%	3.4%	5.1%	5.6%	3.8%	5.3%	4.7%	**4.5%**	**5.0%**	Return on Total Cap'l	**5.0%**
						13.4%	13.4%	12.5%	14.5%	4.6%	10.4%	10.3%	7.1%	10.5%	9.5%	**9.5%**	**9.5%**	Return on Shr. Equity	**10.0%**
						13.4%	13.4%	12.5%	14.5%	5.3%	11.5%	11.6%	6.7%	10.9%	9.5%	**9.0%**	**9.0%**	Return on Com Equity E	**9.5%**
						4.5%	1.1%	NMF	4.7%	NMF	2.7%	5.0%	2.2%	6.1%	4.5%	**4.0%**	**4.0%**	Retained to Com Eq	**4.5%**
						67%	92%	103%	68%	NMF	80%	66%	72%	46%	53%	**54%**	**54%**	All Div'ds to Net Prof	**51%**

CAPITAL STRUCTURE as of 3/31/24
Total Debt $18295 mill. **Due in 5 Yrs** $7300 mill.
LT Debt $18117 mill. **LT Interest** $800 mill.
Incl. $320 mill. securitized transition & system restoration bonds.
(LT interest coverage: 2.5x)
Leases, Uncapitalized Annual rentals $4 mill.
Pension Assets-12/23 $1204 mill. **Oblig** $1548 mill.
Pfd Stock None
Common Stock 639,724,143 shs.
as of 4/22/24
MARKET CAP: $18.9 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (GWH)	+1.8	+2.0	+3.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+2.5	+2.0	+2.0%
Fixed Charge Cov. (%)	135	252	251

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-3.0%	-7.0%	*3.5%*
"Cash Flow"	-.5%	-1.0%	*4.5%*
Earnings	- -	3.5%	*6.5%*
Dividends	-1.0%	-9.5%	*6.0%*
Book Value	4.0%	7.0%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2021	2547	1742	1749	2314	8352
2022	2763	1944	1903	2711	9321
2023	2779	1875	1860	2182	8696
2024	2620	***1900***	***1950***	***2330***	***8800***
2025	***2250***	***2250***	***2300***	***2300***	***9100***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2021	.41	.29	.21	.03	.94
2022	.82	.28	.30	.19	1.59
2023	.49	.17	.40	.30	1.37
2024	.55	***.20***	***.45***	***.25***	***1.45***
2025	***.50***	***.25***	***.50***	***.30***	***1.55***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.29	.15	.15	.15	.74
2021	.16	.16	.16	.17	.65
2022	.17	.17	.18	.18	.70
2023	.18	.19	.19	.20	.76
2024	.20	.20			

BUSINESS: CenterPoint Energy, Inc. is a holding company for Houston Electric, which serves over 2.76 million customers in Houston and environs. Indiana Electric, which serves approximately 152,000 customers, and gas utilities with 4.31 million customers in Texas, Minnesota, Louisiana, Mississippi, Indiana, and Ohio. Acquired Vectren 2/19. Sold nonutility operations in '20. Sold its stake in Energy Transfer LP in '22 and '23. Electric revenue breakdown not available. Fuel costs: 25% of total revenues. Has 8,827 employees. Chairman: Martin H. Nesbitt. President & Chief executive officer: Jason P. Wells. Incorporated: Texas. Address: 1111 Louisiana, P.O. Box 4567, Houston, Texas 77210-4567. Telephone: 713-207-1111. Internet: www.centerpointenergy.com.

CenterPoint Energy registered mixed first-quarter results. The top line fell 6% year over year, to $2.6 billion, primarily due to soft utility revenues, particularly in natural gas. However, the bottom line increased 12%, to $0.55 per share, driven by rate recovery, favorable weather, and improved usage metrics.

The utility appears to be progressing as planned with its previously announced gas asset sales. CenterPoint filed approval applications with the regulator in April regarding the transaction involving the Louisiana and Mississippi Gas local distribution companies (LDCs). The divestiture is projected to yield approximately $1 billion in after-cash proceeds and is expected to conclude in the first quarter of 2025. The decision to sell these LDCs reflects the company's strategic focus on jurisdictions where it maintains a notable presence in electric and gas utilities. After the sale, CenterPoint estimates its utility mix to be 66% electric and 34% gas.

We look for near-term share earnings to proceed at a mid-single-digit pace. Benefits from rate relief and new customer wins should support the bottom line. Also, operations and maintenance cost controls have been ongoing, aimed at 1% to 2% annual cost reductions. All things considered, we expect 2024 and 2025 earnings per share to clock in at about $1.45 and $1.55, respectively.

CenterPoint has developed a comprehensive plan to enhance the resilience of the electric grid in Texas. The proposal includes upgrading transmission infrastructures, modernizing old transmission lines to meet current standards, and elevating substations to reduce flood risks. We believe this initiative represents a valuable capital investment, especially in light of recent power outages and restoration efforts in the region. The company anticipates making capital investments in the range of $2.2 billion to $2.7 billion through 2027.

Shares of CenterPoint have below average capital gains prospects over the next 18 months and the 2027-2029 time frame. The dividend yield is low for a utility, as well. Consequently, income-oriented investors may find better selections in the sector.

Emma Jalees *June 7, 2024*

(A) GAAP Dil. EPS 2022 & onwards. Excl. nonrecur. gains (losses): '11, $1.89; '12, (38¢); '13, (52¢); '15, ($2.69); '17, $2.56; '20, ($2.74); gain (loss) on disc. ops.: '20, (34¢); '21, $1.34. Next egs. report due late July. **(B)** Div'ds histor. paid in early Mar., June, Sept. & Dec. 5 declarations in '17 & '20, 3 in '19. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '23: $6.59/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. (elec.) in '20: 9.4%; (gas): 9.45%-11.25%; earned on avg. com. eq., '22: 8.27%. Regulatory Climate: TX, Avg.; IN, Above Avg.

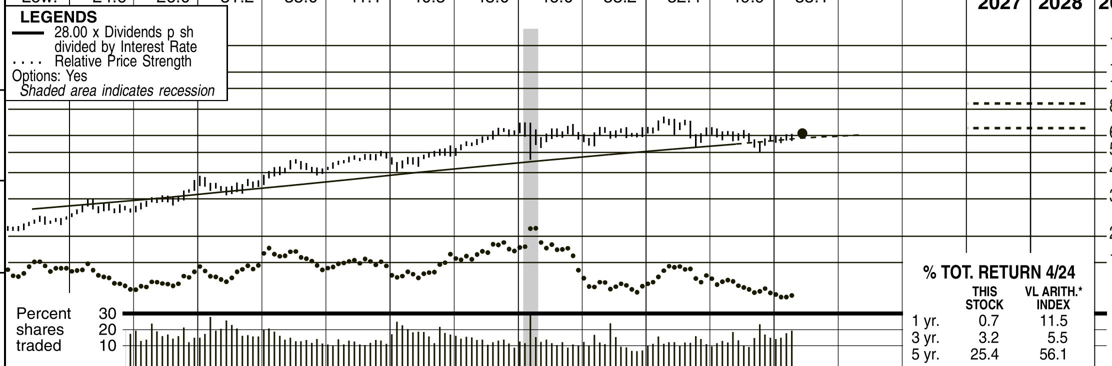
Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	40
Earnings Predictability	55

CMS ENERGY CORP. NYSE-CMS

RECENT PRICE 61.43 | P/E RATIO 18.6 (Trailing: 18.7; Median: 21.0) | RELATIVE P/E RATIO 1.04 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 4 Lowered 5/10/24
SAFETY 2 Raised 3/8/24
TECHNICAL 3 Raised 6/7/24
BETA .85 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	30.0	36.9	38.7	46.3	50.8	53.8	65.3	69.2	65.8	73.8	65.7	63.7
Low:	24.6	26.0	31.2	35.0	41.1	40.5	48.0	46.0	53.2	52.4	49.9	55.1



Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range
Low-High $53-$79 | Midpoint (% to Mid) $66 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+40%)	*12%*
Low	65	(+5%)	*5%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	297	272	293
to Sell	262	309	311
Hld's(000)	284222	280935	286313

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	0.7	11.5
3 yr.	3.2	5.5
5 yr.	25.4	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
30.13	27.23	25.77	25.59	23.90	24.68	26.09	23.29	22.92	23.37	24.25	24.11	23.12	25.29	29.51	25.35	*26.35*	*26.95*	Revenues per sh	*31.05*
3.88	3.47	3.70	3.65	3.82	4.06	4.22	4.59	4.88	5.29	5.61	5.89	6.24	6.42	6.69	6.98	*7.95*	*8.50*	"Cash Flow" per sh	*9.25*
1.23	.93	1.33	1.45	1.53	1.66	1.74	1.89	1.98	2.17	2.32	2.39	2.64	2.58	2.84	3.01	*3.30*	*3.50*	Earnings per sh A	*3.75*
.36	.50	.66	.84	.96	1.02	1.08	1.16	1.24	1.33	1.43	1.53	1.63	1.74	1.84	1.95	*2.08*	*2.16*	Div'd Decl'd per sh B ■	*2.30*
3.50	3.59	3.29	3.47	4.65	4.98	5.73	5.64	5.99	5.91	7.32	7.41	8.02	7.16	8.15	8.18	*10.00*	*9.65*	Cap'l Spending per sh	*9.75*
10.88	11.42	11.19	11.92	12.09	12.98	13.34	14.21	15.23	15.77	16.78	17.68	19.02	22.11	23.32	24.86	*26.15*	*27.85*	Book Value per sh C	*29.50*
226.41	227.89	249.60	254.10	264.10	266.10	275.20	277.16	279.21	281.65	283.37	283.86	288.94	289.76	291.27	294.40	*300.00*	*300.50*	Common Shs Outst'g D	*301.00*
10.9	13.6	12.5	13.6	15.1	16.3	17.3	18.3	20.9	21.3	20.3	24.3	23.3	23.6	22.9	19.6	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.66	.91	.80	.85	.96	.92	.91	.92	1.10	1.07	1.10	1.29	1.20	1.28	1.32	1.10	*Value Line*		Relative P/E Ratio	*1.10*
2.7%	4.0%	4.0%	4.3%	4.2%	3.8%	3.6%	3.4%	3.0%	2.9%	3.0%	2.6%	2.6%	2.9%	2.8%	3.3%	*estimates*		Avg Ann'l Div'd Yield	*3.1%*

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
7179.0	6456.0	6399.0	6583.0	6873.0	6845.0	6680.0	7329.0	8596.0	7462.0	*7900*	*8100*	Revenues ($mill)	*9350*
479.0	525.0	553.0	610.0	659.0	682.0	757.0	751.0	833.0	886.0	*995*	*1065*	Net Profit ($mill)	*1140*
34.3%	34.0%	33.1%	31.2%	14.9%	17.7%	15.0%	11.5%	10.3%	15.4%	*15.5%*	*15.5%*	Income Tax Rate	*15.5%*
2.3%	2.7%	3.1%	1.1%	1.4%	2.1%	1.1%	1.5%	1.4%	1.4%	*1.5%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
68.7%	68.3%	67.1%	67.3%	69.0%	70.4%	71.2%	64.5%	65.3%	65.9%	*65.0%*	*65.0%*	Long-Term Debt Ratio	*63.0%*
31.0%	31.4%	32.6%	32.4%	30.7%	29.4%	28.6%	34.2%	33.6%	33.1%	*35.0%*	*35.0%*	Common Equity Ratio	*37.0%*
11846	12534	13040	13692	15476	17082	19223	18760	20205	22114	*23075*	*23800*	Total Capital ($mill)	*24500*
13412	14705	15715	16761	18126	18926	21039	22352	22713	25072	*27450*	*28850*	Net Plant ($mill)	*31500*
5.7%	5.7%	5.8%	5.9%	5.6%	5.3%	5.2%	5.3%	5.4%	5.4%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
12.9%	13.2%	12.9%	13.6%	13.8%	13.5%	13.7%	11.3%	11.9%	11.7%	*12.0%*	*12.5%*	Return on Shr. Equity	*12.5%*
13.0%	13.3%	13.0%	13.7%	13.8%	13.6%	13.7%	11.6%	12.1%	12.0%	*12.5%*	*12.5%*	Return on Com Equity E	*12.5%*
5.0%	5.2%	4.8%	5.2%	5.3%	4.9%	5.3%	3.8%	4.3%	4.2%	*4.5%*	*5.0%*	Retained to Com Eq	*5.0%*
62%	61%	63%	62%	62%	64%	62%	68%	65%	65%	*63%*	*62%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $15806 mill. **Due in 5 Yrs** $2771 mill.
LT Debt $15034 mill. **LT Interest** $649 mill.
Incl. $61 mill. finance leases.
Leases, Uncapitalized Annual rentals $5 mill.
Pension Assets-12/23 $3004 mill. **Oblig** $2195 mill.
Pfd Stock $224 mill. **Pfd Div'd** $10 mill.
Incl. 373,148 shs. $4.50 $100 par, cum., callable at $110.00; 9,200,000 shs. 4.2%, $25 par, cum.
Common Stock 298,635,428 shs.
as of 4/8/24
MARKET CAP: $18.3 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+2.4	+3.0	-1.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	8.46	8.78	8.90
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	7951	8061	8067
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+1.0
Fixed Charge Cov. (%)	223	226	244

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	1.0%	2.5%	*2.5%*
"Cash Flow"	5.5%	5.0%	*5.5%*
Earnings	6.0%	5.5%	*5.0%*
Dividends	7.0%	6.5%	*4.0%*
Book Value	6.5%	8.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2013	1558	1725	2033	7329
2022	2374	1920	2024	2278	8596
2023	2284	1555	1673	1950	7462
2024	2176	*1700*	*1875*	*2149*	*7900*
2025	*2200*	*1745*	*2000*	*2155*	*8100*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.09	.55	.54	.40	2.58
2022	1.20	.50	.56	.58	2.84
2023	.69	.67	.60	1.05	3.01
2024	.96	*.65*	*.70*	*.99*	*3.30*
2025	*.80*	*.90*	*.80*	*1.00*	*3.50*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec. 31	Full Year
2020	.4075	.4075	.4075	.4075	1.63
2021	.435	.435	.435	.435	1.74
2022	.46	.46	.46	.46	1.84
2023	.4875	.4875	.4875	.4875	1.95
2024	.515	.515			

BUSINESS: CMS Energy Corporation is a holding company for Consumers Energy, which supplies electricity and gas to lower Michigan (excluding Detroit). Has 1.9 million electric, 1.8 million gas customers. Has 2,016 megawatts of nonregulated generating capacity. Sold EnerBank in '21. Electric revenue breakdown: residential, 47%; commercial, 33%; industrial, 14%; other, 6%. Generating sources: coal, 20%; gas, 33%; renewables, 6%; purchased, 43%. Fuel costs: 37% of revenues. '23 depreciation rates: 3.8% electric, 2.8% gas, 7.8% other. Has 8,350 full-time employees. Chairman: John G. Russell. President & CEO: Garrick Rochow. Inc.: Michigan. Address: One Energy Plaza, Jackson, Michigan 49201. Telephone: 517-788-0550. Internet: www.cmsenergy.com.

CMS Energy reported mixed results for the March period. The top line declined 5% year over year, to nearly $2.2 billion. However, the bottom line jumped almost 40%, to $0.96 per share, compared to the year-ago period. This improvement was due to lower operating expenses and benefits from rate relief. For 2024, management has guided for annual adjusted earnings per share in the range of $3.29 to $3.35. Additionally, the company anticipates achieving adjusted earnings growth of 6% to 8% over the long term.

CMS Energy's subsidiary, Consumers Energy, received an electric rate order. The Michigan Public Service Commission authorized an annual rate increase of $92 million, with a 9.9% return on equity. The new rate took effect on March 15, 2024.

Near-term profit growth is probable. The company should benefit from rate relief and ongoing cost controls. Thus, we expect 2024 and 2025 share earnings to advance in the management-guided range of 6%- 8%.

The utility is actively expanding its infrastructure to enhance cost savings and increase profitability. The company anticipates investing $17 billion through 2028 to upgrade its infrastructure. Of this total, $6.3 billion will likely be allocated to gas networks, $7.3 billion to electric distribution, and $3.4 billion to clean energy projects. This investment strategy is projected to grow the rate base by 7.5% over the specified period, enabling the company to maintain affordable prices for its customers. To note, utility companies typically have incentives to invest in such capital projects.

Meanwhile, the company is advancing smart technology deployment through its subsidiary to enhance electric reliability. Consumers Energy intends to invest $24 million in smart technology initiatives aimed at fortifying its electric grid and mitigate power outages. This investment aligns with its ongoing Reliability Roadmap, designed to bolster the resilience of the electric infrastructure.

This untimely stock has a dividend yield that is below average for a utility. Also, these shares do not stand out for 18-month capital gains potential.

Emma Jalees *June 7, 2024*

(A) Diluted GAAP EPS. Excl. nonrec. gains (losses): '09, (7¢); '10, 3¢; '11, 12¢; '12, (14¢); '17, (53¢); gains (losses) on disc. ops.: '09, 8¢; '10, (8¢); '11, 1¢; '12, 3¢; '21, $2.08; '22, 1¢. Next earnings report due late July. (B) Div'ds historically paid late Feb., May, Aug., & Nov. ■ Div'd reinvestment plan avail. (C) Incl. intang. In '23: $8.52/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate all'd on com. eq. in '22: 9.9% elec.; in '19: 9.9% gas; earned on avg. com. eq., '21: 13.2%. Regulatory Climate: Above Average.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	90

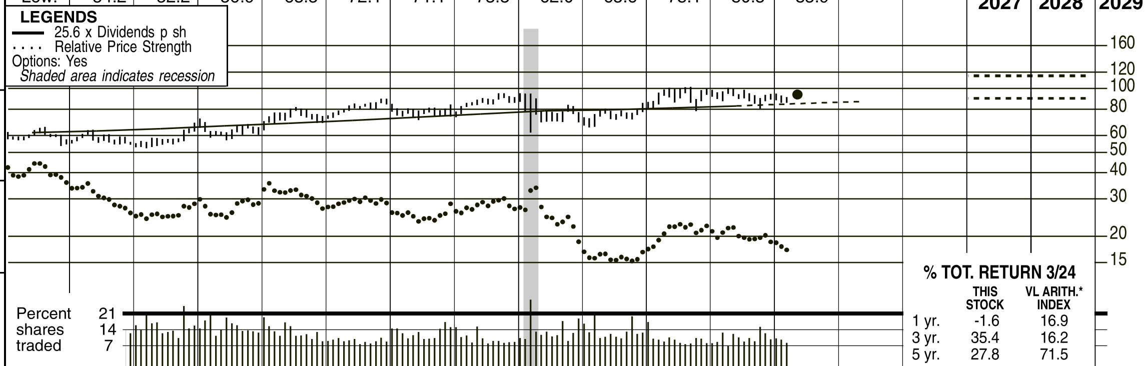
CON. EDISON NYSE-ED

RECENT PRICE	93.97	P/E RATIO	17.7 (Trailing: 18.6) (Median: 18.0)	RELATIVE P/E RATIO	1.02	DIV'D YLD	3.6%	VALUE LINE

TIMELINESS 2 Raised 5/3/24
SAFETY 1 New 7/27/90
TECHNICAL 5 Lowered 5/3/24
BETA .80 (1.00 = Market)

High:	64.0	68.9	72.3	81.9	89.7	84.9	95.0	95.1	85.6	102.2	100.9	94.8
Low:	54.2	52.2	56.9	63.5	72.1	71.1	73.3	62.0	65.6	78.1	80.5	85.9

LEGENDS
— 25.6 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029
160 / 120 / 100 / 80 / 60 / 50 / 40 / 30 / 20 / 15

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$81-$121	$101 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+20%)	9%
Low	90	(-5%)	3%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	476	436	515
to Sell	461	483	450
Hld's(000)	224094	223737	230144

Percent shares traded 21 / 14 / 7

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.6	16.9
3 yr.	35.4	16.2
5 yr.	27.8	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
49.62	46.36	45.69	44.17	41.62	42.27	44.11	42.85	39.59	38.82	38.44	37.80	35.78	38.63	44.15	42.45	44.80	46.85	Revenues per sh	53.50
5.99	5.86	6.24	6.61	7.15	7.45	7.30	7.93	7.89	8.41	8.92	9.39	9.70	10.06	10.36	10.98	12.10	12.70	"Cash Flow" per sh	14.60
3.36	3.14	3.47	3.57	3.86	3.93	3.62	4.05	3.94	4.10	4.55	4.37	4.17	4.38	4.55	5.04	5.30	5.60	Earnings per sh A	6.60
2.34	2.36	2.38	2.40	2.42	2.46	2.52	2.60	2.68	2.76	2.86	2.96	3.06	3.10	3.16	3.24	3.32	3.40	Div'd Decl'd per sh B ■	3.95
8.50	7.80	6.96	6.72	7.06	8.67	8.26	10.42	12.07	11.11	10.90	10.48	11.42	11.17	11.74	13.01	14.40	14.50	Cap'l Spending per sh	15.50
35.43	36.46	37.93	39.05	40.53	41.81	42.94	44.55	46.88	49.74	52.11	54.18	55.06	56.60	58.28	61.25	63.50	65.75	Book Value per sh C	74.50
273.72	281.12	291.62	292.89	292.87	292.87	292.88	293.00	305.00	310.00	320.96	332.63	342.30	353.98	354.96	345.42	346.00	347.00	Common Shs Outst'g D	355.00
12.3	12.5	13.3	15.1	15.4	14.7	15.9	15.6	18.8	19.8	17.1	19.7	19.0	17.2	20.3	18.4	Bold figures are		Avg Ann'l P/E Ratio	15.5
.74	.83	.85	.95	.98	.83	.84	.79	.99	1.00	.92	1.05	.98	.93	1.17	1.03	Value Line		Relative P/E Ratio	.85
5.7%	6.0%	5.2%	4.5%	4.1%	4.3%	4.4%	4.1%	3.6%	3.4%	3.7%	3.4%	3.9%	4.1%	3.4%	3.5%	estimates		Avg Ann'l Div'd Yield	3.9%

CAPITAL STRUCTURE as of 12/31/23
Total Debt $24465 mill. **Due in 5 Yrs** $1730 mill.
LT Debt $21927 mill. **LT Interest** $962 mill.
(Total Interest Coverage: 3.0x)

Leases, Uncapitalized Annual rentals $70 mill.

Pension Assets-12/23 $15404 mill. **Oblig.** $12712 mill.

Pfd Stock None

Common Stock 345,510,031 shs. as of 1/31/24
MARKET CAP: $32.5 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
12919	12554	12075	12033	12337	12574	12246	13676	15670	14663	15500	16250	Revenues ($mill)	19000
1066.0	1193.0	1189.0	1266.0	1424.0	1438.0	1399.0	1528.0	1620.0	1762.0	1835	1950	Net Profit ($mill)	2355
34.0%	33.6%	35.3%	36.6%	20.1%	17.5%	12.9%	16.2%	15.4%	17.8%	18.0%	18.0%	Income Tax Rate	18.0%
.3%	.7%	1.3%	1.5%	1.5%	1.9%	2.2%	2.1%	3.4%	4.4%	5.0%	5.0%	AFUDC % to Net Profit	5.0%
48.0%	47.9%	50.8%	48.9%	51.1%	50.7%	52.0%	53.0%	49.3%	50.9%	51.0%	51.0%	Long-Term Debt Ratio	52.0%
52.0%	52.1%	49.2%	51.1%	48.9%	49.3%	48.0%	47.0%	50.7%	49.1%	49.0%	49.0%	Common Equity Ratio	48.0%
24207	25058	29033	30149	34221	36549	39229	42641	40834	43085	44200	46750	Total Capital ($mill)	55000
29827	32209	35216	37600	41749	43889	46555	48596	46766	49608	52300	54800	Net Plant ($mill)	63200
5.6%	6.0%	5.3%	5.4%	5.3%	5.1%	4.7%	4.7%	5.2%	5.2%	5.0%	5.0%	Return on Total Cap'l	5.5%
8.5%	9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	8.3%	8.5%	8.5%	Return on Shr. Equity	9.0%
8.5%	9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	8.3%	8.5%	8.5%	Return on Com Equity E	9.0%
2.6%	3.5%	3.0%	3.0%	3.5%	2.9%	2.2%	2.5%	2.6%	3.1%	3.0%	3.5%	Retained to Com Eq	3.5%
69%	61%	64%	63%	59%	64%	70%	67%	67%	62%	63%	60%	All Div'ds to Net Prof	60%

CECONY ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Electric Sales (GWH)	-.5	+3.3	-1.4
Annual Residential Use (GWH)	11344	11875	11574
Annual Comm./Ind. Use (GWH)	9250	10522	10895
Annual Retail Choice (GWH)	21549	21116	20315
Annual Govt. & Other Use (GWH)	9185	9507	9472
% Change Customers (yr-end)	NA	NA	NA
Peak Load, Summer (MW)	13517	12424	11565
ConEd Fixed Charge Cov. (%)	352	240	217

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	- -	1.5%	4.0%
"Cash Flow"	4.0%	4.5%	5.5%
Earnings	2.0%	2.0%	6.0%
Dividends	2.5%	2.5%	3.5%
Book Value	4.0%	3.5%	4.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3677	2971	3613	3415	13676
2022	4060	3415	4165	4031	15670
2023	4403	2944	3872	3444	14663
2024	4400	3125	4250	3725	15500
2025	4525	3275	4550	3900	16250

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.44	.53	1.41	1.00	4.38
2022	1.47	.64	1.63	.81	4.55
2023	1.82	.61	1.61	1.00	5.04
2024	1.85	.65	1.80	1.00	5.30
2025	1.90	.70	1.90	1.10	5.60

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.765	.765	.765	.765	3.06
2021	.775	.775	.775	.775	3.10
2022	.79	.79	.79	.79	3.16
2023	.81	.81	.81	.81	3.24
2024	.83				

BUSINESS: Consolidated Edison, Inc. (ConEd) is a holding company for Consolidated Edison Company of New York (CECONY), which sells electricity, gas, and steam in most of NY city and Westchester County. ConEd also owns Orange and Rockland utilities (O&R), which operates in southeastern NY and northern NJ. ConEd has 4.0 mill. electric and 1.3 mill. gas customers. Sold its portfolio of renewable power generation for $6.8 billion (3/23). Entered into midstream gas joint venture 6/16; sold it 7/21. Purchases most of its power. Fuel costs: 24% of revenues. '23 depreciation rate for CECONY: 3.6%. Employs about 14,600. Chairman, Pres., and CEO: Timothy Cawley. Inc.: NY. Addr.: 4 Irving Place, NY, NY 10003. Tel.: 212-460-4600. Internet.: www.conedison.com.

Consolidated Edison is enjoying a renaissance, driven by New York's clean energy goals. ConEd's earliest corporate entity, the New York Gas Light Company, received a state charter to install natural gas lines in lower Manhattan more than 200 years ago. Gas lanterns would light the city for a time, replacing the whale oil lamps that dated to the mid-18th century. The company was listed on the New York Stock Exchange in 1824 and is the longest continuously listed issue on the NYSE. In the early 20th century, it expanded into electricity and was renamed as Consolidated Edison Company of New York in 1936. To say that ConEd is a mature company would be an understatement. Earnings per share had slowed to about a 3% annual growth rate for the opening decade of the 21st century, and 1.8% in the second 10-year stretch, before starting to improve more recently. Most of its service area was fully built out decades ago, leaving very little new investments to be made in transmission and distribution work. That all changed when New York State decided to "go green" in a big way, and ConEd is reaping the rewards.

The company reaffirmed its 5%-7% bottom-line growth target through late decade. New York is a difficult regulatory environment, but in its latest rate case, which concluded last year, the utility held a solid bargaining position. ConEd needed a reasonable increase in its regulated return on equity (ROE), from the former 8.8%, before committing billions in modernization work, necessary to prepare the grid to receive renewable energy interfaces. As a result of last year's rate decision, the company is now at a 9.25% ROE, which translated into annualized price increases for electric and gas of $442 million and $217 million, respectively, from August of 2023. Additional increases of $518 million for electric and $173 million for gas take effect this summer, followed by another hike in August, 2025 of $382 million and $122 million, respectively. ConEd is now in the upper tier of its industry in terms of earnings growth prospects.

This equity is timely. However, investors with a longer-term bent should wait for a decent pullback, as total return potential is subpar at the recent quote.

Anthony J. Glennon *May 10, 2024*

(A) Diluted EPS. Excl. nonrec. gains/losses: '13, d32¢; '14, 9¢; '16, 18¢; '17, 84¢; '18, d13¢; '19, d29¢; '20, d89¢; '21, d53¢; '22, 11¢; '23, $2.17. Excl. gain on disc. ops.: '08, $1.01. Next egs. report due early August. Quarterly figures may not sum to full year due to rounding.
(B) Div'ds paid in mid-Mar., June, Sept., and Dec. ■ Div'd reinvestment plan available.
(C) Incl. intang. In '23: $14.52/sh. (D) In mill.
(E) Rate base: net orig. cost. Rate allowed on com. eq. for CECONY in '23: 9.25%; O&R in '22: 9.2%. Regulatory Climate: Below Average.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	100

DOMINION ENERGY NYSE-D

RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
51.14	18.3	(Trailing: 25.8 Median: 21.0)	1.05	5.2%	VALUE LINE

TIMELINESS 3 Raised 3/29/24
SAFETY 3 Lowered 9/29/23
TECHNICAL 5 Lowered 4/26/24
BETA .90 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	68.0	80.9	79.9	79.0	85.3	81.7	83.9	90.9	81.1	88.8	63.9	51.4
Low:	51.9	63.1	64.5	66.3	70.9	61.5	67.4	57.8	67.9	57.2	39.2	43.5

LEGENDS
— 22.7 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range
2027 | 2028 | 2029

18-Month Target Price Range

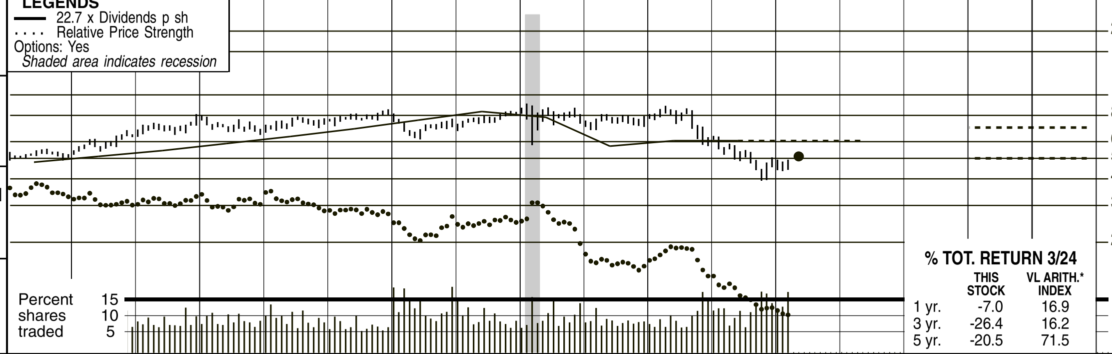
Low-High	Midpoint (% to Mid)
$33-$60	$47 (-10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+35%)	12%
Low	50	(Nil)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	562	485	467
to Sell	625	658	681
Hld's(000)	595361	609936	611917



% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.0	16.9
3 yr.	-26.4	16.2
5 yr.	-20.5	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
27.94	25.26	26.16	25.23	22.73	22.58	21.26	19.60	18.69	19.51	19.63	19.78	17.58	17.24	20.57	17.18	*18.15*	*18.60*	Revenues per sh	*20.45*
5.07	4.82	5.10	5.04	5.24	5.47	5.71	5.99	6.32	6.89	7.24	7.65	7.17	7.27	7.81	5.58	*6.50*	*7.20*	"Cash Flow" per sh	*7.95*
3.04	2.64	2.89	2.76	2.75	3.09	3.05	3.20	3.44	3.53	4.05	4.24	3.54	3.86	4.11	1.99	*2.80*	*3.35*	Earnings per sh A	*4.00*
1.58	1.75	1.83	1.97	2.11	2.25	2.40	2.59	2.80	3.04	3.34	3.67	3.45	2.52	2.67	2.67	*2.67*	*2.67*	Div'd Decl'd per sh B ■	*2.67*
6.10	6.41	5.89	6.41	7.20	7.06	9.14	9.35	9.69	8.53	6.25	5.94	7.47	7.36	9.09	12.19	*12.70*	*12.45*	Cap'l Spending per sh	*9.00*
17.28	18.67	20.65	20.08	18.35	20.04	19.75	21.25	23.26	26.58	29.53	35.33	29.44	31.51	31.26	30.72	*31.00*	*31.90*	Book Value per sh C	*36.35*
583.00	599.00	581.00	570.00	576.00	581.00	585.00	596.00	628.00	645.00	681.00	838.00	806.00	810.00	835.00	838.00	*843.00*	*850.00*	Common Shs Outst'g D	*880.00*
13.8	12.7	14.3	17.3	18.9	19.2	23.0	22.1	21.3	22.2	17.5	18.2	22.6	19.5	18.7	26.1	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
.83	.85	.91	1.09	1.20	1.08	1.21	1.11	1.12	1.12	.95	.97	1.16	1.05	1.08	1.46	*Value Line*		Relative P/E Ratio	*.85*
3.8%	5.2%	4.4%	4.1%	4.1%	3.8%	3.4%	3.7%	3.8%	3.9%	4.7%	4.8%	4.3%	3.3%	3.5%	5.1%	*estimates*		Avg Ann'l Div'd Yield	*4.5%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $44243 mill. **Due in 5 Yrs** $13361 mill.
LT Debt $33248 mill. **LT Interest** $1674 mill.
(Total Interest coverage: 2.2x)
Leases, Uncapitalized Annual rentals $60 mill.

Pension Assets-12/23 $9087 mill. **Oblig.** $8431 mill.
Pfd Stock $1783 mill. **Pfd Divd** $81 mill.

Common Stock 837,443,257 shs. as of 2/19/24

MARKET CAP: $42.8 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
12436	11683	11737	12586	13366	16572	14172	13964	17174	14393	*15300*	*15800*	Revenues ($mill)	*18000*
1793.0	1899.0	2123.0	2244.0	2651.0	3447.0	3006.0	3191.0	3505.0	1743.0	*2455*	*2940*	Net Profit ($mill)	*3620*
28.1%	32.0%	22.8%	27.2%	17.3%	20.3%	12.2%	13.7%	16.3%	18.9%	*17.0%*	*17.0%*	Income Tax Rate	*17.0%*
4.5%	5.3%	7.5%	10.5%	5.1%	2.6%	3.4%	3.7%	3.2%	9.1%	*6.5%*	*6.0%*	AFUDC % to Net Profit	*5.0%*
65.4%	65.1%	67.4%	64.4%	60.8%	51.4%	56.5%	56.4%	58.3%	54.7%	*53.0%*	*54.5%*	Long-Term Debt Ratio	*56.0%*
34.6%	34.9%	32.6%	35.6%	39.2%	45.0%	39.5%	38.5%	39.1%	42.4%	*44.0%*	*42.5%*	Common Equity Ratio	*41.5%*
33360	36280	44836	48090	51251	65818	60074	66344	66795	60777	*59400*	*63750*	Total Capital ($mill)	*77100*
36270	41554	49964	53758	54560	69082	57848	59774	63460	58780	*61700*	*67550*	Net Plant ($mill)	*80400*
6.6%	6.5%	6.0%	5.9%	6.5%	6.4%	6.2%	5.9%	6.0%	4.2%	*5.0%*	*5.5%*	Return on Total Cap'l	*6.0%*
15.5%	15.0%	14.5%	13.1%	13.2%	10.8%	11.5%	11.0%	12.6%	6.3%	*9.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
15.4%	15.0%	14.5%	13.1%	13.2%	11.6%	12.4%	12.2%	13.1%	6.5%	*9.0%*	*10.5%*	Return on Com Equity E	*11.0%*
3.3%	2.9%	2.7%	1.8%	2.3%	1.5%	.3%	4.3%	4.6%	NMF	*.5%*	*2.0%*	Retained to Com Eq	*3.5%*
79%	81%	81%	86%	82%	87%	98%	66%	66%	NMF	*95%*	*80%*	All Div'ds to Net Prof	*67%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (MWH)	+2.1	+5.0	-1.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.4	+1.1	+1.2
Fixed Charge Cov. (%)	227	272	201

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-2.5%	-1.0%	*2.0%*
"Cash Flow"	2.5%	- -	*2.5%*
Earnings	1.5%	-2.0%	*3.0%*
Dividends	2.0%	-3.0%	*.5%*
Book Value	5.0%	3.5%	*1.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3870	3038	3176	3880	13964
2022	4279	3596	4386	4913	17174
2023	3883	3166	3810	3534	14393
2024	*3700*	*3600*	*4225*	*3775*	*15300*
2025	*3850*	*3725*	*4350*	*3875*	*15800*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.09	.76	1.11	.90	3.86
2022	1.18	.77	1.11	1.06	4.11
2023	.59	.35	.75	.29	1.99
2024	*.55*	*.60*	*.90*	*.75*	*2.80*
2025	*.80*	*.80*	*.95*	*.80*	*3.35*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.94	.94	.94	.63	3.45
2021	.63	.63	.63	.63	2.52
2022	.6675	.6675	.6675	.6675	2.67
2023	.6675	.6675	.6675	.6675	2.67
2024	.6675				

BUSINESS: Dominion Energy, Inc. (formerly Dominion Resources) is a holding company for Virginia Power, North Carolina Power, & South Carolina E&G, which serve 3.5 mill. customers in VA, SC, & NC. Serves 3.5 mill. gas customers in OH, WV, UT, SC, & NC. Other ops. incl. independent power production. Acq'd Questar 9/16; SCANA 1/19. Elec. rev. breakdown: residential, 44%; commercial, 39%; industrial, 7%; other, 10%. Generating sources: gas, 36%; nuclear, 29%; coal, 5%; renewable, 5%; purchased, 25%. Power/fuel costs: 31% of revs. '23 reported deprec. rates: 2.3%-4.2%. Employs 17,700. Chair, Pres. & CEO: Robert M. Blue. Inc.: VA. Address: 120 Tredegar St., P.O. Box 26532, Richmond, VA 23261-6532. Tel.: 804-819-2000. Internet: www.dominionenergy.com.

Dominion Energy has nearly completed its restructuring. Announced 18 months ago, it was described by management as a full analysis, including a look at alternatives to the business mix and capital allocation. One solace for existing shareholders is that Dominion is maintaining the current dividend level. It plans to grow its way out of the constraints of a high payout ratio. This means that it will take years before the company is in a position to resume dividend growth. There are a number of non-strategic assets being divested, which will take time to receive regulatory approval and close. Hence, the company's income statement for both 2023 and this year are transitory. Revenue comes off the books right away, but it takes time to see the benefits from more than $16 billion in debt relief that mostly arrives later. Our 2025 share-earnings estimate may not fully reflect where the company is at in terms of earnings power, post restructuring.

The stock price has begun to recover of late, as the financial picture has become clearer. A good portion of the year-long nose dive in the equity's value was attributable to weakness among utilities in general, responding to higher interest rates. Most of the decline was from uncertainty and the loss of near- to intermediate-term earnings power. What the company has done is basically a financial reset. Dominion gave up income from its divestitures to improve the balance sheet and position itself for a more sustainable 5%-7% annual profit growth over the longer term (from 2025's base year). In September, the 50% stake in the Cove Point liquefied natural gas operation in Maryland was sold to Berkshire Hathaway for $3.3 billion. That same month, the company agreed to sell three natural gas utilities for $9.4 billion in cash and $4.6 billion in assumed debt to Enbridge. Dominion is also in the process of bringing on an equity partner to help fund and reduce its considerable business risk from offshore wind generation.

The stout dividend yield is the main draw here. And investors will be giving up dividend growth for the above-average income. We don't see a lot of recovery potential for D stock from the recent price.

Anthony J. Glennon *May 10, 2024*

(A) Dil. egs. Excl. nonrec. gain/(loss): '08, 12¢; '09, (47¢); '10, $2.13; '11, (31¢); '12, ($2.18); '14, (81¢); '17, $1.19; '18, (31¢); '19, ($2.62); '20, ($1.72); '21, (67¢); '22, ($3.03); '23, 49¢; gain/(losses) from disc. ops.: '10, (26¢); '12, (4¢); '13, (16¢); '20, ($2.39); '21, 79¢; '22, 1¢; '23, (19¢). Next egs. report due early August. (B) Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '23: $16.04/sh. (D) In mill. (E) Rate base: Net orig. cost, adj. Rate all'd on com. eq. in VA in '22: 9.35%; in SC in '21: 9.5%. Regult'y. Clim.: Avg.

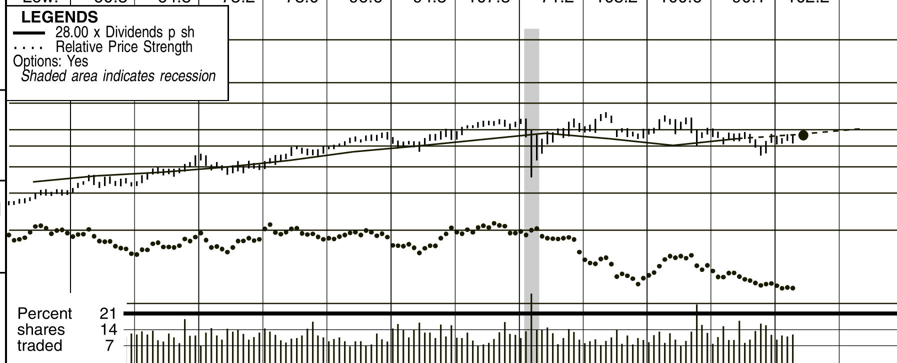
Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	25
Earnings Predictability	80

DTE ENERGY CO. NYSE-DTE

RECENT PRICE 112.96 | P/E RATIO 16.9 (Trailing: 19.0 / Median: 18.0) | RELATIVE P/E RATIO 0.94 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 4 Lowered 6/7/24
SAFETY 2 Raised 12/21/12
TECHNICAL 3 Raised 6/7/24
BETA 1.00 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	73.3	90.8	92.3	100.4	116.7	121.0	134.4	135.7	145.4	140.2	121.3	117.4
Low:	60.3	64.8	73.2	78.0	96.6	94.3	107.3	71.2	108.2	100.6	90.1	102.2



Target Price Range
2027 | 2028 | 2029
320 200 160 120 100 80 60 40 18

18-Month Target Price Range
Low-High $98-$158 | Midpoint (% to Mid) $128 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	185	(+65%)	16%
Low	135	(+20%)	8%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	334	317	354
to Sell	284	324	300
Hld's(000)	154545	158915	160452

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	1.7	11.5
3 yr.	-13.2	5.5
5 yr.	3.6	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
57.23	48.45	50.51	52.57	51.01	54.56	69.50	57.60	59.24	70.28	78.12	65.91	62.84	77.23	93.48	61.76	***61.30***	***63.25***	Revenues per sh	***80.10***
8.26	9.38	9.78	9.57	9.77	10.13	11.85	9.44	10.60	11.77	12.58	12.97	14.70	11.94	12.66	14.54	***15.20***	***15.95***	"Cash Flow" per sh	***17.85***
2.73	3.24	3.74	3.67	3.88	3.76	5.10	4.44	4.83	5.73	6.17	6.31	7.08	4.10	5.52	6.76	***6.70***	***7.20***	Earnings per sh A	***8.85***
2.12	2.12	2.18	2.32	2.42	2.59	2.69	2.84	3.06	3.36	3.59	3.85	4.12	3.88	3.54	3.88	***4.08***	***4.34***	Div'd Decl'd per sh B ■	***4.83***
8.42	6.26	6.49	8.77	10.56	10.59	11.58	11.26	11.40	12.54	14.91	15.59	19.91	19.47	16.42	17.02	***17.50***	***17.75***	Cap'l Spending per sh	***18.50***
36.77	37.96	39.67	41.41	42.78	44.73	47.05	48.88	50.22	53.03	56.27	60.73	64.12	44.93	46.35	53.55	***55.95***	***58.40***	Book Value per sh C	***63.10***
163.02	165.40	169.43	169.25	172.35	177.09	176.99	179.47	179.43	179.39	181.93	192.21	193.77	193.75	205.69	206.36	***205.50***	***205.50***	Common Shs Outst'g D	***206.00***
14.8	10.4	12.3	13.5	14.9	17.9	14.9	18.1	19.0	18.6	17.4	19.9	16.3	30.0	22.4	16.1	*Bold figures are*	*Value Line*	Avg Ann'l P/E Ratio	***18.0***
.89	.69	.78	.85	.95	1.01	.78	.91	1.00	.94	.94	1.06	.84	1.62	1.30	.92		*estimates*	Relative P/E Ratio	***1.00***
5.2%	6.3%	4.8%	4.7%	4.2%	3.8%	3.5%	3.5%	3.3%	3.2%	3.3%	3.1%	3.6%	3.2%	3.4%	3.8%			Avg Ann'l Div'd Yield	***3.5%***

CAPITAL STRUCTURE as of 3/31/24
Total Debt $21657 mill. **Due in 5 Yrs** $6481 mill.
LT Debt $19248 mill. **LT Interest** $514 mill.
Incl. $209 mill. securitization bonds. Incl. $19 mill. finance leases.
(LT interest earned: 1.7x)
Leases, Uncapitalized Annual rentals $16 mill.

Pension Assets-12/22 $5507 mill. **Oblig** $5857 mill.
Pfd Stock None
Common Stock 206,937,244 shs.

MARKET CAP: $23.4 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
12301	10337	10630	12607	14212	12669	12177	14964	19228	12745	***12600***	***13000***	Revenues ($mill)	***16500***
905.0	796.0	868.0	1029.0	1120.0	1169.0	1368.0	796.0	1135.4	1395.0	***1375***	***1480***	Net Profit ($mill)	***1825***
28.5%	25.6%	24.5%	21.8%	8.1%	11.5%	10.9%	- -	2.6%	4.8%	***5.0%***	***5.0%***	Income Tax Rate	***5.0%***
4.1%	4.3%	3.6%	3.5%	3.8%	3.3%	3.4%	4.9%	4.0%	3.2%	***3.0%***	***3.0%***	AFUDC % to Net Profit	***3.0%***
50.0%	50.2%	55.6%	56.2%	54.2%	57.7%	60.5%	62.5%	63.0%	61.2%	***61.5%***	***61.5%***	Long-Term Debt Ratio	***61.0%***
50.0%	49.8%	44.4%	43.8%	45.8%	42.3%	39.5%	37.5%	37.0%	38.0%	***38.5%***	***38.5%***	Common Equity Ratio	***39.0%***
16670	17607	20280	21697	22371	27607	31426	23236	25158	26282	***29000***	***30000***	Total Capital ($mill)	***32200***
16820	18034	19730	20721	21650	25317	27969	26944	28767	28169	***31500***	***32250***	Net Plant ($mill)	***36600***
6.6%	5.7%	5.3%	5.9%	6.1%	5.3%	5.4%	4.7%	4.4%	5.0%	***5.0%***	***5.0%***	Return on Total Cap'l	***6.0%***
10.9%	9.1%	9.6%	10.8%	10.9%	10.0%	11.0%	9.1%	13.0%	11.0%	***11.5%***	***11.5%***	Return on Shr. Equity	***12.5%***
10.9%	9.1%	9.6%	10.8%	10.9%	10.0%	11.0%	9.1%	13.0%	11.0%	***11.5%***	***11.5%***	Return on Com Equity E	***12.5%***
5.2%	3.4%	3.7%	4.6%	4.9%	4.1%	4.9%	.1%	2.0%	4.0%	***4.5%***	***4.5%***	Retained to Com Eq	***4.5%***
52%	63%	61%	58%	55%	59%	56%	99%	76%	60%	***60%***	***60%***	All Div'ds to Net Prof	***62%***

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.4	+2.1	-1.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NMF	NMF	NMF
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	268	233	264

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	3.0%	2.5%	*5.0%*
"Cash Flow"	3.0%	4.5%	*4.5%*
Earnings	4.0%	2.5%	*4.5%*
Dividends	5.5%	5.5%	*3.0%*
Book Value	3.0%	1.5%	*1.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3581	3021	3715	4647	14964
2022	4577	4924	5251	4476	19228
2023	3779	2684	2888	3394	12745
2024	3240	***2400***	***2850***	***4110***	***12600***
2025	***3400***	***2500***	***2900***	***4200***	***13000***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.65	.60	.30	1.55	4.10
2022	2.03	.19	1.99	1.31	5.52
2023	2.16	.97	1.61	2.02	6.76
2024	1.51	***1.20***	***1.90***	***2.09***	***6.70***
2025	***2.40***	***1.30***	***2.00***	***1.50***	***7.20***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.0125	1.0125	1.0125	1.0125	4.05
2021	.9225	.9225	.9225	.825	3.59
2022	.885	.885	.885	.885	3.54
2023	.9525	.9525	.9525	1.02	3.88
2024	1.02				

BUSINESS: DTE Energy Company is a holding company for DTE Electric (formerly Detroit Edison), which supplies electricity in Detroit and a 7,600-square-mile area in southeastern Michigan, and DTE Gas (formerly Michigan Consolidated Gas). Customers: 2.2 mill. electric, 1.3 mill. gas. Has various nonutility operations. Electric revenue breakdown: residential, 50%; commercial, 33%; industrial, 11%; other, 6%. Generating sources: coal, 67%; nuclear, 17%; gas, 1%; purchased, 15%. Fuel costs: 62% of revenues. '22 reported deprec. rates: 4.2% electric, 2.9% gas. Has 10,600 employees. Chairman, President & CEO: Jerry Norcia. Incorporated: Michigan. Address: One Energy Plaza, Detroit, Michigan 48226-1279. Tel.: 313-235-4000. Internet: www.dteenergy.com.

DTE Energy's electric utility subsidiary has filed another general rate case. The utility is seeking an increase of $456 million to improve reliability. Note, DTE received a $368.1 million electricity rate increase in December, compared to its initial request of $620 million. As a result of this and past decisions, we think the Michigan Public Service Commission will likely give the utility an unfavorable, but reasonable, ruling. This shouldn't have too much of an effect on the company's results this year, but will probably boost profits nicely in 2025.

We have slightly lowered our 2024 earnings-per-share estimate. The first-quarter performance was negatively impacted by inflationary pressures and the interest rate environment, which led to higher rate base costs. And, these challenges should persist throughout this year, before the utility is able to pass on higher costs to consumers. Our earnings estimate is now right near the midpoint of DTE Energy's targeted range of $6.54-$6.83 a share, and within the company's 6%-8% long-term profit growth forecast based off original 2023 guidance.

DTE Energy is well positioned for the long term. The utility's grid investments to improve maintenance and infrastructure, reduce outages, and enhance tree trimming should come to fruition over that interim and benefit operations. DTE plans to fully automate the grid within five to six years, and we think it's in a great position to take advantage of elevated power demand from data centers and tech innovations. Too, the utility should be able to pass on the aforementioned higher costs associated with the challenging macroeconomic climate to the consumer. Our 2025 bottom-line estimate is staying put at $7.20 per share.

Conservative, income-oriented, long-term investors may be attracted to this issue. Indeed, the dividend yield is in line with the high-paying industry average, and has a decent annual dividend growth rate of 3.0%. Too, 18-month and 3- to 5-year appreciation potential is solid in comparison to most of its peers. These shares also hold a high mark for Price Stability (90), and are ranked Above Average (2) for Safety.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted EPS. Excl. nonrec. gains (loss): '08, 50¢; '11, 51¢; '15, (39¢); '17, 59¢; gains (losses) on discontinued operations: '08, 13¢; '12, (33¢); '21, 57¢. Next earnings report due late July. (B) Div'ds paid mid-Jan., Apr., July & Oct. ■ Div'd reinvestment plan available. (C) Incl. intang. In '22: $29.20/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on common equity in '20: 9.9% elec.; in '22: 9.9% gas; earned on avg. com. eq., '21: 7.6%. Regulatory Climate: Above Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	70

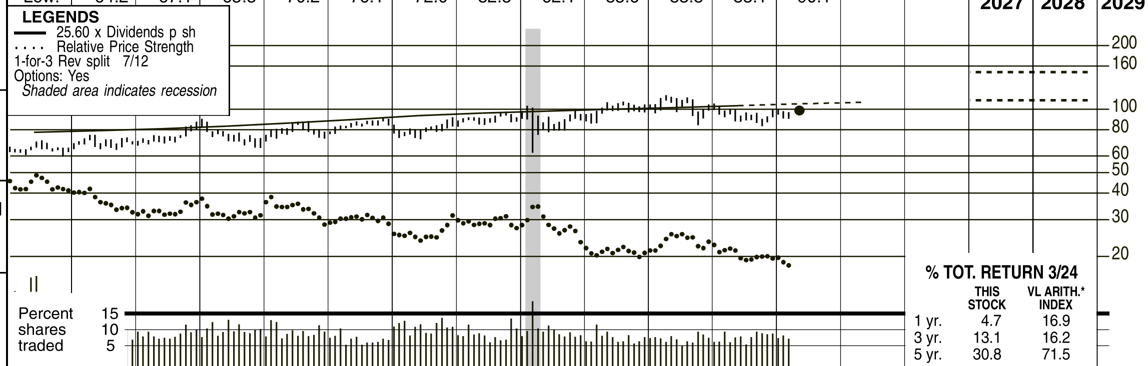
DUKE ENERGY NYSE-DUK

RECENT PRICE 98.73 | P/E RATIO 16.5 (Trailing: 17.8 Median: 18.0) | RELATIVE P/E RATIO 0.95 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 Raised 11/24/23
SAFETY 2 New 6/1/07
TECHNICAL 4 Lowered 3/29/24
BETA .90 (1.00 = Market)

High:	75.5	87.3	90.0	87.8	91.8	91.4	97.4	103.8	108.4	116.3	106.4	99.9
Low:	64.2	67.1	65.5	70.2	76.1	72.0	82.5	62.1	85.6	83.8	83.1	90.1

LEGENDS
— 25.60 x Dividends p sh
.... Relative Price Strength
1-for-3 Rev split 7/12
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$87-$133 $110 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	150	(+50%)	14%
Low	110	(+10%)	7%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	852	830	838
to Sell	753	745	864
Hld's(000)	495714	500344	505574

Percent shares traded 15 10 5

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.7	16.9
3 yr.	13.1	16.2
5 yr.	30.8	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	31.04	32.64	37.36	37.69	*38.85*	*40.25*	Revenues per sh	*42.40*
7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	11.05	12.12	12.04	12.60	12.91	13.22	*13.55*	*13.90*	"Cash Flow" per sh	*15.05*
3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.72	5.06	5.12	5.24	5.27	5.56	*6.00*	*6.35*	Earnings per sh A	*7.60*
2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	3.82	3.90	3.98	4.06	*4.14*	*4.22*	Div'd Decl'd per sh B ■	*4.30*
10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	12.88	12.63	14.76	16.35	*17.60*	*17.75*	Cap'l Spending per sh	*16.75*
49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	59.82	61.55	61.51	63.70	*66.25*	*68.65*	Book Value per sh C	*70.00*
423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	769.00	769.00	770.00	771.00	*772.00*	*773.00*	Common Shs Outst'g D	*775.00*
17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	17.0	17.7	17.1	18.9	19.6	16.9	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	.92	.94	.88	1.02	1.14	.94	*Value Line*		Relative P/E Ratio	*.95*
5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%	4.4%	3.9%	3.9%	4.3%	*estimates*		Avg Ann'l Div'd Yield	*3.9%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $75252 mill. **Due in 5 Yrs** $19536 mill.
LT Debt $72452 mill. **LT Interest** $2206 mill.
Incl. $915 mill. finance leases.
(LT interest earned: 2.7x)
Leases, Uncapitalized Annual rentals $225 mill.
Pension Assets-12/23 $6993 mill. **Oblig** $8207 mill.
Pfd Stock $1962 mill. **Pfd Div'd** $107 mill.
40 mill. shs. 5.75%, cum., $25 liq. value, redeemable at $25.50 prior to 6/15/24; 1 mill. shs. 4.875%, cum., $1000 liq. value.
Common Stock 770,811,446 shs. **as of 1/31/24**
MARKET CAP: $76.1 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
23925	23459	22743	23565	24521	25079	23868	25097	28768	29060	*30000*	*31100*	Revenues ($mill)	*32850*
2934.0	2854.0	2560.0	2963.0	3339.0	3748.0	1377.0	3908.0	2550.0	2841.0	*3350*	*3825*	Net Profit ($mill)	*4775*
30.6%	32.2%	31.0%	30.4%	14.1%	12.7%	.3%	5.1%	7.4%	9.2%	*9.0%*	*9.0%*	Income Tax Rate	*9.0%*
7.2%	9.2%	11.7%	12.3%	11.4%	8.0%	6.9%	5.9%	8.1%	7.1%	*7.0%*	*7.0%*	AFUDC % to Net Profit	*7.0%*
47.7%	48.6%	52.6%	54.0%	53.8%	54.0%	53.7%	55.1%	56.1%	59.6%	*58.5%*	*58.5%*	Long-Term Debt Ratio	*61.0%*
52.3%	51.4%	47.4%	46.0%	46.2%	44.1%	44.4%	43.1%	42.5%	40.4%	*41.0%*	*40.5%*	Common Equity Ratio	*37.5%*
78088	77222	86609	90774	94940	101807	103589	109744	115235	121564	*124525*	*125500*	Total Capital ($mill)	*144100*
70046	75709	82520	86391	91694	102127	106782	111408	111748	115315	*124375*	*132500*	Net Plant ($mill)	*141100*
4.8%	4.8%	4.0%	4.3%	4.6%	4.7%	4.8%	4.8%	2.0%	2.3%	*4.5%*	*4.5%*	Return on Total Cap'l	*4.5%*
7.2%	7.2%	6.2%	7.1%	7.6%	8.0%	8.1%	8.4%	5.2%	5.8%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.0%*
7.2%	7.2%	6.2%	7.1%	7.6%	8.3%	8.2%	8.5%	5.2%	5.8%	*9.0%*	*9.0%*	Return on Com Equity E	*9.0%*
1.7%	1.5%	.6%	1.2%	2.0%	2.4%	2.3%	1.9%	1.5%	1.8%	*2.5%*	*2.5%*	Retained to Com Eq	*3.0%*
76%	79%	91%	83%	74%	71%	73%	78%	76%	73%	*73%*	*73%*	All Div'ds to Net Prof	*68%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+2.0	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	209	285	NA

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	.5%	-.5%	*2.5%*
"Cash Flow"	4.0%	5.0%	*5.0%*
Earnings	3.0%	4.5%	*5.0%*
Dividends	3.0%	3.5%	*2.0%*
Book Value	2.0%	1.0%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	6150	5758	6951	6238	25097
2022	7132	6685	7968	6983	28768
2023	7276	6578	7994	7212	29060
2024	*7350*	*6650*	*8250*	*7750*	*30000*
2025	*7700*	*6850*	*8450*	*8100*	*31100*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.26	1.15	1.88	.94	5.24
2022	1.30	1.14	1.78	1.11	5.27
2023	1.20	.91	1.94	1.51	5.56
2024	*1.40*	*1.05*	*2.05*	*1.50*	*6.00*
2025	*1.40*	*1.35*	*2.10*	*1.50*	*6.35*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.945	.945	.965	.965	3.82
2021	.965	.965	.985	.985	3.90
2022	.985	.985	1.005	1.005	3.98
2023	1.005	1.005	1.025	1.025	4.06
2024	1.025				

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, and KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most int'l ops. in '16. Elec. rev. breakdown: residential, 45%; commercial, 28%; industrial, 13%; other, 14%. Generating sources: gas, 32%; nuclear, 30%; coal, 18%; other, 1%; purchased, 19%. Fuel costs: 28% of revs. '22 reported deprec. rate: 3.6%. Has 27,600 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.

Duke Energy recently filed some rate cases. In Indiana, the utility filed for a hike of $492 million (16%) over 2026 for its investments in improving the electric grid. In North Carolina, Piedmont Gas is seeking recovery for its infrastructure investments to improve reliability, an overall 11.7% increase. And, Duke Energy Florida requested an increase of approximately $820 million between 2025-2027 to increase efficiency, reduce outages, and add 14 new solar sites.

We are sticking with our 2024 earnings-per-share estimate of $6.00. This is around the midpoint of the company's targeted range of $5.85-$6.10 per share. Management also reaffirmed its long-term profit growth target of 5%-7% annually through 2028. We think rate relief and growing power demand will produce a 8% rise in earnings this year, and a 6% increase in 2025. Duke Energy expects its power demand to grow by 1.5%-2% annually in the near-term and looks for a sharper rise of 2.5% a year over the next decade or so. The adoption of electric vehicles should make up about 40% of this increase. Meanwhile, the company's earnings over the next few years should benefit from the aforementioned pending rate cases and energy-efficiency programs.

Duke remains focused on improving the electricity grid and providing solar investments. The utility recently completed its Bad Creek upgrade, which added 320 MWh of energy to support electricity demand. The upgrades took four years to complete and the total capacity of the station is now 1,680 MWh, enough to power over a million homes. The company is looking to extend its license of the Bad Creek facility and potentially add a second powerhouse at the site.

This issue is tailor made for income-oriented accounts. Duke stock has an above-average dividend yield for a utility. And, the company has proven to be one of the better-managed and best-performing utilities in the industry. We also slightly increased our 3- to 5-year Target Price Range, and now look for these shares to trade around $110-$150 over that interim. At the current quotation, however, long-term capital appreciation potential is nothing to write home about.

Zachary J. Hodgkinson *May 10, 2024*

(A) Dil. EPS. Excl. net nonrec. losses: '12, 64¢; '13, 22¢; '14, 59¢; '15, 5¢; '16, 60¢; '18, 96; '20, $3.40; '21, 30¢; net nonrec gain: '17, 14¢. 2021 EPS may not sum to annual due to rounding. Next egs. due early Aug. (B) Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '22: $41.34/sh. (D) In mill., (E) Rate base: Net orig. cost. Rate all'd on com. eq. in '21 in NC: 9.6%; 9.5%; in '20 in FL: 9.5%-11.5%; in '20 in IN: 9.7%. in '19 in SC:9.5%; Reg. Clim.: NC, SC Avg.; OH, IN Above Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	45
Earnings Predictability	100

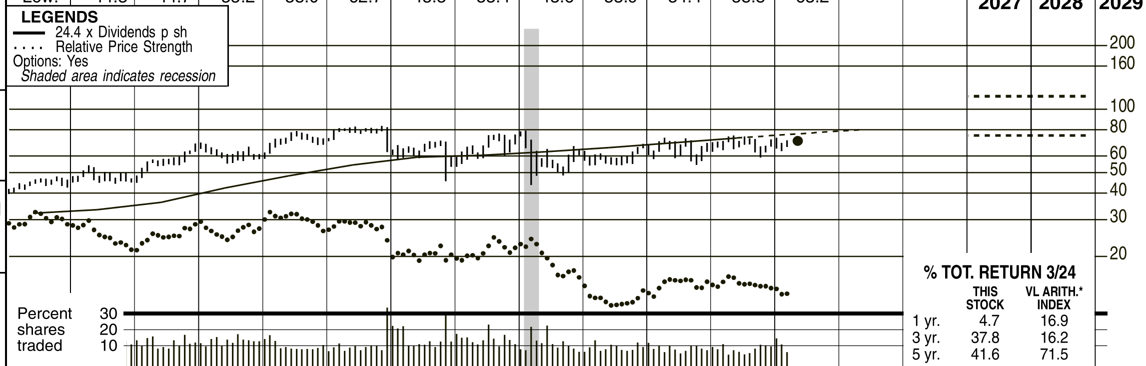
EDISON INTERNAT'L NYSE-EIX

RECENT PRICE	P/E RATIO	(Trailing/Median)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
70.68	14.3	(Trailing: 14.8 Median: 14.0)	0.78	4.5%	

TIMELINESS 3 Raised 3/1/24
SAFETY 3 Lowered 11/23/18
TECHNICAL 3 Lowered 3/22/24
BETA 1.00 (1.00 = Market)

High:	54.2	68.7	69.6	78.7	83.4	71.0	76.4	78.9	68.6	73.3	74.9	73.3
Low:	44.3	44.7	55.2	58.0	62.7	45.5	53.4	43.6	53.9	54.4	58.8	63.2

Target Price Range 2027 | 2028 | 2029



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$55-$90	$73 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+65%)	16%
Low	75	(+5%)	6%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	369	361	356
to Sell	304	299	362
Hld's(000)	340122	336919	342030

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.7	16.9
3 yr.	37.8	16.2
5 yr.	41.6	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	35.83	39.18	45.05	42.56	***44.95***	***47.40***	Revenues per sh	***53.85***
8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.39	9.80	10.59	11.51	11.80	***12.85***	***13.60***	"Cash Flow" per sh	***15.00***
3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	4.70	4.52	4.59	4.63	4.76	***4.95***	***5.50***	Earnings per sh A	***6.55***
1.23	1.25	1.27	1.29	1.31	1.37	1.48	1.73	1.98	2.23	2.43	2.48	2.58	2.69	2.84	2.99	***3.14***	***3.29***	Div'd Decl'd per sh B ■	***3.86***
8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	14.47	14.47	15.12	14.19	***15.75***	***16.25***	Cap'l Spending per sh	***17.00***
29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	37.08	36.57	35.70	36.02	***38.00***	***40.40***	Book Value per sh C	***48.25***
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	378.91	380.38	382.21	383.93	***386.00***	***388.00***	Common Shs Outst'g D	***390.00***
12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	- -	14.1	13.3	12.9	14.0	14.4	*Bold figures are*		Avg Ann'l P/E Ratio	***14.5***
.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	- -	.75	.68	.70	.81	.80	*Value Line*		Relative P/E Ratio	***.80***
2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%	4.3%	4.5%	4.4%	4.4%	*estimates*		Avg Ann'l Div'd Yield	***4.1%***

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
13413	11524	11869	12320	12657	12347	13578	14905	17220	16338	***17350***	***18400***	Revenues ($mill)	***21000***
1539.0	1480.0	1422.0	1603.0	d290.0	1716.0	1818.0	1907.0	1977.0	2035.0	***2120***	***2345***	Net Profit ($mill)	***2770***
22.4%	6.6%	11.1%	5.0%	- -	1.2%	5.0%	18.0%	12.5%	14.9%	***13.0%***	***13.0%***	Income Tax Rate	***13.0%***
5.8%	8.0%	6.8%	7.2%	- -	9.6%	9.6%	8.8%	9.6%	11.4%	***11.0%***	***10.5%***	AFUDC % to Net Profit	***10.0%***
44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	55.2%	57.6%	60.7%	62.8%	***64.0%***	***64.0%***	Long-Term Debt Ratio	***65.0%***
47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	39.5%	33.2%	30.6%	28.7%	***28.0%***	***28.5%***	Common Equity Ratio	***28.5%***
23216	24352	24362	25506	27284	33360	35581	41959	44547	48260	***52150***	***55350***	Total Capital ($mill)	***65650***
32981	35085	37000	39050	41348	44285	47839	50700	53486	56084	***59100***	***62250***	Net Plant ($mill)	***72200***
7.7%	7.1%	6.9%	7.3%	.1%	6.4%	6.3%	5.6%	5.7%	5.8%	***5.0%***	***5.5%***	Return on Total Cap'l	***5.5%***
11.9%	11.1%	10.0%	11.6%	NMF	11.1%	11.4%	10.7%	11.3%	11.3%	***11.5%***	***12.0%***	Return on Shr. Equity	***12.0%***
13.0%	12.0%	10.8%	12.7%	NMF	12.0%	12.0%	12.5%	12.9%	13.1%	***13.0%***	***13.5%***	Return on Com Equity E	***13.5%***
8.8%	7.2%	5.6%	6.6%	NMF	5.9%	5.4%	5.4%	5.2%	5.0%	***5.0%***	***5.5%***	Retained to Com Eq	***5.5%***
37%	44%	53%	52%	NMF	54%	58%	61%	64%	66%	***67%***	***63%***	All Div'ds to Net Prof	***62%***

CAPITAL STRUCTURE as of 12/31/23
Total Debt $34090 mill. **Due in 5 Yrs** $10489 mill.
LT Debt $30316 mill. **LT Interest** $1565 mill.
(Total Interest Coverage: 2.4x)
Leases, Uncapitalized Annual rentals $166 mill.

Pension Assets-12/22 $3609 mill. **Oblig** $3647 mill.

Pfd Stock $4116 mill. **Pfd Div'd** $225 mill.

Common Stock 384,524,276 shs. **as of 2/15/24**
MARKET CAP: $27.2 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	-3.9	+.9	-6.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	21190	24345	21254
Annual Load Factor (%)	52.7	45.8	49.7
% Change Customers (yr-end)	+.3	+.8	+.7
Fixed Charge Cov. (%)	113	135	166

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	1.0%	2.5%	*4.0%*
"Cash Flow"	2.0%	5.5%	*5.0%*
Earnings	2.0%	14.0%	*6.0%*
Dividends	8.0%	5.0%	*5.5%*
Book Value	2.0%	0.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2960	3315	5299	3331	14905
2022	3968	4008	5228	4016	17220
2023	3966	3964	4702	3706	16338
2024	***4250***	***4300***	***4950***	***3850***	***17350***
2025	***4500***	***4550***	***5250***	***4100***	***18400***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.79	.94	1.69	1.16	4.59
2022	1.07	.94	1.48	1.15	4.63
2023	1.09	1.01	1.38	1.28	4.76
2024	***1.15***	***1.05***	***1.45***	***1.30***	***4.95***
2025	***1.30***	***1.15***	***1.60***	***1.45***	***5.50***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.6375	.6375	.6375	.6375	2.55
2021	.6625	.6625	.6625	.6625	2.65
2022	.70	.70	.70	.70	2.80
2023	.7375	.7375	.7375	.7375	2.95
2024	.78				

BUSINESS: Edison International is a holding company for Southern California Edison Company (SoCal Edison), which supplies electricity to 5.28 mill. customers in a 50,000-sq.-mi. area in central, coastal, & southern CA (excl. Los Angeles & San Diego). Edison Energy is an energy svcs. co. Disc. Edison Mission Energy (independent power producer) in '12. Elec. rev. breakdown: residential, 40%; commercial, 43%; industrial, 3%; other, 14%. Generating sources: nuclear, 9%; gas, 5%; hydroelectric, 6%; purchased, 80%. Power costs: 34% of revs. '23 reported depr. rate: 4.1%. Employs 14,316. Board Chair: Peter J. Taylor. President & CEO: Pedro J. Pizzaro. Inc.: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel.: 626-302-2222. Web: www.edison.com.

Edison International should see decent earnings gains in 2024. This year's weather comparisons are not particularly difficult. And, the utility ought to continue to prosper from the escalation mechanism set forth in the 2021 General Rate Case (GRC) decision that allows it to bill for certain types of expenses, alleviating regulatory lag to a large degree. Load growth in California is healthy, at about 3% due to trends in electrification for vehicles and heavy equipment. This leads to plenty of transmission and distribution work that pays off rapidly in terms of return on investment for regulated utilities in California. Fire mitigation work also keeps the rate base growing. Edison's current authorized return on equity (ROE) is 10.3%, which is fairly generous relative to the rates that peers have been receiving in other states. That said, the company may get a further lift next year in that regard.

Edison has a general rate case decision coming its way in 2025. State peer, PG&E, received favorable terms from the California Public Utilities Commission, with a recent boost to its authorized ROE to 10.7% without too much public backlash. There's a reasonable chance that Edison will get a lift in its investment returns, as well. As such, we're projecting a 6% gain in earning per share next year.

Wildfire headline risk comes with the territory here. In October, Orange County filed a lawsuit alleging EIX's equipment caused forest fires in 2020 and 2022. Dollar amounts sought weren't given. In February, the company agreed to pay an $80 million settlement to the federal government for forestland burned in the 2017 Thomson fire. In recent years, EIX has paid out billions of dollars in lawsuit settlements associated with the role its power lines played in 2017 and 2018 forest fires. Notably, management recently said the settlement payout process has nearly run its course. The company also believes it has reduced its risk of causing a blaze by 88% as a result of its ongoing mitigation work.

This neutrally ranked equity (Timeliness: 3, Average) doesn't stand out from the crowd at the recent quotation. On a total-return basis, EIX is right at the utility industry median.

Anthony J. Glennon *April 19, 2024*

(A) Adjusted (non-GAAP) EPS from 2019 on. Excl. gains/(losses): nonrecur's ; '10, 54¢; '11, ($3.33); '13, ($1.12); '15, ($1.18); '17, ($1.37); '18, (14¢); '19, (92¢); '20, ($2.54); '21, ($2.59); '22, ($3.02); '23, ($1.34); disc. ops.: '13, 11¢; '14, 57¢; '15, 11¢; '18, 10¢. Qtly. EPS may not sum to full yr. due to rounding. Next egs. report due early May. **(B)** Div'ds paid late Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. **(C)** Incl. def'd chgs. In '23: $4.36/sh. **(D)** In mill. **(E)** Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%; Regulatory Climate: Avg.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	25
Earnings Predictability	10

ENTERGY CORP. NYSE-ETR

RECENT PRICE 109.14 | P/E RATIO 20.6 (Trailing: 10.9 Median: 14.0) | RELATIVE P/E RATIO 1.15 | DIV'D YLD 4.1% | VALUE LINE

TIMELINESS 3 Lowered 3/8/24
SAFETY 2 Raised 12/13/19
TECHNICAL 3 Raised 5/31/24
BETA 1.00 (1.00 = Market)

High:	72.6	92.0	90.3	82.1	87.9	90.8	122.1	135.5	115.0	126.8	111.9	114.3
Low:	60.2	60.4	61.3	65.4	69.6	71.9	83.2	75.2	85.8	94.9	87.1	96.1

Target Price Range 2027 | 2028 | 2029

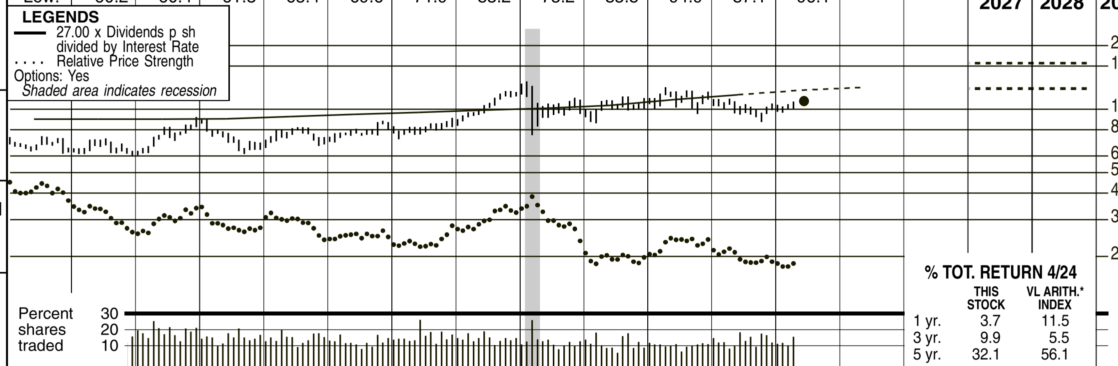
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$80-$125 $103 (-5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	165	(+50%)	15%
Low	125	(+15%)	7%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	405	402	429
to Sell	270	304	319
Hld's(000)	181973	184676	191523



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	3.7	11.5
3 yr.	9.9	5.5
5 yr.	32.1	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	50.51	57.95	65.18	57.07	*56.40*	*59.00*	Revenues per sh	*69.90*
12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	18.21	17.90	15.51	21.53	*17.05*	*18.05*	"Cash Flow" per sh	*21.35*
6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	6.90	6.87	5.37	11.10	*5.30*	*6.85*	Earnings per sh A	*8.05*
3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	3.74	3.86	4.10	4.34	*4.56*	*4.70*	Div'd Decl'd per sh B ■ †	*5.00*
13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	24.52	30.86	25.04	20.86	*21.00*	*22.00*	Cap'l Spending per sh	*19.75*
42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	54.56	57.42	61.40	68.70	*70.65*	*73.65*	Book Value per sh C	*84.65*
189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	200.24	202.65	211.18	212.85	*218.00*	*222.00*	Common Shs Outst'g D	*230.00*
16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	15.3	15.0	21.1	9.1	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79	.81	1.22	.51	*Value Line*		Relative P/E Ratio	*1.00*
2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%	3.6%	3.7%	3.6%	4.3%	*estimates*		Avg Ann'l Div'd Yield	*3.7%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $28400 mill. **Due in 5 Yrs** $11117 mill.
LT Debt $24309 mill. **LT Interest** $1046.0 mill.
Incl. $54.7 mill. of securitization bonds.
(LT interest earned: 2.5x)
Leases, Uncapitalized Annual rentals $67.4 mill.
Pension Assets-12/23 $5469.6 mill.
Oblig $5915.4 mill.
Pfd Stock $219.4 mill. **Pfd Div'd** $18.3 mill.
200,000 shs. 6.25%-7.5%, $100 par; 250,000 shs. 8.75%, 1.4 mill. shs. 5.375%; all cum., without sinking fund.
Common Stock 213,536,936 shs. **as of 4/30/24**
MARKET CAP: $23.3 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
12495	11513	10846	11074	11009	10879	10114	11743	13764	12147	*12300*	*13100*	Revenues ($mill)	*16070*
1060.0	1061.2	1249.8	950.7	1092.1	1258.2	1406.7	1402.8	1103.2	2356.5	*1155*	*1520*	Net Profit ($mill)	*1850*
37.8%	2.2%	11.3%	1.8%	- -	- -	- -	16.1%	16.1%	16.1%	*23.0%*	*23.0%*	Income Tax Rate	*23.0%*
9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	12.2%	7.1%	2.5%	1.7%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	65.5%	67.6%	64.2%	60.8%	*61.0%*	*61.0%*	Long-Term Debt Ratio	*61.0%*
43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	33.7%	31.7%	35.2%	38.6%	*39.0%*	*39.0%*	Common Equity Ratio	*39.0%*
22842	22714	22777	22528	24602	27557	32386	36733	36810	37851	*39995*	*42400*	Total Capital ($mill)	*50555*
28723	27824	27921	29664	31974	35183	38853	42244	42477	43834	*46465*	*49255*	Net Plant ($mill)	*58660*
6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	5.6%	4.9%	4.3%	7.6%	*4.0%*	*4.5%*	Return on Total Cap'l	*6.0%*
10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	12.6%	11.8%	8.4%	15.9%	*7.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	12.7%	11.9%	8.4%	16.0%	*1.0%*	*9.0%*	Return on Com Equity E	*9.5%*
4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	5.9%	5.2%	1.9%	9.7%	*.5%*	*3.0%*	Retained to Com Eq	*3.5%*
58%	58%	50%	68%	61%	58%	55%	57%	78%	40%	*86%*	*69%*	All Div'ds to Net Prof	*62%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.2	+1.1	+4.5
Total Indust. Use (GWH)	49819	52501	52807
Avg. Indust. Revs. per KWH(¢)	5.91	7.08	6.00
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+.4
Fixed Charge Cov. (%)	243	209	250

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-.5%	- -	2.5%
"Cash Flow"	1.0%	1.0%	2.5%
Earnings	2.5%	5.5%	.5%
Dividends	2.0%	3.0%	3.5%
Book Value	2.0%	6.5%	4.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2845	2822	3353	2723	11743
2022	2878	3395	4219	3273	13764
2023	2981	2846	3596	2725	12147
2024	2795	*3200*	*3200*	*3105*	*12300*
2025	*3000*	*3500*	*3400*	*3200*	*13100*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.66	1.30	2.63	1.28	6.87
2022	1.36	.78	2.74	.51	5.37
2023	1.47	1.84	3.14	4.66	11.10
2024	.35	*1.05*	*2.95*	*.95*	*5.30*
2025	*1.60*	*1.15*	*3.05*	*1.05*	*6.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.93	.93	.93	.95	3.74
2021	.95	.95	.95	1.01	3.86
2022	1.01	1.01	1.01	1.07	4.10
2023	1.07	1.07	1.07	1.13	4.34
2024	1.13	1.13			

BUSINESS: Entergy Corporation supplies electricity to 3 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 206,000 customers in Louisiana. Is selling its last nonutility nuclear unit (shut down 5/22). Electric revenue breakdown: residential, 37%; commercial, 24%; industrial, 27%; other, 12%. Generating sources: gas, 68%; nuclear, 22%; coal, 9%; hydro and solar, 1%. Fuel costs: 32% of revenues. '23 reported depreciation rate: 2.7%. Has 11,707 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

Entergy recorded disappointing first-quarter results. Revenues fell to just under $2.8 billion, as the company faced lower industrial sales, while warmer weather caused less energy to be used across its coverage areas. The company signed an additional eight electric service agreements with industrial customers, including a data center in Mississippi, which represents 1.1 gigawatts of loads. The power provider had much higher maintenance costs as a few planned plant refurbishments occurred in the quarter, and Entergy had some downtime at a few of its plants. The company achieved much higher interest income, but it faced some negative regulatory charges, such as one in Arkansas, while another was based on an old audit resolution. These factors caused earnings to drop sharply to $0.35 per share during the March period.

The company ought to have better results over the rest of the year. Revenues should increase thanks to projects going into service to supply multiple new industrial clients. Several areas that Entergy supplies power to are seeing population growth, leading to incremental supply gains. Some rate cases have reached conclusions recently, including one in New Orleans, which should have better operations and fewer legal costs. Still, costs will likely rise to provide more power, and we think less of higher fuel prices will be passed along to industrial customers. Overall, we estimate that earnings will tumble to $5.30 per share this year.

We expect solid expansion over the long haul. Several projects have been approved to enhance resilience and improve the grid, including 2,100 capital expansions in the company's Louisiana coverage area totaling $1.9 billion over the next five years. Moreover, we think other renewable energy projects should help operations expand. Entergy ought to also benefit from continued growth in the Texas region as more operations occur there. Overall, we project earnings will recover to $6.85 per share in 2025 and $8.05 by 2027-2029.

Shares of Entergy are neutrally ranked for Timeliness. The stock has below average appreciation potential but the dividend yield is appealing, making this equity best suited for income-seekers.

John E. Seibert III *June 7, 2024*

(A) Diluted EPS. GAAP starting in 2022. Excl. nonrec. losses: '12, $1.26; '13, $1.14; '14, 56¢; '15, $6.99; '16, $10.14; '17, $2.91; '18, $1.25; '21, $1.33. Next earnings report due early August. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '23: $26.66/sh. (D) In mill. (E) Rate base: Net original cost. Allowed ROE (blended): 9.71%; earned on avg. com. eq., '23: 16.0%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	70

EVERGY, INC. NYSE-EVRG

RECENT PRICE 53.43 | P/E RATIO 14.8 (Trailing: 18.8 Median: NMF) | RELATIVE P/E RATIO 0.83 | DIV'D YLD 4.9% | VALUE LINE

TIMELINESS 3 Raised 6/7/24
SAFETY 2 New 9/14/18
TECHNICAL 4 Raised 6/7/24
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$46-$75	$61 (15%)

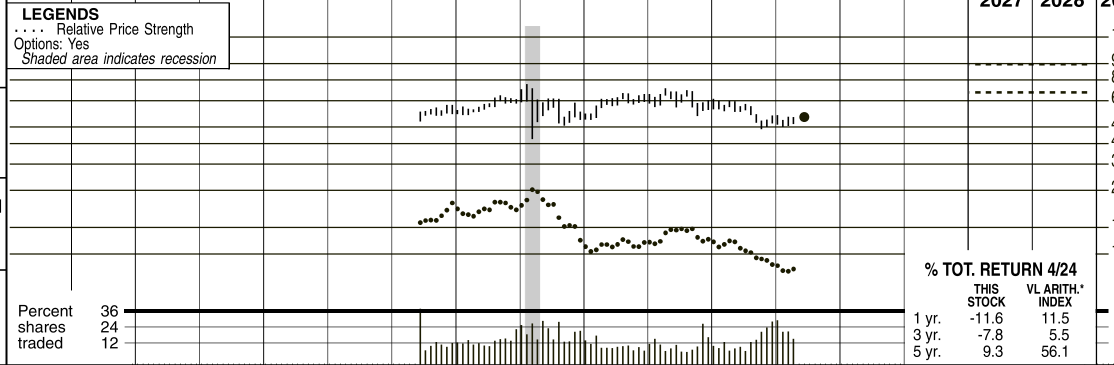
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+80%)	19%
Low	70	(+30%)	11%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	298	320	357
to Sell	272	273	292
Hld's(000)	192350	196134	203440

	2018	2019	2020	2021	2022	2023	2024
High:	61.1	67.8	76.6	69.4	73.1	65.4	56.3
Low:	50.9	54.6	42.0	51.9	54.1	46.9	48.0



Target Price Range 2027 | 2028 | 2029

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-11.6	11.5
3 yr.	-7.8	5.5
5 yr.	9.3	56.1

Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
--	--	--	--	16.75	22.71	21.66	24.36	25.49	23.98	*25.20*	*26.10*	Revenues per sh	*29.80*
--	--	--	--	4.89	7.18	7.06	8.18	7.34	8.33	*7.95*	*8.50*	"Cash Flow" per sh	*9.20*
--	--	--	--	2.50	2.79	2.72	3.83	3.26	3.17	*3.60*	*4.00*	Earnings per sh A	*4.60*
--	--	--	--	1.74	1.93	2.05	2.18	2.33	2.48	*2.61*	*2.74*	Div'd Decl'd per sh B ■	*3.05*
--	--	--	--	4.19	5.34	6.88	8.60	9.41	9.23	*9.25*	*9.30*	Cap'l Spending per sh	*9.50*
--	--	--	--	39.28	37.82	38.50	40.32	41.86	42.06	*44.10*	*45.65*	Book Value per sh C	*47.50*
--	--	--	--	255.33	226.64	226.84	229.30	229.90	229.73	*230.00*	*230.00*	Common Shs Outst'g D	*230.00*
--	--	--	--	22.7	21.8	21.7	16.2	19.9	18.0	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
--	--	--	--	1.23	1.16	1.11	.88	1.15	1.01	*Value Line*		Relative P/E Ratio	*.95*
--	--	--	--	3.1%	3.2%	3.5%	3.5%	4.0%	5.1%	*estimates*		Avg Ann'l Div'd Yield	*3.7%*
--	--	--	--	4275.9	5147.8	4913.4	5586.7	5859.1	5508.2	*5800*	*6000*	Revenues ($mill)	*6850*
--	--	--	--	535.8	669.9	618.3	879.7	752.7	731.3	*830*	*920*	Net Profit ($mill)	*1060*
--	--	--	--	9.8%	12.6%	14.1%	11.7%	5.8%	2.1%	*9.0%*	*9.0%*	Income Tax Rate	*9.0%*
--	--	--	--	2.5%	2.5%	5.5%	5.0%	5.1%	5.4%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*5.0%*
--	--	--	--	40.0%	50.6%	51.3%	50.1%	50.0%	51.5%	*51.5%*	*52.0%*	Long-Term Debt Ratio	*53.5%*
--	--	--	--	60.0%	49.4%	48.7%	49.9%	48.0%	48.0%	*48.5%*	*48.0%*	Common Equity Ratio	*46.5%*
--	--	--	--	16716	17337	17924	18542	19668	20019	*21250*	*22500*	Total Capital ($mill)	*23400*
--	--	--	--	18952	19346	20106	21150	22277	23729	*24200*	*25300*	Net Plant ($mill)	*26300*
--	--	--	--	4.0%	4.8%	4.5%	5.7%	6.9%	6.4%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.1%	7.6%	*9.0%*	*9.0%*	Return on Shr. Equity	*10.0%*
--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.1%	7.6%	*9.0%*	*9.0%*	Return on Com Equity E	*10.0%*
--	--	--	--	.6%	2.4%	1.8%	4.1%	3.1%	2.5%	*3.0%*	*3.0%*	Retained to Com Eq	*3.5%*
--	--	--	--	89%	69%	75%	57%	73%	69%	*68%*	*68%*	All Div'ds to Net Prof	*63%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $12470 mill. **Due in 5 Yrs** $4388 mill.
LT Debt $11658 mill. **LT Interest** $306 mill.
Incl. $40.9 mill. finance leases.
(LT interest earned: 3.8x)

Leases, Uncapitalized Annual rentals $18.8 mill.

Pension Assets-12/22 $1714.7 mill. **Oblig** $2561.7 mill.

Pfd Stock None

Common Stock 229,929,116 shs.
MARKET CAP: $12.3 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.9	+3.1	+6.7
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	7.14	6.94	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	286	350	382

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	--	--	2.5%
"Cash Flow"	--	--	5.0%
Earnings	--	--	7.5%
Dividends	--	--	7.0%
Book Value	--	--	3.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1611.4	1236.7	1616.5	1122.1	5586.7
2022	1223.9	1446.5	1909.1	1279.6	5859.1
2023	1296.8	1354.2	1669.3	1187.9	5508.2
2024	1331.0	*1400*	*1750*	*1319*	*5800*
2025	*1350*	*1450*	*1850*	*1350*	*6000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.84	.81	1.95	.23	3.83
2022	.53	.84	1.86	.03	3.26
2023	.62	.78	1.53	.24	3.17
2024	.53	*.85*	*1.75*	*.47*	*3.60*
2025	*.70*	*.85*	*2.00*	*.45*	*4.00*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.505	.505	.505	.535	2.05
2021	.535	.535	.535	.5725	2.18
2022	.5725	.5725	.5725	.6125	2.33
2023	.6125	.6125	.6125	.6425	2.48
2024	.6425	.6425			

BUSINESS: Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1.6 million customers in Kansas and Missouri, including the greater Kansas City area. Electric revenue breakdown: residential, 32%; commercial, 27%; industrial, 15%; wholesale, 13%; other, 13%. Generating sources: coal, 54%; nuclear, 17%; purchased, 29%. Fuel costs: 28% of revenues. '23 reported deprec. rate: 3%. Has 4,900 employees. Chairman: Mark A. Ruelle. President & CEO: David A. Campbell. COO: Kevin E. Bryant. Inc.: Missouri. Address: 1200 Main Street, Kansas City, Missouri 64105. Tel.: 816-556-2200. Internet: www.evergy.com.

Evergy's Missouri West subsidiary has a rate case pending. As a reminder, Missouri West filed for an increase of $104 million (13.4%), excluding fuel. The utility is looking to recover grid modernization investments and new rates will go into effect in January 2025, if approved. In Kansas, the utility filed its 2024 integrated resource plan (IRP), which will add 360 MW over the next 10 years compared to the 2023 update. Note, Evergy's $12.5 billion capital investment plan does not yet include the changes in its 2024 IRP.

Our 2024 bottom-line target is staying put at $3.60 per share. The company should continue to benefit from investments in its transmission system, and rate relief through this year and beyond. What's more, elevated power demand due to artificial intelligence innovations and data centers will likely rise exponentially and prop up profits nicely. Evergy remains committed to its earnings-per-share growth target of 4%-6% annually through 2026 based on management's original 2023 outlook midpoint. And, it expects annual rate base growth of 6% through 2028. We look for earnings to improve in 2025 to $4.00 per share. The aforementioned Missouri West rate case should provide a full year of rate relief, along with other regulatory matters over that time period. And, borrowing costs should improve if interest rates start to decline, which is important as Evergy generally has low return rates on total capital and relies heavily on high debt levels.

Evergy's stock price has risen nicely of late. The stock is up almost 10% since our early March report, erasing year-to-date losses. Indeed, these shares are now up slightly so far this year, after struggling in the early months.

Income-oriented investors may want to take a look here. The dividend yield of this stock stands far above the utility average, and prospective annual dividend increases of 7% add to the appeal. Meanwhile, intermediate- and long-term capital appreciation potential is decent in comparison to most of its peers. Indeed, our 18-month Target Price Range indicates a 15% premium to the current quotation. And, we look for the stock to trade between $70-$95 by 2027-2029.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted earnings. Next earnings report due early Aug. **(B)** Dividends paid in mid-March, June, September, and December. ■ Dividend reinvestment plan available. **(C)** Incl. intangibles. **(D)** In millions. **(E)** Rate base: Original cost depreciated. Rate allowed on common equity in Missouri in '18: none specified; in Kansas in '18: 9.3%; earned on average common equity, '22: 9.8%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	25
Earnings Predictability	85

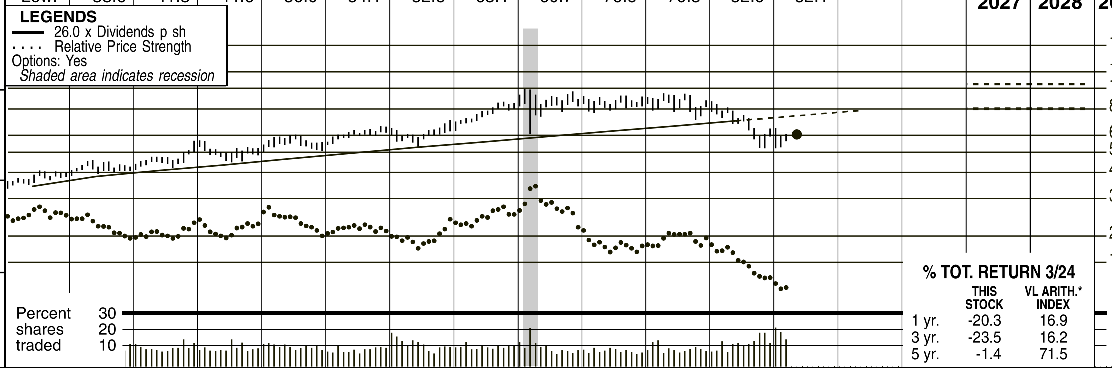
EVERSOURCE ENERGY NYSE-ES

RECENT PRICE **60.46** | P/E RATIO **13.1** (Trailing: 14.0 Median: 19.0) | RELATIVE P/E RATIO **0.75** | DIV'D YLD **4.8%** | VALUE LINE

TIMELINESS **5** Lowered 2/23/24
SAFETY **2** Lowered 5/12/23
TECHNICAL **5** Lowered 5/10/24
BETA .95 (1.00 = Market)

High:	45.7	56.7	56.8	60.4	66.1	70.5	86.6	99.4	92.7	94.6	86.8	64.6
Low:	38.6	41.3	44.6	50.0	54.1	52.8	63.1	60.7	76.6	70.5	52.0	52.1

Target Price Range 2027 | 2028 | 2029



18-Month Target Price Range
Low-High $49-$82 | Midpoint (% to Mid) $66 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+75%)	18%
Low	80	(+30%)	12%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	379	371	366
to Sell	375	374	417
Hld's(000)	283976	281272	282086

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-20.3	16.9
3 yr.	-23.5	16.2
5 yr.	-1.4	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
37.22	30.97	27.76	25.21	19.98	23.16	24.42	25.08	24.11	24.46	26.66	25.85	25.96	28.64	35.27	34.08	*37.25*	*38.70*	Revenues per sh	*41.80*
6.16	4.96	5.68	4.88	4.03	5.22	4.56	4.94	5.46	5.84	6.64	6.65	6.99	7.74	8.79	6.68	*9.40*	*9.75*	"Cash Flow" per sh	*10.45*
1.86	1.91	2.10	2.22	1.89	2.49	2.58	2.76	2.96	3.11	3.25	3.45	3.64	3.86	4.09	4.34	*4.60*	*4.85*	Earnings per sh A	*5.80*
.83	.95	1.03	1.10	1.32	1.47	1.57	1.67	1.78	1.90	2.02	2.14	2.27	2.41	2.55	2.70	*2.86*	*3.03*	Div'd Decl'd per sh B ■	*3.60*
8.06	5.17	5.41	6.08	4.69	4.62	5.06	5.44	6.24	7.41	7.96	8.83	8.58	9.22	9.88	12.41	*12.40*	*12.40*	Cap'l Spending per sh	*13.00*
19.38	20.37	21.60	22.65	29.41	30.49	31.47	32.64	33.80	34.99	36.25	38.29	41.01	42.39	44.41	40.55	*42.35*	*44.25*	Book Value per sh C	*51.75*
155.83	175.62	176.45	177.16	314.05	315.27	316.98	317.19	316.89	316.89	316.89	329.88	342.95	344.40	348.44	349.54	*350.50*	*351.50*	Common Shs Outst'g D	*365.00*
13.7	12.0	13.4	15.4	19.9	16.9	17.9	18.1	18.7	19.5	18.7	22.1	23.7	22.2	20.9	16.0	*Bold figures are*	*Value Line estimates*	Avg Ann'l P/E Ratio	*16.0*
.82	.80	.85	.97	1.27	.95	.94	.91	.98	.98	1.01	1.18	1.22	1.20	1.21	.89			Relative P/E Ratio	*.90*
3.2%	4.2%	3.6%	3.2%	3.5%	3.5%	3.4%	3.3%	3.2%	3.1%	3.3%	2.8%	2.6%	2.8%	3.0%	3.9%			Avg Ann'l Div'd Yield	*3.9%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $26754 mill. **Due in 5 Yrs** $9258.1 mill.
LT Debt $23956 mill. **LT Interest** $793.7 mill.
(Total Interest coverage: 3.1x)

Leases, Uncapitalized Annual rentals $80.6 mill.

Pension Assets-12/23 $5775.0 mill. **Oblig.** $5238.4 mill.
Pfd Stock $155.6 mill. **Pfd Div'd** $7.52 mill.

Common Stock 349,687,183 shs. as of 1/31/24
MARKET CAP: $21.1 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
7741.9	7954.8	7639.1	7752.0	8448.2	8526.5	8904.4	9863.1	12289	11911	*13050*	*13600*	Revenues ($mill)	*15250*
827.1	886.0	949.8	995.5	1040.5	1121.0	1244.8	1337.7	1427.4	1525.2	*1620*	*1715*	Net Profit ($mill)	*2130*
36.2%	37.9%	36.9%	36.8%	21.7%	19.7%	22.2%	21.9%	24.3%	19.8%	*24.0%*	*24.0%*	Income Tax Rate	*24.0%*
2.4%	2.9%	3.9%	4.7%	6.1%	6.3%	5.3%	4.2%	4.8%	8.0%	*8.0%*	*8.0%*	AFUDC % to Net Profit	*7.0%*
45.9%	45.6%	44.8%	51.2%	52.4%	52.8%	52.4%	54.2%	56.3%	62.6%	*62.5%*	*62.5%*	Long-Term Debt Ratio	*59.0%*
53.2%	53.6%	54.4%	48.2%	46.9%	46.6%	47.1%	45.3%	43.3%	37.0%	*37.0%*	*37.0%*	Common Equity Ratio	*40.5%*
18738	19313	19697	23018	24474	27097	29842	32233	35763	38285	*39800*	*41700*	Total Capital ($mill)	*46600*
18647	19892	21351	23617	25610	27585	30883	33378	36113	39499	*41700*	*44050*	Net Plant ($mill)	*51000*
5.3%	5.5%	5.8%	5.2%	5.2%	5.1%	5.1%	5.1%	5.0%	5.0%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
8.2%	8.4%	8.7%	8.9%	8.9%	8.8%	8.8%	9.1%	9.1%	10.6%	*11.0%*	*11.0%*	Return on Shr. Equity	*11.0%*
8.2%	8.5%	8.8%	8.9%	9.0%	8.8%	8.8%	9.1%	9.2%	10.7%	*11.0%*	*11.0%*	Return on Com Equity E	*11.0%*
3.5%	3.4%	3.5%	3.5%	3.4%	3.6%	3.5%	3.6%	3.6%	4.2%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
58%	61%	60%	61%	62%	60%	60%	61%	61%	61%	*62%*	*62%*	All Div'ds to Net Prof	*62%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (GWH)	+1.6	+.5	-3.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+.7	+.7
Fixed Charge Cov. (%)	347	310	263

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	3.5%	5.5%	*4.0%*
"Cash Flow"	5.0%	5.5%	*5.0%*
Earnings	6.5%	5.5%	*6.0%*
Dividends	7.0%	6.0%	*6.0%*
Book Value	4.5%	4.0%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2826	2123	2433	2482	9863
2022	3471	2573	3216	3030	12289
2023	3796	2629	2792	2694	11911
2024	*3900*	*2700*	*3250*	*3200*	*13050*
2025	*4075*	*2825*	*3375*	*3325*	*13600*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.15	.79	1.02	.91	3.86
2022	1.30	.86	1.01	.92	4.09
2023	1.41	1.00	.97	.95	4.34
2024	*1.45*	*1.03*	*1.07*	*1.05*	*4.60*
2025	*1.50*	*1.10*	*1.15*	*1.10*	*4.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.5675	.5675	.5675	.5675	2.27
2021	.6025	.6025	.6025	.6025	2.41
2022	.6375	.6375	.6375	.6375	2.55
2023	.675	.675	.675	.675	2.70
2024	.715				

BUSINESS: Eversource Energy (formerly Northeast Utilities) is the parent of 12 regulated utilities with 4.45 million electric, natural gas, and water customers. Supplies power to most of Connecticut and gas to part of CT; supplies power to 3/4 of New Hampshire's population; supplies power to western Massachusetts and parts of eastern MA & gas to central & eastern MA; supplies water to CT, MA, & NH. Acq'd NSTAR 4/12; Aquarion 12/17; Columbia Gas 10/20. Electric rev. breakdown: residential, 56%; commercial/indus'l/other, 43.4%. Fuel costs: 41% of revs. '23 reported depr. rate: 3.1%. Employs about 10,200. Chairman, President & CEO: Joseph R. Nolan, Jr. Inc.: MA. Addr.: 300 Cadwell Drive, Springfield, MA 01104. Telephone: 413-785-5871. Internet: www.eversource.com.

Eversource Energy has largely divested its offshore wind generation assets, lifting most of the uncertainty that had been weighing on the stock. The rapid rise in financing and development costs over the past few years caused these assets to drop in value. The company ultimately had to take a $1.95 billion nonrecurring impairment charge in 2023. Eversource was able to recoup some of its initial investment. In September, the company sold its stake in undeveloped offshore leased areas to its joint-venture partner, Orsted, for $625 million. And in February, Eversource reached an agreement to sell its 50% stake in the South Fork Wind and Revolution Wind projects to Global Infrastructure Partners for $1.1 billion. All that remains is a 50% interest in the Sunrise Wind venture, where a conditional sales agreement is in place with Orsted. The finances of that deal were not disclosed, as they are contingent on what New York State bids for the annual power.

To further shore up its finances, the company is exploring the sale of its water utility. Aquarion water, which was purchased in 2017 for $1.67 billion, has been deemed a nonstrategic asset by Eversource. The business distributes water to 72 towns and cities in Connecticut, Massachusetts, and New Hampshire.

Eversource remains poised for solid intermediate-term profit gains. In Massachusetts, $64 million of higher electric rates were phased in during 2023. This year, additional increases will go into effect based on inflation, maintenance, and transmission & distribution project spending. Rate increases are tied to nearly real-time formulaic pricing adjustments based on a 9.8% return on equity in the company's most important state territory. The company is targeting earnings of $4.50-$4.67 per share this year. Management has affirmed its 5%-7% annual profit growth expectation through late decade.

Longer-term utility investors should consider a commitment here. Eversource recently upped its dividend by 5.9%, and looks poised to regain its stride among utilities prized for their above-average dividend growth prospects. The equity trades at a deep discount to its peer group's average P/E multiple of 16.1.

Anthony J. Glennon *May 10, 2024*

(A) Diluted EPS excl. nonrecur. gain/(losses): '08, (19¢); '10, 9¢; '19, (64¢); '20, (9¢); '21, (32¢); '22, (4¢); '23, ($3.45). Next egs. report due early Aug. Quarterly figures may not sum to full year due to rounding. (B) Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. (C) Incl. intangibles. In '23: $26.45/sh. (D) In mill. (E) Rate allowed on com. eq. in MA: (elec.) '22, 9.8%; (gas) '20, 9.7%-9.9%; in CT: (elec.) '18, 9.25%; (gas) '18, 9.3%; in NH: '21, 9.3%; Regulatory Climate: CT, Below Avg.; NH, Avg.; MA, Above Avg.

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	50
Earnings Predictability	100

EXELON CORP. NDQ-EXC

RECENT PRICE 37.72 | P/E RATIO 15.4 (Trailing: 15.7 Median: 14.0) | RELATIVE P/E RATIO 0.89 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS – Suspended 2/4/22 F
SAFETY 2 Raised 8/13/21
TECHNICAL – Suspended 2/4/22
BETA NMF (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$26-$44 $35 (-5%)

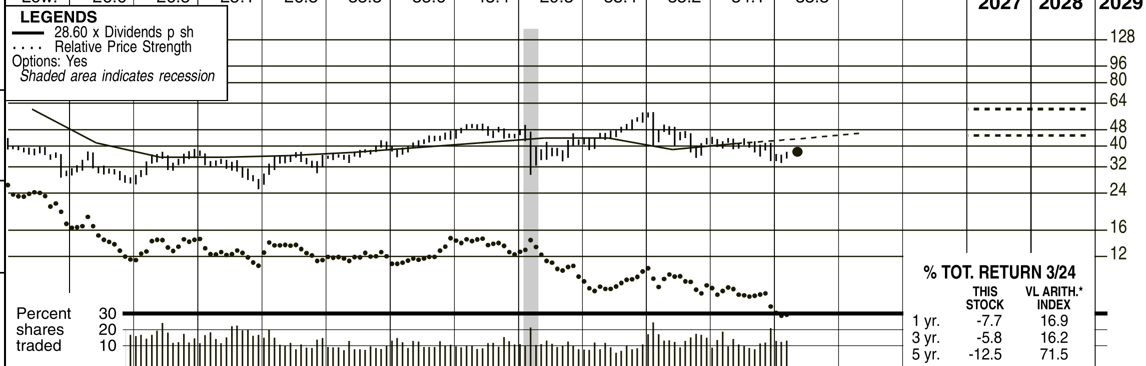
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+60%)	15%
Low	45	(+20%)	8%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	438	453	458
to Sell	411	400	475
Hld's(000)	812887	816650	820814

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	37.8	38.9	38.3	37.7	42.7	47.4	51.2	50.5	58.0	58.2	44.4	38.0
Low:	26.6	26.5	25.1	26.3	33.3	35.6	43.4	29.3	38.4	35.2	34.1	33.3



% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.7	16.9
3 yr.	-5.8	16.2
5 yr.	-12.5	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
28.65	26.25	28.17	28.53	27.48	29.03	31.90	32.01	33.94	34.81	37.17	35.39	33.85	37.13	19.19	21.75	*21.50*	*22.00*	Revenues per sh	*24.65*
7.64	8.25	8.32	7.23	6.61	6.72	6.61	6.80	7.88	8.37	9.29	9.17	9.65	10.56	6.07	6.12	*6.25*	*6.55*	"Cash Flow" per sh	*7.50*
4.10	4.29	3.87	3.75	1.92	2.31	2.10	2.54	2.68	2.78	3.12	3.22	3.22	2.82	2.26	2.38	*2.45*	*2.60*	Earnings per sh A	*3.10*
2.05	2.10	2.10	2.10	2.10	1.46	1.24	1.24	1.26	1.31	1.38	1.45	1.53	1.53	1.35	1.44	*1.52*	*1.62*	Div'd Decl'd per sh B ■	*1.95*
4.74	4.96	5.03	6.09	6.77	6.29	7.07	8.29	9.26	7.87	7.84	7.45	8.25	8.15	7.19	7.42	*7.80*	*7.80*	Cap'l Spending per sh	*8.00*
16.78	19.16	20.49	21.68	25.07	26.52	26.29	28.04	27.96	30.99	31.77	33.12	33.39	35.13	24.89	25.78	*26.35*	*27.25*	Book Value per sh C	*29.75*
658.15	659.76	661.85	663.37	854.78	857.29	859.83	919.92	924.04	963.34	968.19	973.00	976.00	979.00	994.00	999.00	*1000.0*	*1000.0*	Common Shs Outst'g D	*1005.0*
18.0	11.5	11.0	11.3	19.1	13.4	16.0	12.6	12.5	13.4	13.3	14.7	12.4	16.6	19.9	17.0	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
1.08	.77	.70	.71	1.22	.75	.84	.63	.66	.67	.72	.78	.64	.90	1.15	.95	*Value Line*		Relative P/E Ratio	*.95*
2.8%	4.3%	4.9%	5.0%	5.7%	4.7%	3.7%	3.9%	3.7%	3.5%	3.3%	3.1%	3.8%	3.3%	3.2%	4.3%	*estimates*		Avg Ann'l Div'd Yield	*3.5%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $42577 mill. **Due in 5 Yrs** $12334 mill.
LT Debt $39692 mill. **LT Interest** $1450 mill.
Includes $390 mill. nonrecourse transition bonds.
(Interest coverage: 2.7x)
Leases, Uncapitalized Annual rentals $156 mill.

Pension Assets-12/23 $20827 mill.
Oblig $23846 mill.
Pfd Stock None

Common Stock 999,538,542 shs.
as of 1/31/24
MARKET CAP: $37.7 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
27429	29447	31360	33531	35985	34438	33039	36347	19078	21727	*21500*	*22000*	Revenues ($mill)	*24750*
1826.0	2282.0	2488.0	2636.0	3026.0	3139.0	3149.0	2764.0	2170.0	2328.0	*2450*	*2600*	Net Profit ($mill)	*3000*
27.2%	32.2%	38.5%	34.2%	11.1%	19.4%	17.4%	16.1%	14.5%	13.8%	*15.0%*	*15.0%*	Income Tax Rate	*15.0%*
5.5%	5.4%	8.3%	6.5%	4.6%	5.0%	5.5%	7.4%	7.0%	7.4%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
46.7%	48.3%	55.5%	52.2%	52.8%	49.6%	52.1%	50.9%	59.9%	60.3%	*61.0%*	*61.0%*	Long-Term Debt Ratio	*64.5%*
52.8%	51.3%	44.5%	47.8%	47.2%	50.4%	47.9%	49.1%	40.2%	39.1%	*39.0%*	*39.0%*	Common Equity Ratio	*35.5%*
42811	50272	58053	62422	65229	63943	68068	70107	58836	65837	*65250*	*70300*	Total Capital ($mill)	*81000*
52087	57439	71555	74202	76707	80233	82584	84219	69076	73593	*69750*	*70100*	Net Plant ($mill)	*77600*
5.3%	5.5%	5.5%	5.3%	5.7%	6.0%	5.7%	5.0%	5.0%	3.6%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	9.0%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.0%*
8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	9.0%	*10.0%*	*10.0%*	Return on Com Equity E	*10.0%*
3.3%	4.5%	5.1%	4.7%	5.5%	5.4%	5.1%	3.7%	4.0%	3.5%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
59%	49%	47%	47%	44%	45%	47%	54%	60%	60%	*60%*	*60%*	All Div'ds to Net Prof	*60%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	NA	NA
Fixed Charge Cov. (%)	237	325	NA

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.5%	1.0%	NMF
"Cash Flow"	3.0%	5.5%	NMF
Earnings	-.5%	2.5%	NMF
Dividends	-3.0%	4.0%	NMF
Book Value	4.5%	3.5%	NMF

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	9890	7915	8910	9632	36347
2022	5327	4239	4845	4667	19078
2023	5562	4818	5980	5367	21727
2024	*5600*	*4850*	*6100*	*4950*	*21500*
2025	*5750*	*5000*	*6250*	*5000*	*22000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	d.06	.89	1.09	.90	2.82
2022	.64	.44	.75	.43	2.26
2023	.70	.41	.67	.60	2.38
2024	*.70*	*.45*	*.80*	*.50*	*2.45*
2025	*.75*	*.45*	*.85*	*.55*	*2.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.3825	.3825	.3825	.3825	1.53
2021	.3825	.3825	.3825	.3825	1.53
2022	.3375	.3375	.3375	.3375	1.35
2023	.360	.360	.360	.360	1.44
2024	.380				

BUSINESS: Exelon Corporation is a holding company for Commonwealth Edison (ComEd), PECO Energy, Baltimore Gas and Electric (BGE), Pepco, Delmarva Power (DPL), & Atlantic City Electric (ACE). Has 9.1 mill. elec., 1.3 mill. gas customers. Spun off Constellation Energy (nonregulated generating & energy-marketing ops.) 2/22. Acq'd Constellation Energy 3/12; Pepco Holdings 3/16. Elec. rev. breakdown: residntl., 54%; small commercl. & indstrl., 16%; large commercl. & indstrl., 17%; other, 13%. Fuel costs: 48% of revs. '22 deprec. rates: 2.8%-8.7% elec., 2.1% gas. Has 18,700 empls. Chrmn.: John F. Young. CEO: Calvin Butler. Inc.: PA. Address: 10 S.Dearborn St., P.O. Box 805379, Chicago, IL 60680-5379. Telephone: 312-394-7398. Internet: www.exeloncorp.com.

Exelon Corporation continues to look more stable and predictable as an entirely regulated utility. Indeed, the company delivered a better-than-expected fourth-quarter performance, while also raising its quarterly dividend and capital spending plan. Management now looks for $35 billion of capital expenditures through 2027, a 10% increase from its previous outlook, and expects annual profit growth of 5%-7% over that interim. Investors were enthused with the strong final stanza and the stock has risen nearly 10% in value since our early February review, outperforming most electric utility equities. Exelon was set to release first-quarter financial results shortly after this report went to press. We look for earnings of $0.70 a share on revenues of $5.6 billion.

Our full-year 2024 profit estimate is staying put at $2.45 per share. This is the midpoint of management's initial target range of $2.40-$2.50 a share, which was released in late February. Exelon's earnings continue to be much less volatile as an entirely regulated utility, and results are benefiting from additional revenues from regulatory mechanisms and higher distribution rates. Along with rate relief, volume growth and growing power demand should contribute to higher profits. Regarding 2025, we estimate that the bottom line will advance 6%, to $2.60 a share, within managements aforementioned growth target.

The Illinois rate case rejection and higher power bills are challenging long-term energy goals. Remember, Exelon's Commonwealth Edison (COMED) unit had its $1.5 billion integrated grid plans rejected by the Illinois Commerce Commission in December, 2023. Since then, the transition toward renewable power has slowed as the utility has cut $1.4 billion in capital spending in Illinois and laid off 900 direct contractors, which impacted more than 2,000 indirect jobs. As of now, the company remains committed to reducing emissions by 50% by 2030 and achieving net-zero by 2050.

Income-oriented accounts may want to take a look at this issue. Exelon holds an above-average dividend yield and is generally considered to be a solid addition to a well-rounded portfolio.

Zachary J. Hodgkinson *May 10, 2024*

(A) Dil. egs. Excl. nonrec. gain (loss): '09, (20¢); '12, (50¢); '13, (31¢); '14, (22¢); '16, ($1.46); '17, $1.19; '18, ($1.05); '19, (21¢); '20, ($1.21); '21, ($1.08); Next egs. report: Aug. (B) Div'ds paid in early Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred charges. In '22: $15.20/sh. (D) In mill. (E) Rate allowed on common equity in IL in '15: 9.25%; in MD in '16: 9.75% elec., 9.65% gas; Regulatory Climate: PA, NJ: Average; IL, MD: Below Avg. (F) Timeliness rank suspended due to Constellation Energy spinoff.

Company's Financial Strength	B++
Stock's Price Stability	NMF
Price Growth Persistence	NMF
Earnings Predictability	NMF

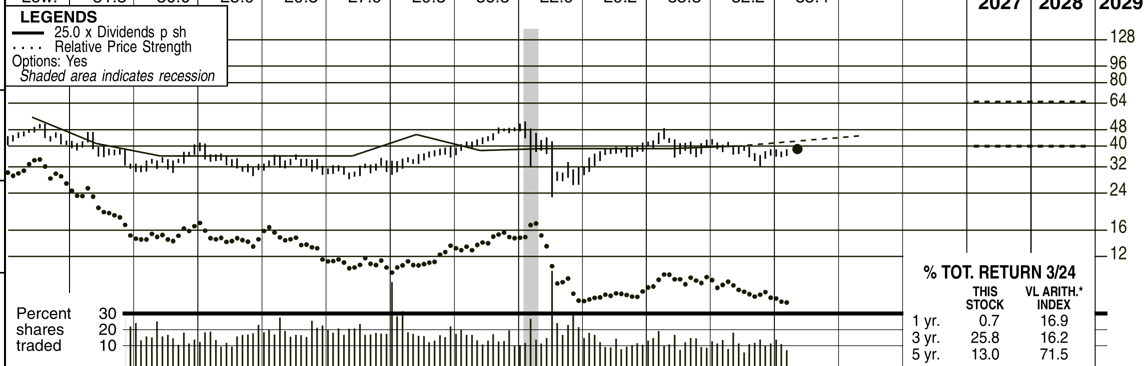
FIRSTENERGY NYSE-FE

RECENT PRICE 38.78 | P/E RATIO 14.4 (Trailing: 15.4, Median: 14.0) | RELATIVE P/E RATIO 0.83 | DIV'D YLD 4.4% | VALUE LINE

TIMELINESS 4 Lowered 5/10/24
SAFETY 3 Lowered 7/31/20
TECHNICAL 4 Raised 4/5/24
BETA .90 (1.00 = Market)

High:	46.8	40.8	41.7	36.6	35.2	39.9	49.1	52.5	41.8	48.8	43.3	38.9
Low:	31.3	30.0	28.9	29.3	27.9	29.3	36.3	22.9	29.2	35.3	32.2	35.4

Target Price Range 2027 | 2028 | 2029



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$33-$49	$41 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+70%)	17%
Low	40	(+5%)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	301	258	306
to Sell	334	356	311
Hld's(000)	472563	471442	477876

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	0.7	16.9
3 yr.	25.8	16.2
5 yr.	13.0	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
44.70	41.70	43.76	38.87	36.57	35.60	35.74	35.48	32.92	31.49	22.00	20.41	19.87	19.52	21.78	22.41	*23.40*	*24.50*	Revenues per sh	*27.40*
9.04	8.80	8.50	5.75	6.05	6.30	6.26	7.04	7.04	6.54	5.19	4.80	4.59	5.41	4.71	4.78	*4.95*	*5.20*	"Cash Flow" per sh	*6.20*
4.38	3.32	3.25	1.88	2.13	2.97	2.56	2.71	2.63	2.73	2.59	2.56	2.39	2.60	2.41	2.56	*2.70*	*2.85*	Earnings per sh A	*3.40*
2.20	2.20	2.20	2.20	2.20	1.65	1.44	1.44	1.44	1.44	1.82	1.53	1.56	1.56	1.56	1.60	*1.70*	*1.80*	Div'd Decl'd per sh B ■	*2.14*
9.47	7.23	6.44	5.45	7.09	6.90	8.42	6.83	6.93	6.38	5.23	4.93	4.89	4.29	4.82	5.84	*6.05*	*6.20*	Cap'l Spending per sh	*6.50*
27.17	28.08	28.03	31.75	31.29	30.32	29.49	29.33	14.11	8.81	13.17	12.90	13.33	15.21	17.77	18.17	*18.95*	*19.85*	Book Value per sh C	*24.00*
304.84	304.84	304.84	418.22	418.22	418.63	421.10	423.56	442.34	445.33	511.92	540.65	543.12	570.26	572.13	574.34	*577.00*	*580.00*	Common Shs Outst'g D	*595.00*
15.6	13.0	11.7	22.4	21.1	13.1	13.2	12.6	12.7	11.4	13.6	17.1	15.7	14.1	17.0	14.9	*Bold figures are*		Avg Ann'l P/E Ratio	*15.5*
.94	.87	.74	1.41	1.34	.74	.69	.63	.67	.57	.73	.91	.81	.76	.98	.83	*Value Line*		Relative P/E Ratio	*.85*
3.2%	5.1%	5.8%	5.2%	4.9%	4.3%	4.3%	4.2%	4.3%	4.6%	5.2%	3.5%	4.2%	4.3%	3.8%	4.2%	*estimates*		Avg Ann'l Div'd Yield	*4.1%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $24515 mill. **Due in 5 Yrs** $10605 mill.
LT Debt $21652 mill. **LT Interest** $955 mill.
Incl. $14 mill. finance leases.
(Total Interest coverage: 2.6x)
Leases, Uncapitalized Annual rentals $56 mill.

Pension Assets-12/23 $6879 mill. **Oblig.** $8363 mill.
Pfd Stock None

Common Stock 575,516,472 shs.

MARKET CAP: $22.3 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
15049	15029	14562	14022	11261	11035	10790	11132	12459	12870	*13500*	*14200*	Revenues ($mill)	*16300*
1074.0	1144.0	1118.0	1213.0	1346.0	1380.0	1296.0	1419.0	1377.0	1468.0	*1560*	*1655*	Net Profit ($mill)	*2035*
28.4%	35.8%	37.4%	37.2%	28.5%	19.8%	13.6%	20.6%	48.1%	16.2%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
11.0%	10.2%	9.2%	6.5%	4.8%	5.1%	5.9%	5.3%	6.1%	6.6%	*7.0%*	*7.0%*	AFUDC % to Net Profit	*7.0%*
60.7%	60.7%	74.5%	84.3%	72.3%	73.8%	75.4%	71.9%	67.6%	68.7%	*65.5%*	*66.0%*	Long-Term Debt Ratio	*63.0%*
39.3%	39.3%	25.5%	15.7%	27.4%	26.2%	24.6%	28.1%	32.4%	31.3%	*34.5%*	*34.0%*	Common Equity Ratio	*37.0%*
31596	31613	24433	25040	24565	26593	29368	30923	31369	33322	*31950*	*34000*	Total Capital ($mill)	*38500*
35783	37214	29387	28879	29911	31650	33294	34744	36285	38412	*39300*	*41500*	Net Plant ($mill)	*48300*
5.0%	5.3%	6.6%	7.0%	7.4%	6.8%	6.0%	6.2%	5.9%	5.8%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
8.6%	9.2%	17.9%	30.9%	19.8%	19.8%	17.9%	16.4%	13.5%	14.1%	*14.5%*	*14.5%*	Return on Shr. Equity E	*14.5%*
8.6%	9.2%	17.9%	30.9%	18.9%	19.7%	17.9%	16.4%	13.5%	14.1%	*14.5%*	*14.5%*	Return on Com Equity E	*14.5%*
3.8%	4.3%	8.1%	14.6%	8.4%	8.1%	6.2%	6.6%	4.8%	5.4%	*5.5%*	*5.5%*	Retained to Com Eq	*5.5%*
56%	53%	55%	53%	58%	59%	65%	60%	65%	62%	*63%*	*63%*	All Div'ds to Net Prof	*63%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (MWH)	+2.4	+1.5	-3.3
Residential Use (MWH)	55624	55995	52216
Commercial Use (MWH)	35599	36317	34891
Industrial Use (MWH)	54027	55169	55541
Tot. Electric Deliv'd (MWH)	145250	147481	142648
Peak Load Summer (Mw)	NA	NA	NA
% Change Customers (yr-end)	+.4	+.4	+.5
Fixed Charge Cov. (%)	171	290	225

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-5.5%	-6.0%	*4.5%*
"Cash Flow"	-2.0%	-4.5%	*4.5%*
Earnings	1.0%	-1.0%	*5.5%*
Dividends	-2.5%	- -	*5.5%*
Book Value	-6.0%	7.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2726	2622	3124	2660	11132
2022	2989	2818	3475	3177	12459
2023	3231	3006	3487	3146	12870
2024	3287	*3163*	*3650*	*3400*	*13500*
2025	*3480*	*3300*	*3850*	*3570*	*14200*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.69	.59	.82	.51	2.60
2022	.60	.53	.79	.50	2.41
2023	.60	.47	.88	.62	2.56
2024	.55	*.55*	*.90*	*.70*	*2.70*
2025	*.60*	*.55*	*.95*	*.75*	*2.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.39	.39	.39	.39	1.56
2021	.39	.39	.39	.39	1.56
2022	.39	.39	.39	.39	1.56
2023	.39	.39	.39	.41	1.58
2024	.41	.425			

BUSINESS: FirstEnergy Corp. is a holding company for Ohio Edison, Pennsylvania Power, Cleveland Electric, Toledo Edison, Metropolitan Edison, Penelec, Jersey Central Power & Light, West Penn Power, Potomac Edison, & Mon Power. Provides electric service to 6.24 million customers in OH, PA, NJ, WV, MD, & NY. Acq'd Allegheny Energy 2/11. Electric revenue breakdown: residential, 59.6%; commercial, industrial & other, 40.4%. Purchases most of its power. Power costs: 36.1% of revenues. 2023 reported depreciation rate: 2.8%. Employs about 12,000. Chair: John W. Somerhalder II. President and CEO: Brian X. Tierney. Incorporated: Ohio. Address: 76 South Main Street, Akron, Ohio 44308-1890. Telephone: 800-736-3402. Internet: www.firstenergycorp.com.

FirstEnergy is off to a decent start to 2024. Despite mild winter weather in its service area, the company bettered its own earnings-per-share target by $0.02 during the first quarter. Management reaffirmed its bottom-line target of $2.61-$2.81 per share for the full year, representing 6% growth at the midpoint of its range. We expect FirstEnergy will continue to leverage the flexibility of its vast Mid-Atlantic to Midwest network by prioritizing transmission and distribution projects. This type of investment provides a relatively quick regulated return on capital employed. Meanwhile, rate relief should add to the bottom line, as well. In October, a favorable outcome was concluded in the Maryland rate case and constructive settlements just concluded in West Virginia and New Jersey. Recently, cases were filed in Pennsylvania and Ohio.

Finances are improving. In 2021, FirstEnergy settled its bribery charges with federal prosecutors and Ohio regulators. After this year's payment of $45 million, just a $25 million disbursement remains. New leadership continues to cooperate with federal prosecutors as the DPA (deferred prosecution agreement) concludes this July. To recap, equity injections of $1 billion were received in late 2021, followed by the mid-2022 sale of a minority interest in the company's long-range transmission assets for $2.4 billion. Fitch restored FirstEnergy's credit rating to investment grade in 2022. Upgrades from the other major credit rating agencies recently took place, as the DPA is concluding soon and the company is set to receive $3.5 billion in proceeds this year from the sale of a second minority interest.

FirstEnergy raised its dividend. Last year, the board lifted the payout target to 60%-70% of adjusted profits. The recent hike in the quarterly rate, to $0.425 per share, represents over 6% annual growth relative to 2023's level. We think 5%-7% increases per annum are likely to follow, commensurate with earnings growth.

Utility investors with a longer-term slant should keep this stock on their watch list. An entry point that provides more worthwhile upside to the midpoint of our 18-month Target Price Range should be sought.

Anthony J. Glennon *May 10, 2024*

(A) Diluted egs. excl. nonrc. loss: '13, $2.07; '14, $2.05; '15, $1.34; '16, $17.12; '17, $6.61; '18, $1.26; '19, 89¢; '20, 54¢; '21, 33¢; '22, $1.70; '23, 60¢; gain/loss from disc. ops.: '18, 66¢; '20, 14¢; '21, 8¢; '23, d4¢. Qtly. EPS don't sum due to rnd'g. Next egs. report in Jul. (B) Div. pd. Mar., June, Sept., & Dec. 3 div. in '13, 5 in '18. ■ Div'd reinv. avail. (C) Incl. intang. in '23: $10.42/sh. (D) In mill. (E) High ROE from large writeoffs. Rate base: Depr. orig. cost. Rates all'd on com. eq.: 9.6-11.7%; Reg.: OH Above Avg.; PA/NJ Avg.; MD/WV Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	80
Price Growth Persistence	35
Earnings Predictability	100

FORTIS INC. TSE-FTS.TO A

RECENT PRICE 54.53 | P/E RATIO 17.0 (Trailing: 17.4 Median: 20.0) | RELATIVE P/E RATIO 0.95 | DIV'D YLD 4.4% | VALUE LINE

TIMELINESS 4 Lowered 3/8/24
SAFETY 1 Raised 6/7/24
TECHNICAL 5 Lowered 5/10/24
BETA .75 (1.00 = Market)

High:	35.1	40.5	42.1	45.1	48.7	47.4	56.9	59.3	61.6	65.4	62.1	56.7
Low:	29.6	29.8	34.5	36.0	40.6	39.4	44.0	41.6	48.7	48.2	49.8	51.0

18-Month Target Price Range

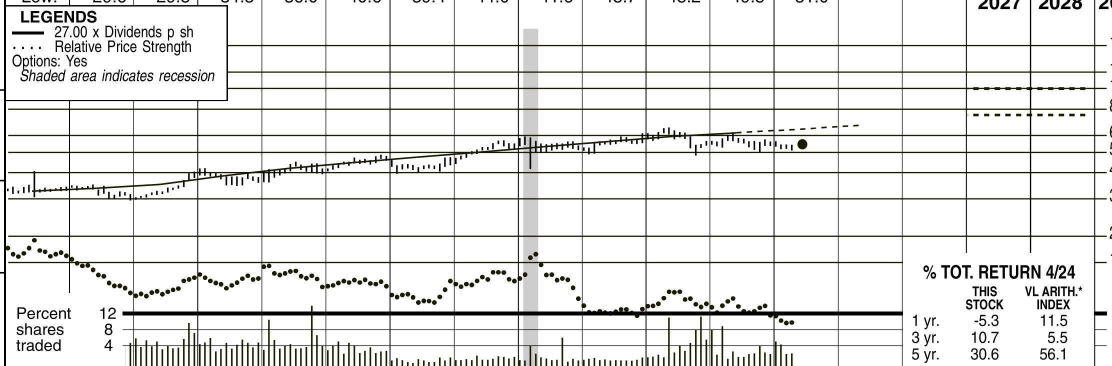
Low-High	Midpoint (% to Mid)
$49-$72	$61 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+85%)	19%
Low	75	(+40%)	12%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	120	112	127
to Sell	107	108	109
Hld's(000)	244100	245793	255450



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-5.3	11.5
3 yr.	10.7	5.5
5 yr.	30.6	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
23.07	21.24	21.01	19.84	19.07	18.99	19.57	23.89	17.03	19.71	19.58	18.96	19.14	19.90	22.90	23.48	*24.55*	*25.30*	Revenues per sh	*27.45*
3.51	3.66	3.99	3.90	4.10	4.10	3.62	5.21	3.91	5.43	5.40	5.44	5.65	5.76	6.24	6.71	*7.00*	*7.30*	"Cash Flow" per sh	*8.00*
1.52	1.51	1.62	1.74	1.65	1.63	1.38	2.11	1.89	2.66	2.52	2.68	2.60	2.61	2.78	3.10	*3.20*	*3.35*	Earnings per sh B	*4.00*
1.00	1.04	1.12	1.17	1.21	1.25	1.30	1.43	1.55	1.65	1.75	1.86	1.97	2.08	2.17	2.29	*2.38*	*2.49*	Div'd Decl'd per sh C ■	*2.85*
5.34	5.79	5.89	5.91	5.68	5.32	6.00	7.97	5.13	7.18	7.51	8.03	8.65	7.13	7.02	7.18	*8.25*	*8.25*	Cap'l Spending per sh	*8.25*
18.00	18.57	18.95	20.53	20.84	22.39	24.90	28.63	32.32	31.77	34.80	36.49	36.58	37.21	36.44	39.24	*41.40*	*43.50*	Book Value per sh D	*47.05*
169.19	171.26	174.39	188.83	191.57	213.17	276.00	281.56	401.49	421.10	428.50	463.30	466.80	474.80	482.15	490.60	*495.00*	*500.00*	Common Shs Outst'g E	*510.00*
17.5	16.4	18.2	18.8	20.1	20.0	24.3	18.0	21.6	16.8	17.1	19.2	20.6	21.2	21.1	18.0	*Bold figures are*		Avg Ann'l P/E Ratio	*21.5*
1.05	1.09	1.16	1.18	1.28	1.12	1.28	.91	1.13	.84	.92	1.02	1.06	1.15	1.22	1.03	*Value Line*		Relative P/E Ratio	*1.20*
3.8%	4.2%	3.8%	3.6%	3.6%	3.8%	3.9%	3.8%	3.8%	3.7%	4.1%	3.6%	3.7%	3.8%	4.1%	4.3%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
5401.0	6727.0	6838.0	8301.0	8390.0	8783.0	8935.0	9448.0	11043.0	11517.0	*12150*	*12650*	Revenues ($mill)	*14000*
374.0	672.0	660.0	1174.0	1136.0	1238.0	1274.0	1294.0	1340.4	1520.9	*1585*	*1675*	Net Profit ($mill)	*2040*
14.6%	21.3%	16.9%	25.8%	13.4%	12.5%	14.3%	14.3%	16.0%	14.6%	*14.5%*	*14.5%*	Income Tax Rate	*14.5%*
7.2%	7.4%	10.0%	9.5%	8.4%	9.2%	9.3%	9.0%	9.0%	8.0%	*8.0%*	*8.0%*	AFUDC % to Net Profit	*7.0%*
54.8%	53.3%	59.3%	58.4%	58.8%	54.2%	55.6%	55.5%	55.0%	54.2%	*53%*	*53%*	Long-Term Debt Ratio	*51.5%*
35.7%	38.1%	36.2%	37.1%	37.2%	41.8%	40.5%	40.8%	41.5%	42.5%	*43.5%*	*43.5%*	Common Equity Ratio	*45.0%*
19235	21151	35874	36108	40082	40445	42141	43328	44922	46282	*48050*	*49225*	Total Capital ($mill)	*51900*
17816	19595	29337	29668	32654	33988	35998	37816	41663	14938	*43500*	*44750*	Net Plant ($mill)	*48600*
3.4%	4.5%	2.8%	4.5%	4.1%	4.4%	4.3%	4.2%	2.4%	4.5%	*4.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
4.3%	6.8%	4.5%	7.8%	6.9%	6.7%	6.8%	6.7%	4.4%	7.0%	*7.0%*	*7.0%*	Return on Shr. Equity	*7.5%*
4.5%	7.4%	4.5%	8.3%	7.2%	6.9%	7.1%	7.0%	4.4%	7.0%	*7.0%*	*7.0%*	Return on Com Equity F	*7.5%*
1.7%	4.5%	2.1%	5.2%	4.1%	4.0%	2.5%	3.5%	3.5%	3.5%	*3.5%*	*3.5%*	Retained to Com Eq	*4.0%*
68%	46%	59%	41%	46%	45%	67%	52%	78%	81%	*82%*	*82%*	All Div'ds to Net Prof G	*75%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $30653 mill. **Due in 5 Yrs** $7732 mill.
LT Debt $27363 mill. **LT Interest** $945 mill.
Incl. $340 mill. finance leases.
(LT interest earned: 2.4x)
Leases, Uncapitalized Annual rentals $8 mill.

Pension Assets-12/23 $3722 mill. **Oblig** $3922 mill.
Pfd Stock $1623 mill. **Pfd Div'd** $65 mill.

Common Stock 491,600,000 shs.

MARKET CAP: $26.8 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	207	211	215

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	- -	-.5%	3.5%
"Cash Flow"	3.5%	3.5%	5.0%
Earnings	4.5%	3.5%	5.0%
Dividends	5.5%	5.5%	6.0%
Book Value	6.5%	3.5%	4.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2539	2130	2196	2583	9448
2022	2835	2487	2553	3168	11043
2023	3319	2594	2719	2885	11517
2024	3118	*2700*	*2770*	*3562*	*12150*
2025	*3400*	*2750*	*2850*	*3650*	*12650*

Cal-endar	EARNINGS PER SHARE B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.76	.54	.62	.69	2.61
2022	.74	.59	.68	.77	2.78
2023	.90	.61	.81	.78	3.10
2024	.93	*.65*	*.80*	*.82*	*3.20*
2025	*.95*	*.75*	*.80*	*.85*	*3.35*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.4775	.4775	.4775	.505	1.94
2021	.505	.505	.505	.535	2.05
2022	.535	.535	.535	.565	2.17
2023	.565	.565	.565	.590	2.29
2024	.590				

BUSINESS: Fortis Inc.'s main focus is electricity, hydroelectric, and gas utility operations (both regulated and nonregulated) in the United States, Canada, and the Caribbean. Has 2 mill. electric, 1.3 mill. gas customers. Owns UNS Energy (Arizona), Central Hudson (New York), FortisBC Energy (British Columbia), FortisAlberta (Central Alberta), and Eastern Canada (Newfoundland). Sold commercial real estate and hotel property assets in 2015. Acquired ITC Holdings 10/16. Fuel costs: 31% of revs. '23 reported deprec. rate: 2.6%. Has 9,100 employees. Chairman: Jo Mark Zurel. President & CEO: David G. Hutchens. Inc.: Canada. Address: Fortis Place, Suite 1100, 5 Springdale St., PO Box 8837, St. John's, NL, Canada, A1B 3T2. Tel.: 709-737-2800. Internet: www.fortisinc.com.

We continue to look for Fortis to post steady earnings growth over the next couple years. Rate relief should remain a main driver of growth and help improve upon low allowed returns seen in many of the company's utilities. There are currently ongoing cases in New York and British Columbia, with decisions in both expected by the end of this year. And, in Arizona, a full-year of new rates will likely benefit profits. Too, Fortis' ITC transmission subsidiary should increase its yearly income due to a forward-looking regulatory mechanism that enables the utility to earn a return on its capital spending and recover most operating expenses. Our 2024 bottom-line estimate is staying put at $3.20 per share.

We are also sticking with our 2025 earnings target of $3.35 per share. We look for investments in the transition to clean energy and rate relief to remain prevalent next year. Indeed, the company's $25-billion five-year capital plan is expected to rise to over $49 billion in 2028 due to rate-base increases. This is within management's five-year annual rate-base growth of 6.3%. We feel confident with our profit estimate as Fortis has a high Earnings Predictability score, along with a stretch of respectable financial performances of late.

We look for a dividend increase at the third-quarter meeting in September. The company has raised its distribution in 49 consecutive years, and remains committed to its target of a 4%-6% annual dividend growth rate through 2028. We expect a hike of approximately $0.15 a share (6%) this time around in the annual payment.

These shares are best suited for income-oriented accounts with a long-term investment horizon. The dividend yield of 4.4% stands comfortably above the high-paying utility average, and remains this issue's most notable feature. Too, capital appreciation potential for the 3- to 5-year time frame stands out in comparison to its peers. Short-term prospects are not as exciting. Indeed, capital gains potential for the next 18 months is not enticing, and the stock is ranked to trail the broader market averages over the coming six to 12 months.

Zachary J. Hodgkinson *June 7, 2024*

(A) Also trades on NYSE (FTS). All data in Canadian $. (B) Dil. egs. Excl. nonrecur. gains (loss): '14, 2¢; '15, 48¢; '17, (35¢); '18, 7¢. '19, $1.12. Next egs. report due early July. (C) Div'ds historically paid in early Mar., June, Sept., and Dec. ■ Div'd reinv. plan avail. (2% disc.). (D) Incl. intang. In '23: $34.05/sh. (E) In mill. (F) Rates all'd on com. eq.: 8.3%-10.32%; earn. on avg. com. eq., '21: 7.1%. Reg. Clim.: FERC, Above Avg.; AZ, Below Avg.; NY, Below Avg. (G) Excl. div'ds pd. via reinv. plan.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	55
Earnings Predictability	100

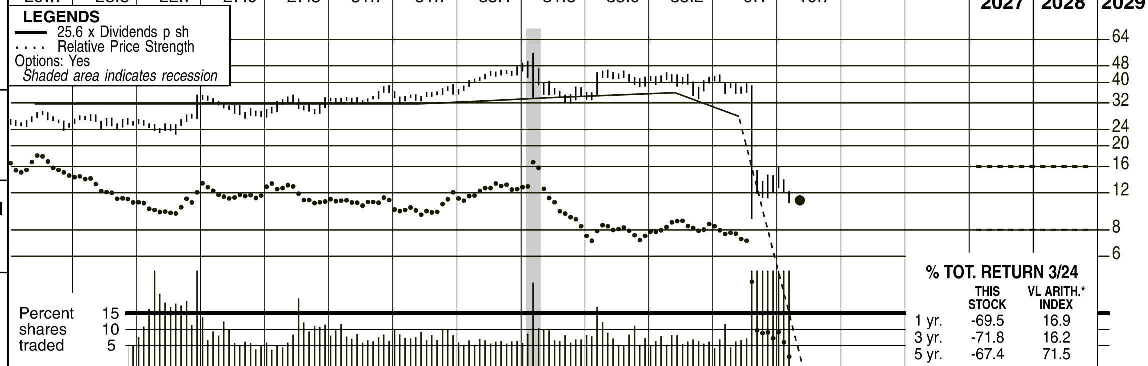
HAWAIIAN ELECTRIC NYSE-HE

RECENT PRICE **11.07** | P/E RATIO **6.0** (Trailing: 6.1 / Median: 19.0) | RELATIVE P/E RATIO **0.33** | DIV'D YLD **Nil** | VALUE LINE

TIMELINESS – Suspended 8/25/23
SAFETY 5 Lowered 9/15/23
TECHNICAL – Suspended 8/25/23
BETA 1.00 (1.00 = Market)

High:	28.3	35.0	34.9	35.0	38.7	39.3	47.6	55.2	46.0	44.7	43.7	16.0
Low:	23.8	22.7	27.0	27.3	31.7	31.7	35.1	31.8	33.0	33.2	9.1	10.7

Target Price Range
2027 | 2028 | 2029



18-Month Target Price Range
Low-High: $10-$38
Midpoint (% to Mid): $24 (115%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	16	(+45%)	10%
Low	8	(-30%)	-7%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	130	161	151
to Sell	151	196	142
Hld's(000)	58926	63814	66270

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-69.5	16.9
3 yr.	-71.8	16.2
5 yr.	-67.4	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
35.56	24.96	28.14	33.76	34.46	31.98	31.59	24.22	21.92	23.49	26.28	26.38	23.63	26.08	34.18	33.43	*34.40*	*35.15*	Revenues per sh	*37.15*
2.72	2.59	2.88	3.18	3.28	3.22	3.41	3.31	4.17	3.68	4.20	4.55	4.48	4.80	4.90	4.63	*4.80*	*4.00*	"Cash Flow" per sh	*4.35*
1.07	.91	1.21	1.44	1.67	1.62	1.64	1.50	2.29	1.64	1.85	1.99	1.81	2.25	2.20	1.81	*1.90*	*1.00*	Earnings per sh A	*1.00*
1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.28	1.32	1.36	1.40	1.08	*Nil*	*Nil*	Div'd Decl'd per sh B	*Nil*
3.12	3.29	1.92	2.45	3.32	3.49	3.31	3.39	3.04	4.55	4.94	4.20	3.52	2.88	3.14	4.07	*4.00*	*4.00*	Cap'l Spending per sh	*4.00*
15.35	15.58	15.67	15.95	16.28	17.06	17.47	17.94	19.03	19.28	19.86	20.93	21.41	21.87	20.12	21.29	*23.10*	*24.00*	Book Value per sh C	*25.30*
90.52	92.52	94.69	96.04	97.93	101.26	102.57	107.46	108.58	108.79	108.88	108.97	109.18	109.31	109.47	110.15	*110.50*	*111.00*	Common Shs Outst'g D	*113.00*
23.2	19.8	18.6	17.1	15.8	16.2	15.9	20.4	13.6	20.7	18.9	21.3	21.5	18.2	18.5	15.9	*Bold figures are*		Avg Ann'l P/E Ratio	*12.0*
1.40	1.32	1.18	1.07	1.01	.91	.84	1.03	.71	1.04	1.02	1.13	1.10	.98	1.07	.89	*Value Line*		Relative P/E Ratio	*.65*
5.0%	6.9%	5.5%	5.0%	4.7%	4.7%	4.8%	4.1%	4.0%	3.7%	3.5%	3.0%	3.4%	3.3%	3.4%	3.7%	*estimates*		Avg Ann'l Div'd Yield	*Nil*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $3931.5 mill. **Due in 5 Yrs** $1023 mill.
LT Debt $3913.5 mill. **LT Interest** $120.0 mill.
Incl. $339.0 mill. finance leases.
(Total Interest Coverage: 3.0x)
Leases, Uncapitalized Annual rentals $27.3 mill.

Pension Assets-12/23 $1973.5 mill. **Oblig** $2033.0 mill.
Pfd Stock $34.3 mill. **Pfd Div'd** $1.9 mill.

Common Stock 110,151,798 shs. as of 2/15/24
MARKET CAP: $1.2 billion (Small Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
3239.5	2603.0	2380.7	2555.6	2860.8	2874.6	2579.8	2850.4	3742.0	3682.2	*3800*	*3900*	Revenues ($mill)	*4200*
170.2	161.8	250.1	180.6	203.7	219.8	199.7	248.1	243.0	201.1	*210*	*110*	Net Profit ($mill)	*115*
35.0%	36.5%	33.1%	34.7%	20.0%	19.0%	17.0%	20.2%	20.1%	18.1%	*18.0%*	*19.0%*	Income Tax Rate	*19.0%*
5.5%	5.8%	4.6%	9.6%	7.7%	7.5%	5.9%	5.2%	5.8%	10.1%	*9.5%*	*18.0%*	AFUDC % to Net Profit	*18.0%*
45.2%	43.5%	41.6%	43.4%	47.5%	44.6%	46.5%	46.4%	50.3%	62.2%	*60.0%*	*59.0%*	Long-Term Debt Ratio	*57.5%*
53.8%	55.5%	57.5%	55.7%	51.7%	54.6%	52.7%	52.8%	49.0%	37.3%	*39.5%*	*40.5%*	Common Equity Ratio	*42.0%*
3332.3	3473.5	3595.1	3765.5	4182.3	4176.9	4435.9	4524.1	4498.5	6292.6	*6500*	*6600*	Total Capital ($mill)	*6800*
4148.8	4377.7	4603.5	5025.9	4830.1	5109.6	5265.7	5392.1	5687.0	6150.1	*6275*	*6375*	Net Plant ($mill)	*6600*
6.2%	5.7%	7.9%	5.8%	5.9%	6.3%	5.5%	6.4%	6.4%	4.1%	*4.5%*	*3.0%*	Return on Total Cap'l	*3.0%*
9.3%	8.2%	11.9%	8.5%	9.3%	9.5%	8.4%	10.2%	10.9%	8.5%	*8.0%*	*4.0%*	Return on Shr. Equity	*4.0%*
9.4%	8.3%	12.0%	8.5%	9.3%	9.6%	8.5%	10.3%	10.9%	8.5%	*8.0%*	*4.0%*	Return on Com Equity E	*4.0%*
2.3%	1.5%	6.3%	2.1%	3.1%	3.4%	2.3%	4.1%	4.0%	3.7%	*8.0%*	*4.0%*	Retained to Com Eq	*4.0%*
75%	83%	48%	76%	67%	64%	73%	61%	64%	57%	*1%*	*2%*	All Div'ds to Net Prof F	*2%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (MWH)	+1.7	+1.1	-1.5
Avg. Indust. Use (MWH)	3174	3296	3273
Avg. Indust. Revs. per KWH (¢)	26.88	36.75	35.34
Capacity at Yearend (Mw)	2278	2100	2101
Peak Load/Demand (Mw)	1471	1467	1447
Annual Load Factor (%)	67.2	68.2	68.0
% Change Customers (yr-end)	+.5	-.2	+.4
Fixed Charge Cov. (%)	393	356	273

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-0.5%	5.5%	*2.5%*
"Cash Flow"	4.0%	3.5%	*-1.5%*
Earnings	3.0%	1.5%	*-11.5%*
Dividends	0.5%	0.5%	*NMF*
Book Value	2.5%	1.5%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	642.9	680.3	756.9	770.3	2850.4
2022	785.1	895.6	1042.2	1019.1	3742.0
2023	928.2	895.7	896.9	961.4	3682.2
2024	*940*	*910*	*975*	*975*	*3800*
2025	*965*	*935*	*1000*	*1000*	*3900*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.59	.58	.58	.50	2.25
2022	.63	.48	.57	.52	2.20
2023	.50	.50	.37	.44	1.81
2024	*.45*	*.45*	*.50*	*.50*	*1.90*
2025	*.40*	*.30*	*.20*	*.10*	*1.00*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.33	.33	.33	.33	1.32
2021	.34	.34	.34	.34	1.36
2022	.35	.35	.35	.35	1.40
2023	.36	.36	.36	- -	1.08
2024	- -				

BUSINESS: Hawaiian Electric Industries (HEI) is the parent company of Hawaiian Electric Company, Inc. (HECO), American Savings Bank (ASB), and Pacific Current. HECO & its subs., Maui Electric Co. (MECO) & Hawaii Electric Light Co. (HELCO), supply electricity to 416,177 customers on Oahu, Maui, Molokai, Lanai, & Hawaii. Operating companies' systems are not interconnected. Elec. rev. breakdown: residential, 32%; commercial, 36%; industrial, 32%; other, less than 1%. Generating sources: oil, 52%; purchased, 48%. Fuel costs: 50%+ of revs. '23 reported deprec. rate: 3.2%. Has about 3,600 employees. Chairman: Tom Fargo. Pres. & CEO: Scott Seu. Inc.: HI. Address: 1001 Bishop St., Suite 2900, Honolulu, HI 96808-0730. Telephone: 808-543-5662. Internet: www.hei.com.

Hawaiian Electric Industries faces a mounting number of lawsuits related to its role in the Maui wildfires. To recap, on August 8th, winds associated with Hurricane Dora knocked down power lines that started an early morning fire near the town of Lahaina. According to HEI, that blaze was extinguished by firefighters. HEI contends that the fires that began hours later, resulting in over 100 deaths and massive property damage (estimated to be more than $1.5 billion), were not from its equipment, since the utility deenergized its system following the initial downed wires. Maui County filed a lawsuit against the company, claiming the utility acted negligently by not preemptively cutting power, given the forecast for extreme winds. HEI has been named as a defendant in more than 100 lawsuits for local damages (up from 60 in November). The company has also been hit with a class action suit on behalf of shareholders and subrogation claims on the part of about 150 different insurers. The dividend was suspended to preserve cash and the company fully exhausted its $375 million revolving credit facility.

Hawaiian Electric was unsuccessful in its bid to move wildfire cases from state to federal court. In March, a U.S. district judge ruled that the lawsuits filed against the company will be remanded back to state court on the island of Maui. Plaintiffs' lawyers considered it a victory because these cases will be heard by a local jury beginning this October.

Our estimates assume hefty legal settlements. Thus far, HEI has agreed to contribute up to $75 million of a $175 million fund for victims as part of the state's response. Payouts are expected to be in the $1.5 million range per claim. HEI's share will be paid by insurance, leaving $90 million of additional coverage. While the fund may alleviate some of the court cases, we think substantial legal costs are inevitable and have priced in settlement figures of $125 million to $250 million annually starting in 2025. It's an amount the company can stay viable at in terms of maintaining the power grid. This outcome results in poor total return prospects for shareholders. The Timeliness rank is suspended due to the vagaries ahead.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. losses: '12, 25¢; '17, 12¢. Qtrly. EPS may not sum to full year due to rounding. Next egs. report due early May. (B) Quarterly dividends not declared prior to 8/21/23 have been suspended. (C) Incl. deferred charges. In '23: $294.8 mill., $2.68/sh. (D) In mill. (E) Rate base: Orig. cost. Rate allowed on com. eq. in '18: HECO, 9.5%; in '18: HELCO, 9.5%; in '18: MECO, 9.5%; Regulatory Climate: Below Average. (F) Includes preferred dividends.

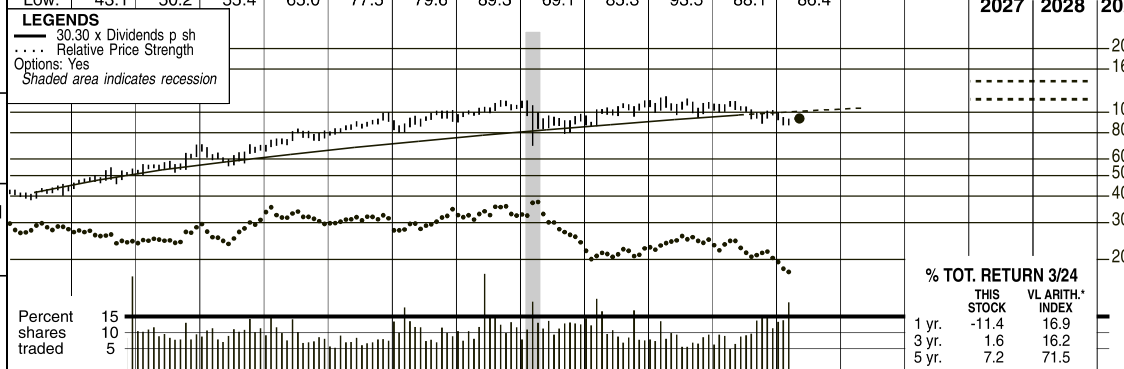
Company's Financial Strength	C+
Stock's Price Stability	5
Price Growth Persistence	35
Earnings Predictability	90

IDACORP, INC. NYSE-IDA

RECENT PRICE 93.19 | P/E RATIO 18.1 (Trailing: 18.1 Median: 20.0) | RELATIVE P/E RATIO 0.98 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 5 Lowered 3/1/24
SAFETY 1 Raised 4/19/24
TECHNICAL 5 Lowered 3/29/24
BETA .85 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	54.7	70.1	70.5	83.4	100.0	102.4	114.0	113.6	113.8	118.9	113.0	99.8
Low:	43.1	50.2	55.4	65.0	77.5	79.6	89.3	69.1	85.3	93.5	88.1	86.4



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$78-$132	$105 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+50%)	14%
Low	115	(+25%)	9%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	168	160	192
to Sell	170	177	168
Hld's(000)	42011	43079	45178

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-11.4	16.9
3 yr.	1.6	16.2
5 yr.	7.2	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	26.77	28.86	32.51	34.90	*34.30*	*35.90*	Revenues per sh	*39.60*
4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	8.19	8.41	8.55	9.11	*9.50*	*10.10*	"Cash Flow" per sh	*11.40*
2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	4.69	4.85	5.11	5.14	*5.40*	*5.75*	Earnings per sh A	*6.65*
1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.88	3.04	3.20	*3.34*	*3.46*	Div'd Decl'd per sh B ■ †	*4.25*
5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	6.16	5.94	8.56	12.07	*17.00*	*14.00*	Cap'l Spending per sh	*12.00*
27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	50.73	52.82	55.52	57.44	*59.30*	*63.10*	Book Value per sh C	*69.80*
46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	50.46	50.52	50.56	50.62	*51.00*	*51.50*	Common Shs Outst'g D	*53.00*
13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	19.9	20.8	21.0	19.9	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02	1.12	1.21	1.11	*Value Line*		Relative P/E Ratio	*1.05*
4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%	2.9%	2.8%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $2825.6 mill. **Due in 5 Yrs** $186.0 mill.
LT Debt $2775.8 mill. **LT Interest** $96.4 mill.
(Total Interest Coverage: 2.6x)

Pension Assets-12/23 $917.5 mill.
Oblig $1028.0 mill.

Pfd Stock None

Common Stock 50,628,079 shs.
as of 2/9/24

MARKET CAP: $4.7 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	1350.7	1458.1	1644.0	1766.4	*1750*	*1850*	Revenues ($mill)	*2100*
193.5	194.7	198.3	212.4	226.8	232.9	237.4	245.6	259.0	261.2	*275*	*295*	Net Profit ($mill)	*355*
8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	10.8%	13.1%	12.7%	9.4%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	17.3%	17.7%	19.8%	8.8%	*15.0%*	*15.0%*	AFUDC % to Net Profit	*16.0%*
45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	43.9%	42.8%	43.9%	48.8%	*49.0%*	*49.5%*	Long-Term Debt Ratio	*49.5%*
54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	56.1%	57.2%	56.1%	51.2%	*51.0%*	*50.5%*	Common Equity Ratio	*50.5%*
3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	4560.4	4669.1	5001.4	5683.4	*6000*	*6325*	Total Capital ($mill)	*7300*
3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	4709.5	4901.8	5173.0	5745.2	*6100*	*6425*	Net Plant ($mill)	*7400*
6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	6.1%	6.2%	6.1%	5.4%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	9.0%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.0%*
9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	9.0%	*9.0%*	*9.0%*	Return on Com Equity E	*9.0%*
5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	3.9%	3.7%	3.7%	3.4%	*3.5%*	*3.5%*	Retained to Com Eq	*3.5%*
46%	50%	53%	53%	54%	56%	58%	60%	60%	63%	*62%*	*60%*	All Div'ds to Net Prof	*64%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.9	+9.6	+7.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3751	3568	3615
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+2.8	+2.4	+2.4
Fixed Charge Cov. (%)	390	395	315

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	3.5%	4.0%	*3.5%*
"Cash Flow"	3.5%	3.5%	*4.5%*
Earnings	4.0%	3.5%	*5.0%*
Dividends	8.0%	6.5%	*5.5%*
Book Value	4.5%	4.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	316.1	360.1	446.9	335.0	1458.1
2022	344.3	358.7	518.0	422.9	1644.0
2023	429.7	413.8	510.9	412.0	1766.4
2024	*365*	*415*	*560*	*410*	*1750*
2025	*390*	*440*	*585*	*435*	*1850*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.89	1.38	1.93	.65	4.85
2022	.91	1.27	2.10	.83	5.11
2023	1.11	1.35	2.07	.61	5.14
2024	*1.10*	*1.35*	*2.10*	*.85*	*5.40*
2025	*1.15*	*1.45*	*2.25*	*.90*	*5.75*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.67	.67	.67	.71	2.72
2021	.71	.71	.71	.75	2.88
2022	.75	.75	.75	.79	3.04
2023	.79	.79	.79	.83	3.20
2024	.83				

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 633,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population: 1.4 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 39%; commercial, 21%; industrial, 14%; irrigation, 10%; other, 16%. Generating sources: hydro, 35%; coal, 13%; gas, 15%; purchased, 37%. Fuel costs: 40% of revenues. '23 reported depreciation rate: 3.1%. Has 2,112 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

IDACORP's management has set its earnings target for 2024 in a range of $5.25 to $5.45 a share. The company extended its streak of 15 years when it comes to annual earnings growth in 2023, but not by a whole lot. Our 2024 estimate is being placed at $5.40, which assumes a 5% annual gain, which is in line with the company's in-house goal. Most utilities strive for something in the 4%-6% or 5%-7% spread. Digging deeper, our estimate assumes Idaho Power will use between $35 million and $60 million of additional tax credits available under its regulatory mechanism. A good portion of this figure is tied to battery storage projects approved by the Idaho Public Utilities Commission in the general rate case last December.

A rate case in Oregon is now on the table. IDACORP has filed with the Oregon Public Utilities Commission for a rate increase to go into effect in October of this year. The company is requesting an ROE of 10.4%, and a 7.8% rate of return with a capital structure comprised of 51% equity and 49% debt. Infrastructure investments have been made in this service area and the last general rate case was filed in 2011. Since then, there has been an 8% increase in the number of customers. We expect the parties to mutually agree on a pact that is fair to both IDA and its constituents.

Capital expenditures are expected to peak this year at above $900 million. New capacity resources are pushing the spending up, but management has cast a wide net ($20 million to $200 million), so the total could be somewhat lower. Still, the average over the next five years is apt to come in around the $800 million threshold. Distribution and transmission will be areas of heavy outlays, as will high voltage transmission, one of the driving forces behind IDA's heavier spending coming off an average of about $400 million in the previous five-year window.

These untimely shares lack real investment appeal at this juncture. Even with the quotation down 7% in value since our January review, capital appreciation potential three to five years out is below average. Yes, the yield is handsomely above the *Value Line* median, but does not stand out for a utility.

Erik M. Manning *April 19, 2024*

(A) Diluted EPS. Earnings may not sum due to rounding. Next earnings report due early May. (B) Dividends historically paid in late February, May, August, and November. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '23: $882.7 mill., $17.44/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); Regulatory Climate: Above Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

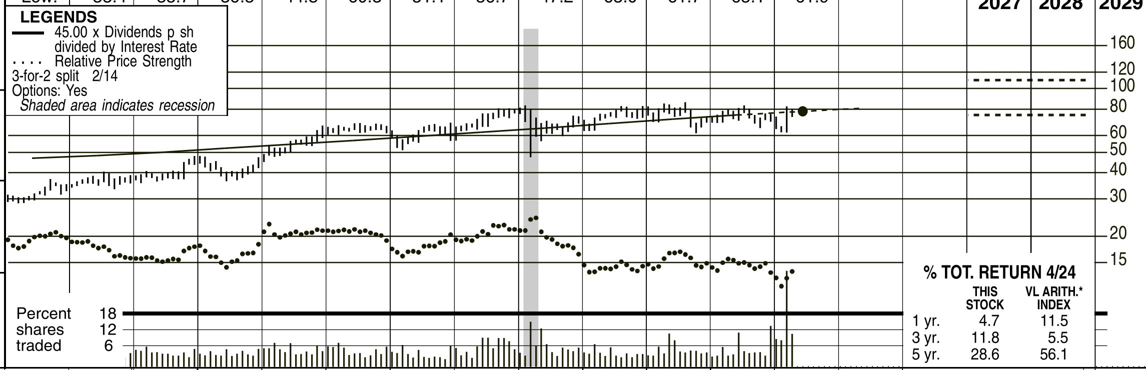
MGE ENERGY, INC. NDQ-MGEE

RECENT PRICE 78.22 | P/E RATIO 21.1 (Trailing: 23.6 Median: 25.0) | RELATIVE P/E RATIO 1.18 | DIV'D YLD 2.2% | VALUE LINE

TIMELINESS 3 Lowered 2/23/24
SAFETY 3 Lowered 6/7/24
TECHNICAL 3 Raised 5/24/24
BETA .80 (1.00 = Market)

High:	40.5	48.0	48.0	66.9	68.7	68.9	80.8	83.3	82.9	86.3	83.3	82.5
Low:	33.4	35.7	36.5	44.8	60.3	51.1	56.7	47.2	63.0	61.7	65.1	61.9

LEGENDS
— 45.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 2/14
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$62-$111	$87 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	110	(+40%)	11%
Low	75	(-5%)	2%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	82	84	120
to Sell	82	84	78
Hld's(000)	19530	19172	19078

Percent shares traded 18 12 6

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	4.7	11.5
3 yr.	11.8	5.5
5 yr.	28.6	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
17.35	15.40	15.36	15.76	15.61	17.04	17.88	16.27	15.71	16.24	16.15	16.41	14.89	16.77	19.76	19.09	**19.50**	**20.20**	Revenues per sh	**24.00**
2.68	2.66	2.76	2.94	2.98	3.28	3.49	3.33	3.47	3.73	4.06	4.57	4.61	5.05	5.43	6.03	**6.75**	**7.30**	"Cash Flow" per sh	**8.25**
1.59	1.47	1.67	1.76	1.86	2.16	2.32	2.06	2.18	2.20	2.43	2.51	2.60	2.92	3.07	3.25	**3.70**	**4.00**	Earnings per sh A	**4.65**
.96	.97	.99	1.01	1.04	1.07	1.11	1.16	1.21	1.26	1.32	1.38	1.45	1.52	1.59	1.67	**1.73**	**1.80**	Div'd Decl'd per sh B ■	**1.95**
3.08	2.35	1.76	1.88	2.84	3.43	2.67	2.08	2.41	3.12	6.12	4.73	5.62	4.24	4.84	6.14	**6.15**	**6.20**	Cap'l Spending per sh	**7.00**
13.92	14.47	15.14	15.89	16.71	17.81	19.02	19.92	20.89	22.45	23.56	24.68	26.99	28.41	29.91	31.53	**33.20**	**34.55**	Book Value per sh C	**38.75**
34.36	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	36.16	36.16	36.16	36.16	**36.16**	**36.16**	Common Shs Outst'g D	**36.16**
14.2	15.1	15.0	15.8	17.2	17.0	17.2	20.3	24.9	29.4	25.1	28.4	26.4	25.5	24.7	22.9	*Bold figures are*		Avg Ann'l P/E Ratio	**19.5**
.85	1.01	.95	.99	1.09	.96	.91	1.02	1.31	1.48	1.36	1.51	1.36	1.38	1.43	1.28	*Value Line*		Relative P/E Ratio	**1.10**
4.2%	4.4%	4.0%	3.6%	3.2%	2.9%	2.8%	2.8%	2.2%	2.0%	2.2%	1.9%	2.1%	2.0%	2.1%	2.2%	*estimates*		Avg Ann'l Div'd Yield	**2.2%**

CAPITAL STRUCTURE as of 3/31/24
Total Debt $722.8 mill. **Due in 5 Yrs** $110.0 mill.
LT Debt $717.6 mill. **LT Interest** $30.4 mill.

(LT interest earned: 4.8x)
Leases, Uncapitalized Annual rentals $2.0 mill.
Pension Assets-12/23 $404 mill.
Oblig $65.0 mill.
Pfd Stock None

Common Stock 36,175,888 shs.
as of 4/30/24
MARKET CAP: $2.8 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
619.9	564.0	544.7	563.1	559.8	568.9	538.6	606.6	714.5	690.4	**705**	**730**	Revenues ($mill)	**865**
80.3	71.3	75.6	76.1	84.2	86.9	92.4	105.8	111.0	117.7	**135**	**145**	Net Profit ($mill)	**170**
37.5%	36.7%	36.0%	36.4%	24.6%	18.5%	17.4%	3.7%	19.1%	19.1%	**19.0%**	**19.0%**	Income Tax Rate	**19.0%**
5.7%	1.3%	2.1%	2.1%	5.2%	3.6%	8.7%	6.3%	6.3%	4.0%	**4.0%**	**3.0%**	AFUDC % to Net Profit	**3.0%**
37.5%	36.2%	34.6%	33.8%	37.7%	38.0%	35.5%	38.1%	35.8%	39.3%	**37.0%**	**36.0%**	Long-Term Debt Ratio	**33.5%**
62.5%	63.8%	65.4%	66.2%	62.3%	62.0%	64.5%	61.9%	64.2%	60.7%	**63.0%**	**64.0%**	Common Equity Ratio	**66.5%**
1054.7	1081.5	1106.9	1176.3	1310.0	1379.4	1512.8	1659.0	1684.0	1876.9	**1950**	**1950**	Total Capital ($mill)	**2100**
1208.1	1243.4	1282.1	1341.4	1509.4	1642.7	1769.4	1878.8	1971.1	2128.2	**2250**	**2350**	Net Plant ($mill)	**2600**
8.6%	7.5%	7.7%	7.3%	7.2%	7.1%	6.8%	7.1%	7.4%	7.1%	**7.0%**	**7.5%**	Return on Total Cap'l	**8.0%**
12.2%	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	10.3%	**11.0%**	**11.5%**	Return on Shr. Equity	**12.0%**
12.2%	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	10.3%	**11.0%**	**11.5%**	Return on Com Equity E	**12.0%**
6.4%	4.5%	4.7%	4.2%	4.7%	4.6%	4.2%	5.0%	4.9%	5.0%	**6.0%**	**6.5%**	Retained to Com Eq	**7.0%**
48%	56%	55%	57%	54%	55%	56%	52%	52%	51%	**47%**	**45%**	All Div'ds to Net Prof	**42%**

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.2	-.3	-1.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	7.69	8.71	9.09
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	486	517	525

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	1.5%	3.0%	*4.5%*
"Cash Flow"	6.0%	8.0%	*7.0%*
Earnings	5.0%	6.5%	*7.0%*
Dividends	4.5%	4.5%	*3.5%*
Book Value	6.0%	6.0%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	167.9	130.7	145.9	162.1	606.6
2022	209.0	152.3	163.4	189.8	714.5
2023	217.3	148.0	160.5	164.6	690.4
2024	191.3	***150***	***165***	***198.7***	***705***
2025	***190***	***180***	***180***	***180***	***730***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.96	.63	.97	.36	2.92
2022	.96	.60	.93	.58	3.07
2023	.86	.79	1.05	.55	3.25
2024	.93	***.95***	***1.15***	***.67***	***3.70***
2025	***1.00***	***1.00***	***1.00***	***1.00***	***4.00***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec. 31	Full Year
2020	.352	.352	.37	.37	1.45
2021	.37	.37	.388	.388	1.52
2022	.388	.388	.408	.408	1.59
2023	.408	.408	.4275	.4275	1.67
2024	.4275				

BUSINESS: MGE Energy, Inc. is a holding company for Madison Gas and Electric Company (MGE), which provides electric service to 163,000 customers in Dane County and gas service to 176,000 customers in seven counties in Wisconsin. Electric revenue breakdown: residential, 35%; commercial, 51%; industrial, 3%; other, 11%. Generating sources: coal, 40%; gas, 17%; renewables, 21%; purchased power, 22%. Fuel costs: 30% of revenues. '23 reported depreciation rates: electric, 3.8%; gas, 2.1%; nonregulated, 2.3%. Has about 700 employees. Chairman, President & CEO: Jeffrey M. Keebler. Incorporated: Wisconsin. Address: 133 South Blair Street, P.O. Box 1231, Madison, Wisconsin 53701-1231. Telephone: 608-252-7000. Internet: www.mgeenergy.com.

MGE Energy reported mixed first-quarter results. Revenues decreased 12% year over year, to $191.3 million. The company experienced a slight decline in electric revenues and a double-digit fall in gas revenues due to warmer-than-normal weather. However, GAAP earnings per share increased by 8% compared to the previous year, reaching $0.93. This growth was thanks to favorable rates and lower fuel costs, boosting electric utility earnings.

The company is investing in assets to support the expansion of renewable energy generation. The utility has several solar and battery projects that are either proposed or under construction. Notable investments include a 20-megawatt solar project, Paris, which is also being developed as a battery storage infrastructure, scheduled for completion in 2024 and 2025, respectively. Another significant solar project, dubbed Darien, is anticipated to be operational by the end of this year. Ongoing investments in capital infrastructure are important for negotiating rate cases and should make a solid ground for future rate cases. We note that rate cases for 2024 and 2025 were approved in December 2023 by the Public Service Commission of Wisconsin.

A combination of rate relief and better cost controls should keep the near-term bottom line healthy. MGE will probably remain active on the investment front to make a case for next rate negotiations. Plus, we also expect it to attract new customers to bolster the top line. All things considered, we estimate a 14% increase in per-share profit for 2024. In all, we project an 8% gain in 2025 earnings per share, bringing the figures to approximately $3.70 and $4.00, respectively.

Shares of MGE Energy are ranked to track the broader market averages in the year ahead. Looking over the 3- to 5-year time frame, the stock has subpar capital appreciation potential. Over the next 18 months, the capital upside prospects are also uninspiring, and the dividend yield is below average for a utility. We think patient, income-oriented investors looking to diversify portfolio risk and earn a high dividend yield may find better options elsewhere in the sector.

Emma Jalees *June 7, 2024*

(A) GAAP Diluted earnings. Excludes nonrecurring gain: '17, 62¢. Quarterly earnings may not sum to full year due to rounding or share count change. Next earnings report due early Aug. (B) Div'ds historically paid in mid-March, June, September, and December ■ Div'd reinvestment plan avail. (C) Includes regulatory assets. In '23: $102.3 mill., $2.83/sh. (D) In millions, adj for split. (E) Rate allowed on common equity in '23: 9.7%; Regulatory Climate: Above Average.

Company's Financial Strength	B++
Stock's Price Stability	75
Price Growth Persistence	55
Earnings Predictability	100

NEXTERA ENERGY NYSE-NEE

RECENT PRICE 67.42 | P/E RATIO 19.8 (Trailing: 20.7 Median: 24.0) | RELATIVE P/E RATIO 1.14 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 2 Raised 5/3/24
SAFETY 3 Lowered 5/10/24
TECHNICAL 5 Lowered 4/5/24
BETA 1.05 (1.00 = Market)

18-Month Target Price Range

Low-High **Midpoint (% to Mid)**
$52-$101 $77 (15%)

2027-29 PROJECTIONS

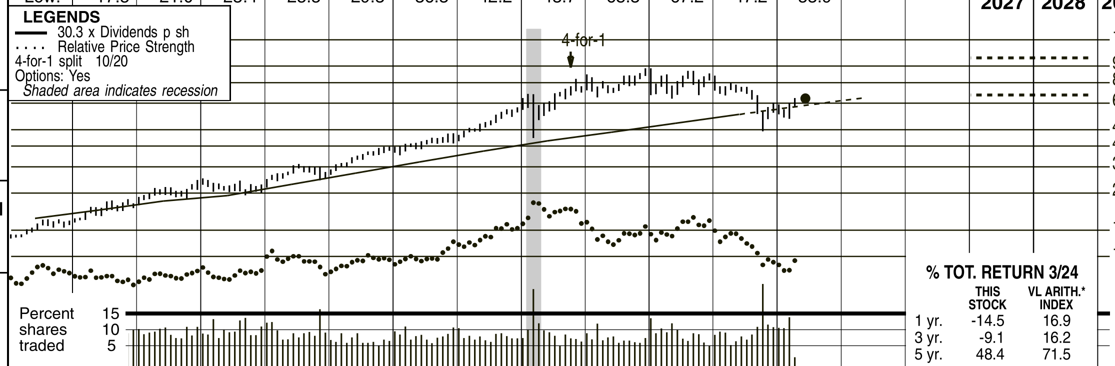
	Price	Gain	Ann'l Total Return
High	105	(+55%)	*14%*
Low	70	(+5%)	*4%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	1166	1138	1164
to Sell	974	1080	1119
Hld's(000)	1563720	1591503	1622643

High:	22.4	27.7	28.2	33.0	39.8	46.1	61.3	83.3	93.7	93.6	86.5	67.9				
Low:	17.5	21.0	23.4	25.5	29.3	36.3	42.2	43.7	68.3	67.2	47.2	53.9				

Target Price Range
2027 | 2028 | 2029



% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-14.5	16.9
3 yr.	-9.1	16.2
5 yr.	48.4	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
10.03	9.45	9.10	9.22	8.41	8.70	9.61	9.48	8.63	9.13	8.75	9.82	9.18	8.70	10.55	13.70	*13.35*	*14.65*	Revenues per sh	*17.25*
2.01	2.19	2.41	2.32	2.17	2.63	3.03	3.23	3.24	3.03	3.84	4.22	4.52	4.70	5.30	6.14	*6.45*	*6.70*	"Cash Flow" per sh	*7.75*
1.02	.99	1.19	1.21	1.14	1.21	1.40	1.52	1.45	1.63	1.67	1.94	2.31	2.55	2.90	3.17	*3.40*	*3.65*	Earnings per sh A	*4.55*
.45	.47	.50	.55	.60	.66	.73	.77	.87	.98	1.11	1.25	1.40	1.54	1.70	1.87	*2.06*	*2.25*	Div'd Decl'd per sh B ■ †	*2.85*
3.20	3.63	3.47	3.98	5.58	3.84	3.96	4.54	5.15	5.70	6.80	6.29	7.45	8.19	9.70	12.24	*11.00*	*11.00*	Cap'l Spending per sh	*12.00*
7.14	7.84	8.59	8.98	9.47	10.37	11.24	12.24	13.00	14.97	17.86	18.92	18.63	18.95	19.74	23.13	*24.55*	*26.15*	Book Value per sh C	*34.50*
1635.7	1654.5	1683.4	1664.0	1696.0	1740.0	1772.0	1844.0	1872.0	1884.0	1912.0	1956.0	1960.0	1963.0	1987.0	2052.0	*2055.0*	*2065.0*	Common Shs Outst'g D	*2150.0*
14.5	13.4	10.8	11.5	14.4	16.6	17.3	16.9	20.7	21.6	24.8	26.8	28.9	31.3	27.8	22.0	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
.87	.89	.69	.72	.92	.93	.91	.85	1.09	1.09	1.34	1.43	1.48	1.69	1.61	1.23	*Value Line*		Relative P/E Ratio	*1.05*
3.0%	3.5%	3.9%	4.0%	3.6%	3.3%	3.0%	3.0%	2.9%	2.8%	2.7%	2.4%	2.1%	1.9%	2.1%	2.7%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $79937 mill. **Due in 5 Yrs** $32228 mill.
LT Debt $65868 mill. **LT Interest** $2880 mill.

(Total Interest coverage: 3.2x)

Pension Assets-12/23 $4897 mill. **Oblig.** $2785 mill.

Pfd Stock None

Common Stock 2,054,532,552 shs.

MARKET CAP: $138 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
17021	17486	16155	17195	16727	19204	17997	17069	20956	28114	*27400*	*30300*	Revenues ($mill)	*37000*
2465.0	2752.0	2693.0	3074.0	3200.0	3769.0	4552.0	5021.0	5742.0	6441.0	*6995*	*7525*	Net Profit ($mill)	*9800*
32.3%	30.8%	29.3%	24.4%	28.6%	11.7%	13.0%	15.0%	18.2%	12.5%	*18.0%*	*18.0%*	Income Tax Rate	*18.0%*
6.7%	6.9%	8.2%	6.7%	6.6%	4.1%	4.6%	6.3%	4.3%	5.4%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
55.0%	54.2%	53.3%	52.7%	44.0%	50.4%	53.5%	57.8%	58.5%	56.4%	*58.5%*	*59.5%*	Long-Term Debt Ratio	*58.0%*
45.0%	45.8%	46.7%	47.3%	56.0%	49.6%	46.5%	42.2%	41.5%	43.6%	*41.5%*	*40.5%*	Common Equity Ratio	*42.0%*
44283	49255	52159	59671	60926	74548	78457	88162	94485	108873	*121300*	*133900*	Total Capital ($mill)	*176200*
55705	61386	66912	72416	70334	82010	91803	99348	111059	125776	*139600*	*153200*	Net Plant ($mill)	*196400*
7.0%	6.8%	6.3%	6.3%	6.3%	6.0%	6.8%	6.6%	6.9%	7.2%	*7.0%*	*6.5%*	Return on Total Cap'l	*6.5%*
12.4%	12.2%	11.1%	10.9%	9.4%	10.2%	12.5%	13.5%	14.6%	13.6%	*14.0%*	*14.0%*	Return on Shr. Equity	*13.0%*
12.4%	12.2%	11.1%	10.9%	9.4%	10.2%	12.5%	13.5%	14.6%	13.6%	*14.0%*	*14.0%*	Return on Com Equity E	*13.0%*
6.0%	6.1%	4.4%	4.4%	3.2%	3.7%	5.0%	5.4%	6.1%	5.6%	*5.5%*	*5.5%*	Retained to Com Eq	*5.0%*
51%	50%	60%	60%	66%	64%	60%	60%	58%	59%	*60%*	*62%*	All Div'ds to Net Prof	*63%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	-1.0%	+3.0	+.6
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.5	+1.5	+1.2
Fixed Charge Cov. (%)	284	370	341

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.5%	4.5%	*8.0%*
"Cash Flow"	8.5%	10.0%	*6.5%*
Earnings	9.5%	12.5%	*8.0%*
Dividends	11.0%	11.5%	*9.0%*
Book Value	8.0%	6.0%	*9.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3726	3927	4370	5046	17069
2022	2890	5183	6719	6164	20956
2023	6716	7349	7172	6877	28114
2024	5731	***7220***	***7975***	***6474***	***27400***
2025	***7175***	***7700***	***8500***	***6925***	***30300***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.67	.71	.75	.41	2.55
2022	.74	.81	.85	.51	2.90
2023	.84	.88	.94	.52	3.17
2024	.91	***.93***	***.99***	***.57***	***3.40***
2025	***.97***	***1.00***	***1.06***	***.62***	***3.65***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.35	.35	.35	.35	1.40
2021	.385	.385	.385	.385	1.54
2022	.425	.425	.425	.425	1.70
2023	.4675	.4675	.4675	.4675	1.87
2024	.515				

BUSINESS: NextEra Energy, Inc. is a holding company for Florida Power & Light Co. (FP&L), which provides electricity to roughly 5.9 million customers in eastern, southern, & northwestern Florida. NextEra Energy Resources is a nonregulated power generator with nuclear, gas, & renewables. Has 51.4% stake in NextEra Energy Partners. Acquired Gulf Power 1/19; Florida City Gas 7/18. Revenue: residential, about 55%; commercial/industrial/other, 45%. Generating sources: gas, 73%; nuclear, 20%; solar, 6%; other, 1%. Fuel costs: 19.4% of revenues. '23 depreciation rate: 3.4%. Employs about 16,800. Chairman, President and CEO: John W. Ketchum. Inc.: Florida. Address: 700 Universe Blvd., Juno Beach, FL 33408. Tel.: 561-694-4000. Internet: www.nexteraenergy.com.

NextEra Energy is off to an excellent start in 2024. First-quarter earnings exceeded the Wall Street consensus estimate by $0.11 per share and our call by $0.03. Getting off on the right foot makes it more probable the company will reach the high end of its full-year earnings target range of $3.23-$3.43 a share. The company's utility subsidiary, Florida Power & Light, saw strong growth driven by investment in the business. Regulatory capital employed increased by approximately 11.5% on a year-over-year basis, and the utility had its strongest quarter of customer growth in over 15 years with the count up by about 100,000 from the first quarter of 2023. The company's renewable energy subsidiary was also off to a strong start, with the second-best quarter in its history in terms of power and storage origination. The company grew its backlog of projects from year-end 2023 by 2,765 megawatts (MW) to 21,500 MW. The updated backlog level is net of 1,165 MW of projects placed in service during the first three months of the year.

The stock has continued to recover nicely from last year's washout low. Utilities as a whole were under intense pressure as interest rates climbed rapidly, with the benchmark 10-year Treasury bond yield reaching 5% in mid-October before backing off. Because interest bearing notes are an alternative investment vehicle to utility stocks, there tends to be a strong negative correlation between rates and this group of equities. Another way to think of it is the stock prices have to drop so that the dividend yields are competitive relative to low-risk bond rates. NEE stock did worse than the average utility as it was among the richest valuations within its peer group entering 2023, owing to its strong historical earnings growth. Rising borrowing costs for a company that regularly visits the capital markets brought into question how sustainable its above-industry-level growth is. The high end of leadership's long-term target of 6%-8% should be achievable due to the healthy regional economy it serves and NextEra's position as one of the nation's foremost renewable energy providers.

This equity is timely and offers worthwhile 18-month total returns.

Anthony J. Glennon *May 10, 2024*

(A) Diluted EPS. Excl. nonrecurring gains/(losses): '11, (6¢); '13, (20¢); '16, 12¢; '17, $1.22¢; '18, $1.80; '20, (83¢); '21, (74¢); '22, (80¢); '23, 43¢; 1Q '23, 19¢; disc. ops.: '13, 11¢. EPS may not some to full yr. due to rounding. Next egs. report due late July. (B) Div'ds paid in mid-Mar., mid-June, mid-Sept., & mid-Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Includes intagibles. In '23: $5.85/sh. (D) In mill., adj. for stock split. (E) Rate allowed on common eq. in '22 (FPL): 9.8%-11.8%; Regult'y Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	55
Price Growth Persistence	80
Earnings Predictability	95

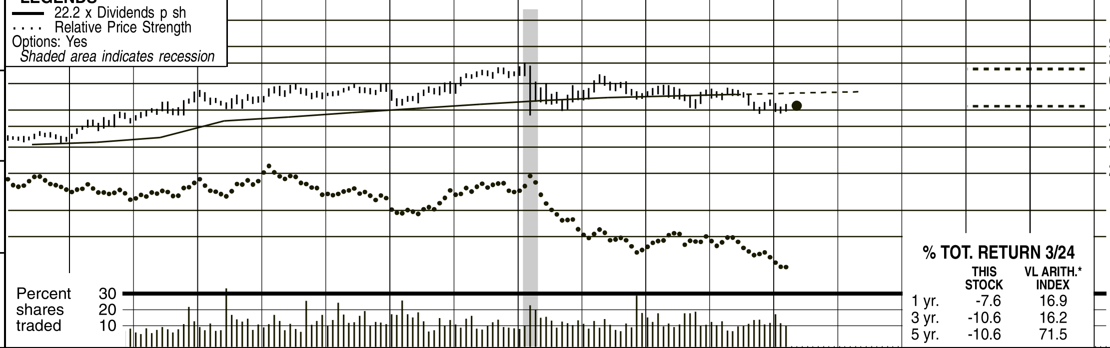
NORTHWESTERN NDQ-NWE

RECENT PRICE 50.25 | P/E RATIO 13.7 (Trailing: 15.6 Median: 17.0) | RELATIVE P/E RATIO 0.74 | DIV'D YLD 5.2% | VALUE LINE

TIMELINESS 2 Raised 4/12/24
SAFETY 3 Lowered 1/19/24
TECHNICAL 5 Lowered 4/12/24
BETA .95 (1.00 = Market)

High:	47.2	58.7	59.7	63.8	64.5	65.7	76.7	80.5	70.8	63.1	61.2	51.8
Low:	35.1	42.6	48.4	52.2	55.7	50.0	57.3	45.1	53.2	48.7	46.0	46.2

LEGENDS
—— 22.2 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$41-$70 $56 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+50%)	14%
Low	50	(Nil)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	157	123	144
to Sell	113	151	130
Hld's(000)	58238	59029	59945

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.6	16.9
3 yr.	-10.6	16.2
5 yr.	-10.6	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	23.70	25.38	24.74	23.22	*25.60*	*26.60*	Revenues per sh	*28.90*
4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	6.86	6.92	6.46	6.69	*7.10*	*7.45*	"Cash Flow" per sh	*8.55*
1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	3.21	3.50	3.29	3.22	*3.50*	*3.70*	Earnings per sh A	*4.25*
1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	2.40	2.48	2.52	2.56	*2.60*	*2.64*	Div'd Decl'd per sh B ■ †	*2.76*
3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	8.02	8.03	8.62	9.26	*8.15*	*8.15*	Cap'l Spending per sh	*8.25*
21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	41.10	43.28	44.61	45.48	*46.40*	*47.50*	Book Value per sh C	*51.85*
35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	50.59	54.06	59.74	61.25	*61.50*	*62.00*	Common Shs Outst'g D	*64.00*
13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	18.6	17.4	17.3	17.0	*Bold figures are*		Avg Ann'l P/E Ratio	*14.5*
.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06	.96	.94	1.00	.95	*Value Line*		Relative P/E Ratio	*.80*
5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%	4.0%	4.1%	4.4%	4.7%	*estimates*		Avg Ann'l Div'd Yield	*4.5%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $2820.8 mill. **Due in 5 Yrs** $1011.5 mill.
LT Debt $2690.5 mill. **LT Interest** $109.0 mill.
Incl. $5.5 mill. finance leases.
(Total Interest Coverage: 2.4x)

Pension Assets-12/23 $402.7 mill. **Oblig** $477.0 mill.

Pfd Stock None

Common Stock 61,256,549 shs. as of 2/9/24

MARKET CAP: $3.1 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1372.3	1477.8	1422.1	*1575*	*1650*	Revenues ($mill)	*1850*
120.7	138.4	164.2	162.7	171.1	179.3	162.6	181.6	185.5	194.1	*215*	*230*	Net Profit ($mill)	*270*
- -	13.7%	- -	7.6%	- -	1.6%	- -	.9%	.9%	3.7%	*6.0%*	*9.0%*	Income Tax Rate	*12.0%*
8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	6.0%	14.9%	18.5%	21.6%	*20.0%*	*20.0%*	AFUDC % to Net Profit	*20.0%*
53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	52.2%	48.2%	49.1%	*50.0%*	*51.0%*	Long-Term Debt Ratio	*50.5%*
46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	47.8%	51.8%	50.9%	*50.0%*	*49.0%*	Common Equity Ratio	*49.5%*
3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4893.1	5148.3	5475.4	*5725*	*5975*	Total Capital ($mill)	*6700*
3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5247.2	5657.5	6039.8	*6300*	*6600*	Net Plant ($mill)	*7300*
4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	4.6%	4.6%	4.5%	4.5%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	*7.5%*	*8.0%*	Return on Shr. Equity	*8.0%*
8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	*7.5%*	*8.0%*	Return on Com Equity E	*8.0%*
3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	2.0%	2.3%	1.7%	1.4%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
54%	65%	58%	62%	64%	64%	74%	71%	76%	79%	*74%*	*71%*	All Div'ds to Net Prof	*65%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+.7	+3.7	-.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2000	2073	1992
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.6	+1.5	+1.6
Fixed Charge Cov. (%)	245	219	216

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-2.0%	-1.0%	*2.5%*
"Cash Flow"	2.5%	-.5%	*3.5%*
Earnings	3.5%	- -	*4.0%*
Dividends	5.5%	3.5%	*2.0%*
Book Value	6.0%	4.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	400.8	298.2	326.0	347.3	1372.3
2022	394.5	323.0	335.1	425.2	1477.8
2023	454.5	290.5	321.1	356.0	1422.1
2024	*475*	*325*	*370*	*405*	*1575*
2025	*500*	*340*	*385*	*425*	*1650*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.24	.59	.70	.97	3.50
2022	1.08	.58	.47	1.16	3.29
2023	1.10	.32	.48	1.32	3.22
2024	*1.25*	*.50*	*.60*	*1.15*	*3.50*
2025	*1.30*	*.55*	*.65*	*1.20*	*3.70*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.60	.60	.60	.60	2.40
2021	.62	.62	.62	.62	2.48
2022	.63	.63	.63	.63	2.52
2023	.64	.64	.64	.64	2.56
2024	.65				

BUSINESS: NorthWestern Energy Group, Inc. supplies electricity & gas in the Upper Midwest and Northwest, serving 467,700 electric customers in Montana and South Dakota and 307,600 gas customers in Montana, South Dakota, and Nebraska. Electric revenue breakdown for 2023: residential, 44%; commercial, 50%; industrial, 4%; and other, 2%. Generating sources: coal, 18%; hydro, 37%; wind, 4%; natural gas, 12%; purchased power, 29%. Fuel costs: 30% of revenues. 2023 reported depreciation rate: 2.8%. Had 1,573 employees as of 12/31/23. Chair of the board of directors: Dana J. Dykhouse. President and CEO: Brian B. Bird. Incorporated: DE. Address: 3010 West 69th Street, Sioux Falls, SD 57108. Telephone: 605-978-2900. Internet: www.northwesternenergy.com.

NorthWestern Energy's profits should be on the rise this year from higher electric and natural gas delivery rates. In October, Montana regulators approved the settlement agreement the utility had negotiated with key members of the state's business community. The new prices lift annual electric and natural gas revenues by $67.4 million and $14.1 million, respectively. Those levels are based on an authorized return on equity (ROE) of 9.65% for electric and 9.55% for gas. The utility also received pricing mechanisms that allow for the expedient pass through of changes in both fuel/purchased power costs and property taxes. Those will reduce regulatory lag. In January, South Dakota officials came to terms with the company on electric rates that will raise annual revenue by $21.5 million based on a 6.81% rate of return. Management is targeting a range of $3.42 to $3.62 for 2024 earnings per share. The company raised the quarterly dividend to an annualized rate of $2.60 a share from $2.56.

Leadership affirmed its 4% to 6% annual earnings growth expectation. It provided an updated five-year capital investment plan that calls for average expenditures of $500 million per year from 2024 through 2028. The $2.5 billion total investment should grow the company's rate base (the dollar value of assets for which a utility is allowed to earn a regulated return on) by about 4% to 6% per annum. That, in turn, should translate to 4% to 6% yearly earnings-per-share gains. The fairly conservative plan assumes no equity needs are necessary unless there are opportunities to expand generation build beyond the $143 million budgeted for that category. We're projecting there will be some on both fronts. The plan also calls for $1.8 billion to be spent on the expansion and modernization of electric and gas transmission and distribution systems across its territories, with the remainder on infrastructure maintenance.

This equity is timely. Longer term, however, it doesn't really stand out relative to its peer group on an annual total-return basis. This is partially because it's growth prospects are about average and dividend hikes will likely remain limited until the payout ratio returns to the mid-60% area.

Anthony J. Glennon *April 19, 2024*

(A) Diluted egs. Excl. nonrec. gains/(losses): '12, 40¢; '15, 27¢; '18, 52¢; '19, 45¢; '20, (15¢); '21, 10¢; '22, (4¢). Qtly EPS may not sum to full yr. due to rounding. Next egs. report due early May. (B) Div'ds paid late Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. † Shrhldr. invest. plan avail. (C) Incl. def'd charges and intag. '23: $17.90/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '22 (elec.): 9.65%; in '22 (gas): 9.55%; in SD in '24: 6.81%; in NE in '07: 10.4%. Reg. Climate: Below Avg.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	25
Earnings Predictability	95

OGE ENERGY CORP. NYSE-OGE

RECENT PRICE 35.65 | P/E RATIO 17.0 (Trailing: 18.1 Median: 18.0) | RELATIVE P/E RATIO 0.95 | DIV'D YLD 4.7% | VALUE LINE

TIMELINESS 4 Raised 5/31/24
SAFETY 3 Lowered 3/8/24
TECHNICAL 5 Lowered 5/3/24
BETA 1.05 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$31-$46	$39 (10%)

2027-29 PROJECTIONS

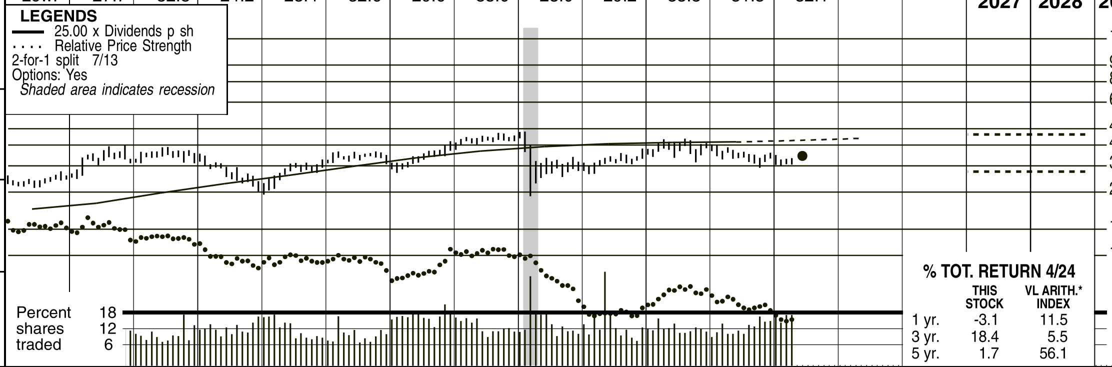
	Price	Gain	Ann'l Total Return
High	45	(+25%)	10%
Low	30	(-15%)	1%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	174	197	210
to Sell	216	199	206
Hld's(000)	134247	138173	144477

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	40.0	39.3	36.5	34.2	37.4	41.8	45.8	46.4	38.6	42.9	40.4	37.3
Low:	27.7	32.8	24.2	23.4	32.6	29.6	38.0	23.0	29.2	33.3	31.3	32.1

Target Price Range 2027 | 2028 | 2029



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.1	11.5
3 yr.	18.4	5.5
5 yr.	1.7	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	18.26	16.86	13.36	*14.50*	*15.00*	Revenues per sh	*17.50*
2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.44	5.63	4.61	*4.70*	*5.05*	"Cash Flow" per sh	*5.85*
1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.36	2.25	2.07	*2.10*	*2.30*	Earnings per sh A	*2.70*
.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.63	1.64	1.66	*1.69*	*1.73*	Div'd Decl'd per sh B ■	*1.85*
4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.89	5.25	4.49	*4.75*	*4.75*	Cap'l Spending per sh	*4.75*
10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	20.27	22.52	22.17	*23.10*	*23.75*	Book Value per sh C	*26.25*
187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.10	200.20	200.30	*200.20*	*200.20*	Common Shs Outst'g D	*200.20*
12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	14.3	17.2	17.4	*Bold figures are*		Avg Ann'l P/E Ratio	*14.0*
.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.83	.77	1.00	.96	*Value Line*		Relative P/E Ratio	*.80*
4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%	4.8%	4.5%	5.1%	*estimates*		Avg Ann'l Div'd Yield	*4.4%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $4341.3 mill. **Due in 5 Yrs** $1731.5 mill.
LT Debt $4261.9 mill. **LT Interest** $158.7 mill.
(LT interest earned: 4.3x)

Leases, Uncapitalized Annual rentals $5.7 mill.

Pension Assets-12/22 $486.0 mill. **Oblig** $502.9 mill.

Pfd Stock None

Common Stock 200,547,842 shs.

MARKET CAP: $7.1 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	2122.3	3653.7	3375.7	2674.3	*2900*	*3000*	Revenues ($mill)	*3500*
395.8	337.6	338.2	384.3	425.5	449.6	415.9	472.5	665.7	416.8	*420*	*460*	Net Profit ($mill)	*540*
30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	13.2%	11.5%	12.0%	12.0%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	1.6%	2.2%	2.0%	2.0%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	49.0%	52.6%	49.8%	51.2%	*52.0%*	*51.5%*	Long-Term Debt Ratio	*50.0%*
54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	51.0%	47.4%	52.4%	49.6%	*48.0%*	*48.5%*	Common Equity Ratio	*50.0%*
5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	7126.2	8552.7	8962.0	9238.2	*9750*	*9935*	Total Capital ($mill)	*10400*
6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	9374.6	9832.9	10546.8	11301.0	*11000*	*11250*	Net Plant ($mill)	*12075*
7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	6.9%	6.4%	5.9%	6.3%	*7.0%*	*7.0%*	Return on Total Cap'l	*7.5%*
12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	*12.5%*	*12.5%*	Return on Shr. Equity	*13.0%*
12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	*12.5%*	*12.5%*	Return on Com Equity E	*13.0%*
6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	2.8%	3.6%	3.0%	3.5%	*4.5%*	*4.5%*	Retained to Com Eq	*5.5%*
47%	61%	67%	64%	64%	67%	76%	69%	73%	81%	*75%*	*75%*	All Div'ds to Net Prof	*57%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-4.9	+2.6	+8.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	4.40	7.68	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	6437	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.1	+1.4	NA
Fixed Charge Cov. (%)	326	336	335

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	-3.0%	5.0%	*5.5%*
"Cash Flow"	2.5%	5.0%	*7.0%*
Earnings	3.0%	4.5%	*6.5%*
Dividends	7.5%	6.5%	*3.0%*
Book Value	4.0%	1.5%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1630.0	577.4	864.4	581.3	3653.7
2022	589.3	803.7	1270.0	711.9	3375.7
2023	557.2	605.0	945.4	566.7	2674.3
2024	596.8	*750*	*920*	*633.2*	*2900*
2025	*620*	*780*	*950*	*650*	*3000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.26	.56	1.26	.28	2.36
2022	.33	.36	1.31	.25	2.25
2023	.19	.44	1.20	.24	2.07
2024	.09	*.45*	*1.30*	*.26*	*2.10*
2025	*.40*	*.35*	*1.30*	*.25*	*2.30*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.3875	.3875	.3875	.4025	1.57
2021	.4025	.4025	.4025	.41	1.62
2022	.41	.41	.41	.4141	1.64
2023	.4141	.4141	.4141	.4182	1.66
2024	.4182	.4182			

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 879,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 3% of Energy Transfer's limited partnership units. Electric revenue breakdown: residential, 44%; commercial, 25%; industrial, 11%; oilfield, 10%; other, 10%. Generating sources: gas, 25%; coal, 21%; wind, 6%; purchased, 48%. Fuel costs: 58% of revenues. '23 reported depreciation rate (utility): 2.6%. Has 2,200 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, OK 73101-0321. Tel.: 405-553-3000. Internet: www.oge.com.

OGE Energy's utility subsidiary is awaiting a rate order in Oklahoma. Oklahoma Gas and Electric is seeking an increase of $332 million, based on a return on equity of 10.5% and a common-equity ratio of 53.5%. The utility needs to recover its additional capital investment in grid enhancements to improve reliability since its last rate case. OGE is making progress and testimony is under way, with new rates expected to be implemented sometime this summer. Meanwhile, the utility recently lowered Oklahoma customers' bills by $25 a month due to a reduction in fuel costs. The cost of fuel to produce electricity is reviewed by federal regulators twice a year, and fluctuates greatly.

We have lowered our 2024 earnings-per-share estimate by a dime. The first-quarter performance was negatively impacted by higher depreciation and interest expense, along with regulatory lag due to the pending Oklahoma rate case. Our profit estimate is now just below the midpoint of OGE Energy's targeted range of $2.06-$2.18, and within the company's long-term growth rate target of 5%-7% annually. We think the utility will have sharper earnings growth next year. Prospects over that interim should benefit from investments in the grid, as well as being a pure-play electric utility. A decision in Oklahoma will likely also bolster top- and bottom-line growth and help the utility pass on higher costs to the consumer. Accordingly, our 2025 earnings estimate is staying put at $2.30 a share.

OGE shares have risen nicely of late. Indeed, the stock has jumped around 10% in value since our early March report. And, the stock price is now up slightly over the past year, after reaching its new 12-month high recently.

The stock is untimely, but appealing for income-oriented investors. Indeed, the dividend yield of 4.7% stands comfortably above the high-paying utility average, and remains this issue's most notable feature. On the other hand, these shares are ranked 4 (Below Average) for Timeliness. Too, intermediate- and long-term return prospects are not attractive, as the current quotation is already trading within our Target Price Range for the 18-month and 3- to 5-year time frames.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted EPS. Excl. nonrecurring gains (losses): '15, (33¢); '17, $1.18; '19, (8¢); '20, ($2.95); '21, $1.32; '22, $1.06; gain on discont. ops.: '19 & '21 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges. In '22: $6.15/sh. (D) In mill., adj. for split. (E) Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%; in AR in '18: 9.5%; earned on avg. com. eq., '21: 12.7%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	30
Earnings Predictability	95

OTTER TAIL CORP. NDQ-OTTR

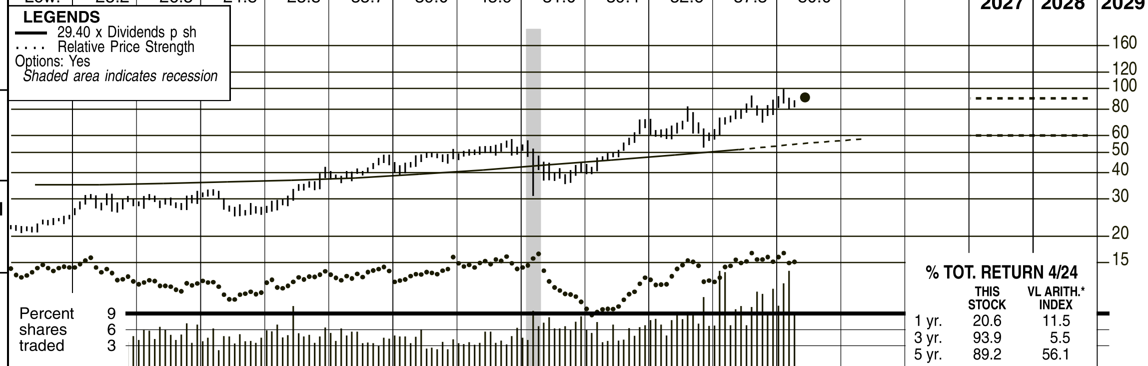
RECENT PRICE	P/E RATIO	(Trailing / Median)	RELATIVE P/E RATIO	DIV'D YLD
90.90	14.3	Trailing: 12.5 / Median: 20.0	0.80	2.1%

VALUE LINE

TIMELINESS 2 Raised 5/31/24
SAFETY 2 Raised 6/7/24
TECHNICAL 3 Raised 6/7/24
BETA .95 (1.00 = Market)

High:	31.9	32.7	33.4	42.6	48.7	51.9	57.7	56.9	71.7	82.5	92.7	99.5
Low:	25.2	26.5	24.8	25.8	35.7	39.0	45.9	31.0	39.4	52.6	57.3	80.0

Target Price Range
2027 | 2028 | 2029



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$48-$113	$81 (-10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(Nil)	2%
Low	60	(-35%)	-7%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	108	111	132
to Sell	115	128	117
Hld's(000)	25238	24880	25634

% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	20.6	11.5
3 yr.	93.9	5.5
5 yr.	89.2	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	21.46	28.80	35.08	32.35	*34.50*	*36.90*	Revenues per sh	*37.65*
2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	4.29	6.45	8.77	9.35	*8.75*	*7.05*	"Cash Flow" per sh	*6.80*
1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	2.34	4.23	6.78	7.00	*6.35*	*4.65*	Earnings per sh A	*4.25*
1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	1.48	1.56	1.65	1.75	*1.87*	*1.97*	Div'd Decl'd per sh B ■	*2.20*
7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	8.96	4.14	4.11	4.72	*6.00*	*6.00*	Cap'l Spending per sh	*6.25*
19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	21.00	23.84	29.24	29.42	*31.15*	*32.25*	Book Value per sh C	*34.25*
35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	41.47	41.55	41.63	41.71	*42.00*	*42.00*	Common Shs Outst'g D	*42.50*
30.1	31.2	NMF	47.5	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	18.3	12.3	9.5	10.7	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
1.81	2.08	NMF	2.98	1.38	1.19	.99	.92	1.06	1.11	1.20	1.25	.94	.66	.55	.61	*Value Line*		Relative P/E Ratio	*.95*
3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%	3.5%	3.0%	2.5%	2.3%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*
						799.3	779.8	803.5	849.4	916.4	919.5	890.1	1196.8	1460.2	1349.2	*1450*	*1550*	Revenues ($mill)	*1600*
						56.9	58.6	62.0	73.9	82.3	86.8	95.9	176.8	282.3	292.0	*265*	*195*	Net Profit ($mill)	*180*
						22.5%	27.0%	24.5%	25.5%	15.0%	16.7%	17.4%	16.9%	20.5%	20.2%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
						3.9%	3.5%	2.2%	2.3%	4.1%	4.9%	6.4%	.8%	.9%	1.4%	*2.0%*	*2.5%*	AFUDC % to Net Profit	*4.0%*
						46.5%	42.4%	43.0%	41.3%	44.7%	46.9%	41.8%	42.6%	40.0%	41.0%	*41.0%*	*41.5%*	Long-Term Debt Ratio	*42.5%*
						53.5%	57.6%	57.0%	58.7%	55.3%	53.1%	58.2%	57.4%	58.3%	58.5%	*58.5%*	*58.5%*	Common Equity Ratio	*57.5%*
						1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	1495.4	1724.8	2041.1	2148.2	*2250*	*2375*	Total Capital ($mill)	*2525*
						1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	2049.3	2124.6	2212.7	2418.4	*2475*	*2550*	Net Plant ($mill)	*2700*
						6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	7.4%	11.1%	12.0%	9.0%	*8.5%*	*8.0%*	Return on Total Cap'l	*7.5%*
						9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	17.8%	18.0%	13.5%	*13.0%*	*12.5%*	Return on Shr. Equity	*11.5%*
						9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	17.8%	18.0%	13.5%	*13.0%*	*12.5%*	Return on Com Equity E	*11.5%*
						2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	4.1%	11.3%	12.4%	7.5%	*7.0%*	*7.0%*	Retained to Com Eq	*5.0%*
						78%	79%	78%	69%	65%	64%	63%	37%	24%	44%	*52%*	*52%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 3/31/24
Total Debt $943.5 mill. **Due in 5 Yrs** $207.8 mill.
LT Debt $943.5 mill. **LT Interest** $31.6 mill.
(LT interest earned: 9.7x)

Leases, Uncapitalized Annual rentals $5.0 mill.
Pension Assets-12/23 $313.8 mill. **Oblig** $416.7 mill.

Pfd Stock None

Common Stock 41,814,425 shs.
as of 4/30/24

MARKET CAP: $3.8 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.9	+.3	+16.8
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	405	651	653

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-1.0%	4.0%	*5.0%*
"Cash Flow"	7.5%	9.5%	*5.5%*
Earnings	18.0%	14.5%	*4.5%*
Dividends	2.5%	4.0%	*7.0%*
Book Value	3.5%	6.0%	*8.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	261.7	285.6	316.3	333.2	1196.8
2022	374.9	400.0	383.9	301.4	1460.2
2023	339.1	337.7	358.1	314.3	1349.2
2024	347.1	*365*	*390*	*347.9*	*1450*
2025	*375*	*395*	*395*	*385*	*1550*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.73	1.01	1.26	1.23	4.23
2022	1.72	2.05	2.01	1.00	6.78
2023	1.49	1.95	2.19	1.37	7.00
2024	1.77	*1.70*	*1.75*	*1.13*	*6.35*
2025	*1.10*	*1.15*	*1.20*	*1.20*	*4.65*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.37	.37	.37	.37	1.48
2021	.39	.39	.39	.39	1.56
2022	.4125	.4125	.4125	.4125	1.65
2023	.4375	.4375	.4375	.4375	1.75
2024	.4675				

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 133,000 customers in Minnesota (52% of retail electric revenues), North Dakota (38%), and South Dakota (10%). Electric rev. breakdown: residential, 32%; commercial & farms, 36%; industrial, 30%; other, 2%. Generating sources: coal, 38%; wind & other, 18%; purchased, 44%. Fuel costs: 10% of revenues. Also has operations in manufacturing and plastics (67% of '23 operating income). '23 deprec. rate: 3.0%. Has 2,500 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane. Inc.: Minnesota. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation raised its earnings target for 2024 upon reporting March-period results. Management now looks for profits this year to end up in a range of $6.23-$6.53 per share, from the previous target range of $5.13-$5.43 a share. The Plastics segment continues to outperform expectations due to higher sales driven by growth in customer volumes and strong distributor and end market demand. Indeed, earnings in the Plastics division rose 39% from the first quarter of 2023, and PVC pipe is expected to recede at a much slower rate than previously anticipated, which is largely responsible for Otter Tail's updated guidance range. Meanwhile, the manufacturing segment's profit target was cut due to lower-than-expected sales volumes and margins. Too, the Electric division is projected to make up just 34% of the bottom line, versus the long-term goal of 65% electric and 35% non-electric.

We have raised our 2025 earnings estimate by $0.65, to $4.65 per share. Otter Tail should benefit from rate relief in Minnesota and North Dakota over that interim. Furthermore, the utility's updated expectations for the Plastics segment will likely pour into next year, lifting profits higher than previously projected. The company is also well positioned to take advantage of its clean-energy transmission investments, which include $1.3 billion of capital spending over the next five years, and is expected to produce 7.7% rate base growth.

Otter Tail shares have risen slightly in value since our March report, and are now up nearly 20% over the past year. Investors are enthused by better-than-expected earnings and elevated power demand from tech innovations and data centers. At the recent quotation, upside potential here in the 18-month and 3- to 5-year time frames is negative.

The dividend yield is below average by utility standards. Even after the payout was raised in the March quarter, the current yield of 2.1% sits below the high-paying industry median. Too, long-term prospects are unattractive. On the other hand, these shares are ranked to outpace the broader-market averages over the coming six to 12 months.

Zachary J. Hodgkinson *June 7, 2024*

(A) Dil. EPS. Excl. nonrec. gains (loss): '10, (44¢); '11, 26¢; '13, 2¢; gains (losses) from disc. ops.: '11, ($1.11); '12, ($1.22); '13, 2¢; '14, 2¢; '15, 2¢; '16, 1¢; '17, 1¢. '19 EPS may not sum due to rounding. Next earnings report due early Aug. (B) Div'ds histor. pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '23: $4.72/sh. (D) In mill. (E) Rate allowed on com. eq. in MN in '22: 9.48%; in ND in '18: 9.77%; in SD in '19: 8.75%; earned on avg. com. eq., '21: 19.2%.

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	80
Earnings Predictability	70

PG&E CORP. NYSE-PCG

RECENT PRICE	P/E RATIO	(Trailing / Median)	RELATIVE P/E RATIO	DIV'D YLD
16.81	12.3	(Trailing: 13.7 / Median: 20.0)	0.67	0.2%

VALUE LINE

TIMELINESS **3** Raised 3/8/24
SAFETY **3** New 10/20/23
TECHNICAL **3** Lowered 4/12/24
BETA 1.10 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$14-$22	$18 (5%)

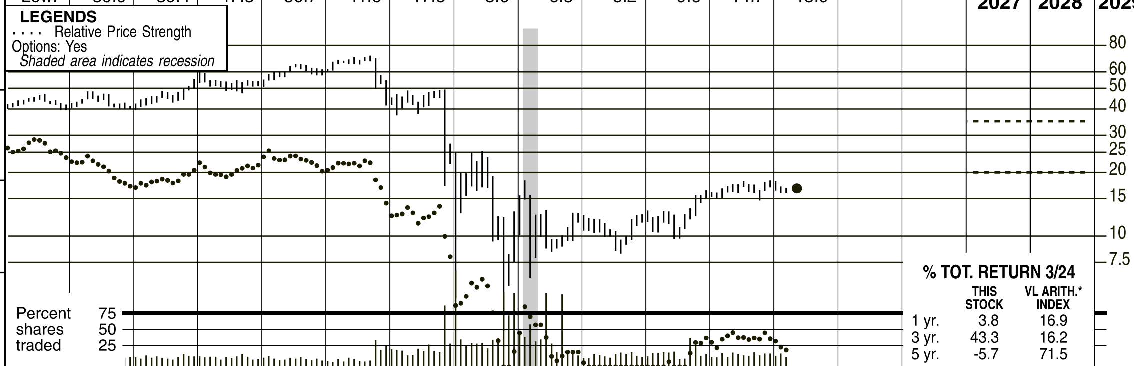
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+110%)	21%
Low	20	(+20%)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	309	347	350
to Sell	189	183	241
Hld's(000)	1847867	1994472	2066891

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	48.5	55.2	60.2	65.4	71.6	49.4	25.2	18.3	12.7	16.5	18.3	18.2
Low:	39.9	39.4	47.3	50.7	41.6	17.3	3.6	6.3	8.2	9.6	14.7	15.9



% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	3.8	16.9
3 yr.	43.3	16.2
5 yr.	-5.7	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
40.51	36.15	35.02	36.28	34.92	34.16	35.91	34.21	34.85	33.29	32.21	32.37	9.31	10.40	10.91	11.45	*11.75*	*11.65*	Revenues per sh	*12.20*
8.44	8.37	8.22	8.08	7.32	6.33	8.13	7.29	8.23	9.03	d7.30	d8.36	1.08	2.79	3.12	2.98	*3.30*	*3.45*	"Cash Flow" per sh	*4.40*
3.22	3.03	2.82	2.78	2.07	1.83	3.06	2.00	2.83	3.50	d13.25	d14.50	d1.05	1.00	1.10	1.23	*1.35*	*1.45*	Earnings per sh A	*1.90*
1.56	1.68	1.82	1.82	1.82	1.82	1.82	1.82	1.93	1.55	--	--	--	--	--	.01	*.04*	*.08*	Div'd Decl'd per sh B ■	*.20*
10.05	10.68	9.62	9.79	10.74	11.40	10.16	10.51	11.26	10.96	12.52	11.93	3.87	3.87	4.82	4.55	*5.00*	*5.20*	Cap'l Spending per sh	*5.80*
25.97	27.88	28.55	29.35	30.35	31.41	33.09	33.69	35.39	37.34	24.31	9.59	10.58	10.56	11.48	11.74	*13.30*	*14.95*	Book Value per sh C	*20.65*
361.06	370.60	395.23	412.26	430.72	456.67	475.91	492.03	506.89	514.76	520.34	529.24	1984.7	1985.4	1987.8	2133.6	*2200.00*	*2300.00*	Common Shs Outst'g D	*2500.00*
12.1	13.0	15.8	15.5	20.7	23.7	15.0	26.4	21.1	18.3	--	--	--	10.9	11.4	13.6	*Bold figures are*		Avg Ann'l P/E Ratio	*14.5*
.73	.87	1.01	.97	1.32	1.33	.79	1.33	1.11	.92	--	--	--	.59	.66	.76	*Value Line*		Relative P/E Ratio	*.80*
4.0%	4.3%	4.1%	4.2%	4.2%	4.2%	4.0%	3.4%	3.2%	2.4%	--	--	--	--	--	.1%	*estimates*		Avg Ann'l Div'd Yield	*.7%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $57135 mill. **Due in 5 Yrs** $17586 mill.
LT Debt $51529 mill. **LT Interest** $2850 mill.
(Incl. $554 mill. of noncurrent finance leases)
(Total Interest Coverage: 2.0x)
Leases, Uncapitalized Annual rentals $116 mill.

Pension Assets-12/23 $17211 mill. **Oblig** $17697 mill.

Pfd Stock $252 mill. **Pfd Div'd** $14 mill.
Common Stock 2,133,623,076 shs.
as of 2/14/24
MARKET CAP: $35.9 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
17090	16833	17666	17135	16760	17129	18469	20642	21680	24428	*25800*	*26800*	Revenues ($mill)	*30500*
1450.0	988.0	1431.0	1807.0	d6818	d7642	d1304	2152.0	2357.0	2644.0	*3110*	*3455*	Net Profit ($mill)	*4925*
19.2%	--	3.7%	16.8%	--	--	--	44.2%	3.3%	6.6%	*6.0%*	*8.0%*	Income Tax Rate	*11.0%*
10.0%	15.7%	11.4%	7.0%	--	--	--	8.8%	11.2%	9.9%	*9.0%*	*9.0%*	AFUDC % to Net Profit	*9.0%*
48.5%	48.8%	47.1%	47.7%	--	--	63.7%	64.3%	67.4%	67.1%	*64.0%*	*61.5%*	Long-Term Debt Ratio	*56.5%*
50.7%	50.4%	52.1%	51.6%	98.0%	95.2%	35.9%	35.3%	32.2%	32.6%	*35.5%*	*38.0%*	Common Equity Ratio	*43.0%*
31050	32858	34412	37225	12903	5335.0	58541	59448	70817	76821	*81925*	*90175*	Total Capital ($mill)	*120000*
43941	46723	50581	53789	58557	61635	66136	69826	76208	82321	*89175*	*96625*	Net Plant ($mill)	*122000*
5.8%	4.1%	5.2%	5.9%	NMF	NMF	NMF	4.8%	4.6%	5.3%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
9.1%	5.9%	7.9%	9.3%	NMF	NMF	NMF	10.1%	10.2%	10.5%	*10.5%*	*10.0%*	Return on Shr. Equity	*9.5%*
9.1%	5.9%	7.9%	9.3%	NMF	NMF	NMF	10.2%	10.3%	10.5%	*10.5%*	*10.0%*	Return on Com Equity E	*9.5%*
3.9%	.7%	2.8%	4.0%	NMF	NMF	NMF	10.2%	10.3%	10.5%	*10.5%*	*9.5%*	Retained to Com Eq	*8.5%*
58%	88%	65%	57%	NMF	NMF	NMF	1%	1%	1%	*3%*	*6%*	All Div'ds to Net Prof	*10%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (GWH)	+.1	-.9	-6.2
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.8	+.4	+.4
Fixed Charge Cov. (%)	296	188	162

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-11.0%	-20.0%	*2.5%*
"Cash Flow"	-8.5%	-2.0%	*7.5%*
Earnings	-6.5%	--	*9.0%*
Dividends	--	--	*NMF*
Book Value	-9.5%	-19.0%	*10.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	4716	5215	5465	5246	20642
2022	5798	5118	5394	5370	21680
2023	6209	5290	5888	7041	24428
2024	*6660*	*6030*	*6590*	*6520*	*25800*
2025	*6925*	*6275*	*6850*	*6750*	*26800*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.23	.27	.24	.28	1.00
2022	.30	.25	.29	.26	1.10
2023	.29	.23	.24	.47	1.23
2024	*.33*	*.28*	*.29*	*.45*	*1.35*
2025	*.35*	*.30*	*.32*	*.48*	*1.45*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	--	--	--	--	--
2021	--	--	--	--	--
2022	--	--	--	--	--
2023	--	--	--	--	--
2024	.01				

BUSINESS: PG&E Corporation is a holding company for Pacific Gas and Electric Company and nonutility subsidiaries. Supplies electricity and natural gas to most of northern and central California (population 16 million). Has 5.6 million electric and 4.6 million natural gas customers. Electric revenue breakdown: residential, 40%; commercial, 37%; industrial, 12%; agricultural, 9%; other, about 2%. Power generating sources: nuclear, 40%; renewable, 24%; large hydro, 10%; fossil fuel, 26%. Power and Fuel costs: 17% of revenues. '23 reported depr. rate: 3.56% (utility). Has 28,000 employees. Chair of the Board: Robert C. Flexon. CEO: Patricia K. Poppe. Incorporated: California. Address: 300 Lakeside Drive, Oakland, California 94612. Tel.: 415-973-7000. Int.: www.pgecorp.com.

PG&E raised its profit targets for 2024 and subsequent years through late decade. The utility received a favorable outcome on its general rate case with the authorized return on equity moving up to 10.7% from 10.0%. Management initially projected core earnings of $1.31-$1.35 a share this year but upon further review has lifted its outlook to $1.33-$1.37 a share. PG&E also extended its expectation of at least 9% share-earnings growth through 2028. (Previously, management was only willing to project that level of growth through 2026.) The company now sees the potential to increase its capital plan by as much as 20% through late decade, which should keep the rate base growing at a very healthy 9%-10% level.

Wildfire mitigation work remains the key emphasis here. PG&E is using high-tech solutions coupled with regular maintenance and labor to lower the chance of a repeat of the massive wildfires that put the company in bankruptcy court years ago. Automated shutoff switching systems, drones, vegetation management, and, where possible, burying power lines are all being deployed. The California Wildfire Fund makes the odds of a bankruptcy far lower, as well. (It's like a large self-funded insurance policy for the state's utilities.) But, a utility can still rack up significant losses if its equipment is found to have caused a fire. There is essentially a $1 billion deductible per incident. Gross negligence is not covered.

The company reinstated its dividend. At a penny per share, quarterly, PG&E has the opportunity to keep the disbursement growing at a high rate. With well over two billion shares outstanding, the "growth from a small base" strategy does make sense, as a high payout ratio would be a large cash drain. We've projected that the quarterly dividend will be raised by a penny a share, once a year. But investors should know that the dividend policy is a work in progress and no payout target ratio has been set. The company could decide to make increases in fractional cents.

This stock is neutrally ranked (Timeliness: 3, Average). PG&E has decent upside potential. Still, we think most utility investors will prefer a more conventional dividend policy with a higher yield.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Adjusted (non-GAAP) egs. from 2021 on. Excl. nonrecur. gains/(losses): '09, 17¢; '11, (68¢); '12, (15¢); '15, (21¢); '16, (5¢); '17, (29¢); '21, ($1.05); '22, (26¢); '23 (18¢); gain from disc. ops.: '08, 41¢. Qtly. EPS may not sum to full year due to rounding and/or changes in share count. Next egs. report due early May. (B) Div'ds suspended 12/17, reinstated 11/23. (C) Incl. def'd chgs. In '23: $8.06/sh. (D) In mill. (E) Rate base: net orig. cost. Rate allowed on com. eq. in '23: 10.7%; Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	15
Price Growth Persistence	15
Earnings Predictability	5

PORTLAND GENERAL NYSE-POR

RECENT PRICE 41.66 | P/E RATIO 14.3 (Trailing: 17.6, Median: 18.0) | RELATIVE P/E RATIO 0.78 | DIV'D YLD 4.8% | VALUE LINE

TIMELINESS 5 Lowered 8/11/23
SAFETY 3 Lowered 1/19/24
TECHNICAL 4 Lowered 3/8/24
BETA .90 (1.00 = Market)

18-Month Target Price Range
Low-High: $35-$62 | Midpoint (% to Mid): $49 (15%)

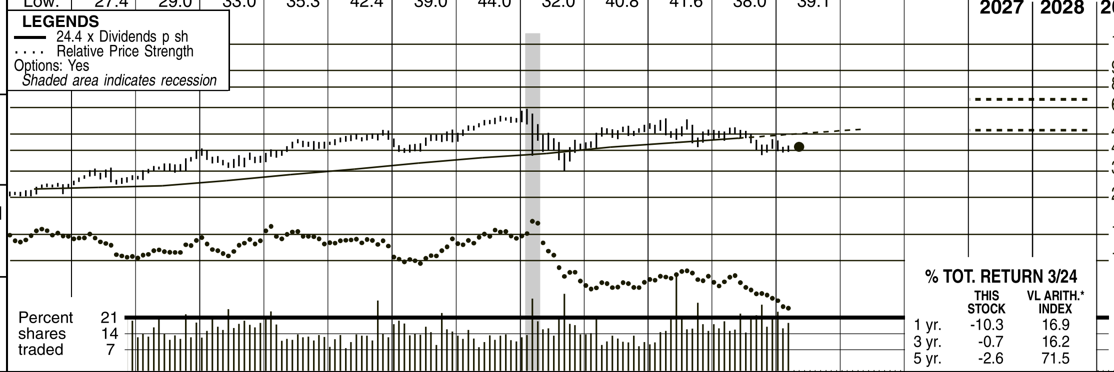
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+70%)	17%
Low	50	(+20%)	9%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	189	173	213
to Sell	170	186	164
Hld's(000)	103597	100907	103294

High:	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1	53.1	57.0	51.6	44.8
Low:	27.4	29.0	33.0	35.3	42.4	39.0	44.0	32.0	40.8	41.6	38.0	39.1



Target Price Range 2027 | 2028 | 2029

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-10.3	16.9
3 yr.	-0.7	16.2
5 yr.	-2.6	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	23.96	26.80	29.65	28.90	*30.30*	*31.55*	Revenues per sh	*34.90*
4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	7.83	7.25	7.41	6.83	*8.00*	*8.55*	"Cash Flow" per sh	*10.20*
1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	2.75	2.72	2.74	2.38	*3.05*	*3.25*	Earnings per sh A	*3.85*
.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	1.59	1.70	1.79	1.88	*1.98*	*2.08*	Div'd Decl'd per sh B ■ †	*2.46*
6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	8.76	7.11	8.58	13.42	*12.90*	*11.75*	Cap'l Spending per sh	*11.00*
21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	29.18	30.28	31.13	32.81	*34.00*	*35.25*	Book Value per sh C	*39.75*
62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	89.54	89.41	89.28	101.16	*101.50*	*102.00*	Common Shs Outst'g D	*106.00*
16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	16.6	17.7	18.2	19.3	*Bold figures are*		Avg Ann'l P/E Ratio	*15.5*
.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19	.85	.96	1.05	1.08	*Value Line*		Relative P/E Ratio	*.85*
4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%	3.5%	3.5%	3.6%	4.1%	*estimates*		Avg Ann'l Div'd Yield	*4.1%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $4440 mill. **Due in 5 Yrs** $467 mill.
LT Debt $4194 mill. **LT Interest** $166 mill.
Incl. $289 mill. finance leases.
(Total Interest Coverage: 2.5x)
Leases, Uncapitalized Annual rentals $3 mill.
Pension Assets-12/23 $530 mill. **Oblig** $690 mill.
Pfd Stock None

Common Stock 101,162,366 shs. as of 2/8/24

MARKET CAP: $4.2 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	2145.0	2396.0	2647.0	2923.0	*3075*	*3220*	Revenues ($mill)	*3700*
175.0	172.0	193.0	204.0	212.0	214.0	247.0	244.0	245.0	233.0	*310*	*330*	Net Profit ($mill)	*405*
26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	12.4%	8.6%	15.2%	16.8%	*17.5%*	*17.5%*	Income Tax Rate	*17.5%*
33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	9.7%	10.2%	8.6%	13.7%	*11.0%*	*11.0%*	AFUDC % to Net Profit	*11.0%*
52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	53.6%	56.8%	57.0%	55.8%	*58.5%*	*60.0%*	Long-Term Debt Ratio	*60.0%*
47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	46.4%	43.2%	43.0%	44.2%	*41.5%*	*40.0%*	Common Equity Ratio	*40.0%*
4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	5628.0	6265.0	6459.0	7513.0	*8325*	*8975*	Total Capital ($mill)	*10500*
5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	7539.0	8005.0	8465.0	9546.0	*10350*	*11000*	Net Plant ($mill)	*12600*
5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	5.6%	4.9%	4.9%	4.2%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%	*9.0%*	*9.0%*	Return on Com Equity E	*9.5%*
4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	4.1%	3.5%	3.1%	1.6%	*3.0%*	*3.5%*	Retained to Com Eq	*3.5%*
50%	56%	57%	58%	59%	63%	57%	61%	64%	77%	*65%*	*64%*	All Div'ds to Net Prof	*64%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+5.1	+3.4	+.9
Avg. Indust. Use (MWH)	20002	22097	23052
Avg. Indust. Revs. per KWH (¢)	5.22	5.23	5.85
Capacity at Peak (MW)	NA	NA	NA
Peak Load, Summer (MW)	4453	4255	4498
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+1.1	+.7
Fixed Charge Cov. (%)	261	254	217

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	5.0%	*3.5%*
"Cash Flow"	3.5%	3.0%	*6.0%*
Earnings	3.5%	3.0%	*6.0%*
Dividends	5.0%	6.0%	*5.5%*
Book Value	3.5%	3.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	609	537	642	608	2396
2022	626	591	743	687	2647
2023	748	648	802	725	2923
2024	*750*	*700*	*850*	*775*	*3075*
2025	*785*	*735*	*890*	*810*	*3220*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.07	.36	.56	.73	2.72
2022	.67	.72	.65	.70	2.74
2023	.80	.44	.46	.67	2.38
2024	*.95*	*.60*	*.70*	*.80*	*3.05*
2025	*1.00*	*.65*	*.75*	*.85*	*3.25*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.385	.385	.385	.4075	1.56
2021	.4075	.4075	.43	.43	1.68
2022	.43	.43	.4525	.4525	1.77
2023	.4525	.4525	.475	.475	1.86
2024	.475	.475			

BUSINESS: Portland General Electric Company provides electricity to 934,000 customers in 51 cities in a 4,000-square-mile area of Oregon, including Portland and Salem (population: 1.9 million). The company is in the process of decommissioning the Trojan nuclear plant, which was closed in 1993. Electric revenue breakdown: residential, 52%; commercial, 33%; industrial, 15%; other, less than 1%. Generating sources: gas, 40%; wind, 7%; coal, 8%; hydro, 4%; purchased, 41%. Fuel costs: 40% of revenues. '23 reported depreciation rate: 3.4%. Has 2,842 full-time employees. Chair: James P. Torgerson. President and CEO: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, OR 97204. Tel.: 503-464-8000. Internet: www.portlandgeneral.com.

Portland General Electric's per-share profits should bounce back this year and next. In 2023, the company suffered from weather that was exceedingly mild, resulting in less than 1% volume growth for a service area that is accustomed to 2% or better. On top of that, purchased-power costs were excessively high, as mild weather is not ideal for hydroelectric and wind power production in the Pacific Northwest. This resulted in a tight supply situation that drove up pricing. Management expects the utility will earn $2.98-$3.18 a share in 2024. To a large extent, the recovery is based on normalized weather conditions, as well as utility rate relief, to address last year's rise in costs and investments made in the electric grid. In 2025, a general rate case decision is due. Portland General is seeking $225 million in additional annual revenues for recoupment of investments made, plus timely recovery mechanisms via customer billing pass-throughs. The company appears to have a reasonably good partnership with the state of Oregon in terms of addressing the state's "green" energy commitments. We think that will translate to a constructive rate-case outcome.

Longer term, the utility's 5%-7% earnings and dividend growth targets seem achievable. Over time, Portland General's bottom line should be less volatile, as the company reduces its reliance on open market power purchases, which have a tendency to spike in price. The company has the green light from regulators to add at least 375-500 megawatts of nonemitting annual power generation in the intermediate term, plus significant battery storage capacity. Projects committed to appear to have solid partnerships in place with lengthy annual purchased-power agreements on portions of generating capacity the company does not directly own. There should be several years of 8%-plus rate base growth, as the general outline of the projects described above are replicated sixfold into the 2030s. On the demand front, 2% annual load growth is supported by a healthy high-tech industrial segment in Portland General's service area.

Though untimely, patient utility investors can do well here, as the stock offers good total return prospects.

Anthony J. Glennon *April 19, 2024*

(A) Diluted earnings. Excl. nonrecurring gains/(losses): '13, (42¢); '17, (19¢); '20, ($1.03); '22, (14¢); '23, (5¢). Quarterly EPS many not sum to full year due to rounding. Next earnings report due early May. (B) Dividends paid mid-Jan., Apr., July, and Oct. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. deferred charges. In '23: $492 mill., $4.86/sh. (D) In mill. (E) Rate base: Net original cost. Rate allowed on common equity in '22: 9.5%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	40
Earnings Predictability	95

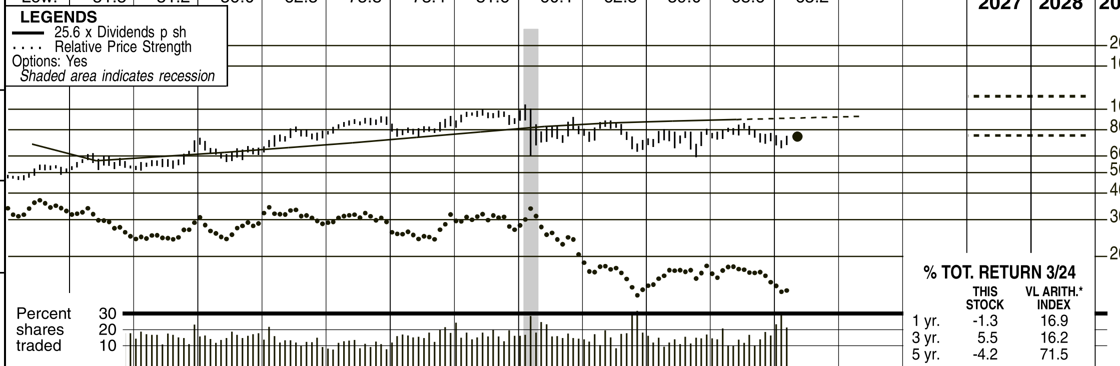
PINNACLE WEST NYSE-PNW

RECENT PRICE **74.08** | P/E RATIO **15.8** (Trailing: 16.8, Median: 17.0) | RELATIVE P/E RATIO **0.86** | DIV'D YLD **4.8%** | VALUE LINE

TIMELINESS **4** Lowered 3/22/24
SAFETY **3** Lowered 1/19/24
TECHNICAL **5** Lowered 3/22/24
BETA .95 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	61.9	71.1	73.3	82.8	92.5	92.6	99.8	105.5	88.5	80.6	86.0	75.2
Low:	51.5	51.2	56.0	62.5	75.8	73.4	81.6	60.1	62.8	59.0	68.6	65.2

LEGENDS
— 25.6 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$59-$97 $78 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+55%)	15%
Low	75	(Nil)	5%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	201	225	240
to Sell	237	250	253
Hld's(000)	97185	97254	97685

Percent shares traded 30 20 10

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.3	16.9
3 yr.	5.5	16.2
5 yr.	-4.2	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	31.81	33.66	38.21	41.40	*41.70*	*42.45*	Revenues per sh	*46.00*
8.13	8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.92	10.37	10.69	10.97	11.84	11.50	11.95	*12.50*	*13.10*	"Cash Flow" per sh	*15.35*
2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	4.87	5.47	4.26	4.41	*4.70*	*5.00*	Earnings per sh A	*6.00*
2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	3.23	3.36	3.43	3.49	*3.55*	*3.61*	Div'd Decl'd per sh B ■	*3.79*
9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	11.93	13.04	15.09	16.28	*16.80*	*16.80*	Cap'l Spending per sh	*17.20*
34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	49.96	52.26	53.45	54.47	*59.85*	*60.55*	Book Value per sh C	*70.15*
100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	112.76	113.01	113.17	113.42	*116.00*	*119.00*	Common Shs Outst'g D	*125.00*
16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	16.7	14.1	17.1	17.4	*Bold figures are*		Avg Ann'l P/E Ratio	*16.0*
.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03	.86	.76	.99	.97	*Value Line*		Relative P/E Ratio	*.90*
6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%	4.0%	4.3%	4.7%	4.5%	*estimates*		Avg Ann'l Div'd Yield	*3.9%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $9025.1 mill. **Due in 5 Yrs** $2225.0 mill.
LT Debt $7540.6 mill. **LT Interest** $355.0 mill.
(Total Interest Coverage: 2.6x)

Leases, Uncapitalized Annual rentals $19.2 mill.

Pension Assets-12/22 $2835.5 mill. **Oblig** $2908.1 mill.

Pfd Stock None

Common Stock 113,427,367 shs. as of 2/21/24
MARKET CAP: $8.4 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
3491.6	3495.4	3498.7	3565.3	3691.2	3471.2	3587.0	3803.8	4324.4	4696.0	*4840*	*5050*	Revenues ($mill)	*5750*
397.6	437.3	442.0	497.8	511.0	538.3	550.6	618.7	483.6	501.6	*540*	*590*	Net Profit ($mill)	*750*
34.2%	34.3%	33.9%	32.5%	20.2%	- -	12.1%	14.8%	13.0%	12.9%	*14.0%*	*14.0%*	Income Tax Rate	*14.0%*
11.6%	11.8%	14.1%	13.9%	15.2%	9.3%	9.5%	10.1%	15.2%	19.3%	*19.0%*	*19.0%*	AFUDC % to Net Profit	*19.0%*
41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	52.8%	53.9%	56.1%	55.0%	*52.5%*	*54.0%*	Long-Term Debt Ratio	*52.0%*
59.0%	57.0%	54.4%	51.1%	53.0%	52.9%	47.2%	46.1%	43.9%	45.0%	*47.5%*	*46.0%*	Common Equity Ratio	*48.0%*
7398.7	8046.3	8825.4	9796.4	9861.1	10263	11948	12820	13790	13718	*14625*	*15625*	Total Capital ($mill)	*18350*
11194	11809	12714	13445	14030	14523	15159	15987	16854	17980	*19025*	*20050*	Net Plant ($mill)	*23050*
6.4%	6.4%	6.0%	6.1%	6.2%	6.3%	5.5%	5.8%	4.5%	5.0%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	8.1%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	8.1%	*8.0%*	*8.0%*	Return on Com Equity E	*8.5%*
3.5%	3.9%	3.5%	4.2%	3.9%	3.8%	3.5%	4.2%	1.7%	1.9%	*2.0%*	*2.5%*	Retained to Com Eq	*3.0%*
62%	59%	62%	58%	60%	61%	64%	60%	78%	77%	*75%*	*72%*	All Div'ds to Net Prof	*63%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	-.1	+4.4	+2.8
Avg. Indust. Use (MWH)	808	849	874
Avg. Indust. Revs. per KWH (¢)	8.11	9.20	10.38
Capacity at Peak (Mw)	8726	8612	9629
Peak Load, Summer (Mw)	7580	7587	8159
Annual Load Factor (%)	45.1	48.1	45.7
% Change Customers (yr-end)	+2.2	+2.1	+1.8
Fixed Charge Cov. (%)	317	226	220

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	3.5%	*4.0%*
"Cash Flow"	4.0%	3.5%	*3.5%*
Earnings	3.5%	2.0%	*4.5%*
Dividends	4.0%	5.0%	*1.5%*
Book Value	4.0%	3.5%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	696.5	1000.2	1308.2	798.9	3803.8
2022	783.5	1061.7	1469.9	1009.3	4324.4
2023	945.0	1121.7	1637.8	991.5	4696.0
2024	*1000*	*1190*	*1640*	*1010*	*4840*
2025	*1045*	*1240*	*1710*	*1055*	*5050*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.32	1.91	3.00	.24	5.47
2022	.15	1.45	2.88	d.21	4.26
2023	d.03	.94	3.50	Nil	4.41
2024	*.05*	*1.25*	*3.40*	*Nil*	*4.70*
2025	*.05*	*1.33*	*3.62*	*Nil*	*5.00*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.783	.783	.783	.83	3.18
2021	.83	.83	.83	.85	3.34
2022	.85	.85	.85	.865	3.42
2023	.865	.865	.865	.88	3.48
2024	.88				

BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.4 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona. Discontinued SunCor real estate subsidiary in '10. Electric revenue breakdown: residential, 49%; commercial/industrial, 44%; other, 7%. Generating sources: gas, 25%; nuclear, 25%; coal, 18%; renewables, 2%; purchased, 30%. Fuel costs: 38% of revenues. '23 reported deprec. rate: 2.98%. Has 6,133 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

In late February, Pinnacle West received a constructive general rate case (GRC) decision. Investors may recall that from early 2022, the utility had been operating under revised regulatory parameters that cut its authorized return on equity (ROE) from 10% to 8.7% (one of the lowest levels for a major market at that time). The change effectively reduced Pinnacle's annual earnings power by over $1.00 per share. A revamped state regulatory commission, which has some new members and a different chairperson (due to term limits), heeded the recommendation of a state administrative law judge who consulted on the case. The newly established ROE of 9.55% plus an additional fair value increment (FVI) of .25% passed by a 4-1 vote. According to Pinnacle's CEO, assuming certain criteria are met for the FVI to kick in, the company's effective ROE will be 9.85%. The net effect of the GRC lifts the company's earning power by $1.33 per share. We're raising our rating on the Arizona regulatory climate back to "average." The 2021 GRC decision landed it in the below-average camp.

We've raised our 2024 share-earnings estimate. It's only going up by a dime, but that's because we expected a favorable GRC outcome from PNW's perspective. Notably, the additional earnings power is substantial, though not readily apparent in our estimates because the company benefited by $0.48 a share last year from an extreme heat wave. Moreover, there are a number of factors this year that are likely to offset the additional revenue from the increased ROE. The utility had been tightening its belt on operating and maintenance expense and that's set to rise, as are depreciation/amortization and interest expense. On the positive side of the ledger, weather-normalized retail sales growth in Arizona comes to about $0.25 a share annually on average. Pinnacle has a premium service area in terms of growth from interstate migration and rising energy demand from a thriving economy. There's no lack of capital investment prospects to drive rate-base growth there.

Though untimely, we think long-term utility investors should keep this stock on their watch list and target a pullback as an entry point.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. gain/(loss): '09, ($1.45); '17, 8¢; gains/(losses) from discont. ops.: '08, 28¢; '09, (13¢); '10, 18¢; '11, 10¢; '12, (5¢). Qtly. EPS may not sum to full year due to rounding. Next egs. report due early May. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges/other intangibles. In '23: $27.22/sh. (D) In mill. (E) Rate base: Fair value. Rate allowed on common equity in '23: 9.55%-9.85%. Regulatory Climate: Average.

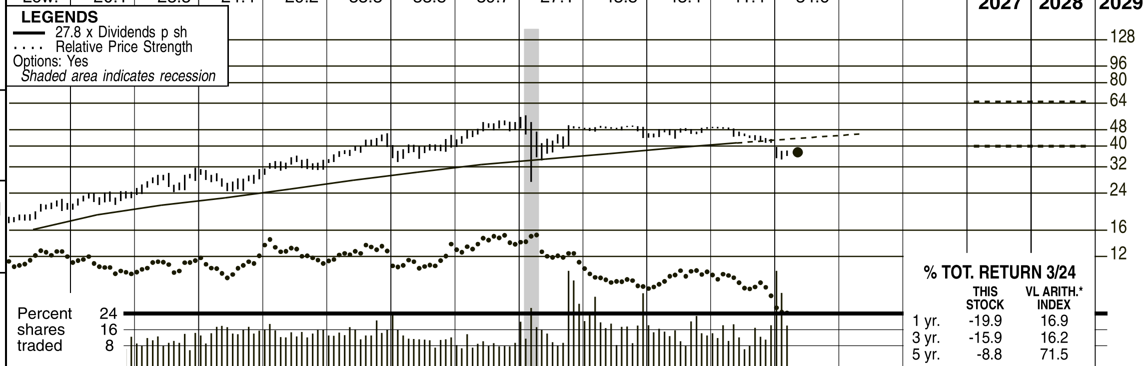
Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	40
Earnings Predictability	90

PNM RESOURCES NYSE-PNM

RECENT PRICE 37.45 | P/E RATIO 14.2 (Trailing: 13.3 Median: 19.0) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 Lowered 2/2/24
SAFETY 3 Lowered 1/19/24
TECHNICAL 4 Lowered 3/1/24
BETA .90 (1.00 = Market)

High:	24.5	31.6	31.2	36.2	46.0	45.3	53.0	56.1	50.1	49.3	49.6	39.7
Low:	20.1	23.5	24.4	29.2	33.3	33.8	39.7	27.1	43.8	43.4	41.4	34.6



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$34-$56	$45 (20%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+75%)	*18%*
Low	40	(+5%)	*6%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	134	140	151
to Sell	146	139	144
Hld's(000)	78139	81263	82439

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-19.9	16.9
3 yr.	-15.9	16.2
5 yr.	-8.8	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
22.65	19.01	19.31	21.35	16.85	17.42	18.03	18.07	17.11	18.14	18.04	18.30	17.74	20.74	26.21	21.50	*23.90*	*25.25*	Revenues per sh	*29.45*
1.76	2.32	2.67	3.18	3.39	3.52	4.09	4.28	4.51	5.30	5.47	5.95	5.80	6.19	6.67	6.62	*6.80*	*7.25*	"Cash Flow" per sh	*8.70*
.11	.58	.87	1.08	1.31	1.41	1.45	1.48	1.46	1.92	2.00	2.16	2.28	2.45	2.69	2.82	*2.70*	*2.85*	Earnings per sh A	*3.40*
.61	.50	.50	.50	.58	.68	.76	.82	.90	.99	1.09	1.18	1.25	1.33	1.41	1.49	*1.57*	*1.65*	Div'd Decl'd per sh B ■ †	*1.89*
3.99	3.32	3.25	4.10	3.88	4.37	5.78	7.01	7.53	6.28	6.29	7.74	7.91	10.89	10.63	11.93	*12.90*	*13.85*	Cap'l Spending per sh	*13.50*
18.89	18.90	17.60	19.62	20.05	20.87	22.39	20.78	21.04	21.28	21.20	21.08	23.88	25.25	25.54	26.04	*27.40*	*28.80*	Book Value per sh C	*33.60*
86.53	86.67	86.67	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	85.83	85.83	85.83	90.20	*91.00*	*92.00*	Common Shs Outst'g D	*95.00*
NMF	18.1	14.0	14.5	15.0	16.1	18.7	18.7	22.4	20.4	19.4	22.2	19.6	19.9	17.4	16.3	*Bold figures are*		Avg Ann'l P/E Ratio	*15.5*
NMF	1.21	.89	.91	.95	.90	.98	.94	1.18	1.03	1.05	1.18	1.01	1.08	1.01	.91	*Value Line*		Relative P/E Ratio	*.85*
4.9%	4.8%	4.1%	3.2%	3.0%	3.0%	2.8%	3.0%	2.8%	2.5%	2.8%	2.5%	2.8%	2.7%	3.0%	3.2%	*estimates*		Avg Ann'l Div'd Yield	*3.6%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $4783.7 mill. **Due in 5 Yrs** $2177.6 mill.
LT Debt $4241.6 mill. **LT Interest** $169.0 mill.
(Total Interest Coverage: 2.4x)

Leases, Uncapitalized Annual rentals $12.0 mill.

Pension Assets-12/22 $448.6 mill. **Oblig** $461.2 mill.
Pfd Stock $11.5 mill. **Pfd Div'd** $.5 mill.

Common Stock 90,200,384 shs. **as of 2/16/24**
MARKET CAP: $3.4 billion (Mid Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
1435.9	1439.1	1363.0	1445.0	1436.6	1457.6	1523.0	1779.9	2249.6	1939.2	*2175*	*2325*	Revenues ($mill)	*2800*
116.8	118.8	117.4	154.4	160.6	173.1	183.4	211.6	232.0	244.1	*245*	*265*	Net Profit ($mill)	*325*
34.8%	36.9%	32.4%	33.0%	12.9%	8.1%	9.5%	13.4%	14.6%	13.6%	*14.5%*	*15.0%*	Income Tax Rate	*16.0%*
10.7%	17.0%	11.0%	11.9%	12.1%	9.8%	8.9%	8.6%	9.0%	12.3%	*12.0%*	*13.0%*	AFUDC % to Net Profit	*13.0%*
47.8%	54.1%	55.7%	56.1%	61.1%	59.8%	56.9%	61.8%	63.9%	64.2%	*66.0%*	*67.5%*	Long-Term Debt Ratio	*69.0%*
51.9%	45.5%	44.0%	43.6%	38.6%	39.9%	42.9%	38.0%	36.0%	35.6%	*33.5%*	*32.0%*	Common Equity Ratio	*30.5%*
3437.1	3633.3	3806.8	3887.5	4370.0	4207.7	4780.6	5698.6	6096.1	6602.3	*7400*	*8250*	Total Capital ($mill)	*10400*
4270.0	4535.4	4904.7	4980.2	5234.6	5466.0	5965.1	6752.9	6972.8	7609.9	*8400*	*9300*	Net Plant ($mill)	*11500*
5.1%	4.8%	4.7%	5.3%	5.0%	5.5%	4.9%	4.6%	4.9%	5.0%	*4.5%*	*4.5%*	Return on Total Cap'l	*4.5%*
6.5%	7.1%	7.0%	9.0%	9.4%	10.2%	8.9%	9.7%	10.5%	10.3%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.0%*
6.5%	7.1%	7.0%	9.1%	9.5%	10.3%	8.9%	9.7%	10.6%	10.4%	*10.0%*	*10.0%*	Return on Com Equity E	*10.0%*
3.2%	3.3%	2.8%	4.5%	4.5%	4.8%	4.1%	4.6%	5.1%	5.0%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
51%	54%	61%	51%	53%	54%	54%	53%	52%	52%	*58%*	*58%*	All Div'ds to Net Prof	*55%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	1.0	5.2	1.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1968	2139	2162
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	1.2	1.0	1.0
Fixed Charge Cov. (%)	317	289	230

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	5.0%	*4.5%*
"Cash Flow"	7.0%	5.0%	*5.0%*
Earnings	7.5%	8.0%	*5.0%*
Dividends	9.0%	7.0%	*5.0%*
Book Value	2.5%	4.0%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	364.7	426.5	554.6	434.1	1779.9
2022	444.1	499.7	729.9	575.9	2249.6
2023	544.1	477.2	505.9	412.0	1939.2
2024	*560*	*525*	*580*	*510*	*2175*
2025	*595*	*560*	*630*	*540*	*2325*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.32	.55	1.37	.21	2.45
2022	.50	.57	1.46	.15	2.69
2023	.55	.55	1.54	.18	2.82
2024	*.45*	*.55*	*1.45*	*.25*	*2.70*
2025	*.50*	*.60*	*1.50*	*.25*	*2.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.3075	.3075	.3075	.3075	1.23
2021	.3275	.3275	.3275	.3275	1.31
2022	.3475	.3475	.3475	.3475	1.39
2023	.3675	.3675	.3675	.3675	1.47
2024	.3875				

BUSINESS: PNM Resources, Inc. is a holding company with two regulated electric utilities. Public Service Company of New Mexico (PNM) serves 548,000 customers in north central New Mexico, including Albuquerque and Santa Fe. Texas-New Mexico Power Company (TNMP) transmits and distributes power to 272,000 consumers in Texas. Electric revenue breakdown: residential, 32%; commercial, 28%; industrial, 7%; other, 33%. Generating sources not available. Fuel costs: 46% of revenues. '23 reported depreciation rates: 2.67%-7.64%. Has 1,600 employees. Chairman and CEO: Patricia K. Collawn. Incorporated: New Mexico. Address: 414 Silver Ave. SW, Albuquerque, New Mexico 87102-3289. Telephone: 505-241-2700. Internet: www.pnmresources.com.

PNM Resources' stock has been reeling after the company was left at the alter by its former merger partner. Investors may recall that PNM stockholders were to receive $50.30 per share in an all-cash deal from Northeast utility, Avangrid, Inc. (NYSE: AGR). At various stages of a lengthy courtship it looked as if the marriage would eventually be consummated despite regulators standing in the way. Ultimately, it was Avangrid's parent company, Iberdrola of Spain, who nixed the deal. The Spanish energy giant decided that buying the 18.4% minority stake in Avangrid itself for $34.25 a share is a better use of funds, as that deal is now on the table for AGR shareholders. Year to date, PNM stock is down 11%.

New Mexico regulators' early January rate decision didn't help matters. The New Mexico Public Regulation Commission ruled against the company on every front, making good on the state's reputation for being a difficult regulatory environment. Instead of the rise in its return on equity (ROE) that PNM was seeking, the company instead received a cut from 9.575% to 9.26%. Overall, $64 million in additional revenue was sought, much of that to recoup various investments made in the past to extend the lives of a coal-fired generating facility and a nuclear power plant. Regulators ruled that those investments were "imprudent" and disallowed them. The poor rate-base outcome and increased interest expense on an expanding debt load will likely weigh on this year's bottom line.

Even so, this equity may appeal to utility investors. The New Mexico operation is an average business of this sort, as it has reasonable long-term growth prospects, but is in a tough regulatory climate. Meanwhile, PNM's smaller, interstate long-range transmission & distribution (T&D) businesses, which serve around 300,000 consumers in Texas and New Mexico, are engines of growth for the company and suffer little regulatory lag. Beyond 2024, the recoupment of substantial T&D investments, via regulatory pricing mechanisms, can drive 5%-6% annual earnings and dividend gains. That should translate to worthwhile total return prospects out to late decade.

Anthony J. Glennon *April 19, 2024*

(A) Dil. EPS. Excl. nonrec. gain/(loss): '08, ($3.77); '10, ($1.36); '11, 88¢; '13, (16¢); '15, ($1.28); '17, (92¢); '18, (93¢); '19, ($1.19); '20, (13¢); '21, (18¢); '22, (72¢); '23, ($1.80). Excl. disc. op. gains: '08, 42¢; '09, 78¢. Next egs. report due early May. **(B)** Div'ds paid mid-Feb., May, Aug., & Nov. ■ Div'd reinv. plan avail. **(C)** Incl. def. charges/other intang. In '23: $15.45/sh. **(D)** In mill. **(E)** Rate base: net orig. cost. Rate allowed on com. eq. in NM in '23: 9.26%; in TX in '18: 9.65%; Regulatory Climate: NM, Below Average.; TX, Average.

Company's Financial Strength	B+
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	95

PPL CORPORATION NYSE-PPL

RECENT PRICE	P/E RATIO	(Trailing / Median)	RELATIVE P/E RATIO	DIV'D YLD	
27.53	16.2	Trailing: 17.2; Median: 14.0	0.93	3.7%	VALUE LINE

TIMELINESS 3 Raised 3/8/24
SAFETY 3 Lowered 3/18/22
TECHNICAL 4 Lowered 3/8/24
BETA 1.15 (1.00 = Market)

High:	33.6	38.1	36.7	39.9	40.2	32.5	36.3	36.8	30.7	31.0	31.7	28.0
Low:	28.4	29.4	29.2	32.1	30.7	25.3	27.8	18.1	26.2	23.5	22.2	25.3

Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range

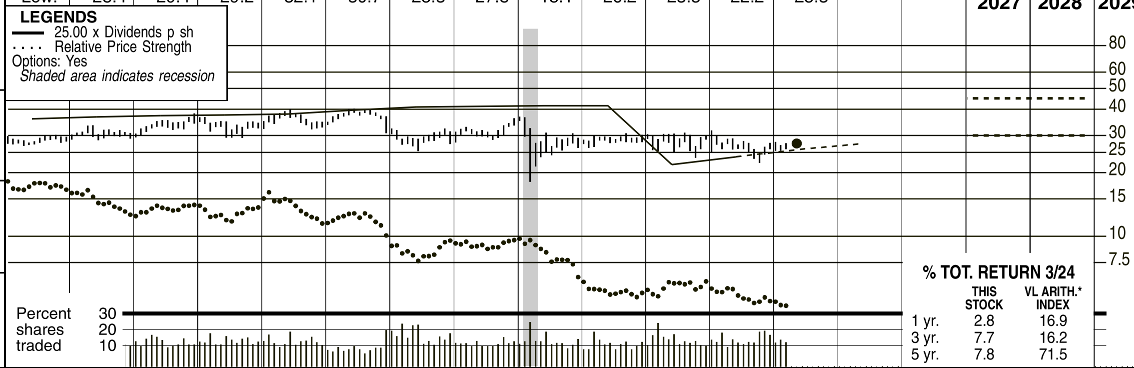
Low-High	Midpoint (% to Mid)
$24-$41	$33 (20%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+65%)	15%
Low	30	(+10%)	6%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	321	298	314
to Sell	385	412	396
Hld's(000)	541827	541856	569058



% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	2.8	16.9
3 yr.	7.7	16.2
5 yr.	7.8	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
21.47	20.03	17.63	22.02	21.11	18.82	17.27	11.38	11.06	10.74	10.81	10.13	9.89	7.87	10.73	11.28	*11.00*	*11.30*	Revenues per sh	*11.80*
4.71	3.47	3.66	4.59	4.84	4.64	4.58	3.78	4.28	3.68	4.16	3.94	3.81	2.07 ←	3.09	3.44	*3.55*	*3.65*	"Cash Flow" per sh	*4.10*
2.45	1.19	2.29	2.61	2.61	2.38	2.38	2.37	2.79	2.11	2.58	2.37	2.04	.53	1.41	1.60	*1.70*	*1.80*	Earnings per sh A	*2.25*
1.34	1.38	1.40	1.40	1.44	1.47	1.49	1.50	1.52	1.58	1.64	1.65	1.66	1.66	.88	.95	*1.03*	*1.10*	Div'd Decl'd per sh B ■	*1.35*
3.79	3.25	3.30	4.30	5.34	6.68	6.14	5.24	4.30	4.52	4.50	4.02	4.23	2.68	2.93	3.24	*3.65*	*3.70*	Cap'l Spending per sh	*4.00*
13.55	14.57	16.98	18.72	18.01	19.78	20.47	14.72	14.56	15.52	16.18	16.93	17.39	18.67	18.89	18.90	*19.85*	*20.55*	Book Value per sh C	*23.45*
374.58	377.18	483.39	578.41	581.94	630.32	665.85	673.86	679.73	693.40	720.32	767.23	768.91	735.11	736.49	737.13	*737.20*	*737.40*	Common Shs Outst'g D	*738.00*
17.6	25.7	11.9	10.5	10.9	12.8	14.1	13.9	12.8	17.6	11.3	13.3	13.9	54.1	20.0	16.8	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
1.06	1.71	.76	.66	.69	.72	.74	.70	.67	.89	.61	.71	.71	2.92	1.16	.93	*Value Line*		Relative P/E Ratio	*.95*
3.1%	4.5%	5.1%	5.1%	5.1%	4.8%	4.4%	4.5%	4.2%	4.2%	5.6%	5.2%	5.8%	5.8%	3.1%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $15604 mill. **Due in 5 Yrs** $3613 mill.
LT Debt $14611 mill. **LT Interest** $427 mill.
Incl. 23 mill. units 7.75%, $25 liq. value; 82,000 units 8.23%, $1000 face value.
(LT interest earned: 3.5x)

Leases, Uncapitalized Annual rentals $24 mill.
Pension Assets-12/23 $3175 mill. **Oblig** $3333 mill.
Pfd Stock None
Common Stock 737,603,408 shs. **as of 1/31/24**
MARKET CAP: $20.3 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
11499	7669.0	7517.0	7447.0	7785.0	7769.0	7607.0	5783.0	7902.0	8312.0	*8100*	*8350*	Revenues ($mill)	*8700*
1583.0	1603.0	1902.0	1449.0	1827.0	1746.0	1571.0	401.0	756.0	740.0	*1255*	*1325*	Net Profit ($mill)	*1660*
33.0%	22.5%	25.4%	24.2%	20.0%	19.0%	20.3%	23.0%	22.0%	19.9%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
2.8%	1.6%	1.6%	1.9%	2.0%	1.9%	1.8%	6.0%	.7%	1.6%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
58.0%	65.2%	64.3%	64.8%	63.3%	61.5%	61.7%	43.7%	48.1%	51.1%	*51.0%*	*51.0%*	Long-Term Debt Ratio	*49.5%*
42.0%	34.8%	35.7%	35.2%	36.7%	38.5%	38.3%	56.3%	51.9%	48.8%	*49.0%*	*49.0%*	Common Equity Ratio	*50.5%*
32484	28482	27707	30608	31726	33712	34926	24389	26804	28544	*29875*	*30925*	Total Capital ($mill)	*34280*
34597	30382	30074	33092	34458	36482	38892	25470	30238	31418	*31900*	*32700*	Net Plant ($mill)	*34900*
6.5%	7.1%	8.4%	6.2%	7.2%	6.6%	5.9%	2.6%	2.8%	2.6%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.5%*
11.6%	16.2%	19.2%	13.5%	15.7%	13.4%	11.7%	2.9%	5.4%	5.3%	*8.5%*	*8.5%*	Return on Shr. Equity	*9.5%*
11.6%	16.2%	19.2%	13.5%	15.7%	13.4%	11.7%	2.9%	5.4%	5.3%	*8.5%*	*8.5%*	Return on Com Equity E	*9.5%*
4.5%	6.0%	8.8%	3.5%	6.0%	4.3%	2.2%	NMF	1.8%	1.6%	*3.5%*	*3.5%*	Retained to Com Eq	*3.5%*
61%	63%	54%	74%	62%	68%	81%	NMF	76%	67%	*61%*	*61%*	All Div'ds to Net Prof	*60%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+3.0	+1.5	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	154	348	NA

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-7.5%	-3.0%	*5.0%*
"Cash Flow"	-6.0%	-8.5%	*3.0%*
Earnings	-9.0%	-17.0%	*7.5%*
Dividends	-1.0%	-4.5%	*-.5%*
Book Value	- -	4.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1498	1288	1512	1485	5783
2022	1782	1696	2134	2290	7902
2023	2415	1823	2043	2031	8312
2024	*2060*	*1675*	*2130*	*2235*	*8100*
2025	*2245*	*1700*	*2155*	*2250*	*8350*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.26	d.20	.27	.19	.53
2022	.41	.30	.41	.28	1.41
2023	.48	.29	.43	.40	1.60
2024	*.50*	*.30*	*.45*	*.45*	*1.70*
2025	*.50*	*.35*	*.50*	*.45*	*1.80*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.4125	.415	.415	.415	1.66
2021	.415	.415	.415	.415	1.66
2022	.415	.20	.225	.225	1.07
2023	.225	.24	.24	.24	.95
2024	.24	.258			

BUSINESS: PPL Corporation (formerly PP&L Resources, Inc.) is a holding company for PPL Electric Utilities, which distributes electricity to 1.4 mill. customers in eastern & central Pennsylvannia. Acquired Kentucky Utilities and Louisville Gas and Electric (1.3 mill. customers) 11/10. Acq'd Narragansett Electric (770,000 customers, renamed Rhode Island Energy) 5/22. Spun off power-generating sub. in '15. Sold electric distribution sub. in U.K. in '21. Electric rev. breakdown: res'l, 48%; comm'l, 22%; ind'l, 10%; other, 20%. Fuel costs: 29% of revs. '23 reported deprec. rate: 3.2%. Has 6,527 employees. Chairman: William H. Spence. President & CEO: Vincent Sorgi. Inc.: PA. Address: Two North Ninth St., Allentown, PA 18101-1179. Tel.: 800-345-3085. Internet: www.pplweb.com.

We look for PPL Corp. to deliver solid 2024 results. The company finished the 2023 final stanza on a good note with better-than-expected financial results, while also raising the quarterly dividend and capital expenditure plan. Too, management reaffirmed its long-term annual earnings growth target of 6%-8% through 2028 and released its 2024 earnings forecast range of $1.63-$1.75 per share. At $1.70 per share, our profit call is right near PPL's midpoint and represents an increase of 6% over the $1.60 that the Pennsylvania-based electric utility tallied last year. The company was set to release first-quarter financial results as this report went to press. We expect earnings of $0.50 a share on revenues of $2.06 billion.

Our full-year 2025 earnings estimate is staying put at $1.80 per share. This represents a 6% increase from our 2024 target, and is within PPL's long-term annual profit growth estimate. Additional revenues from regulatory mechanisms and lower operating and maintenance expenses should benefit prospects over that interim. Indeed, a full year of rate relief in Kentucky, Rhode Island, and Pennsylvania will likely benefit the company's bottom line. Too, the utility hopes to save $150 million in cost savings through the end of 2025, largely due to infrastructure improvements.

The board of directors recently raised the dividend. The increase was $0.018 a share (7.3%), making the quarterly distribution $0.2575 per share. The dividend yield of 3.8% sits just above the utility median.

Shares of PPL are now ranked 3 (Average) for relative year-ahead price performance, having been raised a notch on our Timeliness scale since February. The major draw here remains the dividend, especially after the aforementioned hike. The stock's prospects for the 18-month period are solid by utility standards. And, the total return potential for the 3- to 5-year time frame is respectable, given the strong yield and reduced risk of this equity. We recommend that conservative buy-and-hold investors seeking utility exposure take a closer look at this equity.

Zachary J. Hodgkinson *May 10, 2024*

(A) Dil. EPS. Excl. nonrec. gain (losses): '10, (8¢); '11, 8¢; '13, (62¢); '20, (13¢); '21, (50¢); gains (losses) on disc. ops.: '08, 3¢; '09, (10¢); '10, (4¢); '12, (1¢); '14, 23¢; '15, ($1.36); '21, ($1.94). '20 & '21 EPS don't sum due to rounding. Next egs. rept. due early Aug. (B) Div'ds paid in early Jan., April, July, & Oct. ■ Div'd reinv. plan avail. (C) Incl. intang. In '23: $3.10/sh. (D) In mill. (E) Rate base: Fair val. Rate all'd on com. eq. in PA in '16: none spec.; in KY in '19: 9.725%; earned on avg. com. eq., '21: 2.8%. Reg. Clim.: Avg.

Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	15
Earnings Predictability	45

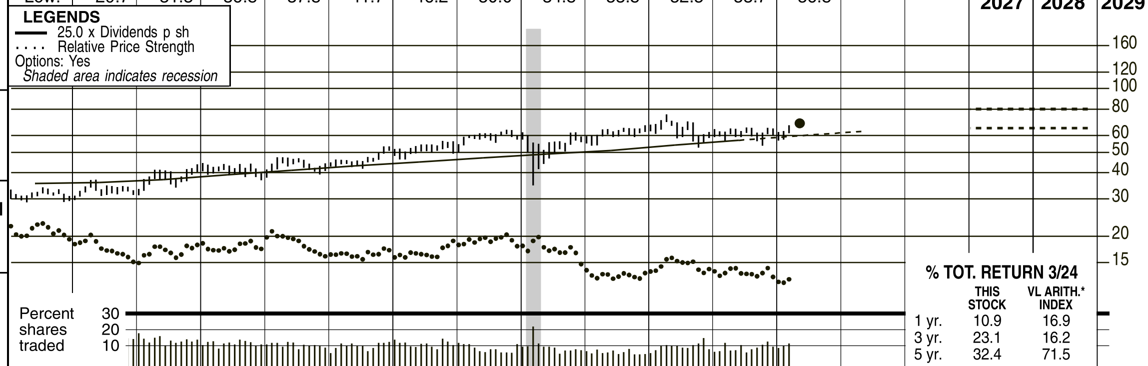
P.S. ENTERPRISE GP. NYSE-PEG

RECENT PRICE 68.64 | P/E RATIO 18.8 (Trailing: 19.7, Median: 16.0) | RELATIVE P/E RATIO 1.08 | DIV'D YLD 3.5% | VALUE LINE

TIMELINESS 4 Lowered 2/9/24
SAFETY 1 Raised 11/23/12
TECHNICAL 3 Raised 5/10/24
BETA .95 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	37.0	43.8	44.4	47.4	53.3	56.7	63.9	62.2	67.1	75.6	65.5
Low:	29.7	31.3	36.8	37.8	41.7	46.2	50.0	34.8	53.8	52.5	53.7

High: 37.0, 43.8, 44.4, 47.4, 53.3, 56.7, 63.9, 62.2, 67.1, 75.6, 65.5, 68.9
Low: 29.7, 31.3, 36.8, 37.8, 41.7, 46.2, 50.0, 34.8, 53.8, 52.5, 53.7, 56.8



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$59-$85	$72 (5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+15%)	7%
Low	65	(-5%)	3%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	395	412	493
to Sell	396	399	385
Hld's(000)	362902	368948	370095

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	10.9	16.9
3 yr.	23.1	16.2
5 yr.	32.4	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
27.94	24.57	23.31	22.42	19.33	19.71	21.52	20.61	18.22	18.14	19.24	19.99	19.05	19.29	19.72	22.56	**22.25**	**24.40**	Revenues per sh	**27.75**
4.68	4.98	5.27	5.36	4.87	5.17	5.82	5.75	5.07	5.30	5.81	6.14	6.37	6.46	6.08	6.16	**6.50**	**6.90**	"Cash Flow" per sh	**8.10**
2.90	3.08	3.07	3.11	2.44	2.45	2.99	2.91	2.83	2.82	3.12	3.28	3.43	3.65	3.47	3.48	**3.65**	**3.90**	Earnings per sh A	**4.65**
1.29	1.33	1.37	1.37	1.42	1.44	1.48	1.56	1.64	1.72	1.80	1.88	1.96	2.04	2.16	2.28	**2.40**	**2.52**	Div'd Decl'd per sh B ■	**2.90**
3.50	3.55	4.27	4.12	5.09	5.56	5.58	7.65	8.32	8.30	7.76	6.28	5.80	5.39	5.81	6.68	**7.20**	**7.30**	Cap'l Spending per sh	**9.00**
15.36	17.37	19.04	20.30	21.31	22.95	24.09	25.86	26.01	27.42	28.53	29.94	31.71	28.65	27.62	31.08	**32.40**	**33.85**	Book Value per sh C	**39.00**
506.02	505.99	505.97	505.95	505.89	505.86	505.84	505.28	504.87	505.00	504.00	504.00	504.00	504.00	497.00	498.00	**499.00**	**500.00**	Common Shs Outst'g D	**505.00**
13.6	10.0	10.4	10.4	12.8	13.5	12.6	14.1	15.3	16.3	16.6	18.0	15.7	16.8	18.5	17.7	*Bold figures are*		Avg Ann'l P/E Ratio	**15.5**
.82	.67	.66	.65	.81	.76	.66	.71	.80	.82	.90	.96	.81	.91	1.07	.99	*Value Line*		Relative P/E Ratio	**.85**
3.3%	4.3%	4.3%	4.2%	4.6%	4.4%	3.9%	3.8%	3.8%	3.7%	3.5%	3.2%	3.6%	3.3%	3.4%	3.7%	*estimates*		Avg Ann'l Div'd Yield	**4.0%**

CAPITAL STRUCTURE as of 3/31/24
Total Debt $21789 mill. **Due in 5 Yrs** $6950 mill.
LT Debt $18764 mill. **LT Interest** $765 mill.
(Total Interest coverage: 3.1x)

Leases, Uncapitalized Annual rentals $35 mill.

Pension Assets-12/23 $4140 mill.
Oblig. $4758 mill.
Pfd Stock None

Common Stock 498,080,467 shs.
as of 4/16/24
MARKET CAP: $34.2 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
10886	10415	9198.0	9161.0	9696.0	10076	9603.0	9722.0	9800.0	11237	**11100**	**12200**	Revenues ($mill)	**14500**
1518.0	1476.0	1436.0	1431.0	1582.0	1666.0	1741.0	1853.0	1739.0	1742.0	**1830**	**1960**	Net Profit ($mill)	**2350**
38.2%	37.4%	31.7%	37.3%	23.7%	32.2%	14.3%	19.5%	13.7%	10.1%	**20.0%**	**20.0%**	Income Tax Rate	**20.0%**
4.5%	6.2%	8.4%	10.6%	8.7%	6.5%	7.0%	5.5%	5.1%	5.3%	**5.0%**	**5.0%**	AFUDC % to Net Profit	**5.0%**
40.4%	40.3%	45.3%	46.6%	47.8%	47.7%	47.6%	51.3%	54.6%	53.5%	**54.5%**	**55.5%**	Long-Term Debt Ratio	**58.5%**
59.6%	59.7%	54.7%	53.4%	52.2%	52.3%	52.4%	48.7%	45.4%	46.5%	**45.5%**	**44.5%**	Common Equity Ratio	**41.5%**
20446	21900	24025	25915	27545	28832	30480	29657	30224	33261	**35600**	**37900**	Total Capital ($mill)	**47500**
23589	26539	29286	31797	34363	35844	37585	34366	35942	38031	**40250**	**42400**	Net Plant ($mill)	**51400**
8.4%	7.6%	6.8%	6.4%	6.7%	6.7%	6.6%	7.1%	6.7%	6.4%	**6.0%**	**6.5%**	Return on Total Cap'l	**6.0%**
12.5%	11.3%	10.9%	10.3%	11.0%	11.0%	10.9%	12.8%	12.7%	11.3%	**11.5%**	**11.5%**	Return on Shr. Equity	**12.0%**
12.5%	11.3%	10.9%	10.3%	11.0%	11.0%	10.9%	12.8%	12.7%	11.3%	**11.5%**	**11.5%**	Return on Com Equity E	**12.0%**
6.3%	5.3%	4.6%	4.1%	4.7%	4.7%	4.7%	5.7%	4.8%	3.9%	**4.0%**	**4.0%**	Retained to Com Eq	**4.5%**
49%	53%	58%	61%	58%	57%	57%	56%	62%	65%	**65%**	**64%**	All Div'ds to Net Prof	**62%**

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+1.3	+1.6	-4.2
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH(¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+.9	+.9	+.9
Fixed Charge Cov. (%)	403	297	285

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	- -	2.0%	*4.5%*
"Cash Flow"	2.0%	3.0%	*4.5%*
Earnings	3.0%	4.0%	*5.0%*
Dividends	4.5%	4.5%	*5.0%*
Book Value	3.0%	1.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2889	1874	1903	3056	9722
2022	2313	2076	2272	3139	9800
2023	3755	2421	2456	2605	11237
2024	2760	***2590***	***2750***	***3000***	***11100***
2025	***3500***	***2650***	***2900***	***3150***	***12200***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.28	.70	.98	.69	3.65
2022	1.33	.64	.86	.64	3.47
2023	1.39	.70	.85	.54	3.48
2024	1.31	***.77***	***.95***	***.62***	***3.65***
2025	***1.41***	***.82***	***1.01***	***.66***	***3.90***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.49	.49	.49	.49	1.96
2021	.51	.51	.51	.51	2.04
2022	.54	.54	.54	.54	2.16
2023	.57	.57	.57	.57	2.28
2024	.60				

BUSINESS: Public Service Enterprise Group Inc. (PSEG) is a holding company for Public Service Electric and Gas Company (PSE&G), which serves 2.4 million electric and 1.9 million gas customers in NJ, and PSEG Power LLC, a nonregulated power generator with 5 nuclear plants in the Northeast (sold fossil-fuel generation, 2/22). Divested offshore wind assets (5/23). Percentage of electric sales: Commercial (58%); Residential (33%); Industrial (9%). Fuel costs: 41% of revenues. '23 reported depreciation rates (utility): 1.84%-2.54%. Employs approximately 12,500. Chair of the Board, President and CEO: Ralph A. LaRossa. Inc.: New Jersey. Address: 80 Park Plaza, P.O. Box 1171, Newark, New Jersey 07101-1171. Tel.: 973-430-7000. Internet: www.pseg.com.

Public Service Enterprise Group has been one of the top-performing electric utilities, of late. The equity held up better than most peers last year in a weak overall period for the group, which has a high negative correlation with rising interest rates. PSEG shares are up 28% from their October low and 12% year to date, outperforming the *Value Line Utility Index* by 18 percentage points (PPs) and 13 PPs, respectively. Investors apparently appreciate the lower risk of a nearly pure-play utility. The only significant business held outside of the regulatory pricing umbrella is the company's nuclear power generators, which provide a steady stream of cash flow to the company. PSEG's balance sheet is in good shape, interest expense is well covered by profits, and a relatively low amount of debt comes due in the next five years. There is also no intermediate-term need to do a major equity offering, which dilutes existing shareholders. The dividend was recently raised by 5.3% and the payout ratio is near the industry median. Longer-term growth prospects for both earnings and dividends are slightly above the peer-group average.

Profits should be up this year. Utility revenue is rising due to regulatory pricing mechanisms that allow for nearly real-time returns on capital deployed for electric grid improvements. Relatively mild weather in the second half of 2023 provides a somewhat easy comparison, while interest expense and pension contributions are likely to moderate. Management recently affirmed its earnings target of $3.60-$3.70 per share for 2024 and its 5%-7% annual growth expectation through late decade (supported by New Jersey's clean energy goals).

PSEG wants to extend the life of its nuclear power plants. The company hopes to receive federal approval to keep its units operational for 20 additional years, extending the average life to 2061.

The valuation has gotten a little rich as a result of the stock's outperformance. The P/E multiple, at 18.8 times 2024 expected earnings, compares unfavorably to PSEG's electric utility peer median of 16.1. Total return prospects look somewhat limited over the longer term and the stock is untimely.

Anthony J. Glennon *May 10, 2024*

(A) Diluted EPS. Excl. nonrec. gains/(losses): '08, (96¢); '09, 6¢; '11, (34¢); '12, 7¢; '15, 39¢; '16, ($1.08); '17, 28¢ (net); '18, (29¢); '19, 5¢; '20, 33¢; '21, ($4.94); '22, ($1.41); '23, $1.65; disc. ops.: '08, 40¢; '10, 1¢; '11, 19¢. Next egs. report due late July.
(B) Div'ds historically paid in late Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail.
(C) Incl. intangibles. In '23: $13.36/sh.
(D) In mill., adj. for '08 split. (E) Rate base: Net original cost. Rate allowed on common equity in '21: 9.9%-10.4%; Regulatory Climate: Avg.

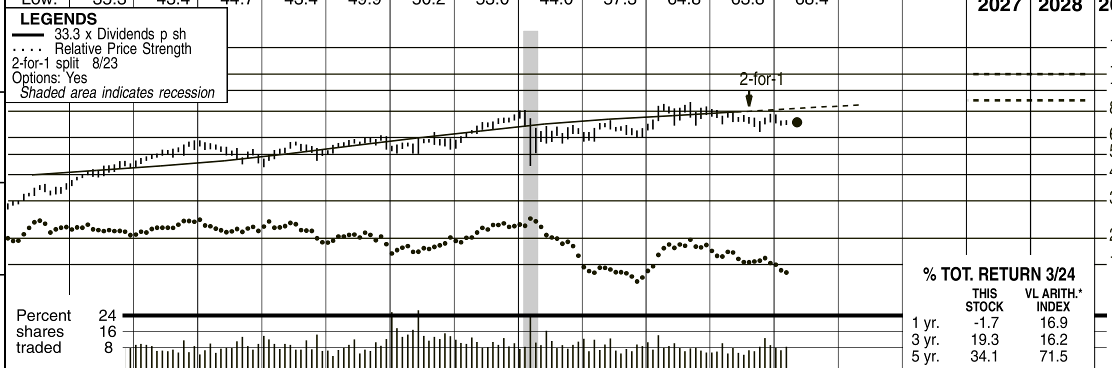
Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

SEMPRA ENERGY NYSE-SRE

RECENT PRICE 70.77 | P/E RATIO 15.0 (Trailing: 15.4 Median: 20.0) | RELATIVE P/E RATIO 0.82 | DIV'D YLD 3.5% | VALUE LINE

TIMELINESS 4 Raised 12/1/23
SAFETY 2 Raised 7/29/16
TECHNICAL 4 Lowered 3/29/24
BETA 1.00 (1.00 = Market)

High:	46.5	58.2	58.1	57.3	61.5	63.6	77.2	80.9	72.5	88.2	81.8	77.1
Low:	35.3	43.4	44.7	43.4	49.9	50.2	53.0	44.0	57.3	64.8	63.8	68.4



Target Price Range
2027 | 2028 | 2029

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$61-$105	$83 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+70%)	17%
Low	90	(+25%)	10%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	446	915	502
to Sell	389	115	427
Hld's(000)	539812	531380	566873

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.7	16.9
3 yr.	19.3	16.2
5 yr.	34.1	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
22.11	16.44	18.72	20.91	19.90	21.59	22.40	20.60	20.35	22.29	21.34	18.56	19.71	20.28	22.97	26.48	*24.75*	*26.25*	Revenues per sh	*29.30*
3.70	3.97	3.88	4.29	4.46	4.43	4.70	5.16	4.75	5.29	5.53	5.57	6.61	7.09	7.85	8.15	*8.35*	*9.00*	"Cash Flow" per sh	*10.75*
2.22	2.39	2.01	2.24	2.18	2.11	2.32	2.62	2.12	2.32	2.74	2.99	3.69	4.22	4.61	4.61	*4.80*	*5.15*	Earnings per sh A	*6.30*
.69	.78	.78	.96	1.20	1.26	1.32	1.40	1.51	1.65	1.79	1.94	2.09	2.20	2.29	2.38	*2.48*	*2.58*	Div'd Decl'd per sh B ■	*3.08*
4.24	3.88	4.29	5.93	6.10	5.26	6.34	6.36	8.42	7.86	6.91	6.36	8.10	7.91	8.52	13.30	*13.25*	*14.00*	Cap'l Spending per sh	*15.75*
16.38	18.27	18.77	20.50	21.21	22.51	22.99	23.78	25.89	25.20	27.18	30.29	35.06	39.59	41.72	44.00	*46.90*	*49.55*	Book Value per sh C	*59.65*
486.65	493.02	480.89	479.87	484.74	488.92	492.66	496.60	500.31	502.72	547.54	583.43	576.94	633.84	628.67	631.43	*646.00*	*648.00*	Common Shs Outst'g D	*665.00*
11.8	10.1	12.6	11.8	14.9	19.7	21.9	19.7	24.4	24.3	20.4	22.5	17.5	15.4	16.8	16.1	*Bold figures are*		Avg Ann'l P/E Ratio	*16.5*
.71	.67	.80	.74	.95	1.11	1.15	.99	1.28	1.22	1.10	1.20	.90	.83	.97	.90	*Value Line*		Relative P/E Ratio	*.90*
2.6%	3.2%	3.1%	3.6%	3.7%	3.0%	2.6%	2.7%	2.9%	2.9%	3.2%	2.9%	3.2%	3.4%	3.0%	3.2%	*estimates*		Avg Ann'l Div'd Yield	*3.0%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $31076 mill. **Due in 5 Yrs** $8283 mill.
LT Debt $27759 mill. **LT Interest** $1309 mill.
Incl. $1276 mill. finance leases.
(Total Interest Coverage: 2.9x)

Leases, Uncapitalized Annual rentals $85 mill.
Pension Assets-12/23 $2664 mill.
Oblig $3107 mill.
Pfd Stock $889 mill. **Pfd Div'd** $44 mill.
900,000 shs. 4.875%, cumulative.
Common Stock 632,149,916 shs.
as of 2/20/24
MARKET CAP: $44.7 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
11035	10231	10183	11207	11687	10829	11370	12857	14439	16720	*16000*	*17000*	Revenues ($mill)	*19500*
1162.0	1314.0	1065.0	1169.0	1607.0	1825.0	2316.0	2701.0	2960.0	2965.0	*3115*	*3380*	Net Profit ($mill)	*4240*
19.7%	19.2%	14.4%	24.5%	20.1%	17.9%	18.0%	25.5%	20.1%	18.7%	*19.0%*	*19.0%*	Income Tax Rate	*19.0%*
14.4%	15.3%	22.2%	21.9%	12.6%	10.0%	8.7%	8.0%	8.6%	15.1%	*11.0%*	*11.0%*	AFUDC % to Net Profit	*11.0%*
51.7%	52.6%	52.7%	56.4%	55.7%	51.0%	48.2%	44.8%	47.5%	49.2%	*50.0%*	*52.5%*	Long-Term Debt Ratio	*55.0%*
48.2%	47.3%	47.3%	43.5%	38.4%	43.4%	44.8%	53.3%	50.7%	49.2%	*48.5%*	*46.5%*	Common Equity Ratio	*44.0%*
23513	24963	27400	29135	38769	40734	45174	47069	51683	56454	*62550*	*69175*	Total Capital ($mill)	*90400*
25902	28039	32931	36503	36796	36452	40003	43894	47782	54960	*61100*	*67600*	Net Plant ($mill)	*89200*
6.1%	6.4%	5.0%	5.1%	5.1%	5.5%	6.1%	6.6%	6.8%	6.4%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.0%*
10.2%	11.1%	8.2%	9.2%	9.4%	9.1%	9.9%	10.4%	10.9%	10.3%	*10.0%*	*10.5%*	Return on Shr. Equity	*10.5%*
10.3%	11.1%	8.2%	9.2%	10.0%	9.5%	10.6%	10.5%	11.1%	10.5%	*10.0%*	*10.5%*	Return on Com Equity E	*10.5%*
5.0%	5.8%	2.9%	3.3%	4.1%	3.9%	4.8%	5.2%	5.7%	5.2%	*5.0%*	*5.0%*	Retained to Com Eq	*5.5%*
52%	48%	65%	65%	62%	62%	58%	52%	50%	52%	*52%*	*51%*	All Div'ds to Net Prof	*49%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (kWh)	-3.7	+2.8	-4.8
Avg. Indust. Use (MWh)	NA	NA	NA
Avg. Indust. Revs. per kWh (¢)	NA	NA	NA
Capacity at Peak (MW)	NMF	NMF	NMF
Peak Load, Summer (MW)	NMF	NMF	NMF
Annual Load Factor (%)	NMF	NMF	NMF
% Change Customers (yr-end)	+.8	+.5	+.9
Fixed Charge Cov. (%)	207	232	194

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	1.0%	1.5%	*4.5%*
"Cash Flow"	6.0%	8.0%	*6.0%*
Earnings	7.5%	13.5%	*7.0%*
Dividends	7.0%	7.0%	*5.0%*
Book Value	7.0%	10.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3259	2741	3013	3844	12857
2022	3820	3547	3617	3455	14439
2023	6560	3335	3334	3491	16720
2024	*5325*	*3375*	*3550*	*3750*	*16000*
2025	*5650*	*3575*	*3775*	*4000*	*17000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.48	.82	.85	1.08	4.22
2022	1.46	.99	.99	1.18	4.61
2023	1.46	.94	1.08	1.13	4.61
2024	*1.46*	*.99*	*1.13*	*1.22*	*4.80*
2025	*1.55*	*1.05*	*1.22*	*1.33*	*5.15*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.484	.523	.523	.523	2.05
2021	.523	.55	.55	.55	2.17
2022	.55	.573	.573	.573	2.27
2023	.573	.595	.595	.595	2.36
2024	.595	.620			

BUSINESS: Sempra Energy is a holding company for San Diego Gas & Electric (SDG&E), which sells electricity & gas mainly in San Diego County, and Southern California Gas (SoCalGas), which distributes gas to most of Southern CA. Owns 80% of Oncor (acquired 3/18), which distributes electricity in TX. Serves nearly 40 mill. consumers, mainly in CA, TX, and MX. Electric rev. breakdown: N/A. Purchases about 3/4ths of its power; rest is mainly gas. Sempra Infrastrucure (SI) subsidiary is active in LNG exportation and other energy endeavors. Sold S.A. utilities in '20. Power costs: 25% of revenue. '23 reported deprec. rates: 2.6%-7.1%. Employs 16,835. Chr., Pres. & CEO: Jeffrey W. Martin. Inc.: CA. Addr.: 488 8th Ave., San Diego, CA 92101. Tel.: 619-696-2000. Int: www.sempra.com.

Sempra Energy's per-share profits should be up this year and next, after a flat 2023 result. Retail electricity sales, in terms of millions of kilowatt-hours, were down 4.8% last year as compared to 2022's level, which benefited from a protracted heat wave in southern California. Higher interest expense and regulatory lag also weighed on last year's bottom line. Leadership is projecting earnings of $4.60 to $4.90 per share for this year, which is up a nickel on the bottom end of the range from where the in-house target was previously. In mid-2023, the company's Texas subsidiary, Oncor, received a favorable regulatory outcome, which should have beneficial knock-on effects for this year's bottom line. Meanwhile, in California, rate relief should be forthcoming. A regulatory decision is expected by mid-year for San Diego Gas & Electric and SoCalGas. Higher rates ought to be retroactive to January 1st. Sempra's preliminary bottom-line target for 2025 is $4.90 to $5.25 per share.

The company recently affirmed its projected long-term earnings-per-share growth rate of 6%-8%. With the fourth-quarter financial release, Sempra announced a 20% increase in its capital plan to $48 billion for the 2024 to 2028 time frame, with more than 90% of the investments focused on the regulated utilities. Oncor's rate base (assets for which a regulated utility is allowed to recoup an economic rate of return) is now projected to increase from $23 billion in 2023 to $39 billion in 2028, an 11% expansion per annum. The Texas service area is benefiting from residential growth that's more than twice the national average, as well as from healthy demand from the continued increase in large commercial & industrial customers. Meanwhile, the rate base in California is projected to increase from $27 billion in 2023 to $38 billion in 2028, for a 7% yearly expansion. Mitigating natural disaster risks and the state's aggressive renewable energy goals are driving investment. The 9% growth across the companywide rate base should translate to at least 7% share-earnings gains to 2027-29.

Though untimely, Sempra stock offers reasonably good annual total return potential out to late decade.

Anthony J. Glennon *April 19, 2024*

(A) Diluted egs. Excl. nonrec. gains/(losses): '09, (13¢); '10, (52¢); '11, 58¢; '12, (44¢); '13, (11¢); '15, 7¢; '16, 61¢; '17, ($1.81); '18, ($1.03); '19, 8¢; '20, (40¢); '21, ($2.21); '22, ($1.30); '23, 18¢. Disc. ops.: '19, 58¢; '20, $3.15. Qtly. EPS may not sum due to rounding. Next egs. report due early May. (B) Div'ds paid Jan., Apr., July, Oct. ■ Div. reinv. avail. (C) Incl. intang. In '22: $7.21/sh. (D) In mill., adj. for 8/23 stk. split. (E) Rate allowed on com. eq.: SDG&E '22: 9.95%; SoCalGas '22: 9.8%; Oncor '23: 9.7%. Reg. Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	95

SOUTHERN COMPANY NYSE-SO

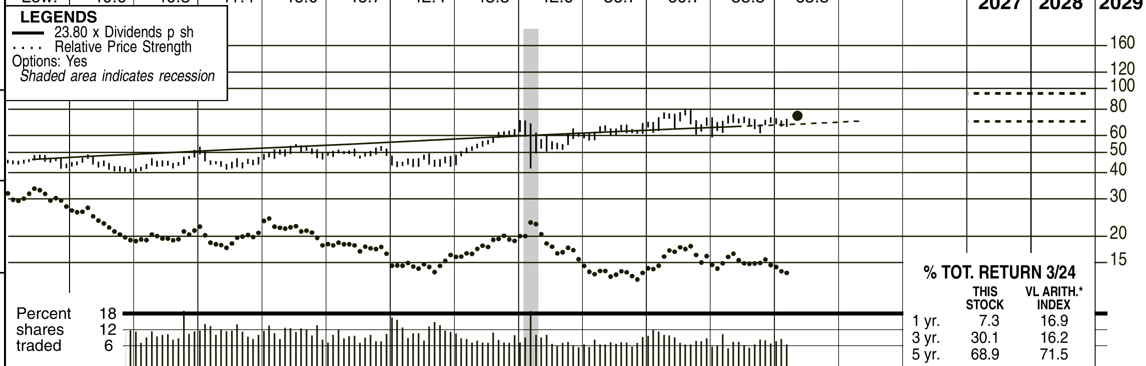
RECENT PRICE 74.39 | P/E RATIO 18.6 (Trailing: 20.4 / Median: 17.0) | RELATIVE P/E RATIO 1.07 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 3 Raised 3/1/24
SAFETY 2 Lowered 2/21/14
TECHNICAL 4 Raised 4/19/24
BETA .95 (1.00 = Market)

High:	48.7	51.3	53.2	54.6	53.5	49.4	64.3	71.1	68.9	80.6	75.8	74.9
Low:	40.0	40.3	41.4	46.0	46.7	42.4	43.3	42.0	56.7	60.7	58.8	65.8

Target Price Range 2027 | 2028 | 2029

18-Month Target Price Range
Low-High: $64-$101 Midpoint (% to Mid): $83 (10%)



2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+30%)	10%
Low	70	(-5%)	3%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	773	753	841
to Sell	703	757	776
Hld's(000)	688021	689919	708610

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	7.3	16.9
3 yr.	30.1	16.2
5 yr.	68.9	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
22.04	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	22.73	20.34	19.29	21.80	26.89	23.15	***24.66***	***25.85***	Revenues per sh	***29.20***
4.43	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	6.41	6.33	6.98	7.20	7.34	7.79	***8.00***	***8.30***	"Cash Flow" per sh	***9.25***
2.25	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	3.00	3.17	3.25	3.42	3.61	3.64	***4.00***	***4.30***	Earnings per sh A	***5.10***
1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.30	2.38	2.46	2.54	2.62	2.70	2.78	***2.86***	***2.96***	Div'd Decl'd per sh B ■	***3.10***
5.10	5.70	4.85	5.23	5.54	6.16	6.58	6.22	7.38	7.37	7.74	7.17	7.04	6.83	7.87	8.88	***8.85***	***8.75***	Cap'l Spending per sh	***8.50***
17.08	18.15	19.21	20.32	21.09	21.43	21.98	22.59	25.00	23.98	23.92	26.11	26.48	26.30	27.93	28.82	***29.90***	***31.75***	Book Value per sh C	***32.25***
777.19	819.65	843.34	865.13	867.77	887.09	907.78	911.72	990.39	1007.6	1033.8	1053.3	1056.5	1060.0	1089.0	1091.0	***1095.0***	***1095.0***	Common Shs Outst'g D	***1095.0***
16.1	13.5	14.9	15.8	17.0	16.2	16.0	15.8	17.8	15.5	15.1	17.6	17.9	18.4	19.6	19.1	*Bold figures are*	*Value Line*	Avg Ann'l P/E Ratio	***16.5***
.97	.90	.95	.99	1.08	.91	.84	.80	.93	.78	.82	.94	.92	1.00	1.14	1.06	*estimates*		Relative P/E Ratio	***.90***
4.6%	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%	5.3%	4.4%	4.4%	4.2%	4.1%	4.1%			Avg Ann'l Div'd Yield	***3.6%***

CAPITAL STRUCTURE as of 12/31/23
Total Debt $57210 mill. **Due in 5 Yrs** $15427 mill.
LT Debt $54745 mill. **LT Interest** $1754 mill.
Incl. $215 mill. finance leases.
(LT interest earned: 3.3x)
Leases, Uncapitalized Annual rentals $307 mill.
Pension Assets-12/23 $14218 mill. **Oblig** $16382 mill.
Pfd Stock $242 mill. **Pfd Div'd** $15 mill.
Incl. 10 mill. shs. 5.83% cum. pfd. ($25 stated value); 475,115 shs. 4.2%-5.44% cum. pfd. ($100 par).
Common Stock 1,091,015,113 shs.
MARKET CAP: $81.2 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
18467	17489	19896	23031	23495	21419	20375	23113	29279	25253	***27000***	***28300***	Revenues ($mill)	***32000***
2567.0	2647.0	2757.0	3269.0	3096.0	3354.0	3481.0	3670.0	3931.3	3976.0	***4280***	***4600***	Net Profit ($mill)	***5510***
33.8%	33.4%	28.5%	25.2%	21.3%	15.9%	14.3%	16.3%	18.9%	11.4%	***15.0%***	***15.0%***	Income Tax Rate	***15.0%***
13.9%	13.2%	11.9%	7.6%	6.8%	6.0%	6.6%	7.7%	8.0%	7.9%	***8.0%***	***8.0%***	AFUDC % to Net Profit	***6.0%***
49.5%	52.8%	61.5%	64.5%	62.0%	60.1%	61.5%	64.0%	63.0%	65.6%	***64.0%***	***64.0%***	Long-Term Debt Ratio	***63.0%***
47.3%	44.0%	35.7%	35.0%	37.6%	39.5%	38.1%	35.6%	36.5%	37.6%	***36.0%***	***36.0%***	Common Equity Ratio	***37.0%***
42142	46788	69359	68953	65750	69594	73336	78285	80558	83654	***85000***	***87500***	Total Capital ($mill)	***93500***
54868	61114	78446	79872	80797	83080	87634	91108	94570	99844	***100000***	***100500***	Net Plant ($mill)	***110000***
7.1%	6.6%	4.9%	5.9%	5.9%	6.0%	5.9%	5.8%	5.5%	4.6%	***5.5%***	***5.5%***	Return on Total Cap'l	***6.5%***
12.1%	12.0%	10.3%	13.3%	12.4%	12.1%	12.3%	13.0%	12.5%	12.6%	***13.0%***	***13.0%***	Return on Shr. Equity	***14.5%***
12.5%	12.6%	11.0%	13.4%	12.5%	12.1%	12.4%	13.1%	12.5%	12.6%	***13.0%***	***13.0%***	Return on Com Equity E	***14.5%***
3.2%	3.1%	2.5%	3.9%	2.6%	2.8%	2.8%	3.1%	3.0%	3.2%	***3.5%***	***3.5%***	Retained to Com Eq	***5.0%***
75%	76%	78%	72%	79%	77%	78%	76%	78%	77%	***77%***	***77%***	All Div'ds to Net Prof	***67%***

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	-5.3	+2.0	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Yearend (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.5	NA
Fixed Charge Cov. (%)	270	275	NA

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	- -	.5%	*6.0%*
"Cash Flow"	4.0%	4.5%	*5.0%*
Earnings	3.0%	3.0%	*6.5%*
Dividends	3.5%	3.5%	*3.5%*
Book Value	3.0%	2.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES (mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	5910	5198	6238	5767	23113
2022	6648	7206	8378	7047	29279
2023	6480	5748	6980	6045	25253
2024	***6550***	***6100***	***7300***	***7050***	***27000***
2025	***6800***	***6500***	***7600***	***7400***	***28300***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.09	.67	1.22	.44	3.42
2022	.97	1.07	1.31	.26	3.61
2023	.79	.79	1.42	.64	3.64
2024	***.90***	***1.00***	***1.45***	***.65***	***4.00***
2025	***1.00***	***1.10***	***1.50***	***.70***	***4.30***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.62	.64	.64	.64	2.54
2021	.64	.66	.66	.66	2.62
2022	.66	.68	.68	.68	2.70
2023	.68	.70	.70	.70	2.78
2024	.70	.72			

BUSINESS: The Southern Company, through its subsidiaries, supplies electricity to 4.4 mill. customers in GA, AL, and MS. Also has a competitive generation business. Acq'd AGL Resources (renamed Southern Company Gas, 4.4 mill. customers in GA, NJ, IL, VA, & TN) 7/16. Sold Gulf Power 1/19. Electric revenue breakdown: residential, 43%; commercial, 35%; industrial, 21%; other, 1%. Generating sources: gas, 51%; coal, 19%; nuclear, 10%; other, 11%; purchased, 9%. Fuel costs: 26% of revenues. '23 reported deprec. rates (utility): 2.7%-3.4%. Has 27,300 employees. President and CEO: Chris Womack. Incorporated.: Delaware. Address: 30 Ivan Allen Jr. Blvd., N.W., Atlanta, Georgia 30308. Telephone: 404-506-0747. Internet: www.southerncompany.com.

Southern Company's Georgia Power subsidiary has completed its nuclear construction project. In late April, unit 4 entered commercial operation, and plant Vogtle became the largest generator of clean energy in the U.S. Units 3 and 4 will combine to produce enough electricity to power approximately 1 million homes for at least 60-80 years. The construction project faced significant delays and reached completion seven years later than Southern's initial forecast, while costing more than $20 billion over original budget estimates. We look for the Vogtle station to greatly improve earnings prospects moving forward, as the project will provide clean, reliable, cost-effective energy amid greater demand for energy and growing power volumes. The transition to cleaner energy should also begin to accelerate with earnings and dividend growth as units 3 and 4 start to pick up steam this year.

We look for full-year 2024 earnings of $4.00 a share. This is the midpoint of management's initial profit target range of $3.95-$4.05 per share, which was released in February. Too, Southern reaffirmed its long-term EPS growth estimate of 5%-7%. We expect even greater growth of 10% this year due to an almost full year of operations from Vogtle units 3 and 4, as well as rate relief and an improved macroeconomic environment. As a result, we project earnings of $4.30 per share on revenues of $28.3 billion for full-year 2025.

The board of directors recently raised the dividend. The increase was $0.02 a share, making the quarterly distribution $0.72 per share. The dividend has now been raised in 23 consecutive years, and the yield of 3.8% sits above the utility average.

This issue is best-suited to conservative, income-oriented accounts. Indeed, the consistently raised dividend remains Southern's most notable feature. These shares also hold a strong financial strength rating (A), and an Above Average (2) Safety rank. Plus, risks from the nuclear construction project have concluded and prospects ahead for the Vogtle station are bright. On the other hand, the current quotation is already trading on the low-end of our 3- to 5-year Target Price range, as long-term prospects are weak.

Zachary J. Hodgkinson *May 10, 2024*

(A) Diluted EPS. Excl. nonrec. gain (losses): '09, (25¢); '13, (83¢); '14, (59¢); '15, (25¢); '16, (28¢); '17, ($2.37); '18, (78¢); '19, $1.30; '20, (17¢); '21, (54¢). Next earnings report due in mid-May. (B) Div'ds paid in early Mar., June, Sept., and Dec. ■ Div'd reinvestment plan avail. (C) Incl. def'd charges. In '23: $17.35/sh. (D) In mill. (E) Rate base: AL, MS, fair value; FL, GA, orig. cost. Allowed return on common eq. (blended): 12.5%; earned on avg. com. eq., '21: 12.8%. Regulatory Climate: GA, AL Above Average; MS, FL Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	55
Earnings Predictability	95

WEC ENERGY GROUP NYSE-WEC

RECENT PRICE	80.70	P/E RATIO	16.5 (Trailing: 16.2 / Median: 21.0)	RELATIVE P/E RATIO	0.92	DIV'D YLD	4.1%	VALUE LINE

TIMELINESS 4 Raised 4/26/24
SAFETY 1 Raised 3/23/12
TECHNICAL 3 Raised 6/7/24
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$70-$116	$93 (15%)

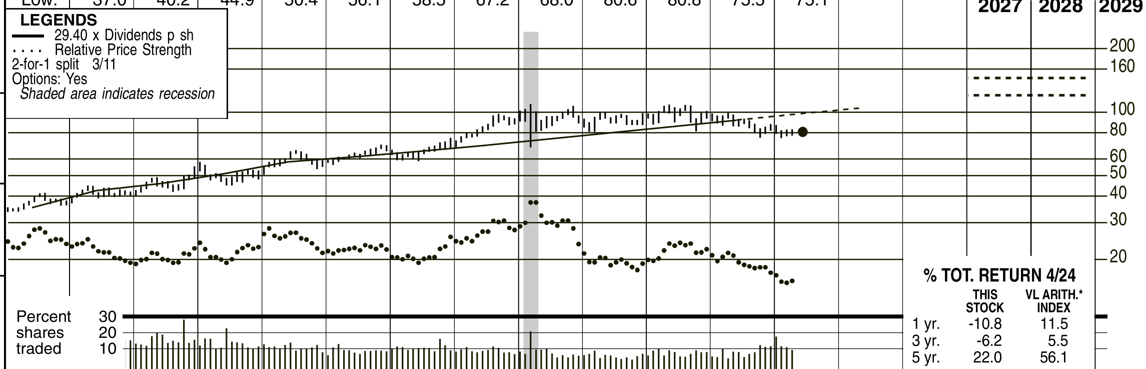
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	145	(+80%)	18%
Low	120	(+50%)	13%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	428	415	450
to Sell	426	457	443
Hld's(000)	239348	243133	247998

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	45.0	55.4	58.0	66.1	70.1	75.5	98.2	109.5	99.9	108.4	99.3	86.9
Low:	37.0	40.2	44.9	50.4	56.1	58.5	67.2	68.0	80.6	80.8	75.5	75.1



% TOT. RETURN 4/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-10.8	11.5
3 yr.	-6.2	5.5
5 yr.	22.0	56.1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
18.95	17.65	17.98	19.46	18.54	20.00	22.16	18.77	23.68	24.24	24.34	23.85	22.96	26.36	30.43	28.19	**29.00**	**30.30**	Revenues per sh	**35.50**
2.95	3.11	3.30	3.68	4.01	4.33	4.47	3.87	5.39	5.69	6.04	6.53	6.90	7.53	8.01	8.64	**9.35**	**10.15**	"Cash Flow" per sh	**11.95**
1.52	1.60	1.92	2.18	2.35	2.51	2.59	2.34	2.96	3.14	3.34	3.58	3.79	4.11	4.46	4.63	**4.90**	**5.25**	Earnings per sh A	**6.40**
.54	.68	.80	1.04	1.20	1.45	1.56	1.74	1.98	2.08	2.21	2.36	2.53	2.71	2.91	3.12	**3.34**	**3.57**	Div'd Decl'd per sh B ■	**3.83**
4.86	3.50	3.41	3.60	3.09	3.04	3.26	4.01	4.51	6.21	6.71	7.17	7.10	7.14	7.34	9.14	**9.30**	**9.30**	Cap'l Spending per sh	**9.25**
14.27	15.26	16.26	17.20	18.05	18.73	19.60	27.42	28.29	29.98	31.02	32.06	33.19	34.60	36.76	37.25	**37.90**	**38.70**	Book Value per sh C	**42.00**
233.84	233.82	233.77	230.49	229.04	225.96	225.52	315.68	315.62	315.57	315.52	315.43	315.43	315.43	315.43	315.43	**315.43**	**315.43**	Common Shs Outst'g D	**315.43**
14.8	13.3	14.0	14.2	15.8	16.5	17.7	21.3	19.9	20.0	19.6	23.5	24.9	22.3	21.9	19.1	*Bold figures are*		Avg Ann'l P/E Ratio	**20.5**
.89	.89	.89	.89	1.01	.93	.93	1.07	1.04	1.01	1.06	1.25	1.28	1.21	1.27	1.09	*Value Line*		Relative P/E Ratio	**1.15**
2.4%	3.2%	3.0%	3.3%	3.2%	3.5%	3.4%	3.5%	3.4%	3.3%	3.4%	2.8%	2.7%	3.0%	3.4%	3.8%	*estimates*		Avg Ann'l Div'd Yield	**3.4%**

CAPITAL STRUCTURE as of 3/31/24
Total Debt $16016.3 mill. **Due in 5 Yrs** $4611 mill.
LT Debt $15375.8 mill. **LT Interest** $452.7 mill.
Incl. $12.1 mill. finance leases.
(LT interest earned: 4.4x)
Leases, Uncapitalized Annual rentals $6.8 mill.
Oblig $3136.6 mill.
Pfd Stock $30.4 mill. **Pfd Div'd** $1.2 mill.
260,000 shs. 3.60%, $100 par, callable $101;
44,498 shs. 6%, $100 par.
Common Stock 315,822,587 shs.

MARKET CAP: $25.5 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
4997.1	5926.1	7472.3	7648.5	7679.5	7523.1	7241.7	8316.0	9597.4	8893.0	**9150**	**9550**	Revenues ($mill)	**11200**
589.5	640.3	940.2	998.2	1060.5	1134.2	1201.1	1301.5	1406.8	1460.4	**1545**	**1655**	Net Profit ($mill)	**2020**
38.0%	40.4%	37.6%	37.2%	13.8%	9.9%	15.9%	13.4%	18.6%	18.8%	**19.0%**	**19.0%**	Income Tax Rate	**19.0%**
1.3%	4.5%	3.8%	1.6%	2.1%	1.8%	2.4%	1.9%	2.1%	2.1%	**2.0%**	**2.0%**	AFUDC % to Net Profit	**2.0%**
48.5%	51.2%	50.5%	48.0%	50.4%	52.5%	52.8%	55.3%	54.7%	54.9%	**55.0%**	**55.0%**	Long-Term Debt Ratio	**55.5%**
51.2%	48.6%	49.3%	51.9%	49.4%	47.4%	47.1%	44.6%	44.4%	44.5%	**44.5%**	**44.5%**	Common Equity Ratio	**44.5%**
8636.5	17809	18118	18238	19813	21355	22228	24467	25368	26279	**27000**	**28120**	Total Capital ($mill)	**29800**
11258	19190	19916	21347	22001	23620	25707	26982	29114	31582	**31000**	**32750**	Net Plant ($mill)	**35100**
8.1%	4.5%	6.3%	6.6%	6.5%	6.5%	6.5%	6.3%	6.4%	6.5%	**6.5%**	**6.5%**	Return on Total Cap'l	**7.0%**
13.2%	7.4%	10.5%	10.5%	10.8%	11.2%	11.4%	11.9%	12.0%	12.5%	**12.5%**	**12.5%**	Return on Shr. Equity	**13.0%**
13.3%	7.4%	10.5%	10.5%	10.8%	11.2%	11.5%	11.9%	12.5%	12.5%	**12.5%**	**12.5%**	Return on Com Equity E	**13.0%**
5.3%	2.1%	3.5%	3.6%	3.7%	3.8%	3.8%	4.1%	4.0%	4.5%	**4.0%**	**4.0%**	Retained to Com Eq	**4.0%**
60%	71%	67%	66%	66%	66%	67%	66%	65%	68%	**68%**	**68%**	All Div'ds to Net Prof	**64%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.5	-2.6	+3.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Lg. C&I Revs. per KWH (¢)	7.25	6.61	7.51
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+.7	+.2
Fixed Charge Cov. (%)	300	338	357

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	3.0%	2.0%	5.0%
"Cash Flow"	7.0%	7.5%	6.5%
Earnings	6.5%	7.0%	6.0%
Dividends	10.0%	6.5%	7.0%
Book Value	7.0%	3.5%	4.0%

QUARTERLY REVENUES ($ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	2691	1676	1746	2201	8316.0
2022	2908	2127	2003	2558	9597.4
2023	2888	1830	1957	2218	8893.0
2024	2680	**1870**	**2000**	**2600**	**9150**
2025	**2750**	**2000**	**2150**	**2650**	**9550**

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.61	.87	.92	.71	4.11
2022	1.79	.91	.96	.80	4.46
2023	1.61	.92	1.00	1.10	4.63
2024	1.97	**.75**	**1.05**	**1.13**	**4.90**
2025	**2.00**	**1.00**	**1.10**	**1.15**	**5.25**

QUARTERLY DIVIDENDS PAID B ■

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.6325	.6325	.6325	.6325	2.53
2021	.6775	.6775	.6775	.6775	2.71
2022	.7275	.7275	.7275	.7275	2.91
2023	.7800	.7800	.7800	.7800	3.12
2024	.8350				

BUSINESS: WEC Energy Group, Inc. (formerly Wisconsin Energy) is a holding company for utilities that provide electric, gas & steam service in WI & gas service in IL, MN, & MI. Customers: 1.6 mill. elec., 2.9 mill. gas. Acq'd Integrys Energy 6/15. Electric revenue breakdown: residential, 39%; small commercial & industrial, 32%; large commercial & industrial, 21%; other, 8%. Generating sources: coal, 36%; gas, 28%; renewables, 5%; purchased, 31%. Fuel costs: 40% of revenues. '23 reported deprec. rates: 2.4%-3.1%. Has 6,900 employees. Chairman: Gale E. Klappa. President & CEO: Scott J. Lauber. Incorporated.: Wisconsin. Address: 231 W. Michigan St., P.O. Box 1331, Milwaukee, WI 53201. Telephone.: 414-221-2345. Internet: www.wecenergygroup.com.

WEC Energy's utilities in Wisconsin have filed general rate cases. The utilities are seeking approximately $800 million in rate increases over the next two years to improve reliability, reduce outages, and assist the transition from coal to renewables. An order is expected by the end of this year, and new tariffs are subject to take effect at the start of 2025. In Illinois, there is a rehearing underway regarding the request to restore $145 million for its safety program. Remember, the Illinois Commerce Commission disallowed $236.2 million of capital costs related to the construction of Peoples Gas & Light service centers, causing WEC to pause the multi billion-dollar pipeline replacement program.

We look for 2024 profits to advance 6%, to $4.90 a share. We are sticking with our estimate, even though it is on the high-end of WEC Energy's targeted range of $4.80-$4.90 per share. The company has a strong track record of exceeding its guidance, and management typically winds up raising it as the year progresses. The utility will likely continue to benefit from electric and gas volume increases due to elevated power demand, construction initiatives and positive developments in the infrastructure and transmission segments. Profit growth should also be driven by rate relief in Wisconsin. WEC reaffirmed its goal for annual earnings growth of 6.5%-7%. We are maintaining our 2025 profit estimate of $5.25 per share, which is within management's updated target range. Indeed, this would provide an increase of 7% above our 2024 estimate.

WEC Energy agreed to acquire a 90% ownership interest in a Texas solar project for $459 million. The Delilah 1 center in North Texas is one of the largest solar facilities under construction, and will generate renewable energy. Commercial operation of the project is set to start by the end of this month, and will likely be eligible for production tax credits.

This issue is best suited for conservative, income-oriented investors with a long-term investment horizon. The dividend yield of 4.1% stands above the utility average, and total return potential for the next 18-months and 3- to 5-years is attractive versus most of its peers.

Zachary J. Hodgkinson *June 7, 2024*

(A) Diluted EPS. Excl. gain on discontinued ops.: '11, 6¢; nonrecurring gain: '17, 65¢. Next earnings report due early July. **(B)** Div'ds paid in early Mar., June, Sept. & Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. intang. In '23: $20.05/sh. **(D)** In mill., adj. for split. **(E)** Rate base: Net orig. cost. Rates all'd on com. eq. in WI in '15: 10.0%-10.2%; in IL in '21: 9.67%; in MN in '19: 9.7%; in MI in '23: 9.85%; earned on avg. com. eq., '21: 12.2%. Regulatory Climate: WI, Above Average; IL, Below Average; MN & MI, Average.

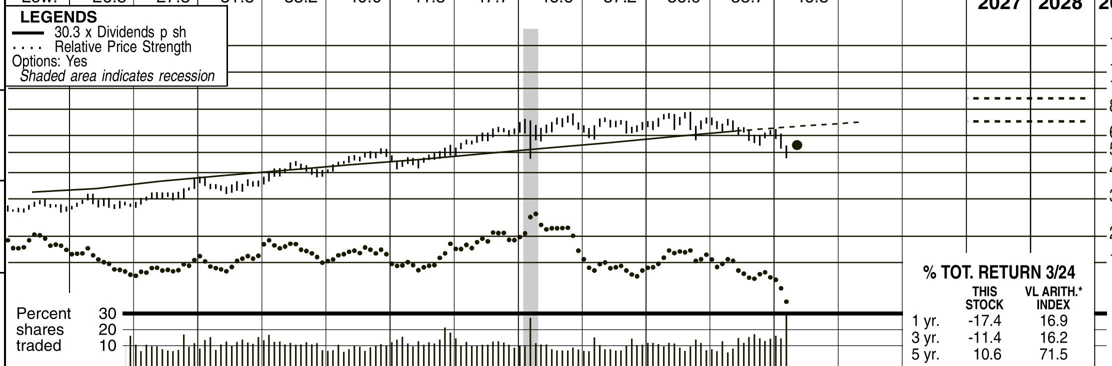
Company's Financial Strength	A+
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	100

XCEL ENERGY NDQ-XEL

RECENT PRICE **54.08** | P/E RATIO **15.3** (Trailing: 16.2, Median: 20.0) | RELATIVE P/E RATIO **0.83** | DIV'D YLD **4.2%** | VALUE LINE

TIMELINESS 4 Lowered 12/1/23
SAFETY 2 Lowered 1/19/24
TECHNICAL 4 Lowered 4/12/24
BETA .85 (1.00 = Market)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	31.8	37.6	38.3	45.4	52.2	54.1	66.1	76.4	72.9	77.7	73.0	64.2
Low:	26.8	27.3	31.8	35.2	40.0	41.5	47.7	46.6	57.2	56.9	53.7	46.8



Target Price Range
2027 | 2028 | 2029

18-Month Target Price Range
Low-High: $51-$91
Midpoint (% to Mid): $71 (30%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+65%)	17%
Low	70	(+30%)	10%

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	426	448	514
to Sell	422	404	387
Hld's(000)	432509	434495	438235

% TOT. RETURN 3/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-17.4	16.9
3 yr.	-11.4	16.2
5 yr.	10.6	71.5

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
24.69	21.08	21.38	21.90	20.76	21.92	23.11	21.72	21.90	22.46	22.44	21.98	21.45	24.69	27.86	25.60	*27.70*	*28.65*	Revenues per sh	*32.05*
3.50	3.48	3.51	3.79	4.00	4.10	4.28	4.56	5.04	5.47	5.92	6.25	6.61	7.08	7.81	7.96	*8.60*	*9.25*	"Cash Flow" per sh	*11.25*
1.46	1.49	1.56	1.72	1.85	1.91	2.03	2.10	2.21	2.30	2.47	2.64	2.79	2.96	3.17	3.35	*3.55*	*3.80*	Earnings per sh A	*4.70*
.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	1.52	1.62	1.72	1.83	1.95	2.08	*2.19*	*2.30*	Div'd Decl'd per sh B ■ †	*2.67*
4.66	3.91	4.60	4.53	5.27	6.82	6.33	7.26	6.42	6.54	7.70	8.05	9.99	7.80	8.44	10.55	*13.25*	*16.40*	Cap'l Spending per sh	*11.65*
15.35	15.92	16.76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	23.78	25.24	27.12	28.70	30.34	31.74	*33.30*	*35.00*	Book Value per sh C	*41.35*
453.79	457.51	482.33	486.49	487.96	497.97	505.73	507.54	507.22	507.76	514.04	524.54	537.44	544.03	549.58	554.94	*560.00*	*565.00*	Common Shs Outst'g D	*580.00*
13.7	12.7	14.1	14.2	14.8	15.0	15.4	16.5	18.5	20.2	18.9	22.3	23.9	22.5	22.2	19.0	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
.82	.85	.90	.89	.94	.84	.81	.83	.97	1.02	1.02	1.19	1.23	1.22	1.28	1.06	*Value Line*		Relative P/E Ratio	*.95*
4.7%	5.1%	4.5%	4.2%	3.9%	3.9%	3.8%	3.7%	3.3%	3.1%	3.3%	2.7%	2.6%	2.8%	2.8%	3.3%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $26250 mill. **Due in 5 Yrs** $3790 mill.
LT Debt $24913 mill. **LT Interest** $904 mill.
Incl. $218 mill. finance leases.
(Total Interest Coverage: 2.8x)

Leases, Uncapitalized Annual rentals $277 mill.
Pension Assets-12/23 $2690 mill. **Oblig** $2943 mill.

Pfd Stock None

Common Stock 555,155,770 shs. as of 2/15/24
MARKET CAP: $30.0 billion (Large Cap)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		27-29
11686	11024	11107	11404	11537	11529	11526	13431	15310	14206	*15500*	*16200*	Revenues ($mill)	*18600*
1021.3	1063.6	1123.4	1171.0	1261.0	1372.0	1473.0	1597.0	1736.0	1851.0	*1985*	*2140*	Net Profit ($mill)	*2725*
33.9%	35.8%	34.1%	30.7%	12.6%	8.5%	- -	- -	- -	- -	*NMF*	*NMF*	Income Tax Rate	*NMF*
12.5%	7.7%	7.8%	9.4%	12.4%	8.3%	10.7%	6.2%	5.9%	7.7%	*10.0%*	*9.0%*	AFUDC % to Net Profit	*8.0%*
53.0%	54.1%	56.3%	55.9%	56.4%	56.8%	57.4%	58.2%	57.8%	58.6%	*60.5%*	*62.5%*	Long-Term Debt Ratio	*62.5%*
47.0%	45.9%	43.7%	44.1%	43.6%	43.2%	42.6%	41.8%	42.2%	41.4%	*39.5%*	*37.5%*	Common Equity Ratio	*37.5%*
21714	23092	25216	25975	28025	30646	34220	37391	39488	42529	*46975*	*53000*	Total Capital ($mill)	*64200*
28757	31206	32842	34329	36944	39483	42950	45457	48253	51642	*56225*	*62450*	Net Plant ($mill)	*74000*
6.0%	5.8%	5.7%	5.8%	5.7%	5.6%	5.4%	5.3%	5.5%	5.4%	*5.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	10.1%	10.2%	10.4%	10.5%	*10.5%*	*11.0%*	Return on Shr. Equity	*11.5%*
10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	10.1%	10.2%	10.4%	10.5%	*10.5%*	*11.0%*	Return on Com Equity E	*11.5%*
4.5%	4.3%	4.0%	3.9%	4.3%	4.4%	4.2%	4.2%	4.3%	4.3%	*4.0%*	*4.5%*	Retained to Com Eq	*5.0%*
55%	57%	61%	62%	58%	58%	58%	59%	58%	59%	*61%*	*60%*	All Div'ds to Net Prof	*57%*

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+1.4	+1.2	-1.6
Resid'l Revs. per KWH (¢)	12.94	13.41	13.80
C & I Revs. per KWH (¢)	8.73	9.02	8.82
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	19849	20346	20512
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	262	255	245

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	3.0%	*3.5%*
"Cash Flow"	7.0%	7.0%	*7.0%*
Earnings	5.5%	6.5%	*7.0%*
Dividends	6.0%	6.5%	*5.5%*
Book Value	5.0%	6.0%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	3541	3068	3467	3355	13431
2022	3751	3424	4082	4053	15310
2023	4080	3022	3662	3442	14206
2024	*4100*	*3325*	*4050*	*4025*	*15500*
2025	*4275*	*3475*	*4230*	*4220*	*16200*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.67	.58	1.13	.58	2.96
2022	.70	.60	1.18	.69	3.17
2023	.76	.52	1.23	.83	3.35
2024	*.80*	*.60*	*1.30*	*.85*	*3.55*
2025	*.85*	*.65*	*1.40*	*.90*	*3.80*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.405	.43	.43	.43	1.70
2021	.43	.4575	.4575	.4575	1.80
2022	.4575	.4875	.4875	.4875	1.92
2023	.4875	.52	.52	.52	2.05
2024	.52	.5475			

BUSINESS: Xcel Energy Inc. is the parent of Northern States Power Company (NSP), which supplies electricity to MN, WI, ND, SD & MI & gas to MN, WI, ND & MI; Public Service Company of Colorado (PSCo), which supplies electricity & gas to CO; & Southwestern Public Service Company (SPS), which supplies electricity to TX and NM. Customers: 3.8 mill. electric, 2.2 mill. gas. Electric revenues: resid'l, 31%; comm'l & ind'l, 50%; other, 19%. Purchases 34% of power, owns 66%. Total electric mix: wind, 29%; gas, 23%; coal, 13%, nuclear, 24%, solar/other, 11%. Fuel cost: 40% of revenues. '23 deprec. rate: 3.6%. Employs 11,311. Chrmn., President, and CEO: Robert Frenzel. Inc.: MN. Addr.: 414 Nicollet Mall, Minneapolis, MN 55401. Tel.: 612-330-5500. Int.: www.xcelenergy.com.

Xcel Energy stock is down sharply this year due to the company's role in the recent Texas Panhandle wildfires. There are multiple ongoing blazes in this region under various names with different levels of containment. The utility holding company disputes it's subsidiary acted negligently, but has acknowledged that its equipment had a part in igniting what's being called the Smokehouse Creek fire. That blaze has scorched more than one million acres, destroyed about 80 homes, and caused at least two deaths. Xcel does not believe that its equipment had a part in other contiguous wildfires, such as the Windy Deuce blaze. At one point, the equity was down nearly 25% in value on a year-to-date basis. As the fires have become contained and liabilities reasonably assessed Xcel shares have started to recover, but are still down 13% year to date. These drops are off of what were already discount levels late last year from the pressure higher interest rates unleashed on the rate-sensitive utility sector. We doubt that this unfortunate disaster will result in claims that exceed Xcel's $560 million of liability insurance.

Meanwhile, little has changed on the Marshall Wildfire litigation scene in Colorado. There, Xcel faces 14 complaints with 675 plaintiffs, which have been consolidated into a single case. There were two deaths and nearly 1,100 structures were either damaged or fully destroyed in the December, 2021 fire. The state of Colorado estimated the damages to be over $2 billion. Xcel has $560 million of liability coverage associated with that incident. The company expects to get a litigation calender some time this year with a trial most likely taking place in 2025. Management strongly disputes the findings of Colorado officials regarding Xcel's equipment being a source of ignition.

On an operating basis, this company has been a model of consistency few utilities can match. It almost always delivers solid annual earnings and dividend increases to shareholders. We think the valuation hit the company has taken recently is likely overdone. Although ranked to underperform over the near term, the shares offer significant recovery potential in the 18-month timeframe.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. gain/(losses): '10, 5¢; '15, (16¢); '17, (5¢); '23, (14¢); gain/(loss) on discontinued ops.: '09, (1¢); '10, 1¢. Qtly. EPS may not sum to full yr. due to rounding. Next egs. report due April 25th. (B) Div'ds typically paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '23: $2798 mill., $5.04/sh. (D) In mill. (E) Rate base: Varies. Rate allowed on common equity (blended): 9.6%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	100

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2809

ROE:
Other GDP Growth Rates

September 10, 2024

Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress

The Long-Term Budget Outlook: 2024 to 2054 (cbo.gov)
accessed by Staff June 22, 2024.

Average Annual Values for Key Economic Variables That Underlie CBO's Extended Baseline Projections

Percent

	1994–2023	2024–2034	2035–2044	2045–2054	Overall, 2024–2054
Growth of GDP					
Real potential GDP[a]	2.4	2.1	1.6	1.6	1.8
Potential labor force[b]	0.8	0.7	0.3	0.2	0.4
Potential labor force productivity[c]	1.6	1.4	1.4	1.3	1.4
Real GDP	2.5	2.0	1.6	1.6	1.7
Real GDP per person	1.6	1.4	1.3	1.3	1.3
Nominal GDP (fiscal year)	4.7	4.0	3.7	3.6	3.8
Labor force participation rate[d]	64.8	62.0	61.1	60.8	61.3
Labor force growth	0.9	0.6	0.3	0.2	0.4
Inflation					
Growth of the PCE price index	2.1	2.0	1.9	1.9	1.9
Growth of the CPI-U	2.5	2.3	2.2	2.2	2.3
Growth of the GDP price index	2.2	2.0	2.0	2.0	2.0
Interest rates					
On 10-year Treasury notes					
Nominal rate	3.8	4.1	4.2	4.3	4.2
Real rate	1.3	1.8	1.9	2.1	1.9
On all federal debt held by the public[e]	3.7	3.2	3.5	3.7	3.5

Source: Table 3-1, pg. 24 – Congressional Budget Office (CBO) Long-Term (LT) Budget Outlook (BO) 2024-2054 dated March 1, 2024.

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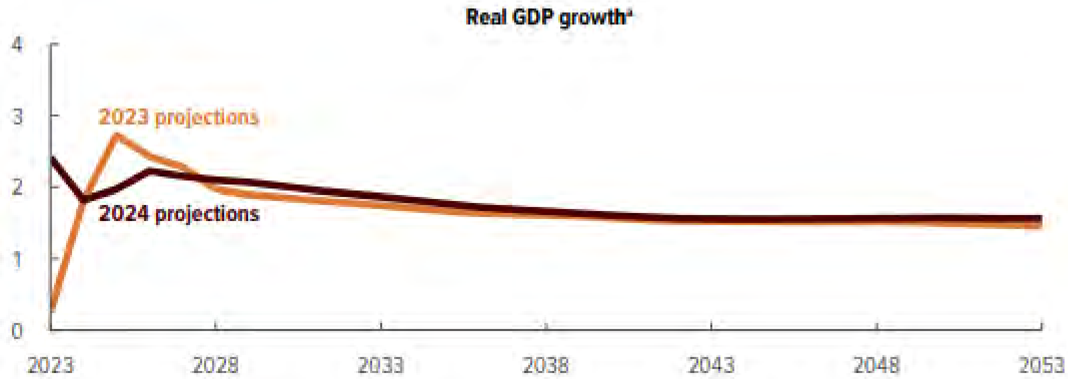

Source: Figure B-1, pg.44 – CBO LT BO 2024-2054 published March1, 2024.

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Average Annual Values for Additional Economic Variables That Underlie CBO's Extended Baseline Projections

Percent

	1994–2023	2024–2034	2035–2044	2045–2054	Overall, 2024–2054
Unemployment					
Unemployment rate[a]	5.6	4.4	4.3	4.1	4.3
Noncyclical rate of unemployment[b]	4.9	4.3	4.1	3.9	4.1
Growth of average weekly hours worked	-0.1	*	*	*	*
Growth of total hours worked	0.9	0.6	0.3	0.2	0.4
Earnings as a share of compensation	81.4	82.4	81.5	80.8	81.6
Growth of real earnings per worker	1.1	1.2	1.0	1.0	1.1
Growth of total factor productivity[c]	1.2	1.1	1.1	1.1	1.1
Growth of labor productivity (real GDP per hour worked)	1.6	1.4	1.4	1.3	1.4

Source: Table C-1, pg.48 – Congressional Budget Office (CBO)
Long-Term (LT) Budget Outlook (BO) 2024-2054 dated March 1, 2024.

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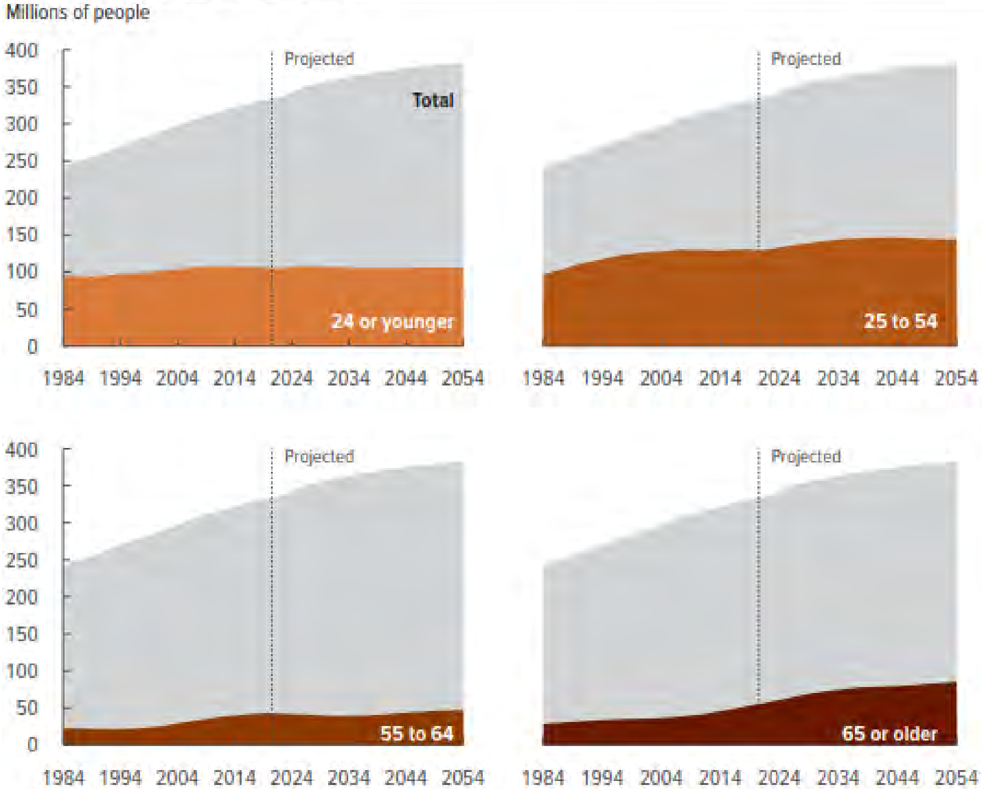
Population, by Age Group



The number of people ages 25 to 54, which particularly affects the number of people employed, is projected to grow more slowly than the number of people age 65 or older, who are less likely to work and who are generally eligible for Social Security and Medicare.

Data source: Congressional Budget Office. See www.cbo.gov/publication/59711#data.

The population referred to in this figure is the Social Security area population, which includes all residents of the 50 U.S. states and the District of Columbia, as well as civilian residents of U.S. territories. It also includes federal civilian employees and members of the U.S. armed forces living abroad and their dependents, U.S. citizens living abroad, and noncitizens living abroad who are eligible for Social Security benefits on the basis of their earnings while in the United States.

Source: Table 3-1, pg.24 – CBO LT BO 2024-2054 dated March 1, 2024.

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Independent Statistics and Analysis
U.S. Energy Information Administration

Annual Energy Outlook 2023

Release Date: March 16, 2023 – **Next Release Date:** 2025

Narrative 2023 - U.S. Energy Information Administration (EIA)

High and Low Economic Growth cases

The High Economic Growth case and Low Economic Growth case address the effects of economic assumptions on energy consumption modeled in the AEO2023. From 2022 to 2050, the **High** Economic Growth case assumes the compound **annual growth rate for U.S. GDP** is **2.3%,** and the **Low** Economic Growth case assumes a **1.4%** rate. By contrast, the **Reference** case assumes the U.S. GDP annual growth rate is **1.9%** over the projection period.

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2023 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, Washington, D.C., March 31, 2023

2023 Medicare Trustees Report (cms.gov)

Table II.F2. – PG 40

Table II.F2.—Average Annual Rates of Growth in SMI and the Economy
[In percent]

Calendar years	SMI: Beneficiary population	SMI: Per capita expenditures	SMI: Total expenditures	U.S. Economy: Total population	U.S. Economy: Per capita GDP	U.S. Economy: Total GDP	Growth differential[1]
Historical data:							
1968–2002	2.2%	11.0%	13.4%	1.0%	6.5%	7.5%	5.4%
2003–2012	2.0	8.4[2]	10.6[2]	0.8	3.2	4.0	6.3[2]
2013–2022	2.5	3.7	6.3	0.5	4.0	4.6	1.7
Intermediate estimates:							
2023–2032	2.0	5.9	8.0	0.6	3.6	4.2	3.6
2033–2047	0.6	4.7	5.3	0.5	3.5	4.0	1.2
2048–2072	0.7	3.7	4.4	0.4	3.6	4.1	0.3
2073–2097	0.4	3.7	4.1	0.4	3.7	4.1	0.0

[1]Excess of total SMI expenditure growth above total GDP growth, calculated as a multiplicative differential.
[2]Includes the addition of the prescription drug benefit to the SMI program in 2006. Excluding 2006, the average annual per capita expenditure increase is 5.6 percent, the total expenditure increase is 7.8 percent, and the growth differential is 3.8 percent.

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2024 **Report** OASDI **Trustees – _tr.book (ssa.gov)** **May 7, 2024**

THE 2024 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS – https://www.ssa.gov/OACT/TR/2024/tr2024.pdf

Table II.C1.—Key Assumptions and Summary Measures for Long-Range (75-Year) Projections[a]

Assumption	Intermediate	Low-cost	High-cost
Demographic:			
Total fertility rate (children per woman) for years 2040 and later	1.9	2.1	1.6
Annual percentage reduction in total age-sex-adjusted death rates	.73	.28	1.23
Annual net lawful permanent resident (LPR) immigration (in thousands)	788	1,000	595
Average annual net other-than-LPR immigration (in thousands)	457	683	234
Economic:			
Annual percentage change in productivity (total U.S. economy)	1.63	1.93	1.33
Annual percentage change in Consumer Price Index (CPI-W)	2.4	3.0	1.8
Average annual percentage change in average OASDI covered wage (nominal)	3.56	4.79	2.34
Average annual percentage change in average OASDI covered wage (real)	1.14	1.74	.53
Age-sex-adjusted unemployment rate (percent)	4.5	3.5	5.5
Annual trust fund new-issue real interest rate (percent) for years 2041 and later	2.3	2.8	1.8
Programmatic:			
Age-sex-adjusted disability incidence rate (per thousand exposed)	4.5	3.6	5.4
Age-sex-adjusted disability recovery rate (per thousand beneficiaries)	10.8	13.0	8.6

[a] Measures shown in this table are applicable for the last 65 years of the 75-year projection period (years 2034-98), unless otherwise specified. See chapter V for additional details, including historical and projected values.

Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2024-2100

	Percentage of GDP									GDP in dollars (billions)
	OASDI			HI			Combined			
Calendar year	Income[a]	Cost[b]	Balance[b]	Income[a]	Cost	Balance	Income[a]	Cost[b]	Balance[b]	
Intermediate:										
2024	4.59	5.18	-0.59	1.51	1.46	0.06	6.11	6.64	-0.53	$28,599
2025	4.56	5.30	-.75	1.53	1.46	.06	6.08	6.76	-.68	29,710
2026	4.63	5.38	-.75	1.56	1.49	.06	6.19	6.88	-.69	30,942
2027	4.65	5.45	-.80	1.58	1.55	.03	6.23	7.00	-.77	32,271
2028	4.68	5.50	-.81	1.60	1.59	[c]	6.28	7.09	-.81	33,709
2029	4.71	5.54	-.83	1.61	1.65	-.03	6.33	7.19	-.86	35,143
2030	4.75	5.59	-.85	1.63	1.69	-.06	6.38	7.28	-.90	36,589
2031	4.78	5.64	-.86	1.65	1.74	-.08	6.43	7.38	-.94	38,095
2032	4.81	5.68	-.87	1.68	1.78	-.11	6.49	7.46	-.97	39,666
2033	4.84	5.71	-.87	1.69	1.85	-.15	6.53	7.56	-1.03	41,286
2035	4.83	5.78	-.95	1.71	1.91	-.20	6.54	7.69	-1.15	44,714
2040	4.80	5.88	-1.08	1.73	1.99	-.26	6.54	7.87	-1.34	54,472
2045	4.77	5.92	-1.15	1.75	2.02	-.27	6.52	7.93	-1.41	66,240
2050	4.74	5.94	-1.20	1.77	2.01	-.24	6.51	7.96	-1.45	80,633
2055	4.71	6.01	-1.30	1.79	1.99	-.21	6.50	8.01	-1.50	98,265
2060	4.69	6.12	-1.43	1.81	1.99	-.17	6.51	8.10	-1.60	119,677
2065	4.67	6.20	-1.53	1.83	1.99	-.16	6.51	8.19	-1.68	145,501
2070	4.65	6.28	-1.62	1.86	2.01	-.15	6.51	8.28	-1.78	176,496
2075	4.64	6.35	-1.71	1.87	2.01	-.14	6.51	8.36	-1.85	213,925
2080	4.62	6.35	-1.74	1.89	2.01	-.12	6.50	8.36	-1.86	259,673
2085	4.59	6.28	-1.69	1.90	1.99	-.09	6.49	8.27	-1.78	316,061
2090	4.57	6.16	-1.59	1.90	1.96	-.06	6.47	8.12	-1.65	385,337
2095	4.55	6.09	-1.55	1.90	1.93	-.02	6.45	8.02	-1.57	469,420
2100	4.53	6.11	-1.58	1.91	1.89	.02	6.44	8.00	-1.56	570,610

Gross Domestic Product Projections:

The value of real GDP is equal to the product of three components: (1) productivity (i.e., output per hour worked), (2) average weekly total employment,2 and (3) average hours worked per week, times 52.

Consequently, the growth rate in real GDP is equal to the combined growth rates for productivity, total employment, and average hours worked. For the period from 1969 to 2019, which covers the last six complete economic cycles, the average annual growth in real GDP was 2.76 percent, combining average growth rates of 1.59 percent for productivity, 1.35 percent for total employment, and -0.20 percent for average hours worked.

The real GDP growth rate was -2.2 percent for 2020, 5.8 percent for 2021, 1.9 percent for 2022, and is estimated to be 2.4 percent for 2023 under the intermediate assumptions.

For the intermediate assumptions, the average annual growth in real GDP is 2.0 percent from 2023 to 2033, combining the average growth rates of 1.54 percent for productivity, 0.50 percent for total employment, and -0.02 percent for average hours worked. The projected average annual growth in real GDP of 2.0 percent from 2023 to 2033 is slightly lower than the underlying sustainable trend rate of 2.1 percent over the same period, because the economy is estimated to be slightly above the sustainable trend in 2023.

After 2033, the **annual growth in real GDP** follows the sustainable trend rate and averages **1.9 percent**, which combines the projected ultimate annual growth rate of 1.63 percent for productivity, average annual growth rate of 0.32 percent for total employment, and the ultimate annual growth rate of -0.05 percent for average hours worked per week. The projected growth rate of real GDP is lower than the past average growth rate mainly because the **working-age population is expected to grow more slowly than in the past**.

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United States Economic Snapshot – June 2024
United States Economic Snapshot | OECD

Note: OECD GDP per Capita & Productivity Growth still references the 2023 Edition. Staff does not update OECD GDP Growth Rates in its Rebuttal Testimony.

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2810

ROE: Financial News that Investors in Electric Utilities Are Seeing

September 10, 2024

After Years of Raising Prices, Food Companies Hit Consumers' Limits

by Jesse Newman and Heather Haddon – WSJ – Aug. 1, 2024

Left: Companies dangle $5 burger meals, flakier biscuits to encourage consumer spending and keep profits steady.

Food companies are working on fixes for **consumers fed up with high prices**, while trying to protect some of the biggest profits earned in years.

Restaurant chains this summer are promoting a flurry of deals to keep registers ringing. Food manufacturers are hiking prices at a slower pace, rolling out more discounts and introducing new products, such as "Star Wars"-themed Oreos and Super Mario-shaped mac and cheese.

The companies' moves aim to lure people back to brands that consumers have ditched as prices skyrocketed.

"**We had 3% inflation this year**," **said** Kraft **Heinz** Chief Executive Carlos Abrams-Rivera on Wednesday. "**We're only pricing 1%**."

Americans in the **past two years spent more of their income on food than** they have **in three decades**. Food prices have become a hot-button issue on the campaign trail as U.S. presidential candidates and other politicians debate economic issues ahead of November elections.

Domino's Pizza CEO Russell Weiner **said restaurants ultimately didn't have** the ability to **increase prices as much as they thought they could**.

"In retrospect the pricing power wasn't there," Weiner said in a recent interview. Domino's, he said, raised prices less than competitors and slower than the overall rate of restaurant inflation.

Food Company Fortunes

Last fiscal year, each of the 10 largest U.S. restaurant chains by market value posted a **profit** that met or surpassed 2019 levels, according to a Wall Street Journal analysis of company filings. For a number of chains including Chipotle Mexican Grill and Darden Restaurants' Olive Garden, restaurant-level profit margins reflecting operating costs as a percentage of sales matched or exceeded 2019 levels, filings show.

Domino's Pizza says it raised prices less than competitors and slower than the overall rate of restaurant inflation.

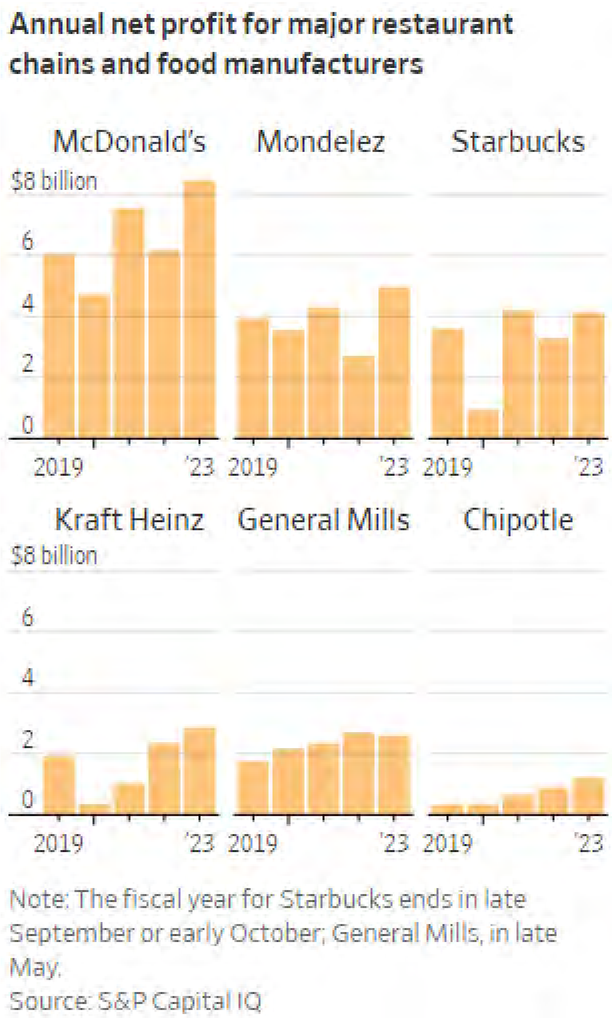
Big food manufacturers booked similar results. Between 2019 and 2023, annual net profit for the snack giants Hershey and Mondelez International rose 62% and 28%, respectively. General Mills and Kraft Heinz posted 48% increases. Gross margins for many food makers are at or near pre-pandemic levels.

Food companies' earnings have grown in tandem with the broader economy, with quarterly profits last year hitting records, according to Commerce Department data.

"We are coming off a period where companies have enjoyed incredible **pricing power**," said Lydia Boussour, senior economist at the consulting firm EY-Parthenon.

Food executives in recent years have said they increased prices to cover their rapidly escalating costs for labor, ingredients and transportation. Over time, those prices helped offset the companies' higher expenses.

More recently, food companies have benefited from declines in some of those costs as well as from efforts to become more efficient. Many restaurant chains have made gains through technology including kiosks that help process orders without a human at a register.



Food makers have scaled back costly measures they took to keep shelves stocked during the pandemic, such as relying on emergency suppliers and third-party manufacturers. They are also stepping up delayed programs to improve plant operations, investing for instance in automation, said Robert Moskow, a TD Cowen analyst.

Food price politics

Many consumers and politicians have said they are angry about growing corporate profits while household budgets don't go as far as they used to.

Moderators opened June's presidential debate with a question about sharply higher costs for groceries and housing. The Biden administration has criticized tactics including **shrinkflation**, through which companies reduce the size of products but not prices.

Food executives have **said** they **haven't gouged consumers** and are working to keep prices as low as possible. They have said that they need to maintain their profit margins to fund new products and that a number of expenses, such as those for labor and cocoa, surged in recent years and have remained high. Some chains, such as Olive Garden, stress that they are raising their prices below inflation. **Consumers will eventually adjust to higher prices, executives said**.

Still, **more than 70% of consumers believe** that restaurants, supermarkets and food manufacturers are **overcharging**, according to a survey this year conducted by economists at the University of Illinois and Purdue University.

“No doubt they all took advantage of the situation to widen margins,” said Rick Dunphy, a retired bond salesman from Duxbury, Mass. Dunphy said he and his wife are **cutting back** on going to restaurants and **opting** more often **for lower-cost store-brand** condiments, cereal, cookies and crackers.

Top Right: Hershey’s annual net profit climbed between 2019 and 2023.

Value, Value, Value

Restaurant Brands International’s Burger King and McDonald’s kicked off limited-time $5 meal deals in June, and Inspire Brands’ Sonic sought to one-up its burger competitors by launching a permanent $1.99 menu in July.

McDonald’s said Monday that the $5 meal was starting to woo back customers, but that it needed to do more to make its meals affordable. Joe Erlinger, McDonald’s U.S. president, said franchisees’ gross margins were at a 20-year high and could afford to invest in value now. In an internal message Monday, he urged them to do more to back affordable options.

“In order to do better for our customers, we must acknowledge where we are falling short,” Erlinger said in the email, a copy which was viewed by the Journal.

McDonald's said this week that the $5 meal was starting to woo back customers.

Starbucks on Tuesday said it would pump up promotions to try to get lapsed customers to return to its cafes and pay for them through more-efficient operations.

Big food makers are leaning into lower prices to help lift stubborn sales volumes. The snack giant Mondelez said Tuesday that it plans to offer discounts and smaller, less-expensive packs of goods including Oreo, Chips Ahoy and Ritz crackers.

Today, 60% to 70% of Mondelez's products cost more than $4 each, said CEO Dirk Van de Put in June. Three years ago the same portion of products cost less than $3 each.

General Mills said in June that it plans to increase its investment in coupons by more than 20% in the first half of its current fiscal year. The company is also working to improve the taste of some of its biggest brands – making Pillsbury biscuits flakier, Annie's mac and cheese cheesier and Betty Crocker fudge brownies fudgier.

Some food executives and analysts have warned that wooing consumers back will be a slow process or require more investments than companies anticipate.

"It's not one of these events where we sprinkle a little money on the consumer, and they forget that they ever experienced runaway inflation," Conagra Brands CEO Sean Connolly said in July.

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AI Is About to Boost Power Bills

by Jinjoo Lee – WSJ – Aug. 13, 2024

High prices are a windfall for power-plant owners but are starting to raise difficult questions. Power-plant owners are reaping a bonanza, but not without new risks, too.

The **AI-driven**, **energy-hungry data-center boom** was bound to bring up uncomfortable questions: **Will it raise energy bills** and, if so, **who will shoulder** the **costs**? America's largest wholesale power market is starting to see the results.

Rapid data-center build-out is **increasing power demand just as a wave of older power-plant retirements is reducing supply** in PJM Interconnection, the independent system operator that manages the wholesale power market spanning 13 states including Virginia, Pennsylvania and Illinois. It said two weeks ago that its latest capacity auction yielded prices of $269.92 per megawatt-day for most of its footprint, about nine times the clearing price a year ago. A contributing factor was a tweak in PJM's modeling to better plan for extreme weather conditions. Skyrocketing capacity prices are a clear signal that the grid needs new power plants.

This is a **windfall for independent power producers** such as Talen Energy, Constellation Energy Group and Vistra, all of which own a sizable number of power plants that cleared the latest auction. Constellation's shares jumped 10% since the company reported last week that its earnings would get a healthy boost from high capacity prices. If they remain high in 2026, the company expects that to boost profit by 14% compared with analysts' earnings expectations before the auction results.

Vistra last Thursday raised the midpoint of its 2025 guidance for earnings before interest, taxes, depreciation and amortization by $200 million, or about 4%, partly as a result of higher capacity prices. Its shares have gained 5.4% since its earnings call.

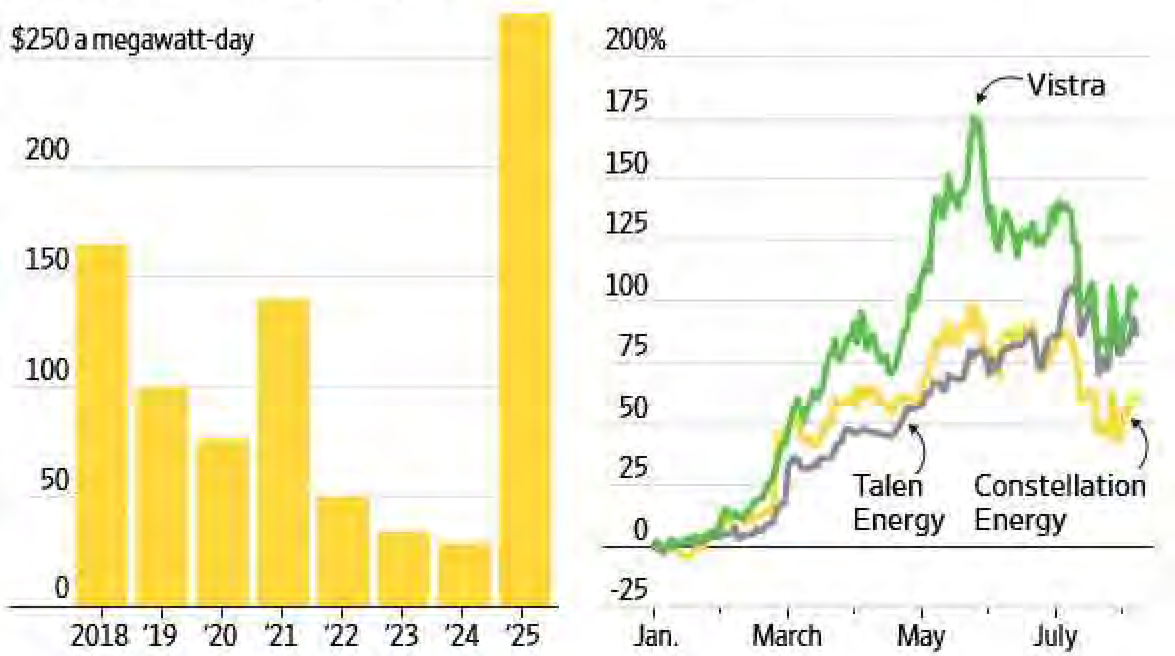
High prices should encourage more companies to build new power plants, but they can take up to five years if built from scratch, notes Hugh Wynne, co-head of utilities and renewable energy research at SSR.

"What we're seeing in the [latest] capacity auction is the tip of the iceberg," said Wynne, referring to future capacity needs. This means the capacity price windfall could last a few more years for companies such as Constellation and Vistra.

But high prices come with **risk of political backlash and court challenges**, said Steve Fleishman, equity analyst at Wolfe Research. The **utilities that purchase electricity from these producers have signaled that bills will rise**: Chicago utility Exelon said in its latest earnings call that rates will increase by a double-digit percentage in some of its jurisdictions as a result of higher capacity prices. PPL, whose service territory includes Pennsylvania, Kentucky and Virginia, said higher capacity prices would increase utility bills by $10 to $15 a month starting next year.

PJM Interconnection's capacity prices for the majority of its footprint

Share-price performance, year to date



Sources: PJM Interconnection (capacity); FactSet (performance)

Skyrocketing capacity prices are a clear signal that the grid needs new power plants. A control room at a Constellation nuclear station in Scriba, N.Y.

The strains could reshape the industry. **Utilities in certain states aren't allowed to own power plants**, but some are hinting that they will push for legislation to change that. PPL said during its latest earnings call that it would advocate for legislative changes in Pennsylvania that would allow it to do so. Similarly, FirstEnergy floated the idea that some states might change their rules to allow utilities to invest in their own generation.

Another point of conflict came up earlier this summer, when utilities – including Exelon and American Electric Power – pushed back on an aspect of Talen Energy's agreement to sell nuclear power to an adjacent Amazon.com data center in Pennsylvania, arguing that the **power plant** would **benefit from** the **transmission system without paying for it**. They estimated that as much as $140 million of costs could shift to other customers as a result.

The Federal Energy Regulatory Commission sought more information about that agreement earlier this month, and analysts at energy research firm ClearView Energy Partners think Talen can get the green light from FERC. The overhang could nevertheless create some delays for companies like Constellation and Vistra, which are vying for long-term, high-price contracts similar to the one that Talen set. Constellation was said to be nearing a deal with Amazon Web Services, as The Wall Street Journal reported.

Vistra said on Thursday it was talking to potential data-center customers but didn't give a timeline on when a deal might be reached. FERC is also set to hold a conference this fall to discuss broader issues related to co-locating large loads near power plants.

Also worth watching are states' changing stances toward data centers. While many have pushed forward incentives to lure the facilities, some are having misgivings. Georgia earlier this year passed a bill that would have halted the state's tax incentives for new data centers for two years, though that was ultimately vetoed by the governor in May.

Virginia, which also **has tax breaks for data centers**, is conducting a legislative study to examine how they are affecting electric reliability and afford

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Algonquin Power to Sell Renewables Business to LS Power for $2.5B

by Selene Balasta and Allison Good,
Standard and Poor's Global Market Intelligence – Aug. 12, 2024

Algonquin Power & Utilities Corp. struck a deal **to divest** its **renewable energy business**, **excluding hydroelectric**, **to** a **subsidiary** of **LS Power** Development LLC **for $2.5 billion**, the companies said Aug. 9.

The business largely comprises **wind and solar assets**, including 44 operating assets with more than 3 GW of capacity and an 8-GW pipeline of wind, solar**, battery energy storage and renewable natural gas projects** in various stages of development, LS Power said in a news release. Approximately **2.7 GW** of the **assets** are **in** the **US**, with the **remaining 300 MW in Canada**.

"This represents a significant strategic investment in and expansion of LS Power's renewable energy portfolio," LS Power CEO Paul Segal said. "This business complements our existing fleet of more than 19,000 MW of top-performing renewable, energy storage, flexible gas and renewable fuels projects."

The transaction "is the result of a highly competitive strategic sale process," Algonquin CEO Chris Huskilson said in an Aug. 9 deal announcement.

In **August 2023, Algonquin** announced a decision to offload its renewable energy business following a **strategic review** that was launched **after** the **company terminated** a **deal to acquire A**merican **E**lectric **P**ower Co. Inc.**'s Kentucky utility assets**.

Hedge funds Ancora Holdings Group LLC and Starboard Value LP had called on Algonquin to execute asset sales, with Starboard specifying the unregulated renewables business, to reverse a then-plummeting stock price.

"This major milestone, coupled with our previously announced agreement to support the sale of our [Atlantica Sustainable Infrastructure PLC] shares, delivers on our plan to transform Algonquin into a pure-play regulated utility, optimize our regulated business activities, strengthen our balance sheet and enhance our quality of earnings," Huskilson said.

"Proceeds from the renewable sale plus our Atlantica shares will leave us with a very strong balance sheet," Algonquin CFO Darren Myers said Aug. 9 in a second-quarter earnings conference call.

"We are looking at spending capital at a level just above requisite maintenance, safety and environmental requirements in order for the company to digest the impacts of investments already made on behalf of our customers," Myers said. "Once we improve our returns to a more appropriate level, we will have the opportunity to increase our capital spending in a disciplined way."

The latest transaction excludes debt and consists of $2.28 billion of cash at closing and up to $220 million of cash pursuant to an earnout agreement relating to certain wind assets. The company expects to receive estimated cash proceeds of $1.6 billion, excluding the earnout, after repaying construction financing, and net of taxes, transaction fees and other closing adjustments.

Algonquin's board of directors has already approved the sale.

The deal is subject to customary closing conditions and is expected to close in the fourth quarter of 2024 or the first quarter of 2025.

JP Morgan is **exclusive financial adviser to Algonquin** on the transaction. **Milbank** LLP is **legal** adviser and **Scotiabank and BMO Capital Markets** Corp. are **financial advisers to LS Power**.

Q2 results

Algonquin shares, however, were **down** more than **11% in heavy trading** at about 3 p.m. ET on **Aug. 9 after** the **company also cut** its **third-quarter 2024 dividend by 40% to 6.5 cents.**

"We're not chasing a high payout ratio and excessive equity raises," Huskilson emphasized during the call. "We're reducing our capital spend and dividend to position the company for greater long-term value creation."

Algonquin, which is **headquartered in** Oakville, **Ontario**, **but reports in US dollars**, reported second-quarter adjusted net earnings of 9 cents per share, up from 8 cents per share in the same period in 2023. The results beat the S&P Capital IQ consensus estimate of 8 cents per share.

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Allete Files Petitions in Minnesota, Wisconsin Seeking Private Buyout Approval

by Dan Lowrey,
Standard and Poor’s Global Market Intelligence – Jul. 23, 2024

Allete Inc. tendered its formal **request** for approval by the **Minnesota P**ublic **U**tilities **C**ommission **and** the **Public S**ervice **C**ommission of **Wisconsin** of a transaction in which the **Canada Pension Plan Investment Board and Global Infrastructure Management** LLC will **acquire Allete for $67 per share in cash**, **taking** the Duluth, Minn.-headquartered **company private** in a deal valued at about **$6.2 billion**, **including debt**.

- While other approvals are necessary before the proposed transaction can close, the one that will likely receive the most scrutiny is approval by the Minnesota Public Utilities Commission (PUC). Allete's regulated utility service territory extends into Wisconsin, but its **largest footprint** is in **Minnesota**. The **PUC has discretion over utility mergers**, and the commission's merger review **standard** is **not particularly restrictive**. Pursuant to state statutes, when reviewing proposed **mergers and acquisitions**, the **PUC must consider whether** the **transaction** is "**consistent with** the **public interest**."
- Neither Wisconsin nor Minnesota has evaluated a utility merger of this size in at least five years, but Regulatory Research Associates does not anticipate the proposed transaction is likely to face onerous regulatory hurdles based on each state's merger evaluation criteria and the outcomes of prior merger-related proceedings.
- The commitments outlined in the July 19 application by Allete appear to be largely consistent with those agreed upon in past mergers that have come before utility commissions, including management retention and protections for utility employees.
- RRA considers the utility regulatory framework in Minnesota to be balanced and stable from an investor viewpoint, as recently authorized equity returns typically have approximated industry averages. Wisconsin regulation remains constructive from an investor perspective, in RRA's view. Energy utilities are regulated under a traditional framework, and the most recently authorized equity returns have been above the prevailing national averages when established.

In addition to approval by Minnesota and Wisconsin regulators, the company will also need approval from the Federal Energy Regulatory Commission. The company is requesting public hearings be scheduled in October and November and is **targeting** a **deal closing date** of **mid-2025**, subject to, among other things, the aforementioned state and federal approvals and approval from Allete shareholders.

Transaction overview

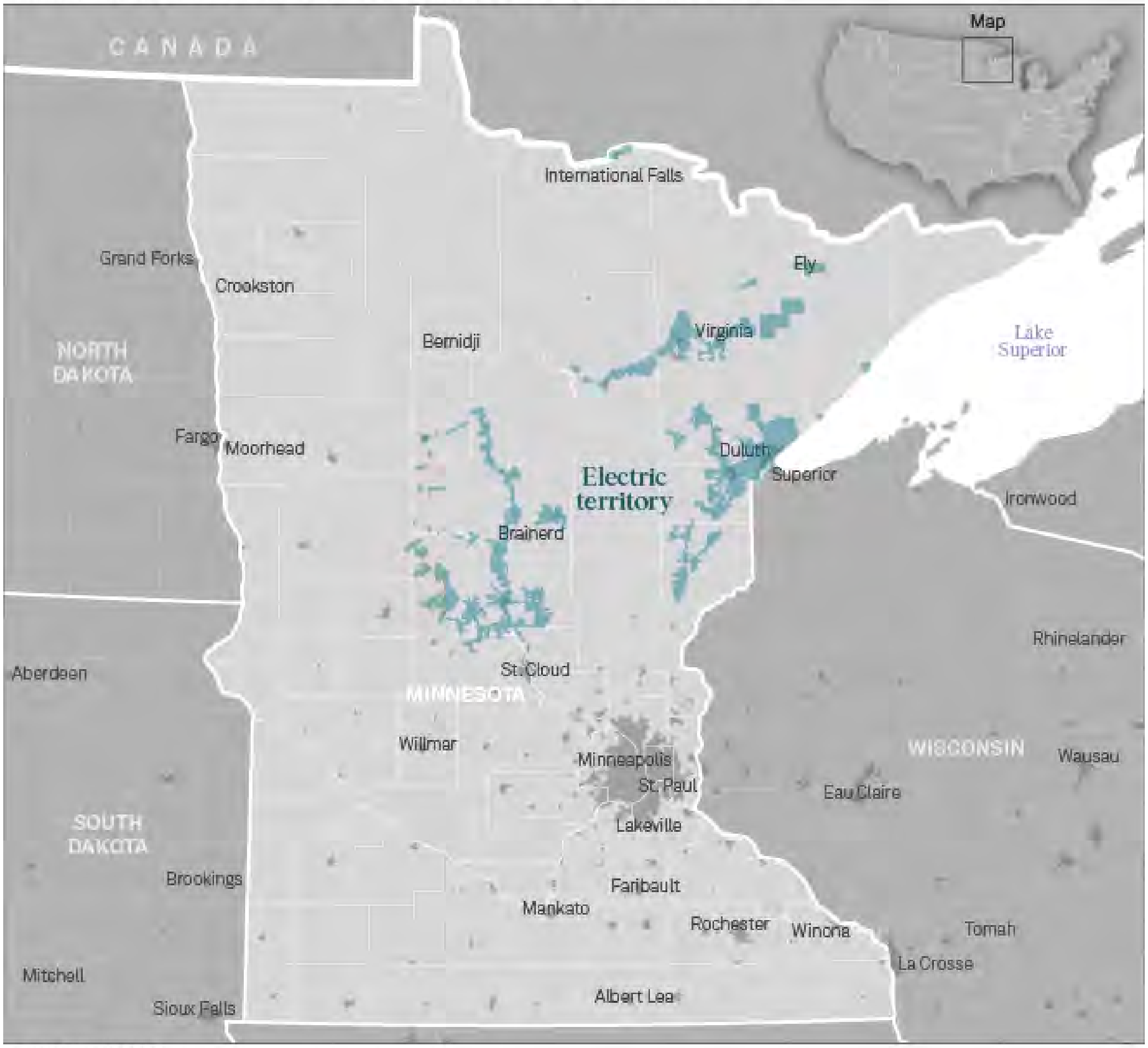
On May 6, Canada Pension Plan Investment Board (CPP) and Global Infrastructure Management (GIP) agreed to acquire Allete for $67 per share in cash. Allete indicated that through the transaction, it will have access to the capital needed to invest in the clean-energy transition and ensure it has access to the significant capital needed for planned investments over the long term.

Allete provides regulated utility electric services in northwestern Wisconsin to approximately 15,000 electric customers, 13,000 natural gas customers and 10,000 water customers, as well as regulated utility electric services in northeastern Minnesota to approximately 150,000 retail customers and 14 non-affiliated municipal customers. Regulated operations include regulated utilities, Minnesota Power Inc. (MP) and Superior Water Light and Power Co. (SWL&P), as well as an investment in American Transmission Co. LLC, a Wisconsin-based regulated utility that owns and maintains electric transmission assets in portions of Wisconsin, Michigan, Minnesota and Illinois.

Through the acquisition, **Allete will transition to** a **private company wholly owned** by a **new partner-created company** known as **Alloy Parent** LLC, providing Allete with improved access to capital and partner resources that can support Allete's investment in the clean energy transition while continuing the safe, reliable, and affordable electric service to Minnesota Power's customers. Except for a new tax-sharing agreement between the partners, Allete, and MP, commission approval of which will be sought in a separate proceeding after consummation of the acquisition, there will be no changes to the affiliated interest relationships between the Allete entities as a result of the acquisition. **Allete** will **remain** a **stand-alone company** and will have the same relationship with MP and the PUC that it has now.

Allete will **continue** to have its **own board** of **directors** with fiduciary obligations and oversight responsibilities. Further, at least **one member** the **Allete's board** of directors **must be from Minnesota**, **one member** must be **from Wisconsin**, **and** the **board must have at least two independent directors**.

Minnesota Power electric operating territory in Minnesota



As of May 6, 2024.
Map credit: Joe Felizadio.
Source: S&P Global Market Intelligence.

Petition focuses on need to fund company's future investments

"The primary goal of transitioning to a private company is to enable Minnesota Power to obtain the significant additional capital it needs to continue and expand its investment in clean energy technology and systems, including changing transmission and generation needs, and to further its commitment to provide safe, reliable, and affordable energy to its customers," Allete indicated in its July 19 petition with the PUC.

According to its latest annual report, Allete is the largest investor in renewable energy, relative to market capitalization, of all publicly traded utilities in the US.

As a private company, Allete explained that the partners can exercise more patience with respect to quarterly earnings and dividends due to a focus on long-term investments. In another example, well-financed private investors can provide more readily available capital than can be accessed reliably in the public markets. "To these ends, the Company made its own choice to seek out private infrastructure investors, particularly those with expertise in the energy industry, and chose CPP Investments and GIP specifically. The Partners are highly regarded infrastructure investors with deep industry expertise, resources, and strong long-term outlooks," the company indicated.

Allete argued that the acquisition is consistent with the public interest, readily meets the PUC's corresponding public interest standard and will not adversely impact customers, service cost or quality, employees, or communities. The partners do not seek to change the operation of the MP or the regulatory construct in Minnesota. Nor is this a transaction about cutting costs or fundamentally changing cost structures or long-term plans for the MP utility; rather, it is about finding a better way to support the company's ongoing sustainability efforts and achievement of state policy goals, Allete said.

Conditions upon approval

The filing also outlines a list of commitments to ensure that these assertions are met. These are summarized below.

* Company employees: For the two-year period following the acquisition, each Allete nonunion employee who continues employment with Allete as of the effective time of the acquisition will retain extensive protections, including the same or better employment position in the same location and wages, incentive, benefits and employee protections no less favorable than those available to the employee immediately prior to the acquisition.
* Unions: Allete will also continue to honor its union contracts. This includes terms of compensation, benefits and work conditions, among other portions of any applicable union contract. Allete will satisfy all notice, information, consultation, bargaining or consent obligations owed to any labor union, labor organization or employee representative of any union employee in connection with the transactions contemplated by the acquisition.
* Maintaining current management: The company will maintain the current senior management team, subject to changes to account for voluntary departures or terminations in the ordinary course. The company and the partners expect that the current Allete management team, including the managing team of MP, will continue to operate the utility in the normal course, consistent with current management functions.

* Headquarters: Allete will continue to maintain the MP **headquarters** in Duluth, Minn. SWL&P will continue to be headquartered in Superior, Wis.

* Community commitments: After the closing, Allete will maintain certain historic levels of economic development and charitable contributions in service territories of Allete and subsidiaries, including MP and the State of Minnesota.

* **Ring-fencing**: Allete will maintain certain corporate separateness (i.e., 'ring-fencing') commitments with respect to Parent and other upstream entities, including **Allete, and Parent will maintain separate books and records**, agree to prohibition**s against loans or pledges of assets of Allete without regulatory approval**, and **generally hold Allete harmless** from any **business and financial risk exposures**.

* **No acquisition premium**: MP will not attempt to recover the acquisition premium of the transactions contemplated by the acquisition from its utility customers.

* **Transaction costs**: MP will not attempt to recover from its utility customers the costs of executing the transactions contemplated by the acquisition. This includes legal fees, goodwill, regulatory filing costs and other costs historically recognized as transaction costs.

Minnesota PUC has approved similar conditions in past utility mergers

The PUC has authority over utility M&A in the state, and the commission's merger review standard is not particularly restrictive. Pursuant to state statutes, when reviewing proposed mergers and acquisitions, the PUC must consider whether the transaction is "**consistent with** the **public interest**." The commission has ruled that this public interest standard **does not require** an **affirmative finding** of **public benefit**, simply that the transaction is compatible with the public interest. There is **no statutory time frame** for the **PUC to act on** a **merger application**.

The most recent major merger of an investor-owned utility in Minnesota occurred in 2019, when the PUC approved a stipulation necessitated by the merger of CenterPoint Energy Inc. and Vectren Corp. Centerpoint Energy Minnesota Gas, a subsidiary of CenterPoint Energy, agreed to refrain from seeking recovery from Minnesota ratepayers of certain transaction costs including costs incurred to structure, negotiate and execute the transaction. The company also agreed to forgo recovery of other costs, including reorganization costs, bonuses paid as a result of the transaction, and the cost of moving employees unless it could demonstrate the costs were prudent and reasonable. The transaction was expected to result in net cost savings over time, with a goal of net cost savings of 2% or more in non-fuel operations and maintenance and corporate costs allocated to Minnesota within five years after the close of the transaction.

Minnesota Public Utilities Commission

Commissioners	Political party	Date began	Term expires	Method of commissioner selection	Commissioner confirmation	Commissioner term	Chairman selection	Chairman term	Minority party rep. required
Katie Sieben*	Democrat	January 2017	January 2029	Governor appointment[2,3]	Senate	6-year staggered terms [4,5]	Designated by governor	Concurrent with governor's term	Yes
Joseph Sullivan**	Democrat	April 2020	January 2026						
John Tuma	Republican	February 2015	January 2027						
Valerie Means	Democrat	April 2019	January 2025						
Hwikwon Ham[1]	Independent	January 2024	January 2028						

As of July 22, 2024.

* Chair; **vice chairman.

[1] On Oct. 12, 2023, Commissioner Matthew Schuerger announced he would resign from the commission at the end of 2023. Gov. Tim Walz (D), on Jan. 3, 2024, announced the appointment of Hwikwon Ham to serve the remainder of Schuerger's term. Ham's appointment is subject to Senate confirmation.

[2] At least one commissioner must be from outside the Minneapolis/St. Paul area.

[3] According to state statute, the governor is to consider potential commissioners who have experience in law, engineering, public accounting, property and utility valuation, finance, physical or natural sciences, production agriculture or natural resources.

[4] A commissioner may continue to serve beyond the end of this term until a successor is appointed and confirmed.

[5] Any vacancy shall be filled by appointment for the unexpired portion of the term.

Wis. merger authority

The **PSC** has authority over mergers involving Wisconsin utilities and must determine that the merger is in the "**best interests**" of **shareholders**, **ratepayers and** the **public**, that **ratepayers** are **not rendered worse off in any way by** the **merger** and that the **transaction does not diminish** the **commission's authority over** the **utility**.

Under **Wisconsin law**, no person may take, hold or acquire, directly or indirectly, more than **10%** of the outstanding voting securities of a public utility holding company, with the unconditional power to vote those securities, unless the PSC has determined, after investigation and an opportunity for hearing, that the taking, holding or acquiring is in the best interests of utility consumers, investors and the public. This, however, does not apply to the taking, holding or acquiring of the voting securities of any holding company existing before Nov. 28, 1985, if such a holding company provides public utility service.

Wisconsin Energy's acquisition of Integrys Energy Group an instructive comparison

In 2015, the Minnesota PUC and Wisconsin PSC conditionally approved Wisconsin Energy's acquisition of Integrys Energy Group. Regulators in Illinois and Michigan also reviewed and approved the transaction. The $9.1 billion transaction was completed in June 2015, and WEC Energy Group was formed.

Wisconsin Energy was the parent of electric and natural gas utilities Wisconsin Electric Power Co. and Wisconsin Gas LLC. Integrys was the parent of electric and gas utilities Wisconsin Public Service and the gas utility Minnesota Energy Resources. It also owned the gas distribution utilities Peoples Gas Light and Coke and North Shore Gas, which the Illinois Commerce Commission regulated, and electric utility Upper Peninsula Power and Michigan Gas Utilities, which the Michigan PSC regulated.

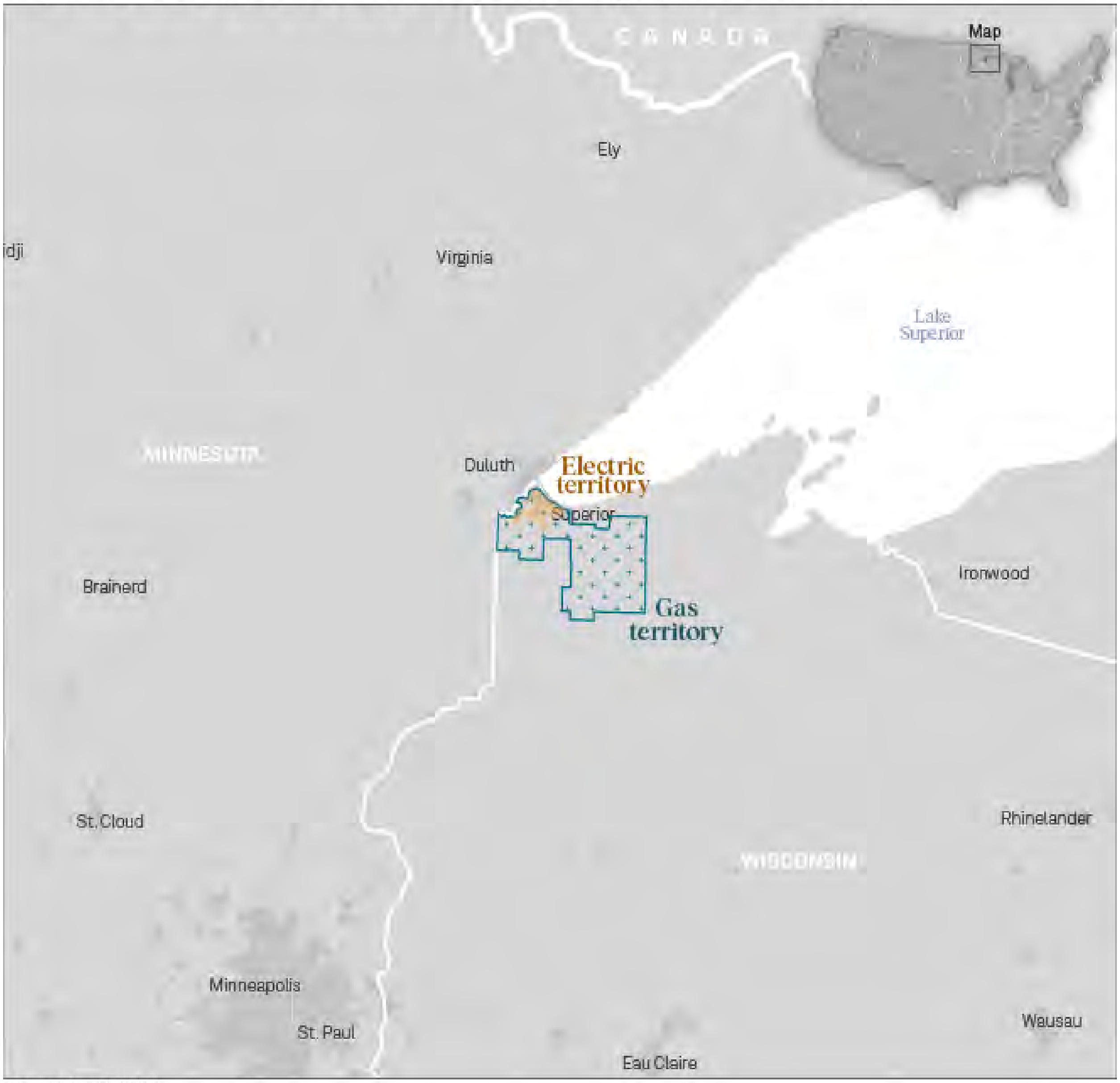
For further details pertaining to that acquisition, please refer to the Financial Focus Company Report entitled Wisconsin Energy/Integrys Energy Group: Acquisition Proposal.

Pending rate case proceedings

MP currently has a rate case proceeding before the Minnesota Public Utilities Commission. On May 3, it announced it reached a settlement with parties to the proceeding that would accord the company an $89.2 million permanent increase in base rates, or a net increase of about $34 million after excluding rolling certain riders into base rates. The proposed rate increase is premised upon a 9.78% return on equity (53.00% of capital structure) and a 7.25% overall return on an average rate base of about $2.37 billion and a test year ending Dec. 31, 2024. The 9.78% ROE in the settlement exceeds national averages tracked by RRA.

SWL&P currently has a rate case proceeding before the Public Service Commission of Wisconsin. However, the requested rate increases fall below RRA coverage criteria. SWL&P seeks a $2.0 million electric rate increase, a $3.4 million gas rate increase and a $1.8 million water rate increase. The company proposes maintaining the current authorized return on equity of 10.0%.

Superior Water Light and Power Co. electric and gas service territory



As of May 8, 2024.
Map credit: Joe Felizadio.
Source: S&P Global Market Intelligence.

Minn. regulatory environment

RRA accords Minnesota regulation an Average/2 ranking, indicating it remains balanced from an investor perspective.

As permitted by statute, significant interim rate increases are usually requested and authorized and, as a result, rate case test years are effectively fully forecast. In addition, adjustment clauses or riders permit the timely recovery of electric fuel, gas commodity, transmission, certain environmental and reliability projects and certain gas infrastructure costs. Utilities are permitted to file rate requests that annually adjust rates for up to five years, and the PUC may authorize two-step interim increases.

In the gas utility industry, large-use customers have been permitted to purchase gas from competitive suppliers for several years, but there is no movement to extend choice to small-volume customers. Legislation has established aggressive renewable portfolio standards and greenhouse gas reduction requirements, but the related compliance costs recovery does not appear to be in question. Also, the PUC has adopted revenue-decoupling mechanisms for several of the state's utilities, and the commission's merger review standard is not particularly restrictive. For more, refer to the commission profile.

Wis. regulatory environment

RRA considers Wisconsin regulation to be constructive from an investor perspective. Energy utilities are regulated under a traditional framework, and the most recently authorized equity returns have been above the prevailing national averages when established. The use of forecast test periods and other constructive financial practices, such as the reliance on comparatively equity-rich capital structures for rate-setting purposes and authorization of a cash return on 50% of construction work in progress, have provided the state's investor-owned utilities a reasonable opportunity to maintain solid credit quality metrics and to earn their authorized equity returns.

The PSC also allows periodic adjustments to reflect expected changes in electric fuel costs that are outside a variance range. The commission has taken an active role in integrated resource planning; thus, before constructing a generating facility, a utility must obtain a determination of need from the PSC, which includes an estimate of the facility's costs. While certain impediments to the construction of new nuclear facilities have been removed, none of the state's electric utilities have plans to develop nuclear generation.

Recent mergers involving the state's major energy utilities have been approved without onerous conditions being imposed. In the gas industry, gas-cost recovery mechanisms are currently in place for local distribution companies, and gas retail choice is effectively available for large-volume customers only. State statutes support the use of settlements between parties in rate cases to expedite the conclusion of such proceedings.

RRA accords Wisconsin energy regulation an Above Average/2 ranking, indicating it is constructive from an investor standpoint. For more information, visit the Wisconsin commission profile page.

For additional detail concerning RRA's energy rankings, refer to the latest RRA "Quarterly State Regulatory Evaluations" report.

Allete Sale Drives US Power Sector's Company-Level M&A Deal Values Higher in Q2

by Selene Balasta and Susan Dlin,
Standard and Poor's Global Market Intelligence – July 12, 2024

The combined value of company-level mergers and acquisitions in the US electric, multi-utility and independent power producer sector surged in the second quarter of 2024 compared with the year-ago period. In stark contrast, the value of asset-level transactions nose-dived.

The combined value of corporate-level M&A deals in the quarter was $6.55 billion through 12 transactions, soaring from $390 million through 10 transactions a year earlier, according to an analysis of S&P Global Market Intelligence data.

Quarter over quarter, the value of whole-company and minority deals also jumped from the first quarter's $2.51 billion across 12 transactions.

However, for individual assets, the aggregate value of second-quarter deals plunged to $310 million through 20 deals compared to $6.03 billion through 37 transactions a year earlier.

Market Intelligence calculates the deal's transaction value from the amount paid for equity and in cash plus the value of assumed current liabilities, net of current assets.

Whole Company, Minority Deals

The biggest M&A deal in the power sector in the second quarter of 2024 was the **privatization of Allete** Inc.

In May, the Canada Pension Plan Investment Board and Global Infrastructure Management LLC agreed to acquire Allete for $67 per share in cash, taking the Duluth, Minn.-headquartered company private in a deal with a total enterprise value of approximately $6.2 billion, including debt.

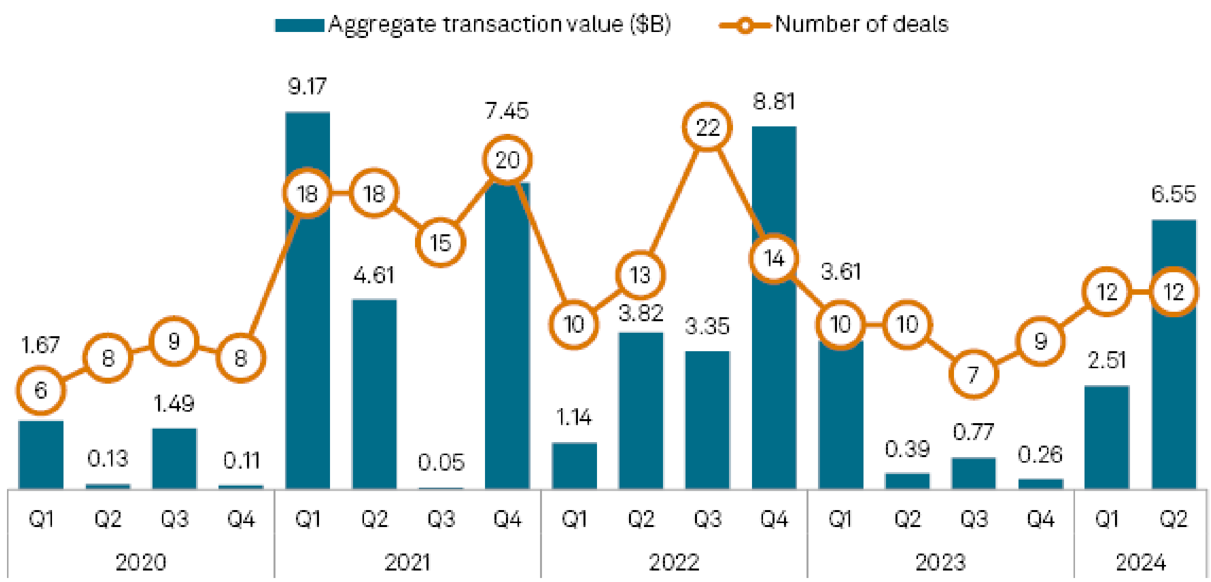
Asset Deals

Among notable asset deals, Innergex Renewable Energy Inc. agreed to sell its minority interest in an 826-MW Texas renewable energy portfolio to investment manager Irradiant Partners LP for C$257 million.

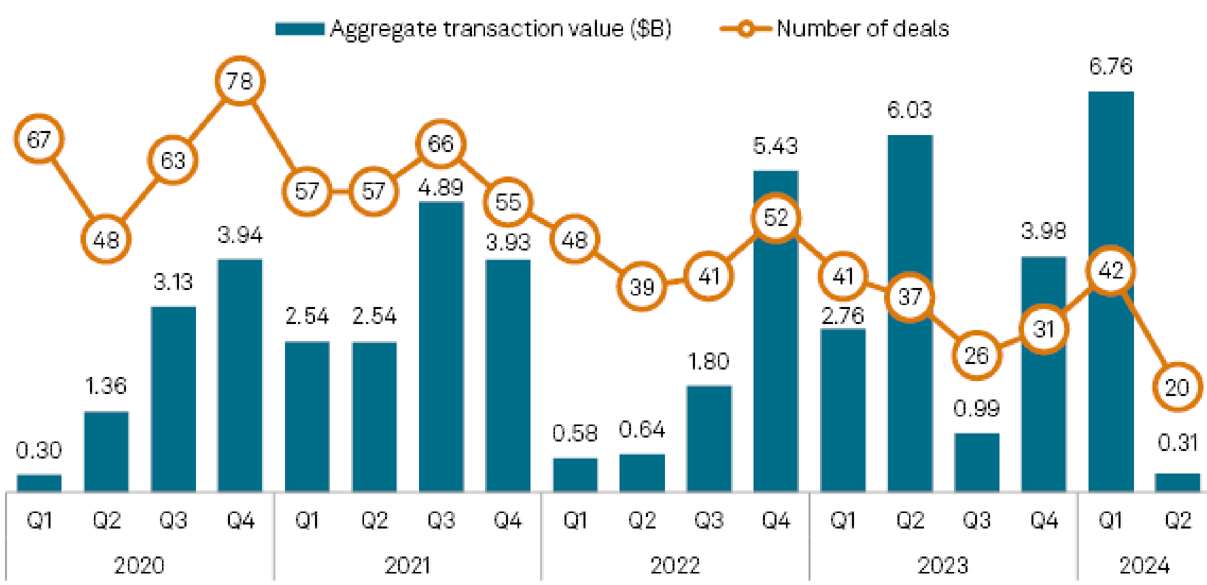
Tables Start on Next Page

US power sector deals since 2020

Whole-company, minority deals



Asset deals



Data compiled July 9, 2024.
Analysis includes US whole-company acquisitions, minority-stake and asset-based M&A deals in which target or assets are identified as electric utilities, multi-utilities, independent power producers and energy traders or renewable electricity.
Transaction values are as of the announcement date.
Transaction value is the deal value paid for equity and in cash plus the value of assumed current liabilities, net of current assets.
Source: S&P Global Market Intelligence.

US power sector whole-company, minority deals announced through Q2 2024

Ranked by transaction value

Buyer	Target	Announcement Date	Announcement Transaction value ($M)
Global Infrastructure Management LLC and Canada Pension Plan Investment Board	ALLETE Inc.	05/06/24	6,232.93
Iberdrola SA	Avangrid Inc.	03/07/24	2,482.41
Basalt Infrastructure Partners LLC	AEP Onsite Partners LLC	05/13/24	315.00
NuRetailco LLC	Via Renewables Inc.	01/02/24	28.30

US power sector asset deals announced through Q2 2024

Largest deals ranked by transaction value

Buyer	Asset(s)	Seller	Announcement Date	Announcement Transaction value ($M)
Stonepeak Partners LP	Coastal Virginia Offshore Wind Project	Dominion Energy Inc.	02/22/24	3,000.00
Global Infrastructure Partners LP	South Fork and Revolution Wind Project	Eversource Energy	02/13/24	1,181.28
City Public Service of San Antonio	Natural gas-fired generation facilities	Talen Energy Corp.	03/27/24	785.00
WEC Energy Group Inc.	Delilah I Solar Energy Center	Invenergy LLC	03/31/24	459.00
Eni New Energy US Inc.	Photovoltaic plants portfolio	EDP Renováveis SA	01/10/24	400.00
Stonepeak Partners LP	Portfolio of Wind Farms	Ørsted A/S	03/13/24	300.00
Ørsted A/S	Sunrise Wind Project	Eversource Energy	01/24/24	230.00
Irradiant Partners LP	826-MW renewable energy portfolio	Innergex Renewable Energy Inc.	06/20/24	188.00
Hannon Armstrong Sustainable Infrastructure Capital Inc.	605-MW renewables portfolio	AES Corp.	01/04/24	143.00
Altus Power Inc.	84 MW of solar assets	Vitol Solar I LLC	01/31/24	118.00
Yinson Holdings Bhd.	97 MW of solar assets in Peru	Grenergy Renovables SA	01/30/24	90.00
Alternus Clean Energy Inc.	Operating solar portfolio	Undisclosed seller	05/01/24	60.00
Clearway Energy Inc.	Dan's Mountain wind project	Dan's Mountain wind project	05/09/24	44.00
Algonquin Power Fund (America) Inc.	Sandy Ridge II Wind Facility	Undisclosed seller	02/15/24	36.20
Clearway Energy Inc.	Rosamond South Solar Storage Project	Undisclosed seller	05/09/24	21.00
Undisclosed buyer	Windsor Locks Thermal Facility	Algonquin Power & Utilities Corp.	03/01/24	17.72
Undisclosed buyer	Two American hydro projects	Charbone Hydrogen Corp.	04/23/24	0.73

Data compiled July 9, 2024.

Analysis includes US whole-company acquisitions, minority-stake acquisitions and asset-based M&A deals announced during the year of analysis with available transaction value, in which target or assets are identified as electric utilities, multi-utilities, independent power producers and energy traders or renewable electricity.

Transaction value is the deal value paid for equity and in cash plus the value of assumed current liabilities, net of current assets.

Source: S&P Global Market Intelligence.

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Allete Targeted Financial Buyers from Start of Sales Process

by Dan Lowrey and Darren Sweeney,
Standard and Poor's Global Market Intelligence – Aug. 20, 2024

Allete Inc.'s decision to enter into a take-private deal with pension and infrastructure funds was nearly two years in the making, regulatory filings show.

The Duluth, Minn.-headquartered electric, gas and water utility was concerned about financing its energy transition plan and looked to financial partners as a potential lifeline.

On **May 6**, the **Canada Pension Plan Investment Board and** asset manager **Global Infrastructure Partners announced** their **planned $6.2 billion take-private deal for Allete**. A special meeting of **Allete shareholders** to **vote** on the offer is **scheduled** for **Aug. 21**.

JP Morgan Securities LLC was the company's lead financial adviser, and Skadden Arps Slate Meagher & Flom LLP was legal adviser. JP Morgan, along with Houlihan Lokey Capital Inc., provided a fairness opinion to Allete on the terms of the transaction.

After the deal was announced, Wall Street analysts said the commodities sensitivity of Allete shares probably affected the transaction valuation.

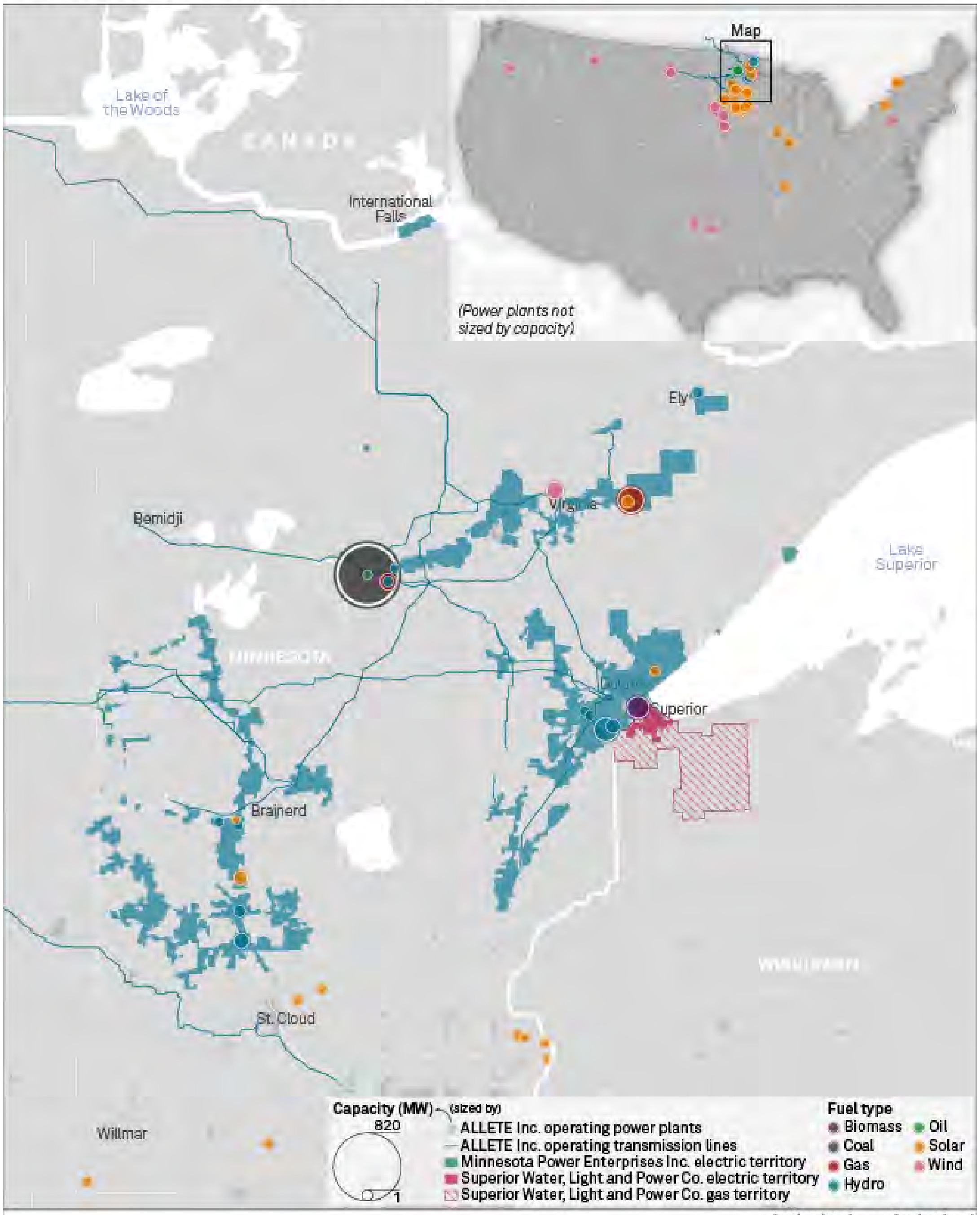
"[Allete] has been open about M&A in recent quarters, with the unique business mix and macroeconomic sensitivities therein driving what we have long seen as a structural discount to the group – despite a step-function improvement in rate base growth in recent quarters," Guggenheim Securities analyst Shahriar Pourreza wrote in a research report.

Allete primary subsidiary Minnesota Power Inc.'s **exposure** to **producers** of **taconite**, a type of **iron ore**, has **negatively impacted Allete's equity value**, according to Guggenheim.

Wells Fargo analysts also **noted** that **Allete** has "**historically traded at** a **discount to regulated peers**, likely **reflecting** a **high concentration** of **taconite customers** along with various challenges" at merchant renewables business Allete Clean Energy Inc.

About **70%** of **Minnesota Power's retail sales** are **to taconite mining, paper/pulp and pipeline customers.**

ALLETE's electric utility subsidiaries, power assets



Company	State(s) of operation	Owned and contracted generation capacity (MW)*	Total retail electric customers 2023 (actual)	Total retail natural gas customers 2023 (actual)	Authorized return on equity from electric activities (%)	Authorized return on equity from natural gas activities (%)
Minnesota Power Enterprises Inc.	MN, ND	2,516	151,679	N/A	9.65	N/A
Superior Water, Light and Power Co.	WI	N/A	15,315	13,011	10.00	10.00
Total		**2,516**	**166,994**	**13,011**		

Data compiled July 29, 2024.
N/A = not applicable.
Return on equity percentages are based on the latest authorized rate case by service type of each company.
* Only includes currently operating capacity.
Map credit: Joe Felizadio.
Source: S&P Global Market Intelligence.

Minnesota Power provided 4,935 million kWh of contracted power to large taconite mines*

Property	Location	Earliest contract termination date
Cliffs Minorca	Virginia, MN	12/31/27
Hibbing Taconite	Hibbing, MN	12/31/27
United Taconite and Northshore Mining	Eveleth MN and Babbitt, MN	12/31/27
United States Steel Corp., Minnesota Ore	Mountain Iron, MN and Keewatin, MN	12/31/27

Data compiled July 29, 2024.
* As of Dec. 31, 2023.
Source: Allete annual report, company website.

In a proxy statement filed with the SEC, Allete detailed the discussions and actions that led to the merger agreement.

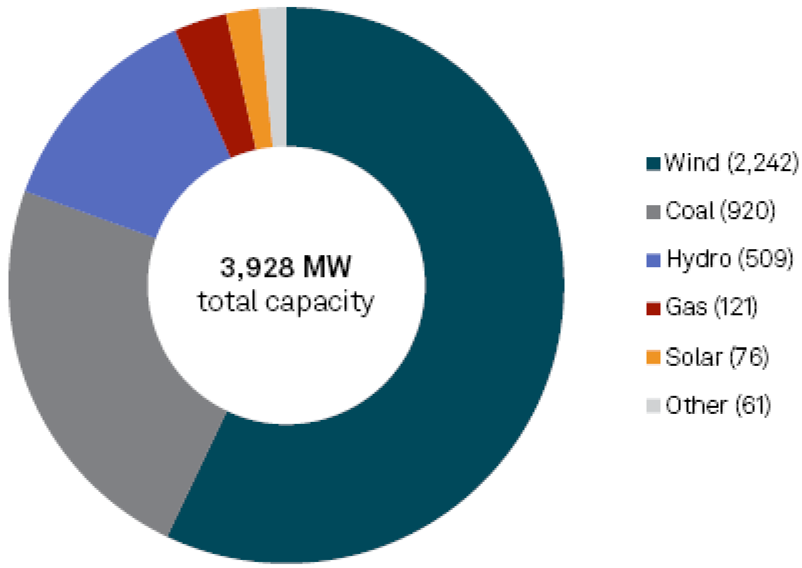
The company's board of directors in October 2022 began to "more seriously" consider a change of control as a potential path forward, given the potential financing challenges to fund its Sustainability-in-Action initiative. This strategy involves a $20 billion capital plan over 20 years to reduce carbon emissions, invest in renewables, enhance the resiliency and reliability of the grid, and expand Allete's non-regulated businesses.

"The company's above average capex and coal exposure are the main drivers of the deal, and we note all utility M&A targets of the last five years have been **coal heavy** names as those coal plants are fully depreciated for rate-making purposes and they can be retired and replaced with new wind/solar/batteries/gas, which then resets rate-base and earnings higher," CreditSights analysts wrote in a research report following the deal announcement.

In January 2021, Minnesota Power unveiled a goal to eliminate coal-fired generation by 2035 and deliver 100% carbon-free energy to customers by 2050.

The utility plans to add about 400 MW of wind and solar resources, retire the 352-MW unit 3 of the Clay Boswell plant by 2030, and convert its 585-MW unit 4 to run coal-free by 2035. In November 2022, Minnesota Power increased its renewables target to 400 MW of wind and 300 MW of solar resources.

ALLETE Inc.'s owned and contracted operating capacity (MW)



Data compiled July 29, 2024.

Contracted capacity excludes power purchase agreements with no known contract start or end date, as well as agreements that expired on or before July 29, 2024, and those with future start dates.

* Other includes oil and biomass.

Source: S&P Global Market Intelligence.

5 Interested Parties

In February 2023, the board "considered whether transitioning to a privately held company with strong financial partners" would help ensure access to capital for its planned investments, Allete wrote in its proxy filing.

The board decided about a month later to "focus outreach on infrastructure and pension funds because the board believed such parties would have the financial resources to invest in the substantial future capital growth needs of the company." According to the proxy filing, board members worried that strategic buyers "may not be willing to partner with the company to support regulatory goals in Minnesota and Wisconsin in light of [their] focus on separate interests."

"The details of [Allete's] sale process largely confirm our views coming off the initial announcement that the deal was not a read through to the broader sector, with the board specifically targeting pension and infrastructure investors in light of the businesses' unique regulatory and capital considerations," Pourreza wrote in a June 21 research report.

JP Morgan representatives held talks with seven pension and infrastructure funds, including Global Infrastructure Partners, with five of these parties expressing an interest in "potentially pursing a transaction."

The **Canada Pension Plan Investment Board**, also known as **CPP Investments**, on July 1, 2023, "confirmed to representatives of JP Morgan that it would be interested in considering a transaction with the company."

Global Infrastructure Partners (**GIP**) requested permission to share documents related to the merger with the California Public Employees' Retirement System, referred to as CalPERS in the filing, a pension fund that could serve as a potential investment partner.

Two weeks later, the company opened the electronic data room to share financial information with the parties that executed a confidentiality agreement.

Allete's subsidiaries, assets

Company	Ownership type	State of operation	Industry
ALLETE Water Services Inc.	Majority	MN	Water utility
Florida Water Services Corp.	Majority	FL	Water utility
Allete Enterprises Inc.	Majority	MN	Electric utility
ALLETE Clean Energy Inc.	Majority	MN	Electric utility
Rainy River Energy Corp.	Majority	MN	Independent power producer and energy traders
American Transmission Co.	Minority	WI	Electric utility
CellTech Power LLC	Minority	MA	Renewable electricity
Minnesota Power Enterprises Inc.	Majority	MN	Electric utility
New Energy Equity LLC	Majority	MD	Renewable electricity
ALLETE Renewable Resources	Majority	ND	Renewable electricity
Superior Water, Light and Power Co.	Majority	WI	Multi-utilities

Property	Owner	State of operation	Coal produced 2023 (short tons)	Average delivered price 2023 ($/short ton)
Center lignite coal mine	BNI Coal Ltd.	ND	3,901,324	25.93

Data compiled July 29, 2024.
Includes disclosed ownership stakes tracked by S&P Global Market Intelligence.
Sources: S&P Global Market Intelligence, company website.

Talks Begin

Allete Chair, President and CEO Bethany Owen and other top executives, including Senior Vice President and CFO Steven Morris, held six fireside chats with potential suitors in New York and Minnesota, after which four parties declined to proceed.

GIP submitted a nonbinding offer of $71 per share Sept. 7, 2023. A few days later, CPP Investments submitted a nonbinding offer of $69.26 per share.

CPP Investments then told JP Morgan that, "while they remained interested in the proposed transaction, they would require an equity partner to be able to proceed with a final bid."

On Dec. 5, 2023, Reuters reported that Allete was exploring a sale of the company, and Allete shares jumped 8% in high trading volume to close at $60.76.

JP Morgan then received inquiries from "three parties who had not previously been engaged in the process, including one potential minority investor" that would be interested in a partnership. "[N]one of such parties executed a confidentiality agreement to proceed with the transaction," Allete wrote.

By late December 2023, JP Morgan "provided permission for CPP Investments and GIP to discuss with each other the potential transaction and the possibility of pursuing the transaction as partners."

On Feb. 1, CPP Investments and GIP made a verbal offer of $62.50 per share to JP Morgan, which the board determined was not in the best interests of the company.

Days later, the firms submitted a written offer with a cash purchase price of $64 per share.

The board told JP Morgan that the written offer did not reflect sufficient valuation and indicated that it would be interested in more talks with management regarding a stand-alone financing plan.

On March 30, CPP Investments and GIP provided an updated written offer to acquire the company for $67 per share, and the board decided to move forward.

JP Morgan and Houlihan Lokey each rendered oral opinions that the $67 in cash per share to holders of common stock was fair.

Owen indicated that it was the recommendation of management to proceed with executing the merger agreement, which the board unanimously approved and recommended it be submitted to shareholders for approval.

Allete signed the merger agreement the evening of May 5, **and** the **parties aim** to **close** the **transaction** in the second or **third quarter of 2025**.

Largest existing transmission projects owned by ALLETE Inc.

Ranked by voltage

Project name	Project length (miles)	From county, state or province	To county, state or province	Voltage (kV)
Great Northern Transmission Line (Winnipeg-Iron Range) (Manitoba-Minnesota)	357	Manitoba	Itasca, MN	500
CapX2020 Fargo-St.Cloud (Alexandria-Bison) 345 kV (Fargo-Phase III)	134	Douglas, MN	Cass, ND	345
CapX2020 Fargo-St.Cloud (Quarry-Alexandria) 345 kV (Fargo-Phase II)	78	Stearns, MN	Douglas, MN	345
CapX2020 Monticello to St. Cloud (Monticello-Quarry) 345 kV (Fargo-Phase I)	28	Wright, MN	Stearns, MN	345
Square Butte (ND Portion) To Arrowhead DC Line	234	Oliver, ND	Richland, ND	250
Square Butte (MN Portion) To Arrowhead DC Line	232	Richland, ND	Saint Louis, MN	250
Shannon To Little Fork	89	Saint Louis, MN	Koochiching, MN	230
Arrowhead To Blackberry	72	Saint Louis, MN	Itasca, MN	230
CapX2020 Wilton - Cass lake - Boswell	70	Beltrami, MN	Itasca, MN	230
Riverton To Blackberry	67	Crow Wing, MN	Itasca, MN	230

Data compiled May 6, 2024.
Source: S&P Global Market Intelligence.

Deep Minnesota Roots

The history of Allete can be traced back to the early 1900s, according to the company's website. Several utility companies consolidated and were incorporated in 1906 as Duluth Edison Electric Co., the immediate predecessor of Minnesota Power.

Allete Inc. state regulatory overview

State	Minnesota	Wisconsin
Service provided[1]	Electric	Electric, Gas, Water
RRA Regulatory Ranking	Average/2	Above average/3
Commissioner selection[2]	Gubernatorial appointment	
Number of commissioners	5	3
Electric retail competition	No	No
Regulatory framework	Traditional	Traditional
Commodity cost recovery mechanism	Yes	Yes
Infrastructure recovery mechanism	Yes	Yes
Revenue decoupling	None	None
ROE approved in most recent base rate case (%)	9.65	10.00
Year authorized ROE established	2023	2022
Merger approval standard	Public interest	Public interest

Data as of Aug. 7, 2024.

[1] Allete also owns Wisconsin-based regulated utility that owns and maintains electric transmission assets in portions of Wisconsin, Michigan, Minnesota and Illinois.

[2] Gubernatorial appointments are subject to confirmation by the state Senate.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights

After a series of acquisitions and consolidations, the company in 1923 was known as Minnesota Power and Light Co. In 1950 it was listed on the New York Stock Exchange under the MPL ticker. The corporate name was changed to Allete Inc. in 2000 under the ticker symbol ALE.

Allete's regulated operations include Minnesota Power and Superior Water Light and Power Co. as well as an investment in American Transmission Co. LLC, a Wisconsin-based regulated utility that owns and maintains electric transmission assets in portions of Wisconsin, Michigan, Minnesota and Illinois.

The company provides regulated electric services in northeastern Minnesota to about 150,000 retail customers and regulated services in northwestern Wisconsin to about 15,000 electric customers, 13,000 natural gas customers and 10,000 water customers.

The company generates electricity from coal, biomass, natural gas, hydro, wind and solar.

Regulatory Profile

Allete's utility subsidiaries operate in jurisdictions viewed as balanced to more constructive for investors, according to Regulatory Research Associates, a group within S&P Global Commodity Insights. For additional information regarding RRA's rankings and methodology, refer to State Regulatory Evaluations – Energy.

Its most extensive utility service territory is in Minnesota, a jurisdiction RRA considers balanced from an investor perspective. The state has not restructured its electric or gas industries, and utilities are regulated under a traditional framework. Recently authorized equity returns typically have approximated industry averages. Utilities are permitted to file rate requests that annually adjust rates for up to five years, and the Minnesota Public Utilities Commission may authorize two-step interim increases.

The Minnesota PUC has authority over utility M&A in the state, and the commission's merger review standard is not particularly restrictive. Pursuant to state statutes, when reviewing proposed mergers and acquisitions, the PUC must consider whether the transaction is "consistent with the public interest." There is no statutory time frame for the PUC to act on a merger application.

In Wisconsin, Superior Water Light & Power provides regulated utility electric, natural gas and water service in the northwestern part of the state.

Wisconsin regulation remains constructive from an investor perspective, in RRA's view. Energy utilities are regulated under a traditional framework, and the most recently authorized equity returns have been above the prevailing national averages when established. The use of forecast test periods and other constructive financial practices, such as the reliance on comparatively equity-rich capital structures for rate-setting purposes and authorization of a cash return on 50% of construction work in progress, have provided the state's investor-owned utilities a reasonable opportunity to maintain solid credit quality metrics and to earn their authorized equity returns.

The Wisconsin Public Service Commission has authority over mergers involving Wisconsin utilities and must determine that the merger is in the "best interests" of shareholders, ratepayers and the public, that ratepayers are not rendered worse off in any way by the merger, and that the transaction does not diminish the commission's authority over the utility.

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Bond Funds Draw in Record Amounts

by Jack Pitcher – WSJ – Jul. 30, 2024

Investors poised for rate cuts, retirees looking to lower risk drive ETF inflow

The stock market may be roaring, but 2024 has been Wall Street's year of the bond fund.

Bonds are **paying** the **highest yields in a generation**, **and interest rates** are **poised to come down**. Meanwhile, a record number of retirees are looking to cut risk in their portfolios. That combination has investors pouring money into both indexed and actively managed funds. Wall Street is seeing dollar signs.

U.S.-listed fixed-income exchange-traded funds have taken in nearly $150 billion through late July, a record through this point in a year. When looking at mutual funds and ETFs together, taxable bond funds were responsible for nearly 90% of net U.S. fund inflows in the first half, according to Morningstar.

After more than a decade of paltry bond yields, and just two years removed from the worst year for bonds on record, the **combination of high rates and falling inflation offers investors** a **rare opportunity for investment income**. Rick Rieder, who oversees more than $2 trillion as Black-Rock's chief investment officer for fixed income, is calling the current period "the **golden age of fixed income**."

A crucial factor shifting bond prices is investors' expectations for short-term interest rates. When the Federal Reserve began to raise rates in 2022, investors flocked to cash-like investments. Now, as **Wall Street bets** that **rate cuts this year are all but certain**, investors are looking toward bonds instead, grabbing for yields that have already started to descend as bond prices rise.

"We're seeing people move out of cash and into bonds," Rieder said. "Cash has been flipping a lot of yield, but now there's a sense that the Fed is going to start lowering rates and that opportunity won't be there anymore."

Bond funds have been a bright spot for a money-management industry that has struggled to contend with the growth of passive investing and a steep fall in management fees. While investors have largely begun to shun actively managed stock funds, bond pickers are thriving.

Of nearly 1,700 actively managed bond funds tracked by Morningstar, 74% beat their benchmark indexes during the past year. Active bond ETFs are already at an annual inflow record with five months to go. And money managers are trying to cash in with a host of new active fund offerings. Average ETF fees – long on the decline –

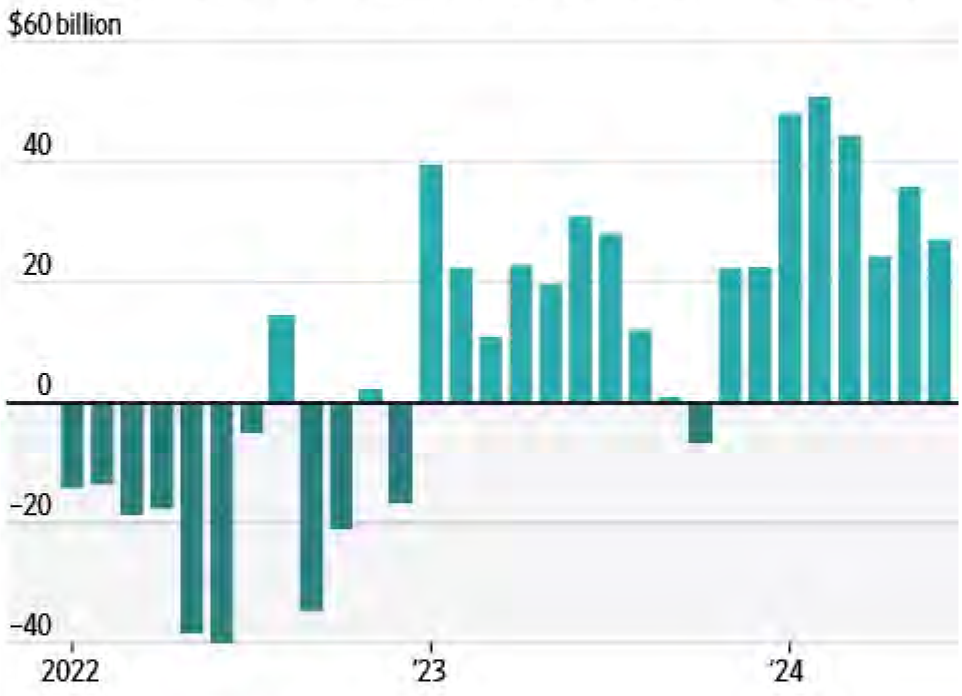
actually rose in 2023, according to Morningstar, because so many active funds with higher fees were launched.

Investors big and small are buying a variety of fund categories, some riskier than others. Index-tracking Treasury ETFs have become a favorite tool for Wall Street traders to make interest-rate bets. Investors betting that rate cuts will soon boost bond prices plowed $6 billion into long-term Treasury ETFs in June alone, representing 7% of their assets at the start of the month.

Actively managed funds investing in junk-rated corporate debt with high yields have also raked in money. The most popular active fixed-income ETF this year, Janus Henderson's AAA CLO ETF, invests in collateralized loan obligations – securities made of bundles of low-rated corporate loans.

Many investors are also buying plain-vanilla funds focused on total returns from the highest-rated debt, welcoming the fact that even the safest returns finally feel meaningful.

Net flows into U.S.-listed taxable fixed-income funds, monthly



Source: Morningstar Direct

Todd McConachie, a 62year-old, retired corporate-risk analyst in Portland, OR., said he has moved a substantial portion of his stock-heavy retirement portfolio into bond funds over the past year and a half.

He now owns funds that buy highly rated corporate bonds and higher-yielding junk bonds, along with U.S. Treasurys bought directly through the government's Treasury-Direct platform.

"When rates were so low, I held some total-bond-market index funds and didn't pay much attention, happy to clip coupons and get 3%," McConachie said. "Now it's like, 'Whoa, some of these funds are 7.5% payouts and I can double my cash flow from interest payments.' " All the enthusiasm marks quite the reversal from 2022. **Rising interest rates crushed bond funds**, sending the Bloomberg U.S. Aggregate bond index down a record 13%. Stocks fell, too, stinging investors who had expected bonds to cushion their portfolio during market turbulence. The **classic 60% stocks, 40% bonds portfolio had its worst year since the Great Depression**.

Wall Street thinks that is all done with, and analysts argue that now is the time to get back in before benchmark rates come down again, and with them the payouts on bonds. **Derivatives traders** are now **pricing in** a roughly **100% chance** the **Fed will cut rates in September**, and the **benchmark 10-year Treasury yield** has **dropped more than three-quarters** of a **percentage point since peaking** at around **5% in October.**

"The interest this year has been quite broad-based," said Matthew Bartolini, head of Americas research for State Street's ETF business. "**Flows** have been so **large** and to so many different products. They're **coming from institutions**, **wealth managers and retail traders**."

Another simple explanation for this year's big bond-fund numbers: The bull market that has generated windfall gains in people's stock portfolios, pushing investors to shift some money into bonds to balance out their risks.

"Just because the stock market has been beating up on bonds for so long, people are needing to buy more bond funds when they go to rebalance," said Ryan Jackson, senior manager research analyst at Morningstar.

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Brookfield Plans Giant Solar-Plus-Storage Project in Oregon

by Garrett Hering
Standard and Poor's Global Market Intelligence – Aug. 6, 2024

An affiliate of Toronto-based developer **Brookfield** Renewable Partners LP is seeking approval to build a massive solar-plus-storage complex in **central Oregon**, which could easily be the largest such renewable energy-battery hybrid project in the northwestern US.

The up-to-**900-MW Speedway Solar facility**, **combined with 500 MW** of **eight-hour energy storage**, **could start construction** in **early 2026**, Brookfield Speedway Solar Holdings LLC, a subsidiary of Brookfield Renewable US, said in a recent filing to the Oregon Energy Department's facilities siting office.

Brookfield submitted its notice of intent to apply for a site certificate for the facility on July 30. The solar-storage project, proposed within an approximately 14-square-mile site in **Sherman County**, is located on a private land zoned for exclusive farm use. It would **connect to** the **grid** at a **new B**onneville **P**ower **A**dministration **switchyard** to be located **across from** an **existing 500-kV transmission line**.

The Oregon Energy Department said it intends to begin coordination with state agencies and local and tribal governments in early August. Public hearings are anticipated in the fall.

The eight hours of planned **lithium-ion battery storage** goes beyond the typical up to four hours offered by most projects today. The actual size, duration and technology of the battery system "will be refined over the next several years" as the application advances, a company official said in an Aug. 5 email.

Brookfield is exploring different ways to integrate the facility with the central Oregon environment, including through the creation of wildlife corridors and working with local farms "to ensure that the most productive agricultural areas can continue to be farmed, and farming equipment can continue to move through and around the project area," the official said.

The company is also exploring the potential to incorporate **sheep grazing** in the project area, a practice commonly referred to as **agrivoltaics**.

Brookfield did not respond to a request for information on prospective customers for the output from the massive project. **Central Oregon is a top 10 US datacenter market**, with several technology companies acquiring renewable energy in the region.

Brookfield in May announced an **agreement with Microsoft** Corp. to supply more than 10.5 GW of new renewable energy to help power the latter's global energy needs.

Other NW Activity:

Oregon – **P**ortland **G**eneral **E**lectric Co. – A **settlement conference** is to be held **Aug. 19** in Portland General Electric's rate case (Docket **UE-435**). The company supports a $205.1 million rate increase premised upon a 9.75% return on equity (50.00% of capital) and a 7.19% return on a $7.517 billion rate base.

Oregon – **PUC staff supports** a **drastically lower rate increase driven by** downward **adjustments** to **ROE**, **PacifiCorp's wildfire management plan** and a **proposed catastrophic fire fund**, **transmission spending**, and **other** proposed **adjustments**. **Staff believes** that the **company** has **not fully formed or supported** its **wildfire-**related **proposals**.

Washington – **Cascade** Natural Gas Corp. – A settlement conference is scheduled for Aug. 7–8 in MDU Resources Group Inc. subsidiary Cascade Natural Gas's rate case (Docket UG-240008). The company seeks a $55.5 million multiyear base rate hike based on a 10.50% return on equity (50.29% of capital) and a 7.89% return on a $792.0 million rate base. The company is also proposing to establish new rate adjustment tariffs related to its COVID-19 and commission fee deferral balances, with rates effective in March 2025. The total revenue increase associated with the adjustments is about $5.1 million, bringing the rate year one increase to $48.9 million.

Possible case filings

Jurisdiction	Company	Parent (ticker)	Service type
California	Southwest Gas Corp.	SWX	Gas
Missouri	The Empire District Electric Co.	AQN	Electric
Missouri	Union Electric Co.	AEE	Gas
Montana	Cascade Natural Gas Corp.	MDU	Gas
New Jersey	South Jersey Gas Co.	--	Gas
Ohio	Vectren Energy Delivery of Ohio Inc.	CNP	Gas
Oregon	Avista Corp.	AVA	Gas
Oregon	Cascade Natural Gas Corp.	MDU	Gas
Wyoming	MDU Resources Group Inc.	MDU	Gas

As of July 31, 2024.
-- = not publicly traded.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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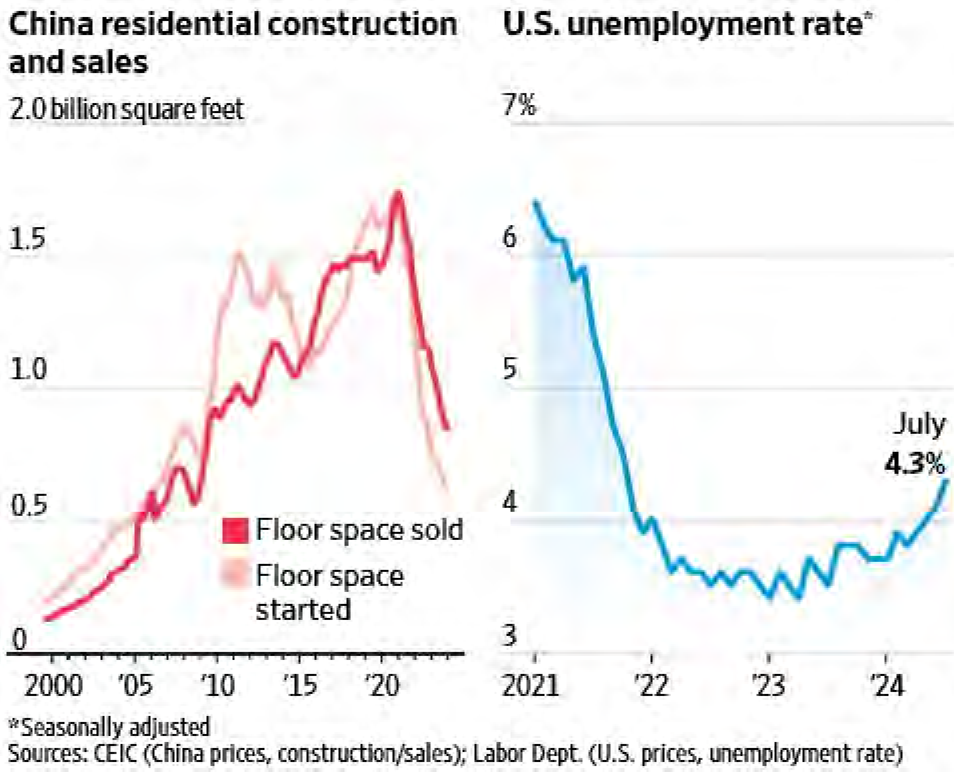
China, U.S. Consumer Pullback Rings Alarm in Executive Suites

by Natasha Khan and Theo Francis – WSJ – Aug. 5, 2024

Midway through the year, leaders of some of the biggest companies are seeing signs of troubles in the world’s two biggest economies.

From McDonald’s to Mercedes-Benz, executives are saying that many **consumers in China and** the **U.S.** are **pulling back on spending.** The reasons are different. In **China**, demand is being drained by a broken **housing market**, **wage** pressures and **worries** about a darkening economic storm.

In the **U.S.**, some **households**, especially those **with lower incomes**, are feeling **pinched after** a run of **high inflation**. The Labor Department reported that hiring slowed in July and the U.S. unemployment rate ticked up to 4.3%.

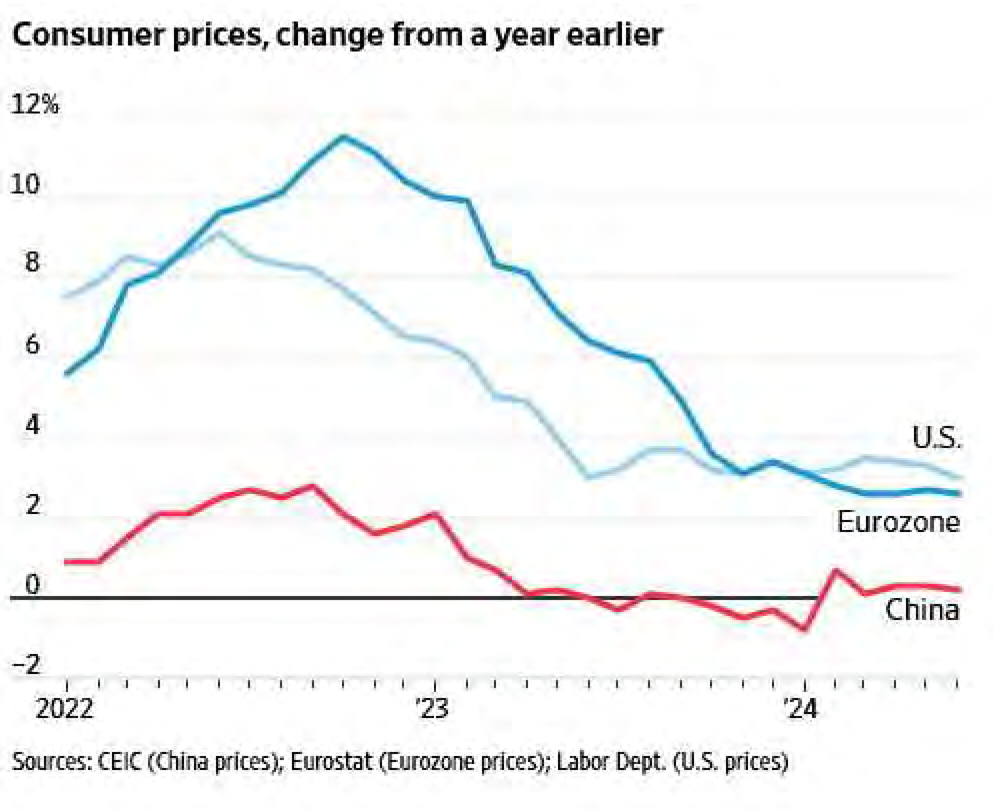


"With a large chunk of world consumer spending under pressure, companies now need to be more creative about avenues to generate revenue growth," said Gregory Daco, chief economist at Ernst & Young.

If consumer spending in the U.S. does falter, it would be a double whammy for multinational companies, which have been confronting weak demand in China for several quarters. As they report second- quarter results, a parade of companies have warned of softening sales and lowered their earnings forecasts, citing troubles in both countries.

So far, corporate profits have held up, propped up in part by stock buybacks. Overall, year-over-year growth in second-quarter earnings per share for the S&P 500 is on track for 12.4% on revenue growth of 4.9%, according to estimates from financial-data provider LSEG.

PepsiCo sounded an early alarm on consumer spending in both the U.S. and China. For the **past few years as prices soared**, **many consumers kept buying Doritos and Lay's while forgoing bigger splurges like restaurant meals or travel**. **Now** they are **giving up potato chips, too,** PepsiCo said. The company's Frito-Lay North America business reported a 4% drop in sales volume in the latest quarter.



In China, meanwhile, people are becoming increasingly wary about spending money, said Ramon Laguarta, PepsiCo's chief executive. "The consumer is clearly saving more than spending," he said on a July 11 call with analysts.

Shares in Heineken sank 10% July 29 after the Dutch brewer reported weaker-than expected earnings and wrote down the value of a big investment in China. Shares fell for Procter & Gamble the following day, after the maker of Tide detergent and Charmin toilet paper reported an unexpected 7% decline in earnings.

P&G said price hikes had slowed to just 1% globally, while sales from China's recent 618 shopping festival, an annual online shopping event, suggested that consumers there were spending less even with significant discounts from retailers.

"I've said many times: This will not be a straight line," P& G CEO Jon Moeller said. "There's still more work to do to continue improving areas in our control, which will be needed to offset the headwinds that are largely not in our control."

Although inflation measures are **moderating in** the **U.S.,** many **consumers** are **feeling** the **cumulative impact** of **years** of **rising prices for essentials** like groceries and menstrual products. **High borrowing costs** and **sharp increases** in **insurance costs** are putting further **pressure on household budgets**.

McDonald's reported a **slowdown** in **visits by lower income consumers**, a trend that the company said began last year and has deepened across the U.S. The burger giant reported a nearly 1% drop in same-store sales in the June quarter, the first such decline since 2020.

Inflation isn't a problem in China, where companies have struggled to raise prices for several years due to weak demand. Instead, economists said, Chinese spending is slowing because people are saving income to protect themselves in case of future hardship as they face a profound property slump and worries about where the economy is headed.

"U.S. households can look forward to lower interest rates in future," said Mark Williams, chief Asia economist at Capital Economics. "China's government has promised to do more to support consumers but there's nothing in the pipeline suggesting that much of a turnaround is likely."

China's retail sales growth, a gauge of consumption, slowed to 2% year over year in June from 3.7% in May. Chinese leaders said July 30 they would take more aggressive steps to boost consumer spending.

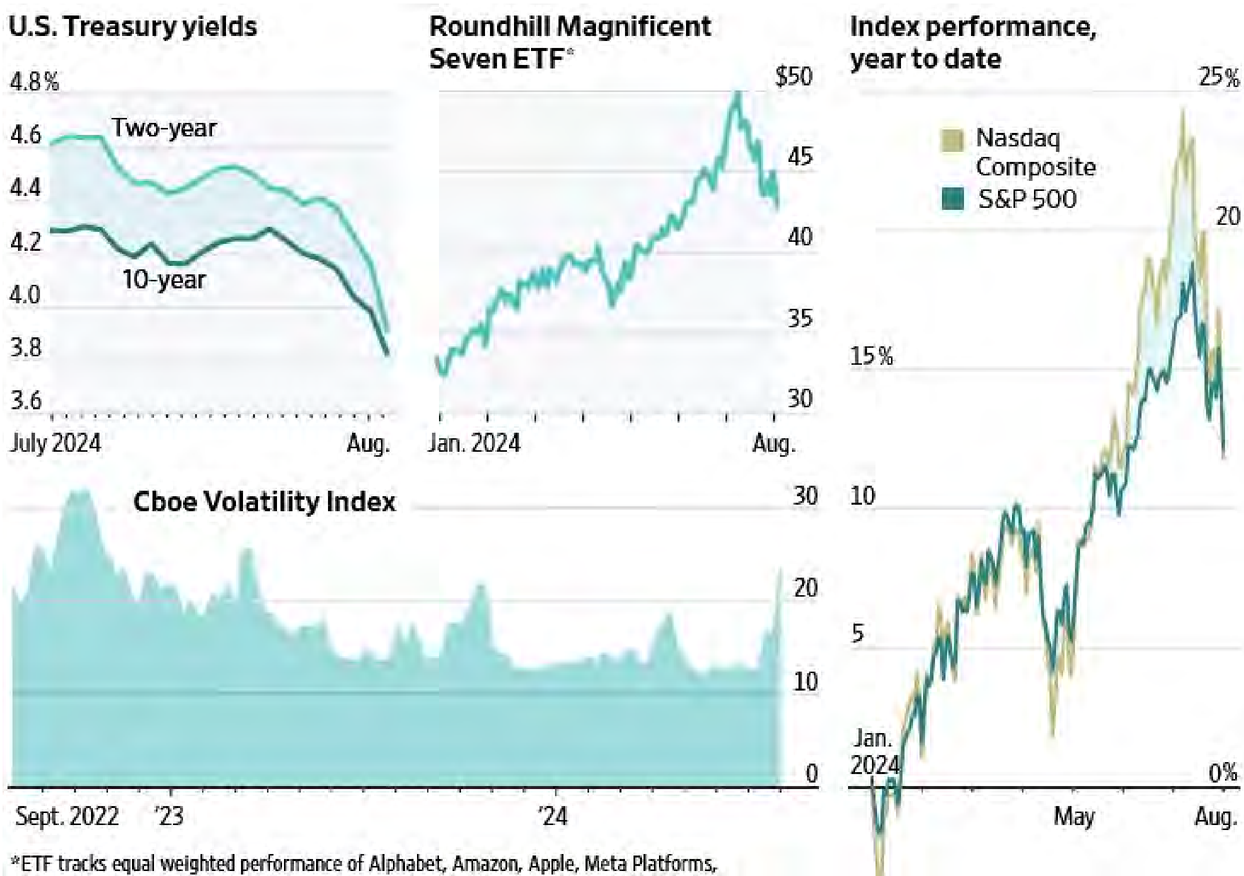
Botox maker AbbVie said headwinds in China hurt sales for its aesthetic pharmaceuticals division in the June quarter and lowered its outlook for those products in both the U.S. and in China. Starbucks said that its U.S. same-store sales declined 2% in its June quarter, the second consecutive decline. And in China, its same-store sales fell 14% as the coffee chain faced heightened competition from lower-cost rivals.

General Motors said strength in the U.S. market was offset by further erosion in China, where it lost money for the second straight quarter amid stiff competition from homegrown brands. Mercedes-Benz and Porsche both flagged a tougher environment and fiercer competition, in China.

Apple, too, is facing inroads from a Chinese champion, smartphone maker Huawei. The iPhone maker said revenue in the greater China region, its third-biggest market, fell more than 6% in the June quarter from the prior year.

But not all Western companies are reporting a slowdown in the country. Domino's Pizza said it still sees the country as an opportunity; its Chinese franchisee plans to open its 1,000th store there this year.

"The China stores, they've actually put out releases talking about their new store openings and the kind of record sales they're generating over there," Sandeep Reddy, the restaurant chain's chief financial officer, said on an earnings call. "So, very exciting to see the growth coming from China."



*ETF tracks equal weighted performance of Alphabet, Amazon, Apple, Meta Platforms, Microsoft, Nvidia and Tesla
Sources: Tullett Prebon (yields); FactSet (ETF, index performance, VIX)

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Consumers Feel Inflation's Sting on Hard-to-Do-Without Things

by Harriet Torry and Terell Wright – WSJ – Aug. 13, 2024

Inflation is slowing. So why doesn't it feel that way?

After all, price increases for lots of items, like cable and shampoo, are indeed cooling. Prices for vehicles, gasoline, TVs and plane tickets have even dropped over the past year. And the overall pace of year-over-year inflation as measured by the Labor Department's **Consumer-Price Index** was **down to 3%** in its most recent reading – much, **much lower than** the **high of 9.1%** that it clocked **two years ago**.

But prices for many of the **things** that are **hard to do without** are **still posting eyewatering price increases**. **Rent and electricity bills** are **up 10% or more over** the **past two years**, and **car-insurance costs** are **up** nearly **40%**, according to the Labor Department's index. **Shoppers** might be **able to trade down** from prime steak **to cheaper** cuts of meat **at** the **supermarket**, **but** they **can't** really do the same thing **with** the **water bill**.

"We're beginning to run **out of rope** in **how much** we **can substitute out**," said **David Bieri**, an **economist** and **professor** at **Virginia Tech**.

Rising prices have been front and center in the U.S. over the past three years, **affecting how consumers feel** about the economy and how they are planning to vote. A **softening jobs market** will **only amplify** their **concerns**.

Investors and policymakers are scheduled to get another look at price pressures on Wednesday, when the Labor Department plans to release its latest print on the CPI.

Jake Tromburg and his family moved into a smaller home last year in Chesapeake, Va., and were surprised to get an electricity bill one month last summer for more than $500.

Their new house has a pool, and they installed an air-conditioning unit in their daughter's room above the garage. Both helped push the bill higher. So Jake and his wife, Marie, bought an energy-efficient refrigerator secondhand, lowered the voltage of the pool's pump and told the children to turn off the lights during the day. Their recent monthly bill was $250.

To save money elsewhere, the Tromburgs have downgraded their home-insurance plan. But they still pay more than $1,700 a year, an increase of more than $300. They likewise trimmed their spending on their kids' youth sports leagues. Instead of soccer and basketball, this season it is just soccer.

"I haven't noticed any relief in prices lowering," said Tromburg, a 42-year-old pastor. "Gas prices are a little bit lower. But that hasn't made me say, 'Oh, man, sweet, let's spend more money.'" Housing is by far the biggest monthly expense for U.S. households. In the CPI, **shelter costs** – a measure of **rent and** the **equivalent cost to homeowners**, **as well as lodging away from home and household ins**urance – have **risen** more than **13% in two years**.

When a family's $3,000 rent or mortgage payment jumps 13%, that dings the bank account by about $400 a month.

Some prices are rising owing to factors other than traditional supply and demand. Home-insurance costs for owners in some parts of the U.S. have ballooned partly because of storms and fires. **<u>Utility bills have climbed as companies try to shore up an aging power grid</u>**.

The pace of some price increases is likely to slow down, according to economists. Take cars as an example. Car prices shot up early in the pandemic. It took time for **car-insurance** costs to catch up – but over the past two years they have risen quickly, too.

Brendan Madigan, an accountant in Durham, N.C., and his wife, Alexis Madigan, would like to buy a minivan and move to a house that is bigger than their current three-bedroom.

ABOVE: Left, among the ways Marie and Jake Tromburg have sought to rein in household costs is to downgrade their home-insurance plan and to tell their children to turn off lights during the day; right, Jasmine Moore, here with her son, has switched to discount grocery stores and cut back on visits to out-of-town family.

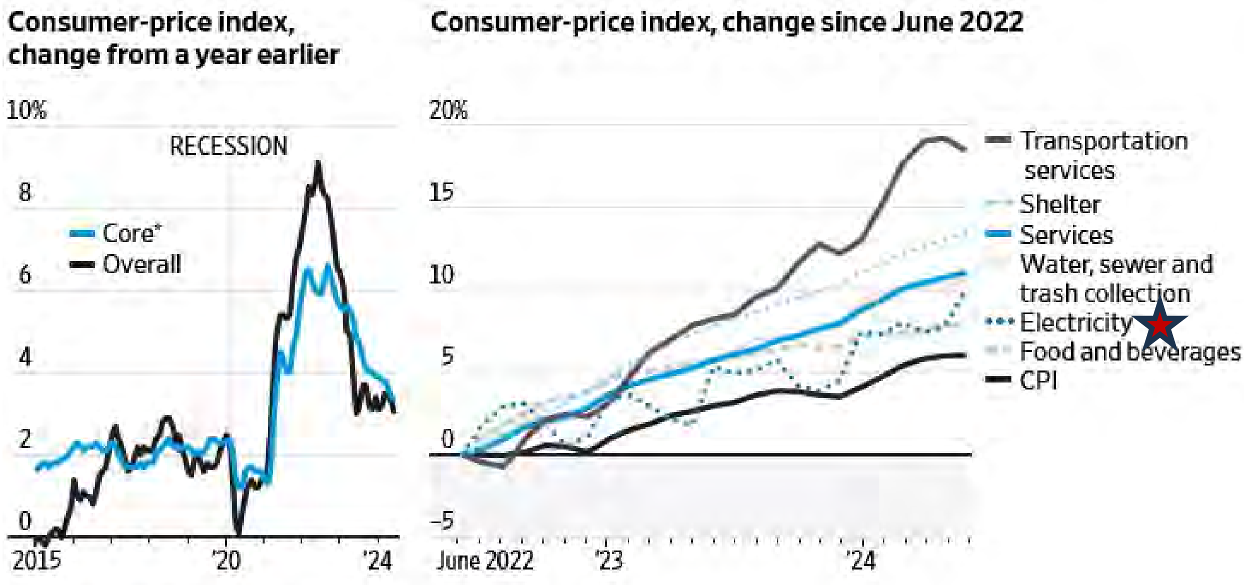
But they have held off because of the rising costs of home insurance, transportation and other expenses. They have also cut restaurants and movie nights out of their budget.

"We were looking for a bigger house and potentially growing our family further in the future. But with the cost so high, we're really pinching pennies," Brendan Madigan said.

Families with young children are also paying higher prices for **child care**. Costs have risen 6.4% over the past two years, in line with the overall CPI. Because daycare bills can be as big as the rent payment or the mortgage, even a relatively small increase can feel like a lot.

In major metro areas, the median price to put an infant in center-based care in 2022 was more than $1,400 a month, according to the Labor Department. A 6.4% increase puts that bill closer to $1,500.

The Madigans' daycare costs have risen much faster. The daycare bill for their older daughter shot up last month to $1,650 a month from $1,200. Daycare for their younger daughter, who starts in two weeks, will be $1,800 a month. They searched for cheaper options but quickly realized that the price was the standard.



*Core excludes food and energy prices.
Sources: Labor Department (change from a year earlier); Labor Department via St. Louis Fed (change since June)

"I would have hoped that where my career path is at, and with my wife working as well, that we would have some financial flexibility," said Madigan, 32 years old.

Households across the country are facing similar struggles. According to the Labor Department, the **prices of essential services** such as water, sewer and trash collection have **jumped** nearly **11% over** the **past two years**, and **electricity** has **climbed 10%.**

The **cost of transportation** services, which includes vehicle insurance and repair, has **jumped** more than **18%** in the **past two years**, according to the CPI. That would slap an extra $55 a month on a $300 budget. An **increasing number** of cash-strapped **Americans** are choosing to **drive without car insurance**.

Jasmine Moore, an operations manager at a social-justice nonprofit, missed a payment on her auto insurance about six months ago. Now her monthly bill has doubled, from $195 to $395. Her bank account is often near overdraft. She also has $80,000 in student debt from college and graduate school.

As a single mom, Moore feels guilty when she has to skimp on things that make her 10-year-old son happy. Part of her feels as though she should focus on him before any other bills. The two have had to cut back on visits to family in Valdosta, Ga., roughly three hours south of their home in the Atlanta suburbs.

Moore also canceled her son's math-tutoring sessions and instead tutors him herself. Instead of Publix, she opts for discount grocery stores and food pantries.

"I have middle-class pay," said Moore, 32. "But I feel like I'm lower income."

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Cooling July Inflation Sets Stage for Fed's September Rate Cut

by Sam Goldfarb and Nick Timiraos – WSJ – Aug. 15, 2024

The consumer-price index rose 2.9% in July from a year earlier, the Labor Department said.

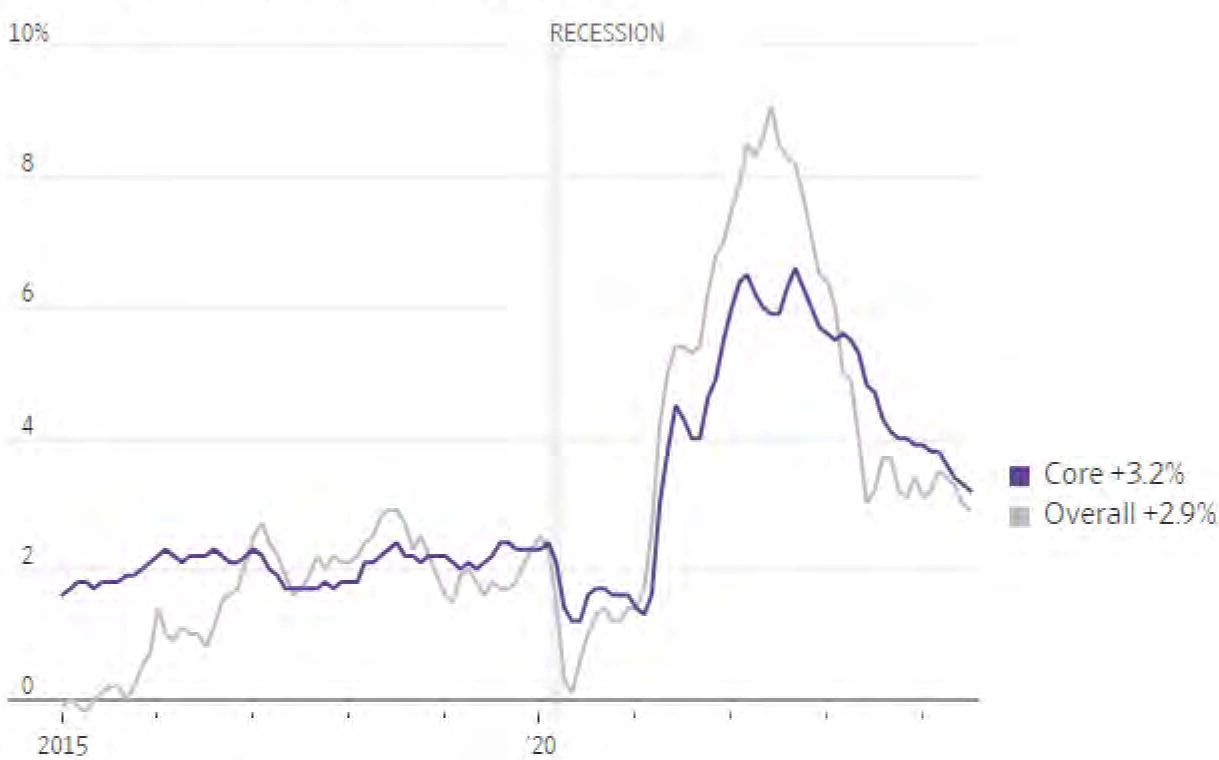
Inflation extended a run of **cooler** readings in **July**, **sealing** the **case** for the **Federal** Reserve to **cut interest rates at** its **meeting next month**.

The **C**onsumer **P**rice **I**ndex **rose 2.9% from** a **year earlier**, the **Labor Department said** Wednesday, the **lowest reading since 2021** and slightly below economists' expectations of 3%. Core inflation, which excludes volatile food and energy items, was 3.2%, also a three-year low.

A sustained and broad inflation slowdown provides the Fed with greater latitude to focus on shoring up any potential weakness in the labor market. The data were "very encouraging … and should give the Fed lots of confidence to start the easing process," said Kathy Bostjancic, chief economist at Nationwide.

Markets reacted in muted fashion, a sign that investors have already moved on from worrying about inflation to fretting about the job market. Major stock indexes edged higher, while Treasury yields moved lower after initially climbing.

Consumer-price index, change from a year earlier



Note: Core excludes food and energy prices.
Source: Labor Department

Wednesday's report wasn't perfect. The cost of **housing** rose at a faster pace than it did in June. Still, broad improvement in other categories, from used cars to medical care, was enough to offset that one setback.

The release marked the third consecutive month that core prices rose at a mild level consistent with the Fed's inflation target, resuming a slowdown that began last year but was interrupted at the start of this year.

After raising rates in July 2023 to their highest level in two decades, Fed officials have spent the year focused on when to start lowering them. A potential June cut was derailed in April after inflation turned upward.

But now, a **rate cut** is **on track both because** of **better inflation readings and** signs that the **labor market might weaken undesirably** in the months ahead. The unemployment rate rose to 4.3% in July from 3.7% at the beginning of the year, reflecting tepid hiring even though layoffs have remained low for now.

As a result, the debate at the Fed's September meeting would center on whether to cut rates by a traditional quarter point or by a larger half point.

Wednesday's inflation data won't resolve that debate, which instead will be shaped by coming indicators of job-market conditions – including weekly filings for unemployment benefits and the August payroll report, which is due on Sept. 6.

Richmond Fed President Tom Barkin said last week that officials are trying to "figure out whether this is an economy that is gently moving into a normalizing state that will allow you to, in a steady deliberate way, normalize rates and stick the landing … Or is this one where you really do have to lean into it?"

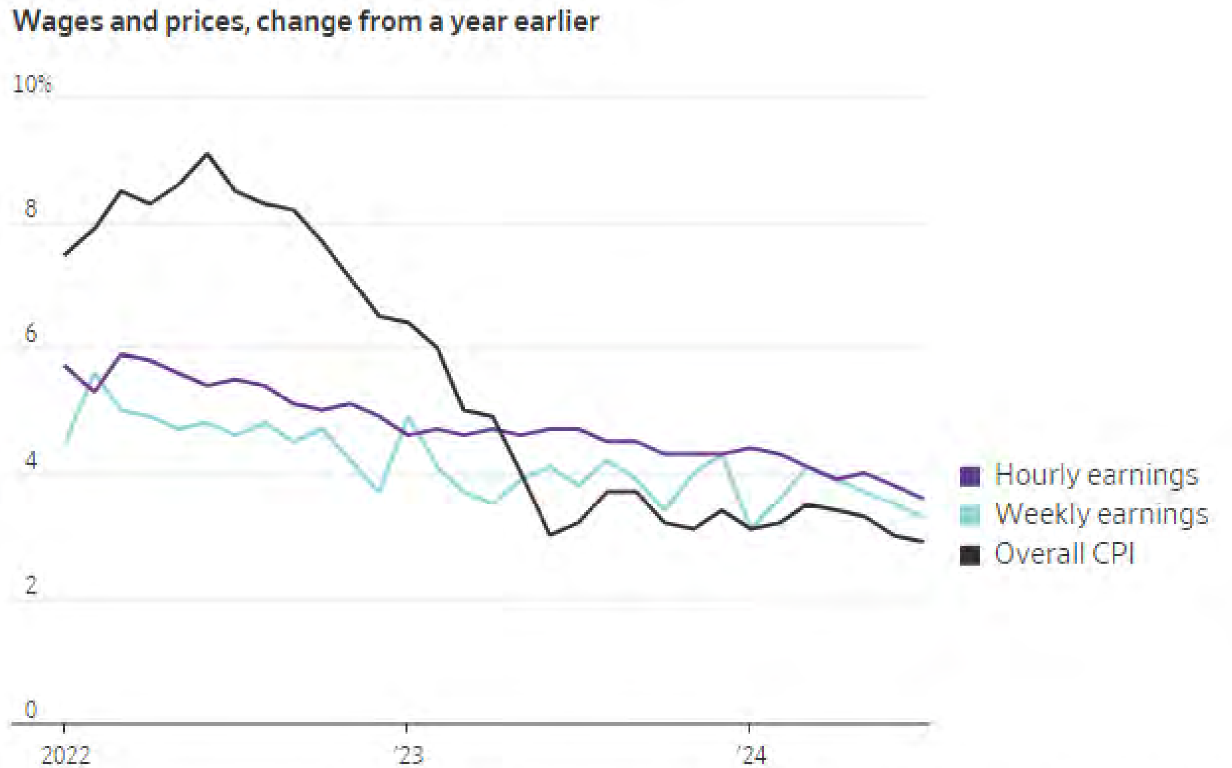
Some analysts argue that it could still be challenging for Fed officials to cut rates by more than the normal amount because inflation remains above their 2% target.

Wednesday's report was "good enough" for the Fed to cut rates in September, but "good enough isn't great," said David Berson, chief U.S. economist at Cumberland Advisors. "Inflation is moving lower but only slowly now."

The July reading for the Fed's preferred inflation gauge is set to be released later this month by the Commerce Department. Fed officials will have that report and a second CPI reading – for August – before their Sept. 17-18 meeting.

With a **rate cut now widely expected**, attention at that meeting will shift to whether the decision to cut rates is unanimous as well as how much officials expect to lower rates at their last two meetings of the year, in November and December. New economic projections released next month will provide clues around their latest thinking.

The cost of housing, or at least how it is measured by the Labor Department, has remained a nagging problem. Because only a minority of leases turn over each year, changes in market rents are reflected in inflation with a lag. As a result, economists have expected housing inflation to come down slowly, but not as slowly as has actually occurred – a trend that was reinforced Wednesday following an encouraging reading last month.



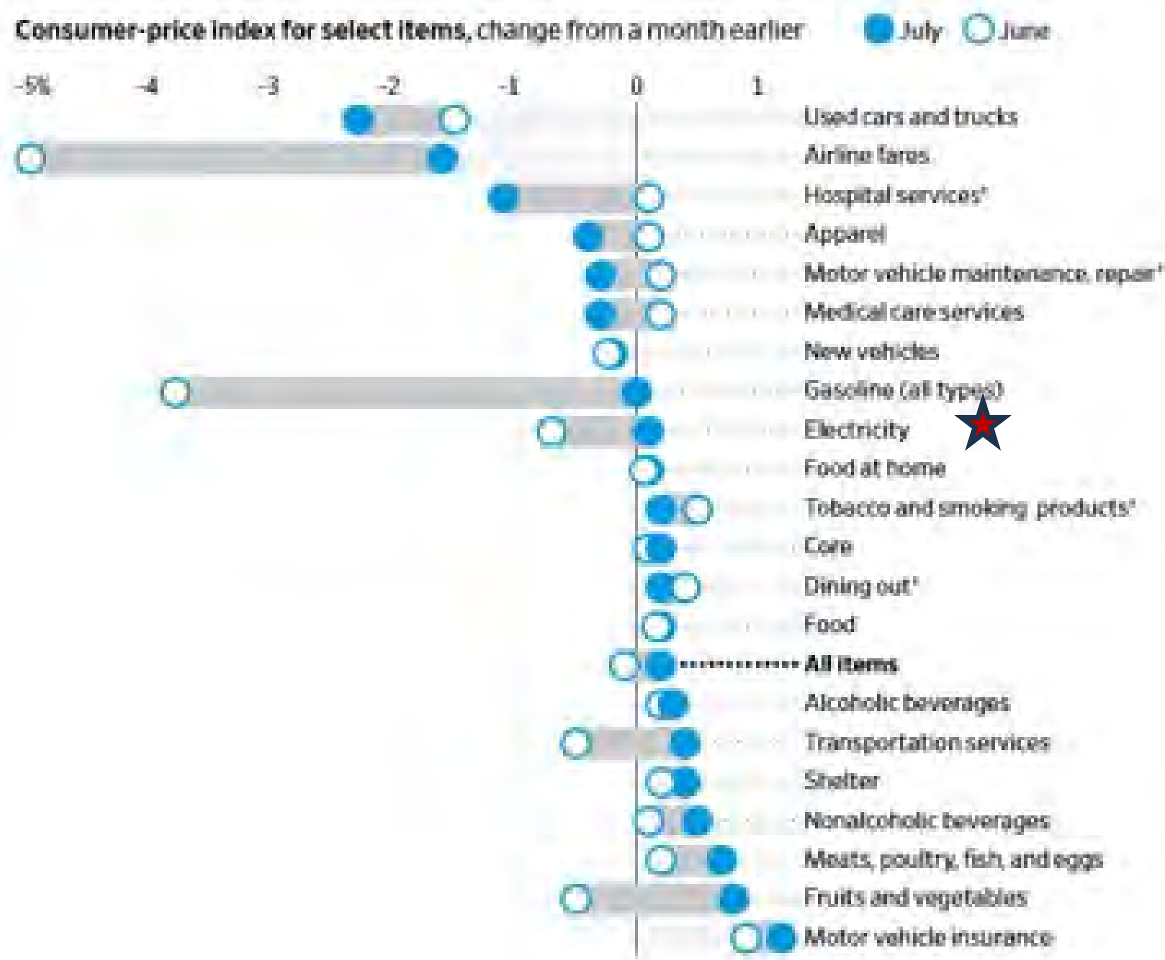
Notes: Consumer-price data aren't seasonally adjusted; wage data are average earnings for all private workers and are seasonally adjusted.
Source: Labor Department

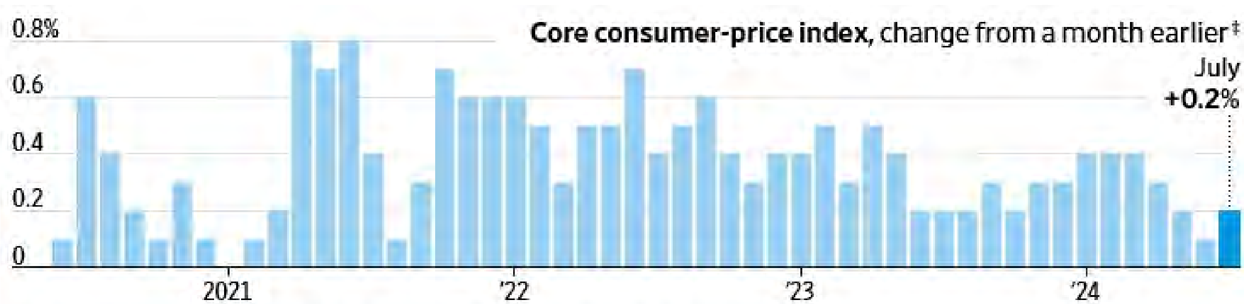
The Fed's preferred inflation gauge – the Personal Consumption Expenditures, or **PCE**, price index – has fallen from a high of 7.1% two years ago to 2.5% in June.

The decline has occurred in stages. Price increases for goods from electronics to used cars were the first to slow as demand for those products eased and supply chains improved following pandemic disruptions. Inflation for services – everything from haircuts to car repairs, childcare and hotel stays – took longer to moderate but has also improved. That partly reflects a slowdown in wage growth.

Recent earnings reports suggest **American corporations** are **enjoying less pricing power as consumers tighten their belts** and resist hefty price increases of the past three years. Price growth could continue to slow if competition heats up among businesses.

Based on the CPI and a separate index of wholesale prices released Tuesday, economists expect the core PCE index rose by between 0.1% and 0.2% in July. That could keep that measure of the 12-month inflation rate close to 2.6%, where it was in June.





*Average earnings for all private workers †Not seasonally adjusted ‡Excludes food and energy
Note: Seasonally adjusted unless noted
Source: Labor Department

ERIK BRYNILDSEN and ANGELA CALDERON/WSJ

Court Vacates FERC Orders Calling for Refunds During 2020 Western US Heat Wave

by Tom Tiernan
Platts, Standard and Poor's Global Market Intelligence – Jul. 11, 2024

The **F**ederal **E**nergy **R**egulatory **C**ommission **needs to use** a **more strict standard when examining whether** it **should order refunds to electric utility customers during periods** of **soaring power market prices**, the **US Court of Appeals** for the **District of Columbia Circuit ruled July 9**.

In a case involving escalated prices during a 2020 heat wave in the Western US, the court determined that the commission should have applied the **Mobile-Sierra doctrine** when weighing whether refunds were warranted for deals reached at prices above a $1,000/MWh price cap. In **vacating and remanding** the orders at issue, the court said **FERC** "**necessarily will need to change its refund analysis** for above-cap sales going forward."

Under the **Mobile-Sierra doctrine, FERC must presume** that a **rate** in a **freely negotiated wholesale energy contract meets** the "**just and reasonable**" **rate requirement** of the **Federal Power Act**. That **presumption can be overcome only if FERC concludes** that a **contract** "**seriously harms** the **public interest**."

At issue before the court were a series of 2021 orders released in the aftermath of an extreme heat wave in the Western Electric Coordinating Council and the California ISO regions during August and September 2020. Under a "soft" price cap in place for certain short-term electricity sales that takes place in those regions, power sellers must justify to the commission any transactions that exceed the price cap or provide refunds.

FERC ultimately determined that some sellers failed to do so for their sales that exceeded the cap during the heat event and ordered partial refunds. In making that determination, the agency said the Mobile-Sierra doctrine did not apply because it was not modifying the contracts. Since the sales took place pursuant to the sellers' market-based authority, FERC said the sales were governed by their market-based rate tariffs and the associated restrictions on those sales, including the soft price cap.

Former Commissioner James Danly dissented from the refund orders, arguing the Mobile-Sierra doctrine should apply to those sales and that no showing had been made that the public interest had been seriously harmed.

In asking the DC Circuit to review the orders, several of the power sellers involved in the challenged cases – **Shell Energy** North America LP, **Tenaska** Power Services Co., **Tucson Electric** Power Co., **BP** Energy Co. Inc. **and** the energy trading arm of **Macquarie** Group Ltd. – **argued** that the bilateral deals reached above the price cap were at prevailing market prices and **subject to** the **Mobile-Sierra doctrine**.

The court's ruling

The court agreed with the sellers. "There is no dispute in this case that the rates for which FERC ordered refunds were rates for which the sellers and their customers had mutually contracted in a competitive marketplace," the court said in a per curium decision.

And even assuming that the order establishing the soft-cap was incorporated into the sellers' tariffs and contracts, the court ruled that "the commission did not displace the Mobile-Sierra presumption in the soft-cap order itself, and so that presumption continues to apply to the sellers' contracts."

The court acknowledged that the so-called soft price caps in the West are intended to ensure rates are just and reasonable, with provisions that require prices exceeding the caps to be justified and allow refunds when justification is deemed to be insufficient.

"But the mere invocation of the phrases 'just and reasonable' and 'justification and refund' does not alone suggest that the commission intended to remove prospectively an entire class of bilateral contracts from the Mobile-Sierra framework," the court said. "Importantly, the soft cap is best viewed as a means of flagging for the commission contracts that may warrant a public-interest analysis."

The decision also dismissed as moot additional challenges by the California Public Utilities Commission and Edison International subsidiary Southern California Edison Co., which argued that FERC committed errors in calculating the refunds ordered. In different refund reports filed with FERC in 2021, the refunds amounted to roughly $500,000 for Shell Energy North America, $350,000 for Mercuria Energy America LLC and $300,000 for Tucson Electric Power.

Until FERC engages in the required analysis as directed by the court, the precise methodology for calculating any refunds is an academic question that the court did not need to address in its ruling, it concluded.

Judges Sri Srinivasan, Patricia Millett and Cornelia Pillard handed down the per curium ruling. Shell Energy North America v. FERC (No. 22-1116)

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Energy, Utilities Outpace Broader S&P 500 in July

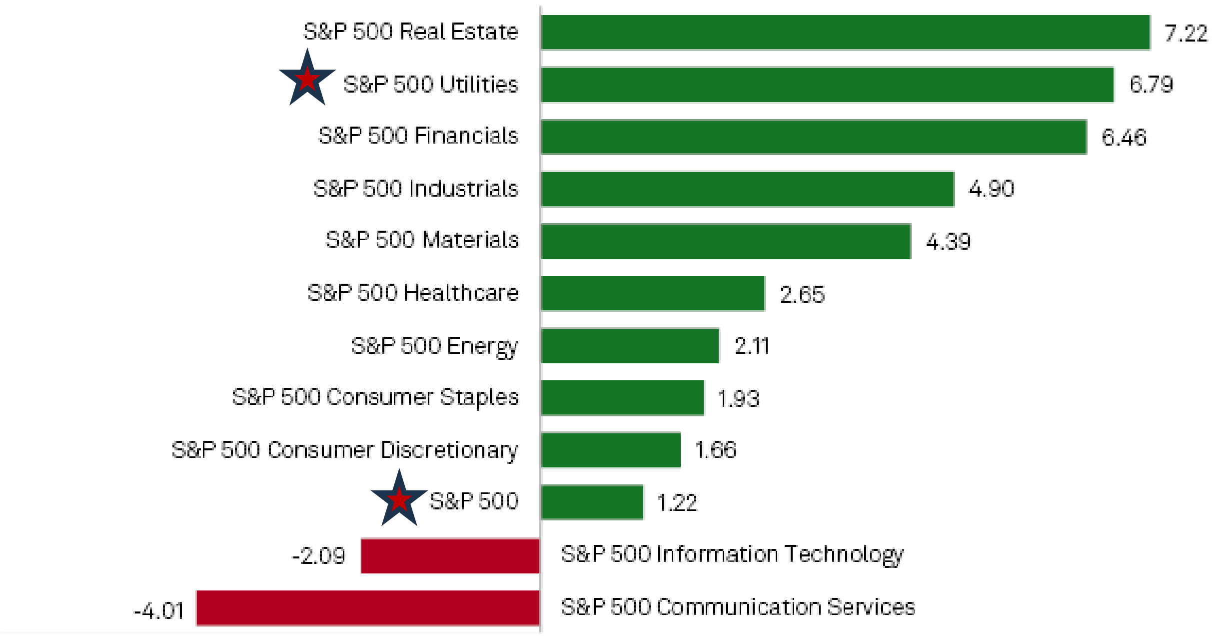
by Shambhavi Gupta
Standard and Poor’s Global Market Intelligence – Aug. 6, 2024

Energy and **utility stocks outperformed** the **broader S&P 500 index** in **July** as both sectors recovered from negative returns in the prior month.

The S&P 500 received a late push July 31 after Fed Chairman Jerome Powell said monetary policy officials could be ready to lower benchmark interest rates in September after more than a year of holding them at their highest level in decades.

The S&P 500 Utilities index gained 6.79%, the S&P 500 Energy index rose 2.11% and the S&P 500 index inched up 1.22%.

Market performance of the S&P 500 index, sectors in July 2024
Total return (%)



Data compiled Aug. 1, 2024
Total return calculated between June 28, 2024, and July 31, 2024.
Source: S&P Global Market Intelligence.

Eversource Energy emerged as the best-performing utility company in **July**, with a total stock return of 14.5%. The company **completed** the **sale** of its **50% stake** in the planned 924-MW **Sunrise Wind offshore project to Ørsted** A/S for **$230 million**.

Edison International, which saw a positive stock return of 12.6%, is revising the 10-year power demand forecast for its Southern California service territory.

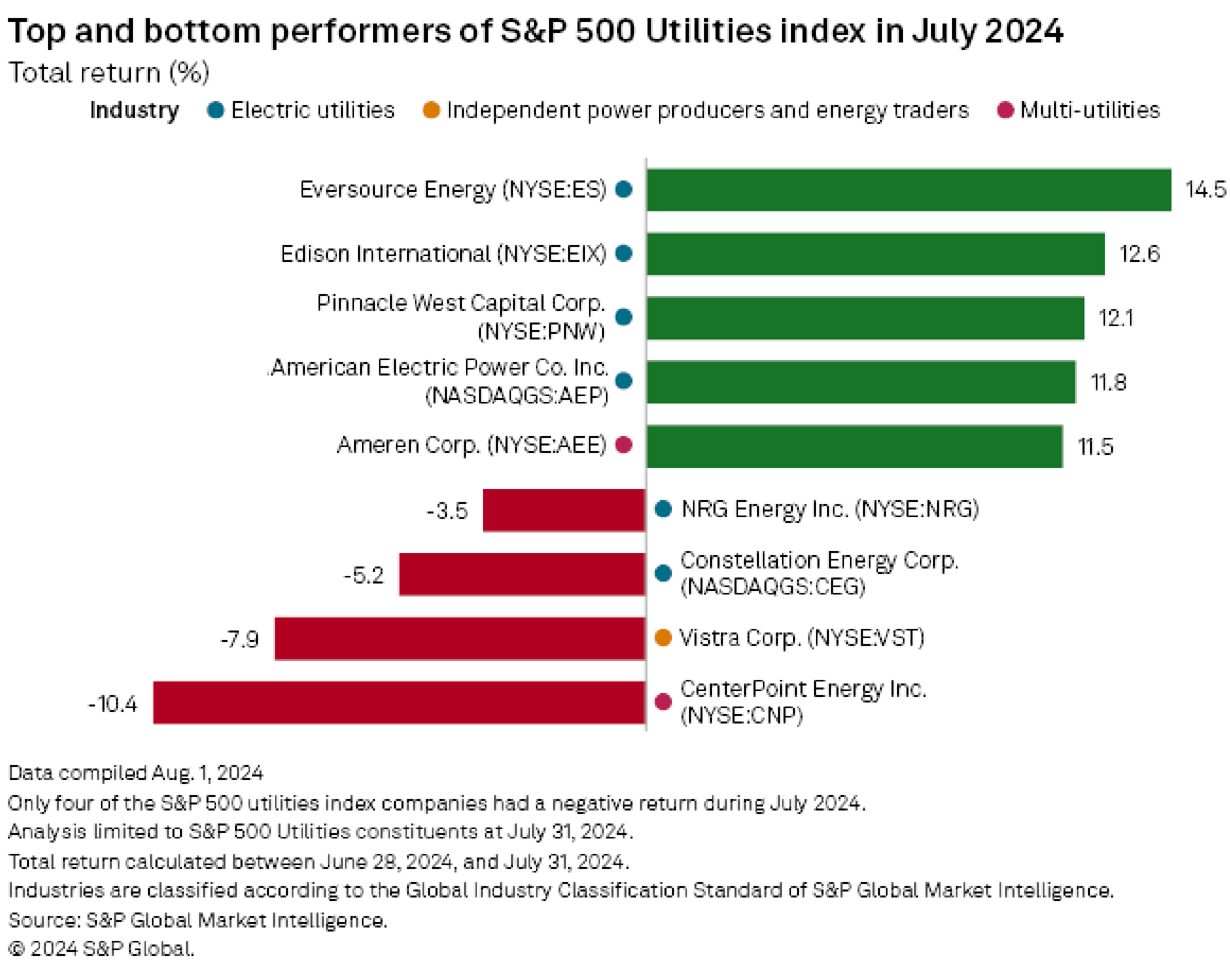
American Electric Power Co. Inc. logged a stock return gain of 11.8%. The company continues to see strong load growth expectations materialize and will soon update its capital spending plan. American Electric Power is also suing GE Vernova Inc subsidiary GE Renewables North America LLC for supplying hundreds of allegedly defective wind turbines.

Pinnacle West Capital Corp. and Ameren Corp. also posted double-digit percentage increases in their stock returns.

Among laggards, **CenterPoint** Energy Inc. recorded a negative stock return of 10.4% in July. Texas Gov. Greg Abbott directed state regulators to investigate CenterPoint's response to Hurricane Beryl since hundreds of thousands of its customers remained without service a week after the hurricane made landfall. CenterPoint executives touted the company's restoration efforts but promised to do better in future storms.

Vistra Corp. saw a negative stock return of 7.9%. The US Nuclear Regulatory Commission granted Vistra a license renewal to operate the 2,460-MW Comanche Peak nuclear power plant in Texas for an additional 20 years.

Constellation Energy Corp. and NRG Energy Inc. also joined the list of bottom-performing utility stocks for the recently ended month.



In the energy sector, Baker Hughes Co. outpaced its peers and booked a positive stock return of 10.1% in July. Baker Hughes reported second-quarter adjusted net income attributable to the company of $568 million, a 44% increase from $395 million in the same quarter of 2023.

Kinder Morgan Inc., which saw a 7.8% total stock return, reported a net income of $575 million in the second quarter, down from $586 million a year earlier.

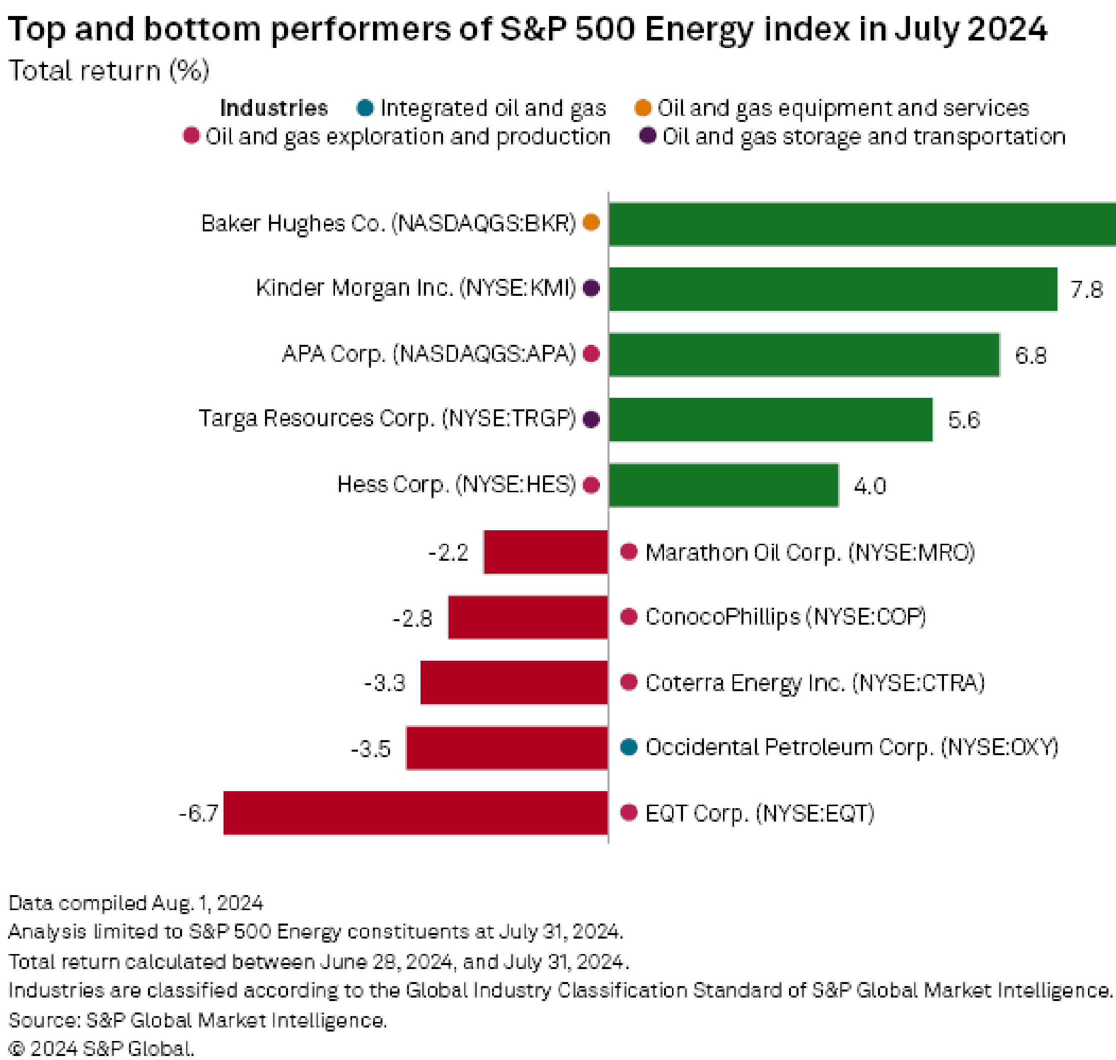
Hess Corp. logged a gain of 4%. A hearing has been set for May 2025 for arbitration related to Chevron Corp.'s proposed $53 billion takeover of Hess, which has been delayed over a claim to a right of first refusal by Exxon Mobil Corp. regarding a Hess-owned share of an oil production asset in Guyana.

APA Corp. and Targa Resources Corp. also logged positive stock returns in the month.

On the flip side, EQT Corp. recorded a negative stock return of 6.7%. EQT completed its all-stock acquisition of Equitrans Midstream in July. Company executives said that by the end of 2024, EQT would save an estimated 60 cents per Mcfe in expenses instead of paying Equitrans Midstream Corp. to gather and transport gas.

Occidental Petroleum Corp., which saw a 3.5% negative stock return, is selling certain Delaware Basin assets in Texas and New Mexico to Permian Resources Corp. for $817.5 million.

ConocoPhillips slid 2.8%, while Marathon Oil dipped 2.2%. In July, the Federal Trade Commission requested additional information from both companies on their proposed $17 billion merger.



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Fed's Powell Declares 'Time Has Come' for Rate Cuts

by Paul Kiernan – WSJ – Aug. 23, 2024
Nick Timiraos contributed to this article.

Federal Reserve Chair Jerome Powell issued his strongest signal yet that the central bank will soon begin cutting interest rates during a speech at the Jackson Hole Economic Symposium.

Federal Reserve Chair Jerome Powell said the central bank intends to act to stave off a further weakening of the U.S. labor market.

"**We do not seek or welcome further cooling in labor market conditions**," Powell said in a speech at the central bank's annual gathering in the Grand Teton National Park on Friday. "The **time has come for policy to adjust**."

Investors had already been expecting a rate cut in September, but markets still reacted to Powell's words. Stock indexes rose, with the Dow Jones Industrial Average adding more than 300 points, or about 0.8%. The Nasdaq Composite zipped up 1.1%. Treasury yields slipped.

Powell's comments Friday all but bring to a conclusion the Fed's historic inflation-fighting campaign, one that Powell amplified from the same stage two years ago when he signaled his readiness to accept a recession as the price of lowering inflation.

"Chair Powell's Jackson Hole speech was as clear a pivot toward supporting the labor market as could be imagined," said Marc Sumerlin, managing partner at economic-consulting firm Evenflow Macro.

Fed officials' next policy meeting is scheduled for Sept. 17-18. They are **widely expected to lower the benchmark federal-funds rate at that meeting**.

The Fed held rates steady at its most recent meeting in late July, though several officials saw a case for cutting at that meeting. Two days later, the Labor Department reported that unemployment rose to its highest rate in nearly three years. Inflation, while still above the Fed's 2% target, has been falling steadily in recent months.

"The **cooling in labor market conditions is unmistakable**," **Powell said**.

"We will do everything we can to support a strong labor market as we make further progress toward price stability," he added.

The key question for financial markets and central bankers – and one that they themselves don't yet know the answer to – is the magnitude of the interest-rate cuts that are

The Fed's key rate is currently set in a range between 5.25% and 5.5%, widely viewed as a drag on economic activity. Market participants are divided as to whether the Fed will shave off 0.25 percentage point or 0.5 percentage point at the September meeting. Investors are also divided on what the Fed will do at its other two meetings this year, in November and December.

While Powell was forceful in laying out the Fed's goals, he offered no specifics about the precise way officials will deliver them. He entirely avoided certain coded words like "gradual" and "methodical" that some colleagues in recent days had used to describe their expectation for a series of traditional quarter-point rate cuts. In doing so, Powell's silence kept the door open to larger rate cuts if the labor market shows signs of greater weakness in the weeks ahead.

Fed officials will still get another monthly jobs report, and more readings on inflation, before the September meeting.

Still, by all but promising that a cut is coming, Powell was far less ambiguous than in his press conference after the last Fed meeting, on July 31. At the time, Powell suggested the Fed needed a bit more data to feel confident inflation was coming down. Friday's speech suggested that he now has that data.

"The direction of travel is clear, and the timing and pace of rate cuts will depend on incoming data, the evolving outlook, and the balance of risks," Powell said Friday.

Federal Reserve Chair Jerome Powell spoke to reporters after the central bank kept rates steady in July.

The Fed's actions in the coming weeks and months could be pivotal for the U.S. economy and for Powell, who has served at the central bank since 2012 and was elevated to the top job by President Trump in 2018 and tapped for a second term as chair by President Biden.

Central bankers raised interest rates aggressively in 2022 and 2023, determined to wrestle down the highest inflation in four decades. But the U.S. economy has defied expectations of a slowdown despite the elevated borrowing costs, and inflation came down while the labor market remained historically strong.

The recent rise in joblessness has thrown into question whether that situation will continue. The unemployment rate has risen from 3.4% in April 2023 to 4.3% in July. Inflation, using the Fed's preferred gauge, was 2.5% in June, its most recent reading.

Powell expressed hope that an elusive "soft landing" for the U.S. economy remains within reach, though he didn't use the term.

"With an appropriate dialing back of policy restraint, there is good reason to think that the economy will get back to 2% inflation while maintaining a strong labor market," he said.

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Finance Chiefs Lean on Commercial Paper to Trim Costs, Prepare for Rate Cuts

by Kristin Broughton – WSJ – Aug. 9, 2024

Some companies are issuing the short-term debt to reduce interest expenses as the Fed looks set to lower rates.

Prologis during the second quarter began to reap savings from a $1 billion commercial paper program that the warehouse giant launched in March.

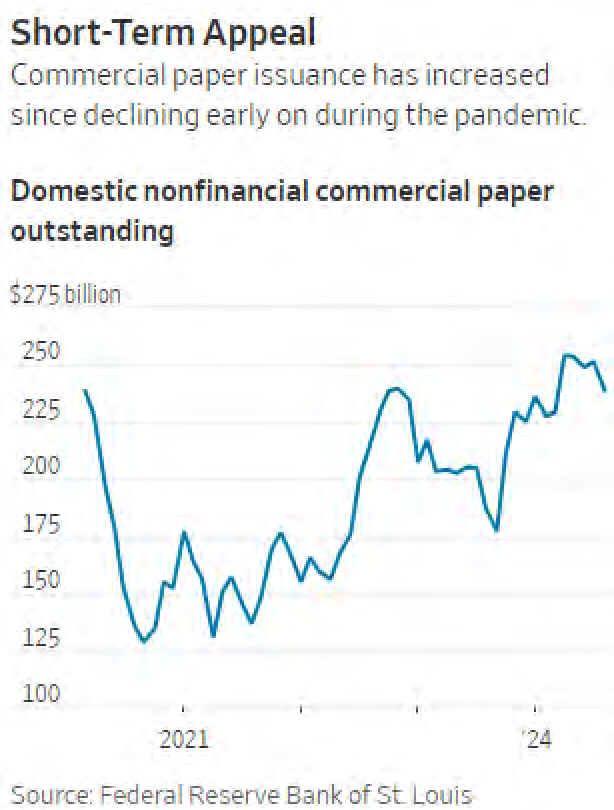
Finance chiefs are **issuing** debt in the **commercial paper** market **to save on interest** costs and **prepare** their **balance sheets for** a **likely rate cut from** the **Fed**eral Reserve.

The short-term debt appeals to big, highly rated companies because it can quickly capture the benefit of falling interest rates. As commercial paper has a **short maturity**, typically ranging from days to months, companies reissue this type of debt frequently and, when rates fall, can do so at a lower cost. Commercial paper also can provide a **less expensive alternative to bank loans**.

Companies issue commercial paper to fund working capital, weather seasonality in their cash flow or provide a bridge between long-term capital raises. Corporate bond sales this week, notably, have been strong despite volatility in the market on Monday stemming from fears about the economic outlook.

Issuance in the commercial paper market has broadly picked up since plunging during the pandemic, amid the initial economic shock caused by Covid and a surge in corporate bond issuance. As of Aug. 7, the **amount of domestic commercial paper outstanding from nonfinancial companies increased 27% from** a **year earlier**, to $238.7 billion, **according to** the **Fed**eral Reserve.

Commercial paper programs are **typically cheaper than credit facilities** from a bank. Chief financial officers carrying a balance on their credit lines determine whether the savings from a commercial paper program outweigh the fixed costs, which can include obtaining a credit rating and administering the program.



Some CFOs, particularly in the real-estate sector, are deciding it's worth the price. Prologis during the second quarter began to reap savings from a $1 billion commercial paper program that the warehouse giant launched in March. The program provided interest expense savings because, over the past few years, Prologis had been carrying a balance on its revolving lines of credit of between $500 million and $1 billion, after previously keeping those facilities unborrowed.

Once a company carries balances that are high enough, the savings behind a commercial paper program can "overwhelm all of the fixed costs," said Chief Financial Officer Tim Arndt. "And that's the mode we've been in lately."

With its new commercial paper program, Prologis is saving about a 0.6 percentage point compared with using its credit lines, Arndt said. The company should save millions of dollars a year by opportunistically shifting balances to its commercial paper program, he said.

The **Fed has laid** the **groundwork to cut interest rates** at its next policy meeting in **September**, with many investors expecting as much as a half-percentage-point reduction after Friday's weak jobs report and Monday's market rout. The **price** that companies pay to issue **commercial paper usually varies alongside** the **secured overnight financing rate**, or **SOFR**.

Colgate-Palmolive during the first quarter used commercial paper to fund the repayment of a $500 million bond. The consumer staples company has about $8.7 billion in total debt outstanding, including $1.6 billion in commercial paper, according to S&P Global Market Intelligence.

"At some point, we expect interest rates will come down…and that will help us keep our fixed-floating back in balance," CFO Stanley Sutula said on an April 26 earnings call, discussing why Colgate-Palmolive chose to pay off the bond with commercial paper.

A risk of issuing commercial paper is the possibility of a **market shock** that could reduce investor demand and leave companies with unexpected liabilities, credit analysts said. **To guard against this risk**, **companies keep** a **portion** of their **credit lines undrawn as** a **backup**.

In March 2020, at the beginning of the pandemic, the Fed intervened in the market to ensure companies could continue to borrow.

Office developer and owner BXP in April added a $500 million commercial paper program. With the Fed poised to cut rates, the company expects interest rates on floating-rate debt to fall faster than on fixed-rate debt, according to CFO Michael LaBelle.

BXP has about $15.4 billion in total debt outstanding. The company typically aims to keep between 5% and 10% of its debt in floating-rate facilities, according to LaBelle, who also serves as treasurer. At the moment BXP is parking nearly a third of its floating-rate debt in commercial paper, he said.

Under its **commercial paper program**, **BXP pays** what amounts to **SOFR plus about 0.25 percentage point**. **By comparison**, the interest rate on its **credit facility** is **SOFR plus 0.85 percentage point**. “It’s **less expensive than** any **other floating-rate** debt that we **have access to**,” LaBelle said.

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Food Industry Pushes Back Against Kamala Harris’s ‘Price Gouging’ Plan’

by Jesse Newman and Sarah Nassauer – WSJ – Aug. 20, 2024
Patrick Thomas contributed to this article.

Companies reject claims that consumers are being bilked.

Grocery prices were around 27% higher in July than in 2019, Labor Department data show.

The food industry is hitting back at claims it is ripping off U.S. consumers after Democratic presidential nominee Vice President Kamala Harris called for a federal ban on “price gouging.”

Harris, set to formally accept her party’s nomination this week at the Democratic National Convention in Chicago, has blamed corporate greed for food-price inflation. Executives say costs ranging from labor to cocoa have surged in recent years and that profit margins must be maintained to fund the development of new products.

“We understand why there is this sticker shock and why it’s upsetting,” said Andy Harig, a vice president at FMI, a trade group representing food retailers and suppliers. “But to automatically just say there’s got to be something nefarious, I think to us that is oversimplified.”

Harris’s support for some form of price controls on food is in part an attempt to blunt attacks from Republican nominee Donald Trump. Last week, the former president appeared in front of a table full of groceries such as Folgers coffee and Cheerios and blamed Harris for fueling inflation while serving in the Biden administration.

Vice President Kamala Harris, second gentleman Doug Emhoff (reaching for a snack) and her running mate, Minnesota Gov. Tim Walz, popped into a store during their bus tour this month of western Pennsylvania.

Americans now spend more of their **income on food than** they have **in decades**. **Many food companies have posted** their **biggest profits in years** and fielded complaints from consumer advocates over rising prices. Some retailers are pushing to curb further increases, fearing consumer backlash.

“The proposal calling for a ban on grocery price gouging is a solution in search of a problem,” said the National Grocers Association, adding that its members are hurting from the same inflation pain points as customers.

Snack giant Kellanova’s Chief Executive Steve Cahillane said in an interview last year that his company, then called Kellogg, was doing everything it could to keep prices as low as possible while preserving profit margins.

“We make no excuses or apologies for trying to protect our margins,” Cahillane said, adding that companies can’t survive if they allow profits to slide.

Between rising wages for workers and the cost of making supply chains more resilient, food-industry executives said that companies’ expenses have increased permanently, justifying higher prices. They said profit margins for food makers and sellers are modest compared with other industries, and that companies make an easy political punching bag when Americans are angry about the economy.

Prices for a range of consumer products began to climb in 2021. Manufacturers were grappling then with supply-chain upheaval triggered by the Covid-19 pandemic and rising costs for ingredients, fuel and other supplies. Flush with federal stimulus payments, many shoppers kept buying at the higher prices.

As the pandemic health crisis eased and supply-chain costs came down, some retailers started pushing back on price increases from their suppliers. Since then, **shoppers have pulled back on non-necessities** such as patio furniture and clothing, reduced restaurant visits and **shifted** supermarket purchases **toward cheaper store brands**.

Left: Vice President Kamala Harris emphasized a message of unity in an impromptu appearance at the Democratic National Convention stage in Chicago.

Food prices began to plateau last year, as costs for commodities from corn and coffee beans declined. U.S. grocery prices in July rose 1% from a year earlier, the lowest for that month since 2019 and down sharply from a high in 2022, according to Labor Department data.

Still, **grocery prices** were around **27% higher in July than in 2019**, Labor Department data show.

Multiple rounds of price increases have helped food makers reinvigorate profit margins that narrowed during the pandemic, along with efforts to cut costs and run their operations more efficiently.

Republicans have sought to make food prices a political liability for Democrats, arguing that additional Covid-19 relief funding passed in 2021 without GOP support stoked inflation.

"People are voting with their stomachs," Trump said at a news conference last week, adding that prices for grocery store items are sharply higher than they were a couple of years ago.

Some Democrats have blamed corporations for bloating grocery bills. President Biden in February took to Instagram during the Super Bowl to blast food makers that he said were providing less bang for consumers' bucks – putting fewer chips in each bag or shrinking the size of ice-cream containers.

Beyond a federal ban on price gouging, the Harris campaign said her administration would set rules barring big companies from exploiting consumers to amass excessive profits on food and groceries.

Harris's campaign said she would secure new authority for the Federal Trade Commission and state attorneys general to investigate and levy new penalties on companies that break those rules. Her administration would also crack down on deals that the campaign said give big food companies the power to hike food prices and undermine competition.

A Tyson Foods processing facility in Danville, Va.

Consumer advocates applauded the proposal, blaming consolidation in the food industry for rising grocery prices and decrying a recent planned $30 billion deal between snack behemoths Mars and Kellanova.

The companies said they see the deal as a positive development for all their stakeholders.

Some food executives say the industry has gone too far on prices. Chobani founder and CEO Hamdi Ulukaya said in an interview earlier this year that many food items today are overpriced. “This is irresponsible,” Ulukaya said. “People who depend on food are paying the price.”

Price gouging doesn’t have a universal definition, and some states have sought to regulate how and when companies can raise prices in certain instances, including after a natural disaster. Harris didn’t specify what constituted excessive profits, and industry executives said the proposals would be challenging to implement.

Big food companies are launching campaigns of their own to win back consumers fed up with high grocery bills.

Retail giants such as Walmart are ratcheting up investments in store brand goods. Kroger, which is battling an FTC challenge to its planned $25 billion acquisition of rival Albertsons, last week said it would spend $1 billion to lower Albertsons' prices after the deal closes. Kroger said the move would fight inflation and provide value to shoppers.

Kraft Heinz, Mondelez and other food makers have said they are raising prices at a slower pace, boosting discounts or rolling out new products.

Kellanova's Cahillane has said that he doesn't see what critics call **shrinkflation** – in which companies shrink their products but not their prices – as gouging, but rather offering consumers what they can afford.

"If a consumer has got $2 to spend on an item and it's $2.50 they're just not going to buy it," Cahillane said. "Isn't it better to remove a couple of ounces and still sell it to him for $2 so they can keep buying it?"

Walmart, the country's largest retailer by revenue, said food prices in its most recent quarter were lower than earlier this year.

"We are wired to help bring prices down, and we'll continue working," Walmart CEO Doug McMillon said last week.

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GE Vernova Dealt Another Blow after New Blade Failure at UK Offshore Wind Farm

by Alex Blackburne,
Standard and Poor's Global Market Intelligence – Aug. 23, 2024

Some 27 GE Vernova turbines were either fully or partly installed.

The **developers** behind the **1.2-GW Dogger Bank A offshore wind** farm in the **UK reported** Aug. 22 that the project had a "**blade failure**," the latest issue for turbine **manufacturer GE Vernova** Inc., which just last month saw a blade shatter at a project in US waters.

"We are aware of a blade failure which occurred this morning on an installed turbine at Dogger Bank A offshore wind farm, which is currently under construction," project developers SSE PLC, Equinor ASA and Vårgrønn said in a statement. "In line with safety procedures, the surrounding marine area has been restricted and relevant authorities notified. No one was injured or in the vicinity at the time the damage was sustained."

The partners said they are working closely with US-based GE Vernova, which has initiated an investigation into the cause of the incident. A GE Vernova spokesperson described it as an "isolated blade event."

"No injuries occurred, and GE Vernova's Wind Fleet Performance Management team has initiated investigation protocols into the event in coordination with our customer," they added in an emailed statement.

The incident comes a little over a **month after** a **GE Vernova blade** at the 806-MW **Vineyard Wind project** in the **US shattered** and **washed ashore** off **Nantucket**, **Mass**. **Production** at the project, which had 10 operating turbines as of late June, was subsequently **suspended**.

GE Vernova executives said in late July that a "material deviation" in one of its factories had led to the blade failure. However, they added that they had so far not uncovered any design flaws in the blades' engineering.

The **issue** at **Dogger Bank A** is also **not** the **project's first incident** during construction, with an **installed blade sustaining damage** in early **May**.

Renewables website ReNews reported that the **blade crumpled several meters away from** the **turbine hub**, leaving the component "dangling backwards over the nacelle." A subsequent investigation attributed the incident to an issue during installation, ReNews said.

Twenty-seven turbines at Dogger Bank A were either fully or partly installed as of mid-July. GE Vernova is in line to supply a total of 277 13-MW turbines to the Dogger Bank Zone, which also includes two further 1.2-GW phases, Dogger Bank B and C.

Supply chain delays and challenging weather conditions forced the project developers to recently push back completion of the first phase to the first half of 2025. Dogger Bank B is now expected online in early 2026, with Dogger Bank C following a year later.

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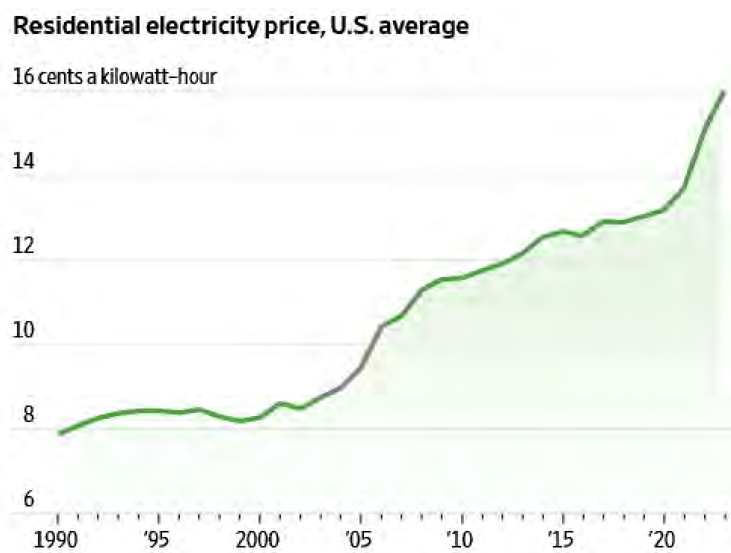
Get Ready to Pay More for Electricity

by Katherine Blunt – WSJ – Jul. 19, 2024



As the grid becomes increasingly unstable, utilities ramp up spending.

Americans used to spend little energy worrying about whether the lights would come on at the flick of a switch, or how much that electricity cost.

For a growing number of people, **those days are over**.

Larry Hilkene, who moved from Indiana to a quiet Detroit suburb just over a year ago, has since had nine power outages, the longest one lasting 16 hours. In the same period, his utility company, DTE Energy, raised electricity rates and sought regulatory approval for another increase as it works to improve the reliability of its system.

Until recently, DTE used an antiquated tile map board to monitor its decades- old grid. When changes occurred on the system, an employee would use a 20-foot pole to place magnetic markers showing open and closed circuits. In 2022, DTE unveiled a massive digital display board to replace it, part of a major spending push to modernize the grid that will be shouldered, in large part, by customers.

Hilkene, who works in cybersecurity, wrote to regulators to express his opposition to paying more for what he considers subpar service. "I call it DT(non)E because they do not appear to be about energy," he wrote, adding that he "cannot believe the abysmal state of power infrastructure here."

Utility customers across the **country** are **increasingly paying more for less-reliable service** – a trend driven home by a massive heat wave that has triggered outages around the country in recent weeks.

Utilities from Michigan to New York and beyond are planning their **largest capital investments since World War II as** the **grid becomes more unstable** as a **result of age and extreme weather.**

After **Hurricane Beryl** made landfall outside of Houston and pummeled the city as a tropical storm, more than 2.2 million of **CenterPoint** Energy's 2.8 million Houston area customers were without power, marking the company's largest-ever outage. Center-Point estimated it would take 12 days to fully restore power. The company this year sought regulatory approval to raise rates, which have remained relatively flat for 10 years.

Meanwhile, demand is poised to soar, with **millions of electric vehicles** and **massive data centers** powering **a**rtificial **i**ntelligence needing to draw power.

Sound of Generators

Customers of roughly 17 large utility companies may see **rate hikes above** the **rate of inflation** between 2022 and 2027, according to Sector & Sovereign Research. Utilities have generally kept rate increases at or below the rate of inflation to reduce the risk of pushback from regulators and customers.

Utilities say significant spending is needed in part to address serious reliability issues. Between 2013 and 2022, the nation's utility companies recorded a roughly 20% increase in outage frequency, according to the most recent federal data. Outage duration increased by more than 46% over the same period, largely as a result of weather-related disasters.

During his first few power outages, Hilkene noticed something he hadn't heard before in Indiana: the sound of his neighbors' **backup generators** firing up. He surveyed the neighborhood, a community of three- and four-bedroom homes near a small lake and an equestrian center, to find that more than a quarter of them had installed natural gas-powered generators.

On a recent spring day, a team of five men arrived with a trailer and unloaded a backup power unit to install on the lush lawn. The generator cost him about $12,000, a sum he considers substantial but worth it to avoid outages.

When a mid-June thunderstorm briefly knocked out the power, Hilkene said he sighed with relief as he heard the generator start up.

Days later, more than 25,000 people were without power in his county as more storms hit.

Price Hikes

After years of relatively modest increases, U.S. electricity prices are on a sharper rise. **Russia's invasion of Ukraine** in 2022 **drove up** the **price of natural gas** needed to fuel power plants. **Gas prices** have since **receded**, **but rate increases** are **still accelerating** as utilities invest tens of billions of dollars to stabilize the grid itself, and pass those costs onto customers.

Pedro Azagra, CEO of Avangrid, which operates utilities in New England and New York, said the company has substantially ramped up spending in recent years to address a range of reliability challenges.

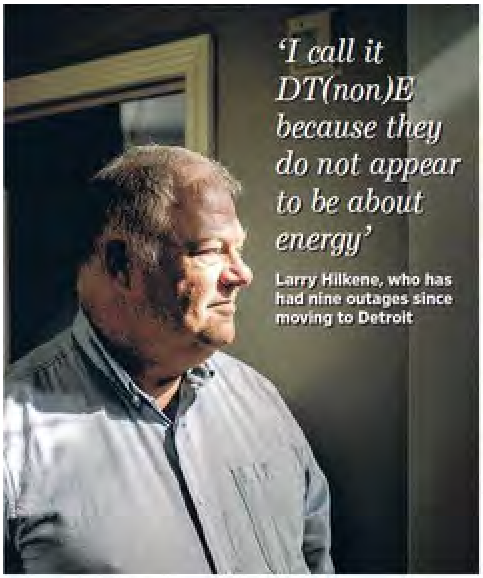
"The problem that we have right now comes from **decades of lack of investment**," he said. "You cannot catch up in one minute."

U.S. electricity prices increased 4.4% over the past year, according to data from the Bureau of Labor Statistics, faster than the broader inflation rate of 3%.

Hugh Wynne, Sector & Sovereign's co-head of utilities research, said gas price volatility, combined with higher interest rates and higher costs associated with replacing old equipment, is beginning to put pressure on rates for utility customers in regions where a substantial amount of work has been proposed. Some utilities aren't expected to seek major rate hikes in the coming years, but he said the firm is tracking an unusually high number that are.

"There were a lot of trends that were moving in a positive direction for the industry that are now going in the opposite direction," he said.

Utilities are expected to invest more than $165 billion a year in 2024 and 2025 to make significant upgrades and replacements, according to trade group Edison Electric Institute, more than any year since the group began collecting data. Many utilities are also **ramping up spending** on routine activities such as **maintenance** and **tree-trimming** to reduce outages, and, throughout the West, **wildfires** caused by fallen power lines.



The need for work is spread throughout the country, with parts of the mid-Atlantic, the Midwest and California expected to see some of the steepest rate increases in coming years. **Nationwide, large sections** of the **grid** are decades **old** and **need replacing**, and **labor and equipment have** each **become more expensive** as a result of inflation and supply-chain snarls.

Left: "Rates are going to go higher, and there's not much you can do about it," said Guggenheim analyst Shahriar Pourreza. "It's kind of the new normal."

Tree Trimming

Avangrid subsidiary New York State Electric & Gas, which serves much of the rural upstate region, has for years delivered some of the state's least-reliable power. NYSEG failed a state target for outage frequency for the fifth consecutive year in 2023, regulatory filings show, though the company improved that metric last year.

Left: Workers upgrade an aging power line in Detroit, part of a costly effort to improve service.

Trees were the primary reason. Some grow more than a foot each year, increasing the likelihood of contact with power lines.

NYSEG told regulators that it has struggled to trim trees frequently enough to maintain safe distances between lines and branches. A 2022 regulatory filing showed that in large parts of the system, vegetation hadn't been cut in at least six years, if ever.

NYSEG is now spending tens of millions of dollars to improve its **tree work**. That spending, combined with **investments** to **upgrade outdated substations**, **circuit**

breakers and **other equipment**, is projected to drive power bills up by about 22% between 2023 and 2025.

Avangrid's Azagra said system reliability is faltering largely because of age, as well as **more frequent storms** and changing weather patterns that are stressing the trees and creating other hazards such as **flooding**.

"If anyone says they don't see that, come to me," he said. "Come to upstate New York."

In **Oregon**, **P**ortland **G**eneral **E**lectric is **investing** **heavily** to **upgrade** the **grid** to withstand more extreme weather. The company has in recent years been working to reduce the risk of its power lines starting wildfires by **burying certain circuits**, **trimming** **more tree**s and **expanding** its **network** of **weather** **stations** to monitor for risky conditions.

PGE is also preparing for an anticipated surge in demand to power **new data centers** and **semiconductor** **manufacturing**. The company last year significantly revised its expectations for industrial energy usage, telling regulators that come **2030**, the **need for additional power supplies could be more than 40% higher than earlier forecasts**.

CEO Maria Pope said many of the upgrades involve expanding system capacity to better distribute electricity supplies during periods of extreme demand, when power prices spike. The utility saw record summer power demand during a multiday heat wave last August. Eight months earlier, it saw all-time high winter power demand during an intense cold spell, breaking a record set about 25 years earlier.

PGE this year raised residential rates by about 17%. The company is seeking regulatory approval for another 7.2% increase next year.

Pope said the company needs to work with state and federal regulators to determine how to better manage costs and reduce the burden on customers as the utility completes the most substantial system overhaul in decades. She **likened** the **spending** **need** **to** the **initial buildout of the electric system in the Pacific Northwest more than a century ago**, a **massive undertaking** that involved the region's utilities as well as the federal government and other investors.

'Creative Solutions'

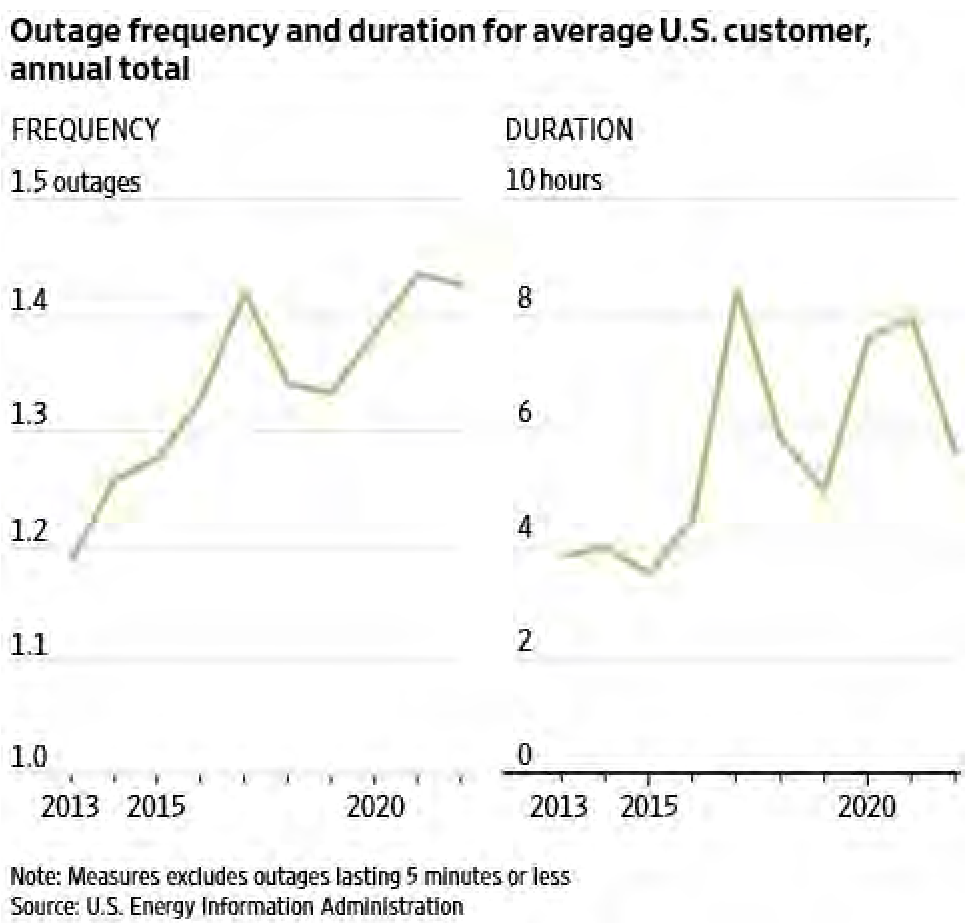
"There's no question that we need to accelerate the work that we're doing," she said. "We're **going to need** to come up with **creative solutions from** a **regulatory and** probably also a **legislative standpoint**."

DTE, which serves Larry Hilkene and 2.3 million electric customers in southeastern Michigan, has one of the least reliable systems in the country, with customers experiencing some of the longest outages each year. Outages are substantially more frequent as well for many customers, though not throughout the entire system.

The company is planning to invest $9 billion over the next five years to reduce outage duration and frequency by 50% and 30%, respectively. It spent $5 billion over the past five years.

CEO Jerry Norcia said the breakdown in reliability – and the need to spend heavily to address it – is the result of more frequent and intense storms exacerbated by climate change, as well as historical inadequacies in some of the utility's work programs. DTE for years failed to trim trees growing alongside its power lines at a frequency needed to avert major outage problems, particularly during severe wind and ice storms.

Until about 2019, the company patrolled its lines for vegetation on a nine-year cycle, nearly twice the industry average of roughly five years, regulatory filings show. To achieve a five-year cycle, DTE is now spending hundreds of millions of dollars on what it calls a "tree-trimming surge" expected to last through 2025. The company has sought to reduce the burden on customers by issuing low-interest bonds to recover the costs over time.



Population Growth

Norcia said the company's previous tree-trimming standard was untenable, especially as storm patterns intensify. The company has in recent years seen an uptick in summer and winter storms, some of which have occurred back-to-back and left hundreds of thousands of people in the dark for days.

"I'm in a much different situation than my predecessors were," Norcia said. "We have to accept this new reality that what used to happen every 50 years is now happening every three to five years."

On top of that, Norcia said, the system serving much of downtown Detroit, designed nearly a century ago, needs **near-complete replacement** to support population growth, the adoption of electric vehicles and other power-demand drivers.

DTE has been working to automate and digitize parts of its system with technologies that many utilities have been using for years, including the digital display board installed in 2022.

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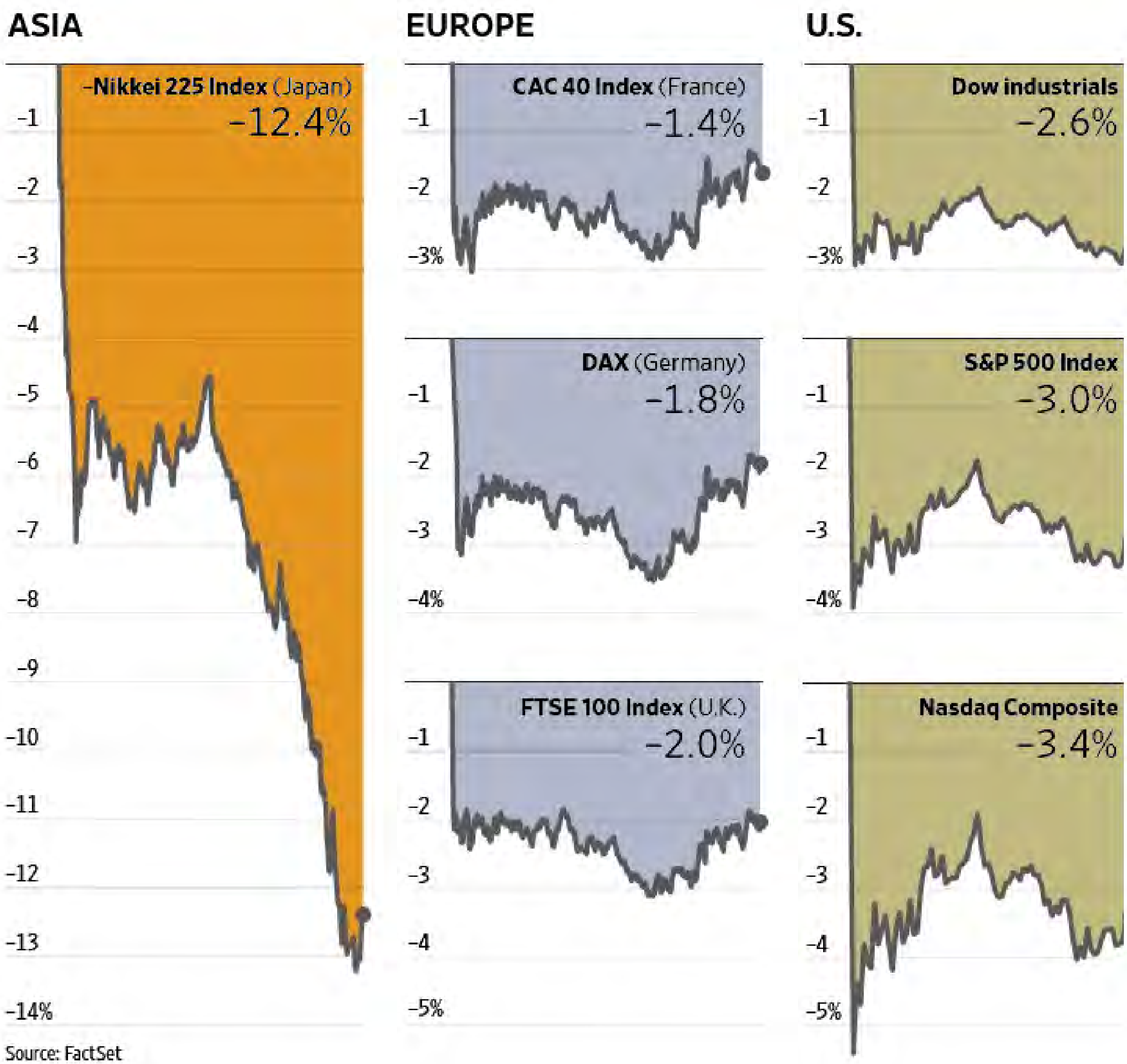
Global Stocks Dive as Trades Unravel

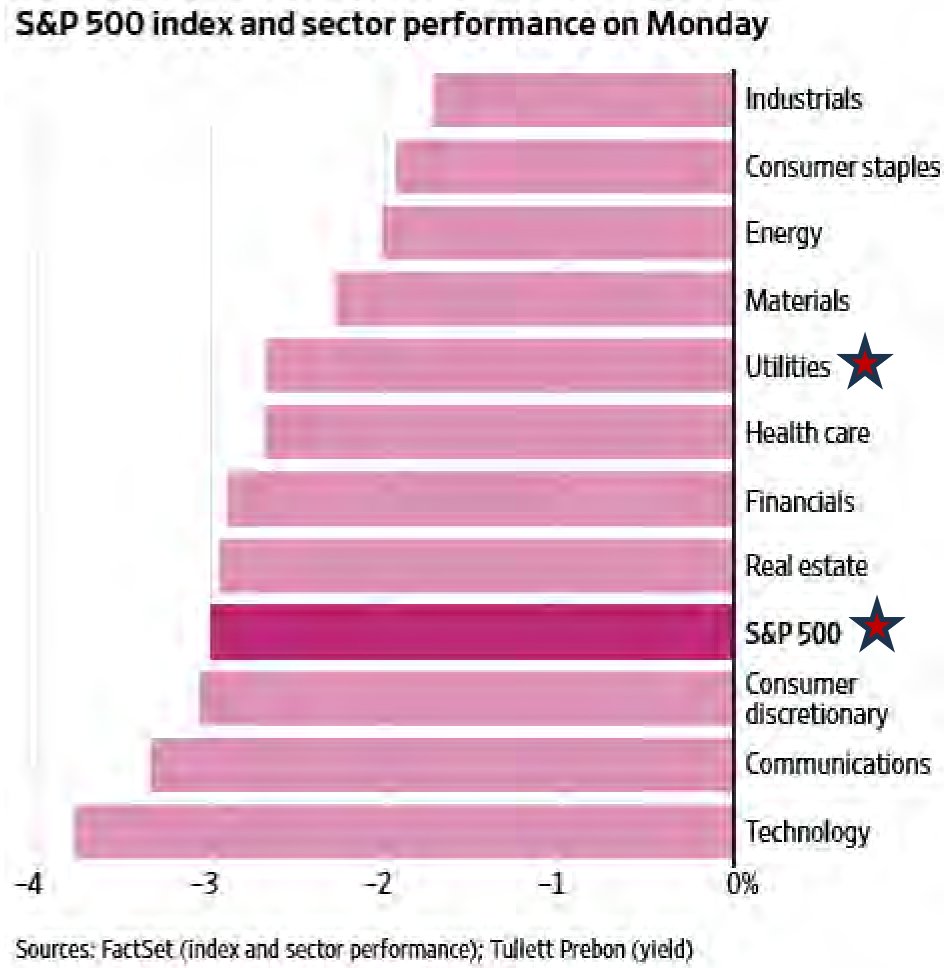
by Ryan Dezember – WSJ – Aug. 6, 2024
Kosaku Narioka and Rebecca Feng contributed to this article.

Blue chips fell more than **1,000 points**. **Japan's stock market** had its **largest one-day percentage decline** on Monday **since** October 20, **1987**. Other countries indexes followed with big tumbles as well and the **VIX volatility index skyrocketed**.



Source: FactSet

The unwinding of some of Wall Street's most popular trades intensified Monday, sending Japanese stocks to their worst day since the 1987 market crash and walloping U.S. technology shares.



U.S. stock indexes opened sharply lower, tracing declines in international markets, before recovering somewhat after a survey of purchasing managers showed the services sector expanded last month at a slightly higher rate than expected.

The tech-heavy Nasdaq led the way lower, falling 3.4%. Every industry segment in the S& 500 declined, pushing the broad index down by 3%. All 30 stocks in the Dow Jones Industrial Average ended lower and the blue-chip index shed 1034 points.

The Russell 2000 index of small stocks, resurgent in recent weeks, lost 3.3%. Oil, precious metals and bitcoin fell. Wall Street's fear gauge, the CBOE Volatility Index, or VIX, jumped more than 50% during stock-trading hours to its highest level since 2020.

The rout began in Asia, where Japan's Nikkei 225 declined 12% amid a surging yen. It was the worst single-day percentage drop for the Nikkei since Oct. 20, 1987.

That was the Tuesday after Black Monday in the U.S., when the Dow industrials fell nearly 23%.

The selloff in Tokyo extended last week's **rout** that **followed** the **Bank of Japan's decision** to **raise interest rates**. That move **pushed** the **yen higher relative to other currencies**. Disappointing economic data in the U.S. stoked the selloff, unwinding a popular Wall Street bet known as the carry trade.

For years, investors around the **world bought riskier assets**, **such as U.S. stocks**, and **funded** the **trades with** the **yen**, **thanks to ultralow interest rates in Japan**. Until recently, many hedge funds and money managers **expected rates to remain low and the yen weak**.

Instead, the **strengthening yen** has **squeezed** the **carry trade**. **Investors who borrowed yen to fund their bets** have been **forced** to **buy more** of the **currency by bankers insisting on additional collateral**. That is **pushing** the **yen even higher**, **prompting more margin calls**.

The Japanese market rebounded sharply early Tuesday. At the midday break, the Nikkei was up 9.4%. Elsewhere in Asia, South Korea's Kospi was up 3.5%, Other big moves on Monday also were reversing themselves: The yen, which had strengthened sharply, has fallen back somewhat. The Japanese currency was trading at around 145 to the dollar. Japan's 10-year government bond yield had recovered to 0.87% from 0.75% Monday afternoon.

The losses Monday were an example of the popular trades that are coming unraveled as investors mull weakening **U.S.** economic data and tech shares' sky-high valuations while awaiting the **Fed**eral Reserve's next move on interest rates.

Investors have been **expecting** the **central bank** to **cut rates** at its **September** meeting. Now the debate centers on whether the Fed might take the rare steps of making a larger-than-usual half-percentage-point cut or even lowering borrowing costs between meetings.

In one sign that growth is continuing, Treasury yields recovered from sharp early declines following Monday's strong reading of the services sector.

The Institute for Supply Management's survey of service businesses rose to 51.4 in July from 48.8 in June, which was the lowest reading since the depths of the Covid-19 pandemic lockdown in 2020. Readings over 50 indicate expansion.

A similar ISM survey of manufacturing companies last week slipped deeper into contraction, prompting bonds to rally and a selloff in stocks. Monday's services reading suggests that the swath of the U.S. economy that employs the most people might not be in as bad shape as manufacturing.

The **yield** on the benchmark **10-year Treasury note ended** at **3.782%,** down from its Friday settlement of 3.795% and well off the 2024 high of 4.706% in late April.

The **two-year yield**, which often moves with expectations for short-term rates set by the Fed, inched up to **3.88%.**

While investors wait, they are dumping the technology stocks that propelled the market to new highs this year.

Each of the so-called **Magnificent Seven technology stocks declined at least 2.5%**. **Nvidia**, the must-own stock of the artificial-intelligence frenzy, **lost 6.4%.**

Investors have questioned whether those companies' share prices had outrun realistic forecasts for future profits. "The technology sector has come under particular duress in recent weeks amidst fear that companies are overspending on artificial intelligence infrastructure just as economic growth is beginning to slow," said John Belton, portfolio manager at Gabelli Funds.

Warren Buffett's Berkshire Hathaway on **Saturday disclosed** that it had **slashed** its **position** in **Apple** during the second quarter, **selling nearly half** of its huge **stake** in the iPhone maker.

The regulatory disclosure sent a strong signal to the droves of investors who look to the Nebraska-based billionaire, known as the Oracle of Omaha, for signs of shifting market sentiment.

"It's something that people pay attention to due to his historic track record of going against the greed-and-fear rotations of the market," said Brian Burrell, portfolio manager at Thornburg Investment Management in Santa Fe, N.M. "When a contrarian starts to move and everyone is positioned the other way, that's a reason to re-examine their positioning."

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Hawaiian Electric Nears Fire Settlement

by Akiko Matsuda and Soma Biswas – WSJ – Jul. 29, 2024

Hawaiian Electric is near a deal to resolve mass lawsuits over the Maui wildfires.

The Utility aims to avoid following California's PG&E into filing for bankruptcy

Hawaiian Electric is **nearing** a **deal** to **resolve mass lawsuits over last year's Maui wildfires** that **could avoid** a **bankruptcy filing** by the utility, people familiar with the situation said.

Hawaiian Electric and other defendants facing wildfire lawsuits in Maui have been in talks for a **settlement valued at over $4 billion**, **though** an **insurance dispute remains** a **risk to finalizing any deal**, the people said.

The proposal under discussion would also cover the Hawaiian state government and Maui County, according to people familiar and court documents.

Left: Hawaiian Electric and Maui County have blamed each other for last year's wildfires there.

The **county and** the **utility** have **blamed each other for** the **wildfire**, which destroyed more than 2,200 homes and businesses in Maui communities and the historic town of Lahaina and killed more than 100 people.

The **Maui fires triggered litigation and** a **financial crisis for Hawaiian Electric** that **led it to consult with restructuring**

advisers on a path forward. Fire victims have filed more than 450 lawsuits against Hawaiian Electric and other defendants, seeking compensation for billions of dollars in property damage and personal-injury claims.

Some personal-injury firms representing large numbers of victims have been in mediated talks for the settlement, which still faces risks and doesn't have the support of insurance companies that made payouts to victims on homeowners insurance and other policies.

An open question is how the settlement will be divided between victims and **insurance companies** that have **also sued** for reimbursement for payouts they have already made.

Potential holdouts to any settlement pose a risk to resolving Hawaiian Electric's fire-related liabilities outside of a bankruptcy. **Hawaiian Electric said** the **mediation process** is **ongoing and confidential** and declined to comment further. A Maui County official declined to comment, citing pending litigation.

Shares of **Hawaiian Electric Industries**, which owns Hawaiian Electric, finished **Friday's trading** at nearly **$17**, continuing a **rally from** less than **$8 last week** after Bloomberg reported on the potential settlement. The **stock** hasn't been worth that much since it was **trading around $37 just before** the **wildfires** in **August 2023.**

A **global settlement could help Hawaiian Electric avoid** the **fate** of California's largest utility, **PG&E**, which filed for bankruptcy in January 2019 as it struggled with liabilities from California wildfires in 2017 and 2018 that were sparked by its equipment. **PG& E exited bankruptcy after agreeing** to **pay $25 billion to individuals, businesses and insurers to compensate for wildfire-related losses**.

Hawaii's governor and its electric utility have sought to settle the wildfire litigation without having to resort to a bankruptcy filing for Hawaiian Electric. The **U.S. Supreme Court's recent ruling against Purdue Pharma made chapter 11** an even **less-attractive option for Hawaiian Electric**, according to people familiar with the company's thinking and lawyers involved in the situation.

The **Purdue ruling** in **June shut** the **door** on a **court's ability in chapter 11 cases** to **wipe away legal claims against entities that haven't themselves filed for bankruptcy**. That means a **Hawaiian Electric bankruptcy would now be unlikely** to **buy peace for Maui County**, the **state of Hawaii** and **other defendants** who are **named in** the **Maui wildfire lawsuits**, making the chapter 11 option less attractive, these people said.

Total liabilities from the **Maui wildfires could amount to nearly $5 billion**, according to estimates by Capstone, a consulting firm in Washing--ton, D.C., that advises investors and companies on regulatory matters. In **similar litigation against PacifiCorp over 2020 wildfires in Oregon**, **juries** have **handed down verdicts** that point to **average awards** of **over $9 million per person for loss of life**, said Alyssa Lu, an analyst for Capstone.

The first such trial against Hawaiian Electric is scheduled for November. Trial dates often motivate companies facing personal-injury lawsuits to seek chapter 11 protection before a jury reaches a verdict with a high damages figure.

"We don't expect Hawaii Electric to want to take these cases to trial," Lu said.

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How to Prepare for the Fed's Forthcoming Interest Rate Cuts

by Cora Lewis – AP, Oregonian – Aug. 24, 2024

The **Fed**eral Reserve is **poised** to **cut** its **benchmark interest rate next month from** its **23-year high**, with consequences for consumers when it comes to debt, savings, auto loans and mortgages. **Right now, most experts envision three quarter-point Fed cuts** – in **September**, **November** and **December** – though even **steeper rate cuts** are **possible**.

"The time has come" for the Fed to reduce interest rates, Powell said Friday in his keynote speech at the Fed's annual economic conference in Jackson Hole, Wyoming. "The **direction of travel is clear**, and the timing and pace of rate cuts will depend on incoming data, the evolving outlook, and the balance of risks."

Based on Powell's remarks and recent economic data, the **central bank** is **expected** to **cut** its **key rate by** a **quarter-point when** it **meets next month** and to carry out **additional rate cuts in** the **coming months.**

What would the Fed's rate cuts mean for Savers?

According to Greg McBride, chief credit analyst for Bankrate, savers should lock in attractive yields right now, before the expected rate cuts begin.

"For those who might be looking at Certificates of Deposit or bonds – you want to jump on that now," he said. "There is not a benefit to waiting because interest rates are going to be moving lower."

McBride stressed that anyone closer to retirement has a good opportunity to lock in CDs at the current relatively high rates.

"If you do so, you'll provide yourself a predictable flow of interest income at rates that should outpace inflation by a pretty healthy margin," said McBride.

How would the rate cuts affect Credit Card Debt and Other Borrowing?

"Your credit card bill is not going to plunge the day after the next Fed meeting," cautions LendingTree chief credit analyst Matt Schulz. "Nobody should expect miracles."

That said, the declining benchmark rate will eventually mean better rates for borrowers, many of whom are facing some of the highest credit card interest rates in decades. The average interest rate is 23.18% for new offers and 21.51% for existing accounts, according to WalletHub's August Credit Card Landscape Report.

Still, "it's really important for people to understand that rates probably aren't going to fall that quickly," Schulz said.

He said it's important to take steps such as seeking a 0% interest balance transfer or a low-interest personal loan. You can also call your credit card issuer to see if you can negotiate a better rate.

"In the short term, those things will have a much bigger effect than falling interest rates," Schulz said.

How about Mortgages?

The **Fed**eral Reserve's **benchmark rate** doesn't directly set or correspond to **mortgage rates**, but it does have an influence, and the two "**tend** to **move in** the **same direction**," said LendingTree senior economist Jacob Channel.

In recent weeks, **mortgage rates have already declined ahead of the Fed's predicted cut**, he pointed out.

"It goes to show that even when the Fed isn't doing anything and just holding steady, mortgage rates can still move," Channel said.

Melissa Cohn, the regional vice president of William Raveis Mortgage, echoed this, saying that the most important thing is what signal the Fed is sending to the market, rather than the rate change itself.

"I've heard from a lot of people who locked in (their mortgage rate) over the course of the past 18 months, when rates were at their peak, already asking whether it's time to refinance and what savings they could have," she said. "I think that the outlook is good, and hopefully that spills into the real estate market, and we get more buyers in the market."

Channel said that the majority of Americans have mortgages at 5%, so rates may have to fall further than their current average of 6.46% before many people consider refinancing.

And Auto Loans?

"With auto loans, it's good news that rates will be falling, but it doesn't change the basic blocking and tackling of things, which is that it's still really important to shop around and not just accept the rate that a car dealer would offer you at the dealership," said Bankrate's McBride. "It's also really important to save what you can and be able to try to put as much down on that vehicle as you can."

McBride does predict that the beginning of rate cuts and the avoidance of a recession will lead to lower auto loan rates in 2024 – at least for borrowers with strong credit profiles. For those with lower credit profiles, double digit rates will likely persist for the remainder of the year.

What's going on with Inflation and the Job Market?

Last week, the government reported that **consumer prices rose just 2.9%** in **July from** a **year ago**, the smallest increase in over three years. Employment data, however, gives some economists pause. New data has showed **hiring** in **July** was **much less than expected** and the **jobless rate** has **reached 4.3%**, the highest in three years – one measure of a weakening economy. That said, **robust retail sales** have helped quell fears of a recession.

The rate at which the Fed continues to cut rates after September will depend in part on what happens next with inflation and the job market, in the coming weeks and months.

Note: The Associated Press receives support from Charles Schwab Foundation for educational and explanatory reporting to improve financial literacy. The independent foundation is separate from Charles Schwab and Co. Inc. The AP is solely responsible for its journalism.

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How a Heap of Lithium on the Nevada-Oregon Border Could Ignite an Environmental Battle

by Andrew Miller – Oregonian – Aug. 10, 2024

https://www.oregonlive.com/business/2024/08/how-a-heap-of-lithium-on-the-nevada-oregon-border-could-ignite-an-environmental-battle.html

The clay mixture from which lithium will be extracted is held by Tim Crowley, spokesperson for Lithium Americas Corp., on June 7, 2021, in Reno, Nevada.

Oregon sits on a **colossal bounty** of **lithium straddling** the **border with Nevada**, sharing **one of** the **largest deposits on Earth** with a southern neighbor.

Lithium is one of the most important resources for the ongoing renewable energy boom, **vital for batteries** used in **electric vehicles** to **solar energy** technology. (Lithium batteries also likely power the device on which you're reading this story.) Right now, it's key to getting millions of polluting gas-powered cars off the road.

Miners are already prospecting the Oregon side of the massive deposit of "white gold" in an ancient volcanic caldera. But **getting** that **lithium out of the ground could emit about** as **much carbon as Oregon's last coal-fired power plant in** its **last 22 years in operation**. And environmental groups say mining the area would hurt a crucial ecosystem in Oregon's high desert.

The Nevada side of the deposit is estimated to contain a larger supply of lithium in higher concentrations. Companies with land in Oregon expect they're at least a decade away from tapping the Oregon side – where they expect tougher environmental regulation and more public resistance – by which time battery technology might well have moved on.

But at least three transnational Australian mining corporations are exploring the Oregon sites, drilling dozens of holes into its claystone rock to measure the amount of lithium. Representatives from one of the companiesmet with Gov. Tina Kotek last month.

So the site might yet set up a new clash between environmentalism and the rush toward sustainable energy. And Oregon may have to choose between a modern-day oil boom and the environmental values many of its residents cherish.

Environmentalism and sustainability

The prospect of lithium mining on Oregon's desolate but ecologically dense southeastern border has raised a litany of concerns for the state's **environmental** advocacy groups.

For one, they consider the area critical to the survival of the sage grouse, a bird native to Oregon's high desert that's considered "near-threatened." Mark Salvo, the Oregon Natural Desert Association's conservation director, said the area contains breeding grounds for the birds that mining would decimate.

And it's not just the sage grouse. Because the area is passable to wildlife during winter, even when nearby mountains are encased in deep snowpack, Salvo said many species depend on it. Mines could also disturb threatened Lahontan cutthroat trout, which lives in creeks that run near prospective mining sites.

It also includes species such as the pronghorn antelope, which Salvo said "frankly every other western state is concerned about" due to long-term population declines.

The **mines would also demand immense supplies of water** to extract the lithium. One mine in Nevada at Thacker Pass already plans to withdraw just under 1.7 billion gallons of water per year from local groundwater in its second phase.

Water usage is already a perennial issue in Oregon, where cities, industry, farmers and fish already compete over a finite supply. And environmental groups such as Salvo's are especially concerned about this in the proposed mines.

But one of the biggest environmental concerns reveals a tension between reducing carbon emissions through electrification and present-day battery technology.

John Dilles, a retired geology professor at Oregon State University who co-authored a transformative study that estimated the amount of lithium in the caldera, said the element is so heavily embedded with calcium carbonate in claystone rock that miners will need to dissolve the surrounding mineral to extract the lithium.

For every ton of lithium mined, the chemical process will release between four and 30 tons of **carbon dioxide**. (That ratio depends on the concentration of lithium in the rock the miners will extract it from, among other factors.)

Construction is underway at the Lithium Nevada Corp. mine site Thacker Pass project on April 24, 2023, near Orovada, NV. The vast lithium deposit of the McDermitt Caldera straddles the Oregon-Nevada border.

Dilles estimates the amount in Oregon could be on the higher end of that range – about 20 tons of carbon dioxide released for every ton of lithium extracted. On the conservative estimate of 2 million metric tons of lithium at the largest site on Oregon's side, that means 40 million metric tons of carbon dioxide released into the atmosphere.

That's equivalent to running Oregon's Boardman Coal Plant – the state's last coal power plant, decommissioned in 2020 – for 22 years.

Every ton of lithium used in electric vehicle batteries prevents the release of about 190,000 tons of carbon dioxide emitted by gas-powered vehicles. That means even if a small fraction of the deposit's lithium goes to EV batteries, it could halt the emissions of hundreds of millions of tons of carbon dioxide, far outstripping the carbon cost of its extraction.

But climate scientists say carbon emissions today, when greenhouse effects are accelerating, could be more damaging than future emissions – if global emissions are already in decline.

Scientists are researching ways to capture that carbon before it's released into the atmosphere, Dilles said, but it's not common practice.

Who would mine the sites?

At least three companies, all Australian or subsidiaries of Australian mining corporations, have laid claims on Oregon's lithium deposits.

The site was first scoped out by Chevron in the 1970s, which at the time was hunting for uranium. The Australian company Aurora Energy Metals has followed suit, laying claim to a portion of the northeastern edge of the caldera. The company says on its website that it hopes to mine both uranium and lithium at its site.

A U.S. subsidiary of another Australian lithium mining company, Chariot Corp., has stakes in significant portions on both sides of the border.

But the company has suggested it may never mine the Oregon side. Shanthar Pathmanathan, Chariot's managing director, told a mining industry podcast host in March that he expects difficulties.

"The Oregon part, we think, is going to be somewhat frustrated by politics in Oregon which prevent that from being developed into a mine," Pathmanathan said on the podcast. (His company, Chariot Corp., did not respond to an interview request.) "Nevertheless, the mineralization is also there."

The regulation for permitting is largely handled by the Bureau of Land Management, a federal agency, just as in Nevada. But Oregon authorities get some say. Water usage for drilling, for example, still has to go through an Oregon water master, and there are other constraints the state can place on a major mining operation.

The largest deposit on Oregon's side is staked out by Jindalee Lithium, another Australian firm, through its U.S. subsidiary, HiTech Minerals. But the company, like others, doesn't expect to have shovels in the ground for many years.

Brett Marsh, vice president of exploration and development at Jindalee, said it would be at least a decade, but likely much longer, until mining operations actually begin on the company's site.

Still, the company is close to obtaining an exploration project permit for its Oregon land, where the company plans to drill hundreds of holes and build miles of road.

Jindalee representatives met with Gov. Tina Kotek last month to discuss the company's project. A spokesperson for Kotek said she met with Jindalee at the company's request to discuss the company's business model, the process to extract lithium and world markets for the resource.

But getting shovels in the ground on Oregon's side may still prove to be much harder than in Nevada. It's possible, experts say, that battery technology passes by lithium in the meantime. Scientists and renewable tech are already looking at alternative battery technology that relies on potentially more sustainable resources, such as sodium.

A mirror over the border

If Oregon wants to know what it could expect from mine development, it can look to its southern neighbor.

Nevada's largest lithium mine, at Thacker Pass, has **drawn intense controversy and protest**.

An employee stands near the Lithium Nevada Corp. mine site at Thacker Pass on April 24, 2023, near Orovada, NV.

Lithium Americas, the Canadian company that operates the mine, estimates it contains almost $4 billion in extractable lithium, enough to satisfy a quarter of yearly global lithium demand.

The mine is projected to create hundreds of jobs in the remote corner of the state, with wages that average about $63,000 a year. The state's average salary is about $55,000.

Three tribes have sued the Bureau of Land Management, alleging the mine is being constructed near the site of a massacre where U.S. Cavalry killed dozens of Native Americans. A federal judge ruled last year that the tribes failed to prove the project site was where the massacre occurred.

Activists allege the company rushed environmental reviews and say the mine represents threats to wildlife similar to those feared by environmental groups on Oregon's side.

Karly Foster, a former campaign manager for the Oregon Natural Desert Association, vehemently opposes the development of mines on the Oregon-Nevada border. She supports the use of lithium, but she said this site is too important to local wildlife and cultural resources. (Foster wrote an ode to the site's "vibrant ecological haven" for The Bulletin in Bend earlier this summer.)

But beyond her own opinion on the matter, she said the lithium lode illustrates the tension between environmental protection and the race toward net zero, to the widespread adoption of electric vehicles and of renewable technology. Both, she said, are crucial.

"It's an incredible mirror," Foster said, "that just happens to live in Oregon."

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Index Funds Are Cheap. They Can Still Cost You.

by Jason Zweig – WSJ – Aug. 24, 2024

Investors often fall short of the funds they invest in.

Index funds have **made investing simple** – **but not easy**. These portfolios that seek to match, rather than beat, a market's returns usually charge **extremely low fees** and **generate low tax bills**. If you **buy** a handful of index funds, **sit on them for decades** and **never do another thing**, you're **likely to outperform nearly everyone who tries to beat the market by trading – including most professionals**.

But **what's the fun in that**? Can you endure a lifetime of barbecues and cocktail parties where other people brag about their winning trades and all you can do is mutter, "Umm, I own index funds and I haven't made a trade in a decade"?

No wonder index funds can become tempting to trade. You see a hint of this in a new study from **Morningstar**. Each year, the research firm estimates the gap between the returns of mutual funds and exchange-traded funds and the returns their investors earn as a group.

Mutual fund or ETF returns are reported as if you bought at the **beginning** of a **measurement period, reinvested all income or capital gains**, and **never cashed out**.

After all, that's **how the fund**, **as** an **investment**, **behaved**. **But** it **isn't how most** of its **investors behaved**.

Sure, some bought and held fast. Others traded fast, driven either by financial circumstances or their own fickle emotions.

Morningstar estimates a separate figure – investor returns – by accounting for the money a fund's owners collectively added and pulled out during the period.

Those who buy and hold will earn investor returns close to their funds' reported total returns. Those who buy high and sell low will earn investor returns lower than those of the funds they own.

Over the **10 years ended Dec. 31, 2023**, **Morningstar found**, **investors in** the **aggregate earned** an **average of 6.3% annually**, or **1.1 percentage points less than the mutual funds and ETFs they owned**.

That **echoes earlier findings** from Morningstar and several academic and other studies. The consensus is clear: Investors typically underperform their investments, not just in mutual funds and ETFs, but in hedge funds and stocks as well.

At least a **small gap is almost inevitable**. Over most periods of 10 years or more, stocks go up. Contributing gradually – say, through your 401(k) – means you'll **lag** your fund in the long run, simply because you didn't put all your money to work in the beginning.

That's true even if you're purely a buy-and-hold investor who never chases hot returns or panic-sells in market crashes.

Too many investors aren't patient, however, and often bet on narrower slices of the market. Because index funds are cheaper and diverge less from their benchmarks than actively managed funds do, they've become the vehicle of choice for these short-term bets.

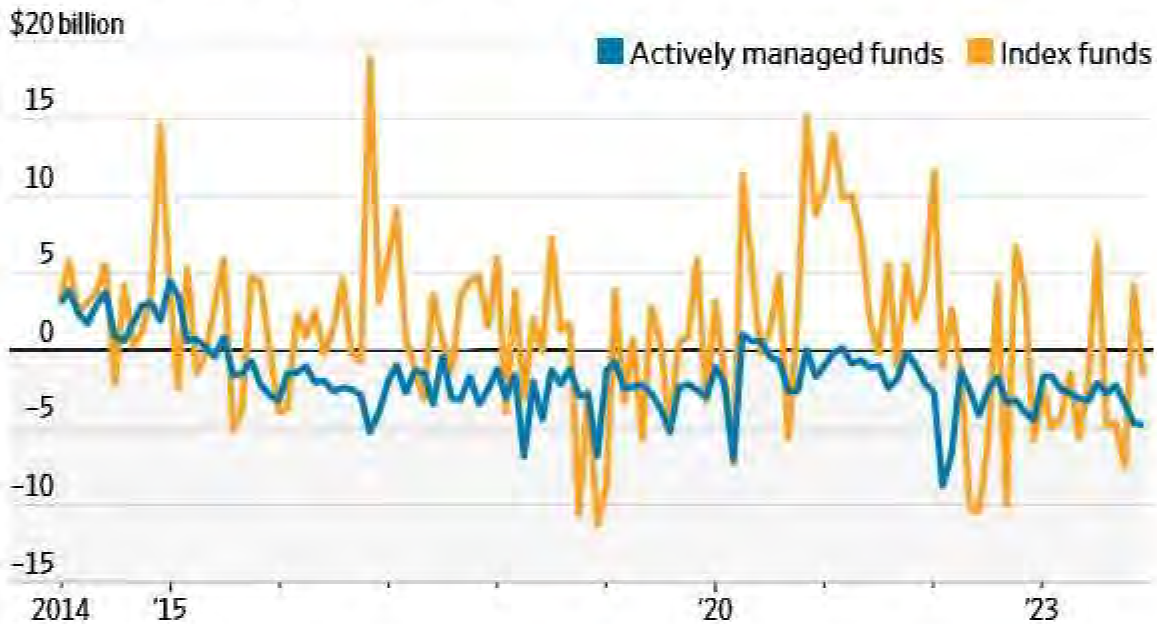
Look at sector funds, those portfolios of stocks in a specific industry like technology or energy. There, every bit of noise can feel like news, goading people into trying to get rich quick. Rapid wrongfooted trades can quickly push investor returns far below the funds' own returns.

Relative to funds that track the market as a whole, sector index funds "shoot for larger gains or focus on themes that have more excitement to them," says Jeffrey Ptak, chief ratings officer at Morningstar and lead author of the study.

Easy Come, Easy Go

If they buy high and sell low, investors can underperform the funds they invest in. In portfolios investing in a single industry, that happens even at market-matching index funds, where short-term volatility can drive investors in and out quickly.

Estimated monthly net flows at sector funds



Source: Morningstar

The Technology Select Sector SPDR ETF, for instance, gained 56% last year – but lost almost 28% in 2022.

Among these specialized industry portfolios, a lot more money sloshes in and out of index funds than at their actively managed peers.

Over the **10 years ended last Dec. 31, investor returns fell behind total returns at sector index funds by 2.9 percentage points annually** – even worse than the 2.0-point gap at actively managed sector portfolios.

When you shoot for the moon with sector index funds, you stand a good chance of shooting yourself in the foot.

Or consider so-called smart-beta or factor funds. They don't bother trying to pick individual securities, as actively managed funds do. Instead, they buy bundles of stocks or bonds with common statistical properties, such as high profitability, rapid recent price gains or a low price relative to earnings.

Again, these funds often fluctuate more sharply because their focus is narrower than the market as a whole.

Such sharp swings often shock unwary investors and financial advisers who expect these funds to perform a little better than the market, says Nicolas Rabener, chief executive of Finominal, a research firm in London.

The Invesco S&P 500 Low Volatility ETF outperformed the S&P 500 itself by more than 13 percentage points in 2022. Last year, it fell behind by more than 25 percentage points. Over the 10-year period Morningstar measured, the fund's investors as a group underperformed it by 1.2% annually, estimates Ptak.

How can you narrow the performance gap between you and your funds?

First, remember that **index funds aren't safe**. They're **just cheap**. You can burn yourself as badly playing with matches as you can with a fancy lighter.

Stick to the broadest possible index funds for nearly all your money. The narrower the benchmark the fund tracks, the more it will fluctuate and the more likely you are to get spooked out of it at just the wrong time.

If you feel you must make a **bet**, limit it to a tiny part of your portfolio – **5%**, **max**. Don't add to it, no matter what – especially if you make money.

Chasing gains is the best way to end up capturing losses.

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Inflation Has Hit the Poor Differently

by Justin Lahart – ZWSJ – Aug. 26, 2024

Something unexpected happened during the burst of inflation that came on the heels of the pandemic: Poorer Americans experienced a bit less of it than others.

It looks as if it was only a momentary reprieve, and the decades-long trend of prices rising faster for poor people than the better-off might have resumed.

Nonetheless, new research sheds an important light on how different income groups experience inflation. One implication: Traditional measures might understate poverty and inequality.

Inflation is often treated as monolithic. The Labor Department's Bureau of Labor Statistics surveys consumers to create a basket of the average American's monthly purchases, which is the basis of the consumer-price index. Most people experience a different inflation rate from what the CPI shows, though . For example, parents living next to an otherwise similar family might have longer drives to work, and thus an inflation rate more swayed by gasoline prices.

It is often assumed that poor people face higher inflation because they spend more on essentials such as rent. Research released Sunday by Xavier Jaravel, an economist at the London School of Economics, shows that while this has generally been true, in the years after the pandemic began it wasn't.

Using the same survey data used for the CPI, Jaravel constructed separate baskets for each income group. The methodology is similar to the BLS's, he said. "When you do this, you find substantial inflation differences by income group."

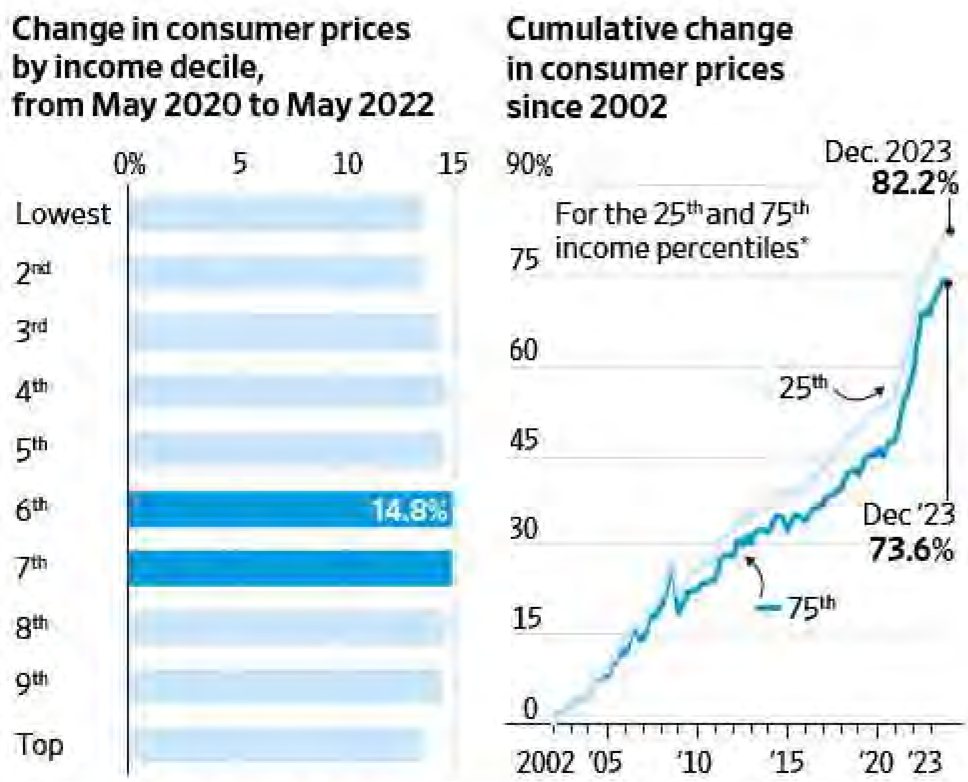
From May 2020 to May 2022, when the CPI rose 14%, Jaravel found that prices rose 13.5% for people in the bottom 10% by income and 13.3% for those in the second decile from the bottom, and 13.5% in the top decile. But prices rose more for groups in between – by 14.8% for the sixth and seventh deciles.

The biggest drivers of the divergent inflation rates were gasoline, up 132% in that period, and new and used vehicles, up 30%. As a group, poor people devote less of their spending to cars and gasoline and more to public transportation.

Even within income groups, inflation varies. Some poor people, such as those in rural areas with long commutes and no access to public transit, almost certainly experienced significantly higher inflation rates than other poor people following the pandemic's start. Moreover, with less of a financial cushion, the poor can find inflation harder to negotiate, and more stressful. But one broad, encouraging takeaway from Jaravel's analysis is that lower-paid workers received outsize wage gains right after the pandemic hit, which might have given them even more spending power.

Since 2022, however, the script has flipped. Gasoline prices have fallen, vehicle prices are edging lower, and inflation is now higher for lower income than other groups. Over the four years ended this past May, lower income Americans still experienced fractionally lower rates of inflation than the middle class, but not the top 10%.

Jaravel's data show that **in any given year, inflation for** the **poor tends** to be a **bit higher** than for other people because more of their **spending** is **on** items that have risen faster than the overall CPI over time, such as rent, **electricity and tobacco** products, and **less on** items that have risen more slowly, such as **vehicles and airfares**.



*A person at the 25th percentile has income higher than 25% and lower than 75% of the population.
Source: Xavier Jaravel

"These things accumulate over time," he said. For example, for Americans living at the 25th percentile by income, prices rose by 82% from the start of 2002 to the end of last year. That compares with 74% for those at the 75th percentile.

This means the **buying power of** the **poor rises more slowly when measured by their own – instead of the overall – inflation rate**. Jaravel estimates that if the Census Bureau used his income-level price indexes in the period beginning in 2002, rather than the overall CPI, 2.3 million more people would be below the poverty line in 2023 than its official figures show.

Katharine Abraham, a University of Maryland economist and former BLS commissioner, said a lot of current work in economics is devoted to measuring the distribution of income, wealth and consumption. Jaravel's research "is saying you can't really understand all of that without also thinking about the prices people are paying," she said.

The research builds on work by others, including BLS economists. Unlike that work, Jaravel is able to update his indexes as inflation data come out each month.

The aggregate inflation data now produced by the BLS and Commerce Department is still necessary for measuring economic growth in inflation-adjusted terms. But "if you are going to look at the well-being of different parts of society and different groups … you should have different price indexes," said David Johnson, an economist at the National Academies of Sciences, Engineering and Medicine who was assistant BLS commissioner overseeing the CPI.

Figuring out how policy should respond to those differing inflation experiences would be tricky. Should poverty benefits be indexed to the inflation rates of the poor? What about Social Security benefits or military pensions? But the questions can't even be asked, much less answered, without the sort of data Jaravel has produced.

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Intel and Nike Stumble, Shaking Two of Oregon's Economic Pillars

by Mike Rogoway – Oregonian – Aug. 7, 2024

Intel and Nike play a foundational role in Oregon's economy:
"If you're rooting for Oregon, you're rooting for these two firms to succeed.

For decades, **Oregon** has **depended on Intel and Nike as major employers** – each with a **vast workforce** and **paying wages few other local companies can match**.

They have been **economic engines in good times and bad**, **easing** the **state's dependence on natural resources** and connecting Oregon to the 21st Century economy. To a large degree, the state has crafted a corporate tax system designed specifically to please those two companies – sometimes to the exasperation of other businesses

Now, both companies are on their heels.

Intel said Thursday it plans **to eliminate 15,000 jobs** across the company **by mid-November**, the biggest cuts it has ever announced. Many of those job cuts will surely come in Oregon, the chipmaker's largest site, though Intel hasn't said which departments and which regions will take the biggest hits.

The chipmaker's dismal news follows layoffs by Oregon's other major business, **Nike**, which **cut 5%** of its **jobs last year** – including several hundred positions in Oregon. The sportswear company's **stock suffered** its **biggest decline ever** in **June as Nike warned** of **falling sales in** the **months ahead**.

Intel and Nike's current travails aren't directly connected. Each has made strategic missteps, failing to keep up with changing dynamics in their industries.

In Oregon, their concurrent stumbles are an ominous portent. Each company is a little over a half-century old.

While Intel and Nike both say they're committed to their futures in the state, their setbacks this year raise the possibility that – for one or both – their best days might be behind them. Even if the companies endure for many years to come, they might never match the dynamism that propelled them, and Oregon, in earlier times.

"Absent their vibrancy, I think you start to see a trend more in the direction of a place like Idaho," said John Tapogna, senior policy advisor with the Portland research firm ECONorthwest.

Oregon relies on Intel and Nike to attract highly educated workers, Tapogna said, **and to sustain a network of suppliers and contractors that support their core businesses**. He said the region doesn't have other companies that operate on that scale, and there are **no up-and-coming businesses who can match** the impact of Intel or Nike.

"If you're rooting for Oregon," Tapogna said, "you're rooting for these two firms to succeed."

Similar Troubles

Intel's woes stretch back several years, to **missteps** that **cost** the **company** its **technological lead in** the **semiconductor industry**. Rivals swooped in with more advanced manufacturing processes and soon, more sophisticated computer chips. Intel has been left behind in the roaring market for artificial intelligence technology.

CEO Pat Gelsinger took over in 2021 and pledged to rebuild the company's engineering, committing tens of billions of dollars to new factories across the U.S. and around the world.

The **federal government** awarded **Intel $8.5 billion** in federal **subsidies** to help restore domestic chip manufacturing and **Oregon tossed in** another **$115 million** to **encourage Intel** to **continue expanding in Washington County**, **where** it **already employs 23,000**.

As Intel's spending climbed, though, its sales fell. Annual revenues are down by more than a third over the past two years and last week Intel forecast another 8% decline during the current quarter.

The company's executives say they can't keep up its pace of spending given the diminished revenues, so Intel is slashing jobs and cutting $10 billion in expenses next year to keep the business upright.

Intel leaders say their strategy hasn't changed and they plan to keep investing in new technologies, but Wall Street is increasingly dubious. The stock lost about $30 billion in market value Friday as shares plunged 26% to their lowest point in more than a decade.

Nike's troubles are in some ways **similar**, though its cutbacks are less severe. As the company focused on **high-performance shoes** and sought to sell more of its products directly to consumers, everyday athletes shifted to rival brands like Hoka and On.

Sales stagnated and **Nike eliminated about 1,600 jobs** across the company **last year** – including more than **700 in Oregon**. The company **now employs 10,700 in** the **state** and says it's working to reinvigorate its business.

"There's a tremendous amount of hustle throughout the organization," CEO John Donahoe told Wall Street analysts in June. "And you can feel it."

Stagnant Growth

Intel and Nike's difficulties coincide with broader, unrelated drags on the Oregon economy. The state's population has stagnated in the pandemic's aftermath, ending a decade of robust expansion and contributing to the state's lackluster job growth over the last 18 months.

Job cuts at Intel and **Nike threaten** to **dig a bigger hole for Oregon**, particularly in the Portland area where technology and apparel are major industries.

"Layoffs are never good. The labor market today is a bit weaker with job openings down, hiring rates down, unemployed taking a bit longer to find a job," said Josh Lehner, Oregon's acting state economist.

While a few thousand additional layoffs won't have a huge impact in a state with two million jobs, Lehner said the question will be what they mean about the industries' long-term outlook.

"Anchor employers matter," Lehner said. "These two industry clusters matter."

Intel and Nike are especially important to the state's outlook because they employ many people and pay top-tier wages.

Oregon's semiconductor industry pays an **average annual wage** of **$150,000**, more than **double** the **statewide average**. **Nike's campus** near **Beaverton** is **home** to **highly paid executives and shoe designers**.

"It is very disconcerting to see these layoffs because these are folks that shop at small businesses," said Sarah Shaoul of Bricks Need Mortar, a Portland organization that advocates for local merchants.

Those kinds of highly paid jobs aren't easy to replace, and they have a spillover effect at merchants across the region, she said.

"Certainly there are times when we feel like small businesses don't get enough focus, especially because they are such an essential part of our economy here," Shaoul said. "At the same time, we do believe we need equal attention on supporting and sustaining jobs at bigger companies."

Money Well Spent?

Oregon has devoted years of tax and economic policy to Nike and Intel's benefit:

A dozen years ago, Oregon lawmakers met in special session at Nike's behest to lock in the state's formula for calculating corporate income taxes. The tax structure benefits both Nike and Intel because it bases corporate tax liability on sales within the state. Since those two companies sell almost all their products outside Oregon, that puts a ceiling on their Oregon tax bill.

A corporate activity tax the Legislature approved for education in 2019 contains similar provisions that protect Intel and Nike, included at the urging of former Nike government affairs chief Julia Brim-Edwards. The tax structure infuriated Oregon manufacturers who sell most of their products inside the state, but they weren't able to muster support for a repeal.

Intel enjoys exemptions from local property taxes worth $235 million last year alone, sparing it from huge tax bills on its expensive manufacturing equipment.

The $115 million Intel received from the **Oregon Chips Act** last year is tied to the company's plan for a $36 billion upgrade to its Washington County factories. It hasn't set a timetable for completing that work.

The chipmaker hasn't said how its spending cuts will affect its Oregon expansion plans but did say Thursday that its larger strategy hasn't changed.

Intel committed to adding nearly 2,600 Oregon jobs in conjunction with last year's incentives, and it must pay back some or all of the money if it doesn't meet those hiring targets.

"Are those investments still going to happen? I would think so unless I hear otherwise," said Lehner, the state economist. "It's not like the incentives are going away, and the national importance of domestic manufacturing isn't going away, either."

Pulling Together

Intel declined to comment on its future in Oregon, except to reiterate that its strategy for reinvigorating the company – which includes investing tens of billions of dollars to upgrade its Oregon factories – remains intact despite the pending layoffs and many other spending cuts.

"Our strategy isn't changing," CEO Pat Gelsinger told employees on an all-company call Thursday evening. "But we have to accelerate what we do. We have to accelerate our profitable growth."

In a statement to The Oregonian/OregonLive this past weekend, Nike said it looks forward to a bright future employing thousands of Oregonians.

"We actively invest in and engage with the community, including providing grants to local schools and partnering with community-based organizations and others to help create opportunity and access for youth play and sport, volunteering time to get kids active, and through the community participation of our Nike teammates," the company said. "We remain committed and confident in our future in Oregon."

Both Nike and Intel still have a lot going for them.

Nike remains one of the world's most prominent brands, with a dominant position in athletics. It's the biggest company in its industry, with more than $50 billion in sales last year.

Intel's research factory in Hillsboro is among the most advanced semiconductor research sites on Earth and it has thousands of scientists working in Oregon to engineer new generations of leading-edge technologies.

Oregon economists and business organizations say they're watching closely to see how the region's two major companies deal with their troubles.

"It's certainly concerning that two anchor companies in the region are facing challenges," said Monique Claiborne, president of Greater Portland Inc. Her organization works with local governments and companies to promote the region as a destination for growing businesses.

As large as they are, though, Claiborne said the Portland area has more going for it than Intel and Nike. She noted recent expansion announcements from footwear company Hoka and Daimler Truck North America and said she has recently observed a surge of interest in the region from business prospects.

Among civic leaders and in the state Legislature, Claiborne said there is a much greater interest in growing Oregon businesses than there was when she arrived in the state in 2021. She said government officials are far more assertive about pursuing economic opportunity and have a broader understanding of how to collaborate in landing business prospects.

"We are all rowing in the right direction," Claiborne said. "I don't think that's always been the case."

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Intel CEO's Dream Job Became a Nightmare

by Asa Fitch – WSJ – Aug. 3, 2024

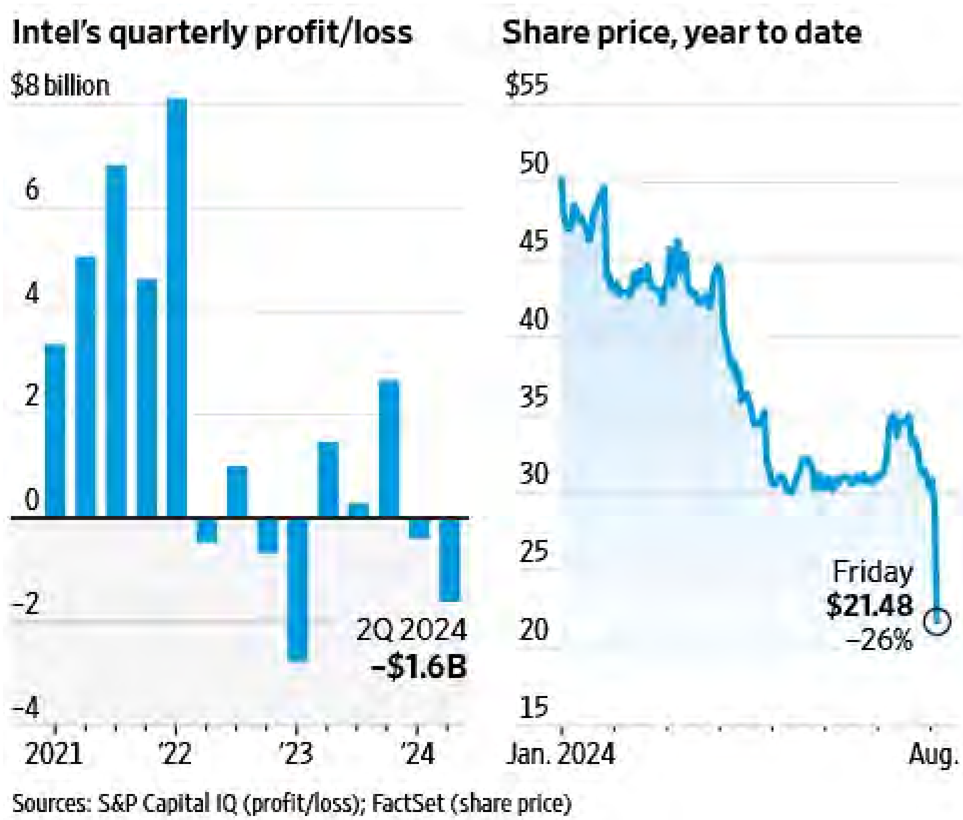
Running Intel was always a dream job for **Pat Gelsinger**. More than **three years into** his **tenure as chief executive**, prospects for the success of his turnaround look increasingly nightmarish.

Intel's share price **plunged 26% during Friday trading**, a day after it reported financial results and an outlook that disappointed Wall Street with lower-than-expected revenue and profit-margin forecasts. The **stock fall knocked** more than **$30 billion off Intel's market value**, bringing it to a level last seen 15 years ago.

Some investors and analysts questioned whether it was now possible to pull off the costly reconfiguring of Intel's business that Gelsinger launched when he took over in early 2021, pledging to bring glory back to a company that was already stumbling.

"Turnarounds in tech are not very easy," said Ivana Delevska, chief investment officer of Spear, an asset manager that owns chip stocks. "You really need to have a lot of things going for you, and it needs to come from the technology side. Leadership changes can only do so much."

Intel also on **Thursday said** it **would lay off** around **15,000 employees**, **target $10 billion in cost cuts next year** and **suspend dividend payments** in the **fourth quarter**. It will be the first time in more than three decades the company doesn't pay a dividend.



Gelsinger said in a letter to employees that the decision to pare back and cut costs was the hardest thing he has done in his career, but he maintained his resolve in an interview after the measures were announced.

"There's clearly a lot of work in front of us, but this rebuilding of the iconic Intel is huge, and now we're moving into the next phase" of fitting the transformation into a sustainable economic model, Gelsinger said.

Revitalizing the company back has been as much a personal quest for Gelsinger as a business case study.

He grew up at Intel, having joined fresh out of a vocational school in Allentown, Pa. Over 30 years, he helped develop some of Intel's most successful personal-computer chips in the 1980s and 1990s, and became a disciple of legendary Intel CEO Andy Grove. Gelsinger rose to become the company's first chief technology officer in the early 2000s, but was forced out in 2009 amid the failure of a graphics chip effort he oversaw.

Afterward, Intel thrived for a number of years before slipping around a decade ago in the high-stakes race to make chips with the tiniest, fastest-calculating transistors possible. Eventually, **Taiwan Semicon-ductor Manufacturing**, or **TSMC**, **and** South Korea's **Samsung** Electronics took the crown for chip-making technology.

When Gelsinger returned as CEO in **2021**, he **said** it was "the greatest honor of my career." He outlined a sweeping turnaround plan. Intel, he said, would make five major advancements in its chip-making technology in four years to regain its lead. As it did so, **Intel would double down** on its **chip-manufacturing** footprint, **building new factories** in **Arizona**, **Oregon** and **Ohio as well as in Europe** – projects that cost tens of billions of dollars each. At the same time, Intel would start a business making chips on contract for outside circuit designers.

Left: Pat Gelsinger rose to become Intel's first chief technology officer in the early 2000s.

At first, Gelsinger's plan was buoyed by a chip shortage and a surge in buying of computers during the pandemic. In his first quarter as CEO, the company reported about $19.7 billion in revenue – about $7 billion more than in its most recent quarter.

Cracks soon appeared. As a post-pandemic world returned to old work habits, sales sagged for PCs and for the chips used in data centers. By mid-2022, Gelsinger was lamenting a "rapid decline in economic activity" and promising investors that "we must and will do better."

Meanwhile, a **generative AI boom** was starting to take shape that would make things worse for Intel. The investment surge in computing infrastructure for artificial intelligence following OpenAI's release of ChatGPT in late 2022 went largely to rival **Nvidia**. That crimped customer budgets for Intel's chips. As Nvidia rose to a valuation at one point above $3 trillion, Intel's stock fell, shedding more than 42% of its value this year even be-fore Friday's plunge.

Gelsinger continued to plow resources into the turnaround, hoping for large financial efficiencies from the revamp. To offset a factory expansion that could cost more than $100 billion in the coming years, he made partnerships with investment firms and applied successfully for up to $8.5 billion in government money through the **Chips Act,** passed in 2022.

He also slowed the company's expansion to control expenses, extending an initial timetable for a factory in Ohio. Last February, the company cut its dividend by 66% and announced an initial round of cost cuts.

In an email to employees after Thursday's earnings report, Gelsinger called the decision to further cut costs and begin another large round of layoffs a difficult but necessary step toward righting the company.

Those moves – and the tumble in the company's stock price – are testing the patience of investors who bought into Gelsinger's turnaround plan.

Ariel Investments, a New York-based firm with about $14 billion under management, built a position in Intel's stock late last year believing that Gelsinger could orchestrate a resurgence and make Intel once again the leader in chipmaking technology.

Ariel portfolio manager Micky Jagirdar said Gelsinger's technology strategy was still on track, and the support the company is getting from the U.S. government through the Chips Act gave it an added margin of safety. Still, he said Ariel would reassess Intel's prospects before buying more of the stock after its slide on Friday.

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Kroger and Albertsons Defend Merger with Food Prices in Political Crosshairs

by Dave Michaels – WSJ – Aug. 26, 2024

Federal **T**rade **C**ommission is **seeking** to **block** the **grocery giants' deal**, **saying** it **would harm consumers and union workers.**

Albertsons and Kroger are often in direct competition with one another in many markets, according to the FTC.

Kroger and Albertsons to court Monday to defend the largest supermarket merger in history from antitrust enforcers who say it would create a colossus that could raise prices on consumers and stifle wage increases for workers.

A **federal court in Oregon** will consider over the next two weeks whether to grant the Federal Trade Commission's request to block the **$20 billion merger** from closing. Stores owned by Kroger and Albertsons compete against one another in thousands of local markets, the FTC says. The rivalry puts a ceiling on food prices, and eliminating it would free Kroger to raise them, the FTC says.

Kroger says it needs to get bigger to compete with rivals such as Walmart and Costco that lure customers with lower prices than traditional supermarkets have been able to offer. **Kroger's prices today** are **10% to 12% lower than Albertsons'**, the food retailer's lawyer told the court Monday. says it would invest $1 billion to lower prices at the Albertsons stores.

The trial comes as U.S. consumers have grappled over the past several years with higher rates of **food inflation** and **both presidential candidates** have **vowed** to **bring them down**. **Prices for food** at home were **26% higher** as of **July than** they were at the **end of 2019**, **whereas prices for goods excluding food and energy were up 14%**.

Both candidates, **Vice President Harris** and former President Donald Trump, have teed off on rising food prices. Harris has effectively **blamed supermarkets** for **driving up food prices**, citing corporate greed and calling for a ban on **price gouging**. **Trump** has **blamed** regulation and **Biden administration** policies for **fueling and failing to control inflation**.

"This lawsuit is part of an effort aimed at helping Americans feed their families," FTC attorney Susan Musser said Monday in her opening argument to the court. "Stopping a multibillion-dollar deal will keep in place bigger competition that acts as a check on rising grocery prices and furthers improvements in quality and innovation."

Courts can block mergers that may lead to a substantial loss of competition. Like in most merger trials, the FTC and Kroger will offer the court competing expert witnesses who will try to predict the risk of that outcome.

Kroger says it needs to get bigger to compete with rivals such as Walmart and Costco.

Kroger, which **would operate more than 4,000 stores if** the **deal closes**, says the merger would create a nationwide footprint of stores that would allow it to compete more effectively with Walmart, Costco and Amazon.com. The FTC is improperly fixated on one-stop-shop supermarkets rather than considering how Costco, Whole Foods, Trader Joe's and newer entrants such as Aldi and Lidl will restrain Kroger's ability to raise prices, Kroger's lawyers say.

"We are really, really focused on Walmart," Kroger attorney Matthew Wolf said.

The FTC's antitrust enforcers "refuse to recognize the tectonic shift that has occurred in the grocery industry over the last 20 years, refusing to acknowledge that unless traditional grocers act, the dominance of Walmart and Costco and Amazon and their ilk will only grow," Wolf said.

The FTC says the merger would result in excessive concentration in over 1,900 local markets across the country, far more than what the companies have acknowledged. While both companies set prices with an eye to what Walmart charges, Kroger and Albertsons are often in direct competition with one another in many markets, according to the FTC.

Kroger and Albertsons have acknowledged their stores overlap in many markets and have **agreed** to **sell off 579 stores to C&S Wholesale Grocers**. C&S supplies more than 100,000 different products to retailers across the country but operates relatively few stores on its own.

Most of the **divested assets would be Albertsons stores in** the **western U.S.**, including **124** in **Washington** state, **101** in **Arizona** and **62** in **Oregon**. New Hampshire-based C&S has said it is prepared to invest in those stores and make them viable competitors to Kroger and others.

Selling stores to C&S won't cure the deal's problems, the FTC says.

C&S has a poor record of running stores and has sold or closed hundreds of them over the past two decades, according to the FTC. C&S expects sales to fall at the stores it acquires as it rebrands many of them and updates their layout and product mix to align with the stores' new name, FTC attorney Laura Hall told the court Monday. Those stores won't recapture their current level of profitability for 11 years, Hall said.

In addition to potentially fueling higher prices, the merger would harm union workers' bargaining power, the FTC alleges. Employees couldn't credibly threaten to join a rival supermarket's union workforce if their employer refused to raise pay or benefits, enforcers say.

Kroger says the union would be more powerful when it has to negotiate with only one employer.

In the hearing that began Monday, the FTC wants U.S. District Judge Adrienne Nelson to issue a preliminary injunction that would stop the companies from closing their deal.

The injunction would allow the FTC to try to put an end to the deal through a separate trial in its in-house administrative court. Most companies abandon their merger if a federal judge grants the preliminary injunction rather than continuing to litigate with the FTC for months or years.

"This proceeding will decide the fate of the merger," Wolf said. "This merger will not occur if the injunction is in place."

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Antitrust Trial Set to Begin in Grocery Megadeal

By Patrick Thomas, Dave Michaels and Jesse Newman

Role of little-known company holds key in **Kroger's $20 billion Albertsons purchase**. The **largest supermarket merger ever** hinges on a little-known grocery distributor.

C&S Wholesale Grocers, a 106-year-old company based in New Hampshire, is set to play a key role in an antitrust trial that will decide whether Kroger can move ahead with its planned $20 billion purchase of rival Albertsons. The case is scheduled to begin Monday in a federal court in Oregon and expected to last about three weeks.

The **F**ederal **T**rade **C**ommission **sued to block** the **deal** in February, **saying** that combining the two biggest U.S. supermarket companies **would eliminate** the fierce **rivalry** in markets where Kroger and Albertsons have competing stores, **leading to higher prices for shoppers**.

That is where C& S comes in. To neutralize antitrust concerns, the **two chains** have **agreed** to **sell 579 stores to** the closely held grocery distribution company, which supplies more than 100,000 different products to retailers across the country. C&S also owns or franchises around 160 grocery stores, including Piggly Wiggly and Grand Union.

The companies first will have to convince a federal judge in Oregon that C& S can credibly operate so many stores and compete with its larger rivals. Together, Kroger and Albertsons run around 5,000 U.S. locations.

C& S executives said the company is ready to join the supermarket big leagues. The FTC said C& S won't be able to compete and can't replace the benefits of lost competition if Kroger absorbs Albertsons.

The roughly $3 billion di-vestiture deal with Kroger and Albertsons would boost C&S's store total to 744, on par with Trader Joe's and Whole Foods. C&S would become the eighth-largest U.S. grocer by revenue, with more than $40 billion in estimated sales, according to investment firm Solomon Partners, which is working with Kroger and Albertsons.

"We will be a leader in the industry," said Eric Winn, C&S's chief executive.

The deal would give C&S the primarily West Coast chains QFC, Haggen and Carrs, along with Mariano's in Illinois. C& S would also receive licensing rights to the Safeway banner in Colorado and Arizona and the Albertsons banner in California and Wyoming.

Besides its own stores, C&S supplies about 7,500 grocery customers. Adding the locations from Kroger and Albertsons, the company said, would give C&S greater leverage with food companies and other suppliers, benefiting C&S as well as its other supermarket clients.

The FTC said C&S's record as an acquirer is poor. Over the past two decades, the agency said, C&S has acquired hundreds of stores and wound up selling or closing many of them.

As recently as 2021, the FTC said, C&S stated that it didn't intend to enlarge its retail operations or run grocery stores long term, and instead expected to divest stores as opportunities arose.

From supply to retail

A C&S spokeswoman said it is committed to expanding its retail footprint and that the company has an experienced management team and the financial strength to invest in the business.

C&S has said it is the largest wholesale grocery supply company in the U.S. It is owned by Rick Cohen, whose grandfather founded the company in 1918 in Worcester, Mass. Privately held C&S doesn't disclose its financial results.

S&P Global analysts said C&S's sales dropped 27% from nearly $30 billion in 2017 to less than $22 billion in its fiscal year ended September 2023, largely because of the loss of Ahold Delhaize, a major customer, which they said moved to a self-distribution model.

Some grocery industry executives said C&S has a problematic reputation as a distributor, and is ill-equipped to absorb hundreds of new stores.

The Federal Trade Commission seeks to block the Kroger-Albertsons deal, arguing that less competition will hurt shoppers. A Kroger supermarket in Ohio.

Errol Schweizer, a former vice president at Amazon's Whole Foods who advises consumer brands and grocery stores, said some stores C&S is affiliated with are in rough shape. Schweizer said that on a recent visit to several Piggly Wiggly stores in Georgia, he saw dark, dirty facilities that smelled like rotten produce. Freezers stood empty and extension cords dangled in the aisles.

"It's a real red flag for C&S as a retail operator," Schweizer said.

A C&S spokeswoman said most Piggly Wiggly stores in Georgia are independently owned and operated under a licensing agreement, using the Piggly Wiggly name.

Frank Puleo, a retired C&S vice president of retail marketing and services, said the company is a credible supermarket operator and is reinventing itself.

C&S already provides thousands of independent grocery stores with marketing programs, payment software, accounting and assistance laying out stores, Puleo said.

"This is a Goliath," Puleo said, "with deep pockets and very profitable that has operated for 100 years."

The Haggen factor

Kroger and Albertsons have said their deal with C&S is better than an earlier grocery divestiture that went sideways. In **2015**, the **FTC blessed Albertsons's $9.4 billion acquisition of supermarket chain Safeway**, **conditioned on Albertsons selling 168 stores to Haggen**, a little-known West Coast grocer.

Haggen went bankrupt about a **year later**, costing some workers their jobs and neighborhoods their stores. Albertsons reacquired dozens of its former stores. The episode was an **embarrassment for** the **FTC**.

Current Biden administration antitrust enforcers said failures like Haggen's show why divestitures are a poor solution for flawed mergers.

The role of divestiture buyers such as C&S has become more important as the FTC and the Justice Department, which share antitrust enforcement authority, challenge more deals.

Kroger and Albertsons argue the store sales to C&S are a central part of the deal and demonstrate the merger won't result in a loss of competition. The FTC is seeking to limit how much the divestiture can be considered in the litigation.

Courts can block mergers if they decide a deal may substantially lessen competition. In the hearing set to begin Monday, the FTC is asking a judge to issue a preliminary injunction that would stop the companies from closing their deal so that a separate proceeding, in the FTC's in-house court, can decide the fate of the merger.

Most companies abandon their merger if a federal judge grants the preliminary injunction.

C&S has agreed to hire Albertsons's chief operating officer, Susan Morris, to take over as its head of grocery retail if the deal goes through, it said in July.

Jose Tamez, managing general partner for Austin-Michael, a Colorado-based executive recruiter focused on food retail, said Morris would bring continuity and familiarity with Albertsons managers, reducing the odds of potential turnover at the stores and in the corporate offices.

"Hiring Susan sends a positive message," said Tamez, whose firm isn't doing work for Kroger, Albertsons or C&S.

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Liquid Is New Tack to Cool Data Centers

by Yang Jie – WSJ – Aug. 12, 2023

One of the latest innovations at artificial-intelligence chip maker **Nvidia** has nothing to do with bits and bytes. It involves liquid.

Nvidia's coming GB200 server racks, **which contain** its **next-generation Blackwell chips**, will **mainly** be **cooled with liquid circulated in tubes snaking through** the **hardware rather than by air**. An Nvidia spokesman said the company was also working with suppliers on additional cooling technologies, including dunking entire drawer-sized computers in a nonconductive liquid that absorbs and dissipates heat.

Cooling is suddenly a hot business as engineers try to tame one of the world's biggest **electricity hogs**. **Global data centers** – the big computer farms that handle AI calculations – are **expected** to **gobble** up **8% of total U.S. power demand by 2030**, compared with about **3% currently**, according to Goldman Sachs research.

The Nvidia GB200 series is likely to be sought after as technology companies race to deploy AI in content creation, autonomous driving and more.

Data centers, housing as many as tens of thousands of servers, tend to be cacophonous and chilly places. **At older facilities** that **use fans and air conditioning**, **cooling** accounts for up to **40% of power consumption**, a proportion that **could be reduced to 10%** or less with more advanced technology, according to Shaolei Ren, associate professor of electrical and computer engineering at the University of California, Riverside.

Liquid cooling has become a **common feature of high-end gaming computers**, but on a larger scale has traditionally been limited to the hardest challenges, such as nuclear power plants. The **upfront cost** of circulating liquid through delicate electronics can be **many times** the cost of installing **AC and fans**. Some parts are in short supply.

Leakage is the **biggest risk**. "If a single drop of water falls onto a server, such as the million-dollar GB200, it could cause catastrophic damage," said Oliver Lien, general manager of Forcecon Technology, which works with semiconductor makers on cooling.

More than **95% of current data centers use air cooling** because of its **mature design and reliability**, according to a recent Morgan Stanley report.

Nvidia both makes its own servers and supplies chips to other server makers that build devices for tech giants working on AI applications. Decisions on cooling tend to be made jointly by those companies.

Taiwan-based contract manufacturer **Foxconn** is taking a leading role in manufacturing the Nvidia GB200 series in Taiwan and Mexico, according to people involved in the plans.

The sensitivity of the cooling issue was highlighted in late July when shares of Foxconn and two suppliers of cooling components fell more than 5% following social-media posts suggesting the GB200's cooling system had leaks.

People familiar with the production said suppliers were working through normal issues that arise in preproduction testing. They said the cooling system issues weren't likely to significantly affect the GB200's shipping schedule. Shares of Foxconn and the suppliers quickly recovered. Nvidia declined to comment, and Foxconn didn't respond to a request to comment.

Many in the business think the **next step could be total immersion in heat-absorbing fluid**, although the technology faces skepticism because the fluid and custom tanks are costly and maintenance is messier.

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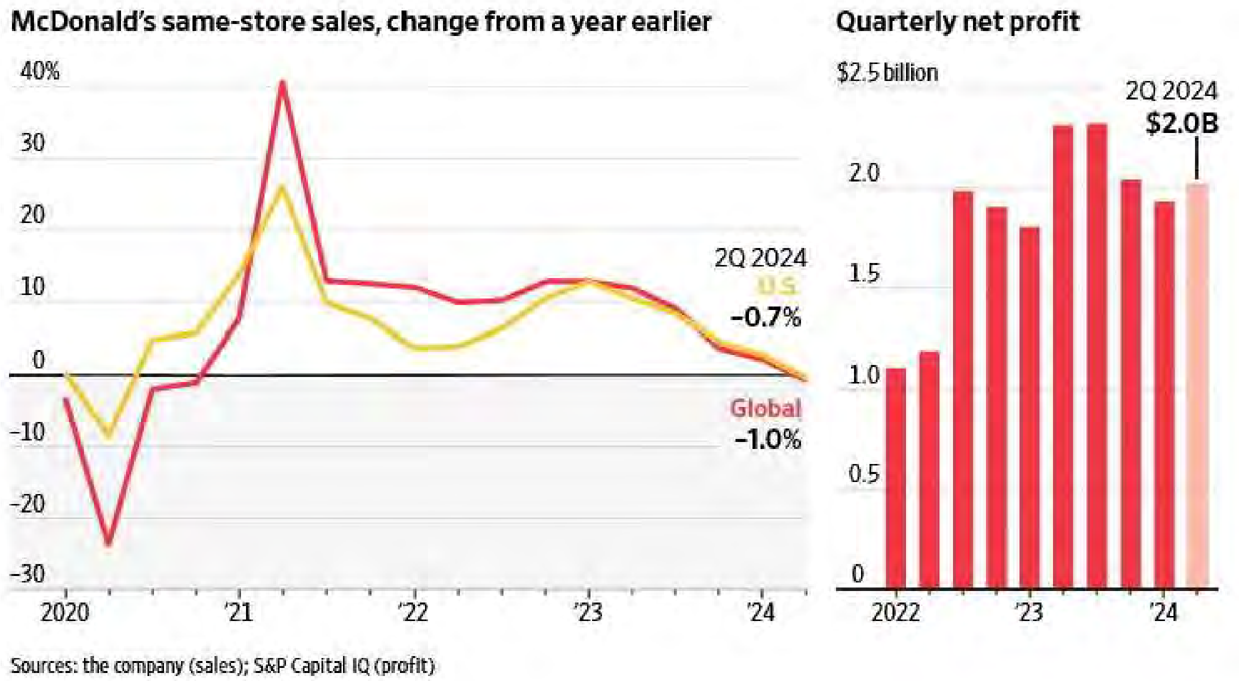
McDonald's Sales Cool as Diners Pull Back

by Heather Haddon – WSJ – Jul. 30, 2024

Fast-food company acknowledges meals have become less affordable.



McDonald's said its sales last quarter sputtered as the burger giant grappled with consumers reining in their spending, sounding a warning for the restaurant sector.

Chief Executive Chris Kempczinski said **lower-income consumers began reducing their visits last year**, but the **slowdown** has **deepened** and **broadened** across the U.S. and other major markets.

Consumers have been **buying fewer items per visit or selecting cheaper ones**, he said. Many people are opting to dine at home because grocery prices have become less expensive than dining at restaurants.

The fast-food giant said U.S. same-store sales in the June quarter were down nearly 1%, the first such decline since 2020. Analysts had expected the metric reflecting sales at stores open at least 13 months to be flat. The company also reported declines globally, with conflict in the Middle East and a weaker performance in France.

The weak trends are continuing in the current quarter, according to the company.

"The consumer across a number of these markets is being very discriminating, and I would point out consumer sentiment in most of our major markets remains low," Kempczinski said in an earnings call Monday.

Chicago-based McDonald's kicked off a string of quarterly reports from U.S. restaurant chains this week. Restaurant stocks have slid in recent months as **consumers' discretionary spending** comes **under pressure**, and Wall Street analysts expect some chains to fall short of earnings expectations.

Investors have allowed little room for error from restaurants that have recently posted their quarterly results. Domino's Pizza and Chipotle Mexican Grill both reported growth in profits, but investors sent their shares lower after both companies gave a tepid outlook on the year.

The Domino's Pizza chain said it would open fewer stores globally than it originally expected, while Chipotle said its sales growth was cooling.

Still, McDonald's maintained its overall guidance for new stores, capital expenditures and operating margins for the year. Shares rose 3.7% in Monday trading.

The company's stock is down around 11% in the past 12 months. An S&P 500 restaurant subindex declined 8.7% during the same period.

McDonald's is putting emphasis on its new meal bundle and the opportunity to capture customers seeking deals. The chain's U.S. restaurants in June started selling a bundle of four items – a McDouble or McChicken sandwich, small fries, small soft drink and a four-piece Chicken McNuggets – for $5.

Left: The chain said consumers have been buying fewer items per visit or selecting cheaper ones.

Sales of the $5 bundle were performing well, and lower-income consumers in particular, were buying it, said Joe Erlinger, the company's U.S. president. The average check was around $10 for those who purchased the meal as they added on other food. The promotion was scheduled to last a month, but 93% of franchisees were continuing to offer it into August, Erlinger said.

Kempczinski said the company's edge on **affordability** had shrunk as its operators have raised prices in recent years in response to steep inflation. The company had work to do to prove it was still a good value to its customers and would improve its affordability options, he said. "This won't happen overnight. But it will happen," Kempczinski said.

While higher prices in the U.S. helped offset weaker sales volumes, the company said further increases would be muted this year.

To keep customers interested in the brand, McDonald's is working to boost offerings of chicken and its loyalty program. It was also testing a new bigger burger with two beef patties in international markets.

Overall, McDonald's reported net income in the June quarter of $2.02 billion, down more than 12% from a year earlier. Earnings per share were $2.80, as analysts polled by FactSet had expected $3.08.

Revenue was flat at $6.49 billion, coming in below analysts' expectations of $6.62 billion. Last year, McDonald's got a big sales bump from a Grimace- hemed shake.

McDonald's said it was also booking a pretax charge of $97 million for the quarter, mostly related to a coming sale of its South Korean business this year.

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Metal Producer Wrestles with Energy Costs

by Bob Tita – WSJ – Jul. 8, 2024

A **Chicago-based aluminum company** is betting billions of dollars that it can solve one of the biggest challenges in American manufacturing: paying for electricity.

Century Aluminum aims to roughly double domestic output of aluminum from smelters by **building** the **country's first new smelter in 45 years**. The company's **biggest hurdle** to starting the project is **securing** an **affordable power supply**.

"As a U.S. aluminum producer in a market where there is a huge deficit, why don't we produce more? It's all about the power," said Matt Aboud, vice president for strategy and business development for Century Aluminum. The company has lined up a **$500 million grant from** the **Energy Department** to **support** the planned **facility**, which could **cost** as much as **$5 billion**.

Steadily climbing electricity costs have been a major factor behind the shrinking ranks of U.S. aluminum smelters, leaving buyers increasingly reliant on imports as demand is growing.

Automakers, energy companies and the aerospace industry are hungry for more of the aluminum from smelters, prized for its purity and ability to blend with other metals. The U.S. imported nearly 4 million metric tons of such aluminum last year, while 4.7 million metric tons was produced from recycled aluminum, from old beverage cans to manufacturing scrap.

Domestic production of smelter aluminum – which is known as **primary aluminum** – is **on pace this year for 689,000 metric tons**, which would be the **lowest since 1950**. **Smelters** have been **steadily going out of business** for years, pinched between stagnant aluminum prices and escalating power costs, which in some cases have climbed by more than one-third in recent years.

Century is still arranging financing and seeking a site for its smelter, which would be the largest in the U.S. with about 600,000 metric tons a year of production capacity. Aboud said much depends on where the company can find a steady supply of affordable power.

Century aims to secure a power-supply deal and complete the plans for the plant in the next two years and then start construction, which is expected to take about three years.

In manufacturing, few things are as power-intensive as smelting powdery aluminum oxide into aluminum. The **process takes** about **24 hours**, and **producing a ton typically uses more electricity than** a **single household consumes in** an entire **year**. **Century expects** its **planned smelter** to **produce** about 1**,500 metric tons** of **aluminum a day**.

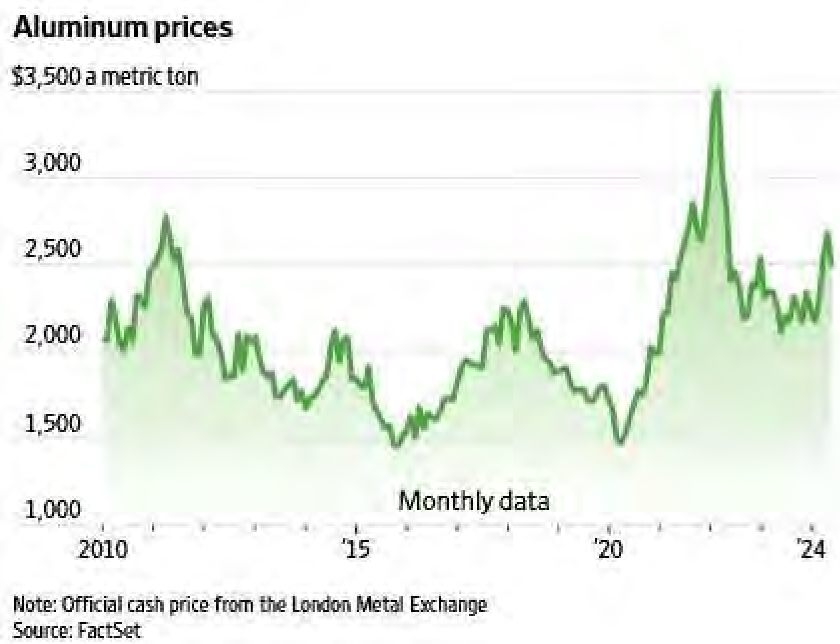
Four smelters remain in operation in the **U.S., down from** seven in 2020 and **23 in 2000**, when the U.S. was the world's leading producer of primary aluminum. A smelter in southeast Missouri was the most recent to close in January after reopening in 2018. **Century and Alcoa now account for nearly all** the **U.S.-made primary aluminum**.

Electricity accounts for **40%** of **smelters' operating expenses**. Century said that for over a decade it was able to secure enough reasonably priced power for its 55-yearold aluminum smelter in Hawesville, Ky.

When Russia invaded Ukraine in **2022**, the **cost** of **U.S. natural gas used** to **generate electricity rose** as the U.S. exported more gas to Western Europe to offset the loss of Russian supplies. The average cost for a megawatt-hour of electricity for U.S. smelters jumped to $54 in 2022 from $39 in 2021, according to commodities analyst CRU Group.

Century idled the **Hawesville smelter** in the **summer** of **2022** and has **no plans to restart it**, though CRU said smelters' average price for electricity receded to $36 a megawatt-hour last year. Century said **forward prices for electricity in Kentucky** are **above $45 per megawatt-hour through 2027 – too high for Century to recover** its **restart costs and make** a **profit**.

Power accounts for 40% of smelters' operating expenses.



Century Aluminum hopes to build a new smelter, but the company faces a big hurdle: securing an affordable power supply.

Century Aluminum's new smelter would be the biggest in the U.S. with about 600,000 metric tons a year of production capacity.

For every dollar increase in the **price** of a **megawatt-hour of electricity**, **Century said** it **costs** the **company** at least **$3 million in annual profit**.

Century and other primary aluminum producers also have been hamstrung by low prices that have been held down by China's massive production of the metal. The annual average inflation- adjusted price of aluminum on the London Metal Exchange slipped 2.1% from 2010 to 2023, CRU said.

Still, Century is betting that it can conquer the power conundrum. **In addition** to the **Energy Department grant**, its **planned smelter** will be supported with **tax breaks** created by the Biden administration **to revive U.S. aluminum smelter operations** and **reduce carbon dioxide emissions from** the **electricity they consume**.

"This is going to be a **test case for America's reindustrialization**," said Joe Quinn, executive director for the Center for Strategic Industrial Materials. The Washington- based group advocates for more domestic aluminum production to support electric vehicles, solar- energy panels and other manufacturing.

Century is **counting on** the aggressive build-out of solar- and wind-powered generating capacity now under way to start yielding excess power after 2030, and the company hopes to lock down supply in exchange for a decade's worth of steady electricity demand from a new smelter.

Much of that **renewable-energy capacity isn't yet connected to power grids**, making it difficult for industrial users to access it. Grid-connected renewable energy is expected to attract high demand, said Greg Wittbecker, an aluminum-industry analyst.

Other big users of electricity also are vying for large loads of renewable energy, including **new semiconductor chip plants** and **computer server centers** that are expanding to accommodate **artificial**-**intelligence** products such as ChatGPT.

Renewable power currently costs about **$10 more per megawatt-hour** than electricity generated by conventional power plants using coal or natural gas, according to analysts. The price gap could be narrowed with a provision in the **Inflation Reduction Act** that **allows primary aluminum producers** to **receive** a **federal tax credit** for **up to 10%** of their **production expenses**, **including electricity**.

Aboud said Century purposely opted for yearslong lead time for the plant to give executives enough time to obtain a favorable deal for electricity. "We need to see a sustained low-cost power environment and a sustained improvement in aluminum prices," Aboud said.

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New Measure Flashes Recession Signal

by —Spencer Jakab – WSJ – Aug 13. 2024

"The **Michaillat Saez measure**" doesn't quite roll off the tongue the way "the Sahm rule" does, but check back later this year.

If it turns out that the **U.S. already** is **in** a **recession** – **something not officially declared until well after the fact—then** a **paper** making the rounds **by economists Pascal Michaillat and Emmanuel Saez could become required reading**.

Their **measures** are **similar to** a highly regarded one by **economist Claudia Sahm** that came very close to being triggered recently.

Wall Street Journal economics columnist Greg Ip put that close call into context last week, noting that a recession isn't an on-off switch, but a self-reinforcing cycle.

Michaillat and Saez say their **measure** is more accurate than Sahm's in pinpointing recessions and when they start. It **uses unemployment and** the **vacancy rate**, a **measure of open jobs**.

The **Sahm rule detects recessions 2.6 months after they start, while theirs** works with a **1.4 month lag**. It **also works for historic recessions as far back as 1930**, while they claim Sahm's predictive value breaks down before 1960.

The bad news: There is now a 40% chance the U.S. already is in recession, based on July data. It might have started as early as March.

Should that be of concern? Well, yes – recessions are bad for employment and company share prices.

On the other hand, high-level economic measures have obvious limitations. Individuals know whether they or their friends and neighbors have jobs, no matter if a recession is called or not.

Statisticians are only so good at gauging why a still-historically low number of Americans didn't have a job last month, or how hard employers are really trying to fill vacant roles. Even if people claim they aren't confident about their prospects, is it true and can it be compared with what the same people said when a different party was in control of the White House?

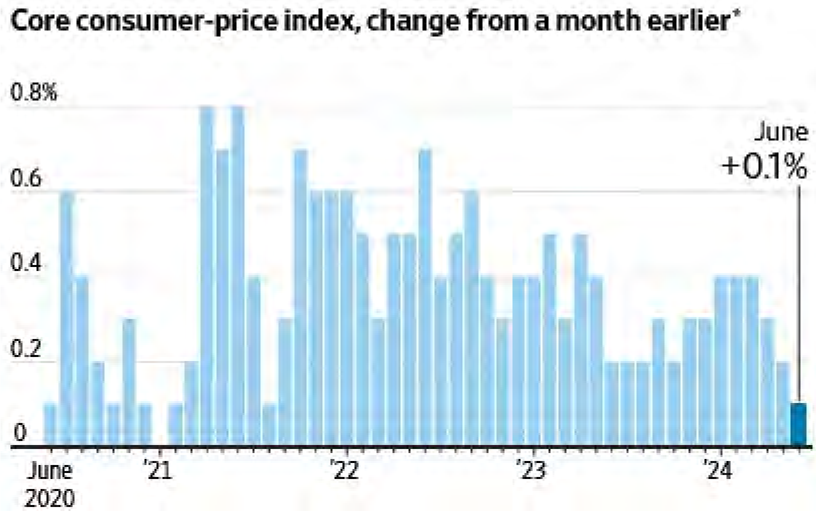
The idea of a single, predictive measure is appealing, and **Michaillat's and Saez's measure** looks **intriguing** when back-tested. **Whether** it is **right** today **is debatable**.

Milder Inflation Bolsters Rate-Cut Chances

by Sam Goldfarb and Nick Timiraos – WSJ – Jul. 12, 2024
Alison Sider, Nicholas G. Miller and Will Parker contributed to this article.

Consumer-price data eased to 3% in June, fueling possible Fed action in September.

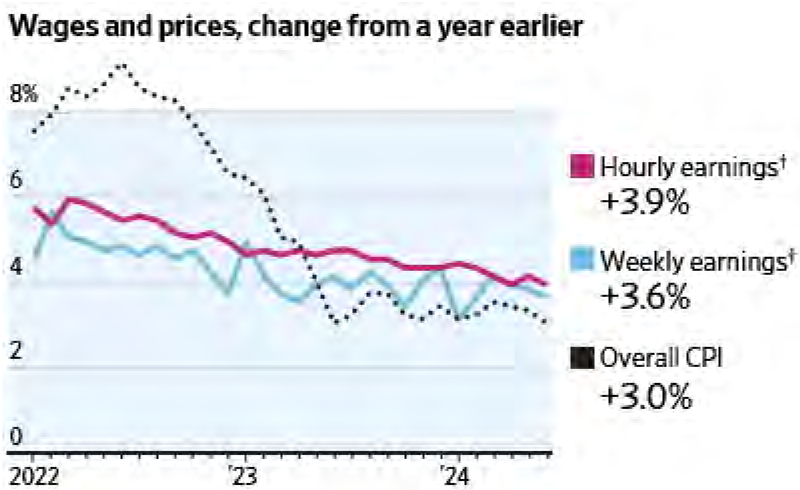
U.S. inflation eased substantially in June, extending a recent slowdown in price **increases** that opens a **path for** the **Fed**eral Reserve **to cut rates by** the **end** of the **summer**.



The **C**onsumer-**P**rice **I**ndex, a measure of goods-and-services costs across the economy, **fell slightly from May**, **dropping** the **year-over-year inflation rate to 3%**, which was the lowest since June 2023.

Core prices, which exclude volatile food and energy items and are seen as a better gauge of underlying inflation, rose 0.1% since May. That was the mildest increase since January 2021, when large swaths of the economy were still frozen by the pandemic.

Altogether, the report showed prices cooled broadly in the second quarter and were below economists' expectations – the reverse of what happened in the first three months of the year, when inflation was surprisingly brisk.



"We've definitely seen a pretty sharp slowing," said Kevin Cummins, chief U.S. economist at NatWest Markets. "This is certainly a confidence booster for the Fed."

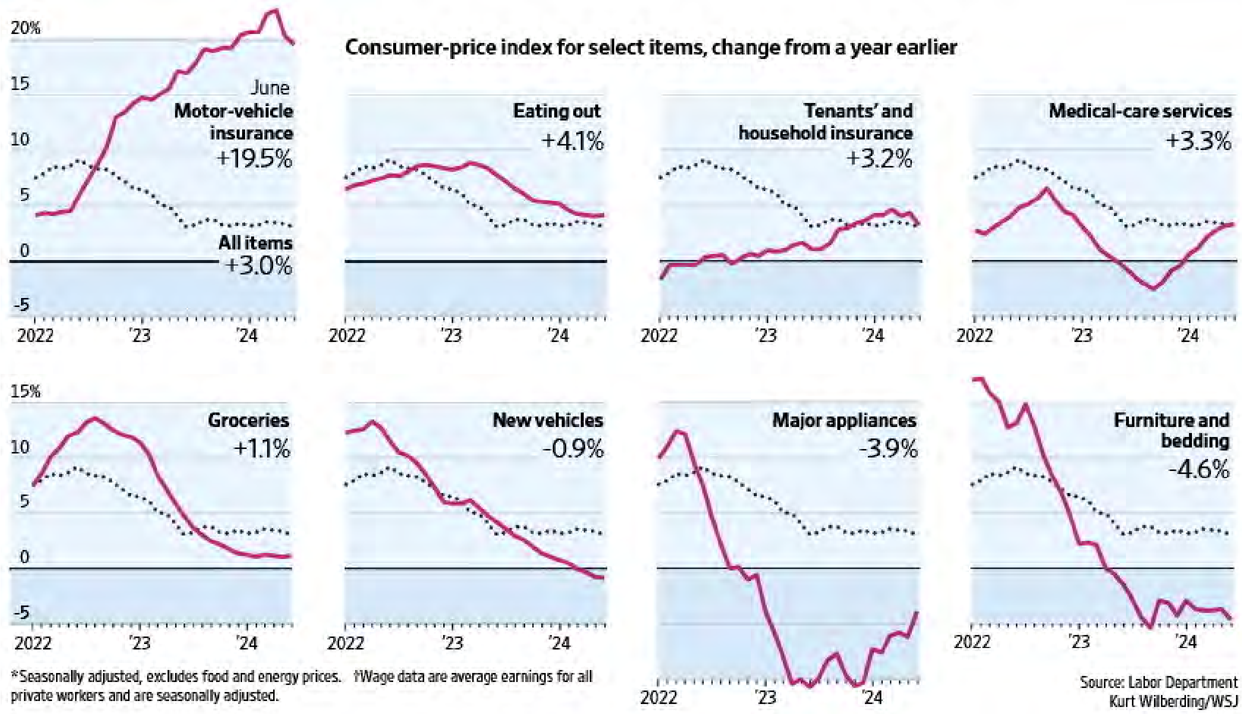
The report keeps the door wide open to a September interest- rate cut. This week, Fed Chair Jerome Powell laid the groundwork to cut by suggesting the labor market is slowing in a way that has diminished a major source of inflation and risks further weakness that wouldn't be desirable.

Investors don't expect the **Fed** to **lower interest rates** at its **next meeting**, **July 30-31**. Officials haven't publicly attempted to rally a consensus around such a move and, outside of extraordinary cases, resist taking markets by surprise.

A bigger question for that meeting is the degree to which officials lay the groundwork for a September cut.

After the report was released, investors dialed up bets that the Fed would cut rates twice this year, and the odds of a third cut climbed, implying the central bank could lower rates at its last three meetings of the year, in September, November and December.

Thursday's report could be especially comforting to policymakers because it showed housing costs are slowing after a mammoth run-up following the pandemic.



Housing inflation, which measures the cost of renting and **accounts** for about **one-third** of the **CPI**, has kept overall prices high.

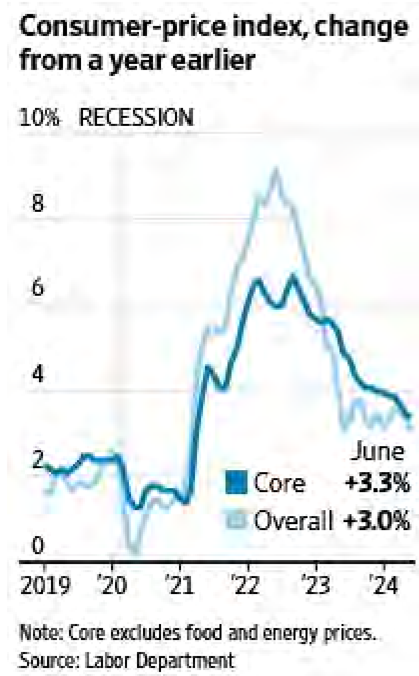
Economists and Fed officials have long anticipated that this inflation would ease because **rents** for new housing units have been cooling for 1½ years. But the figure **often trails market conditions by many months**. The latest report seemed to provide welcome confirmation that official inflation gauges are now capturing those developments.

Price increases were generally subdued across a range of categories. The costs of air travel and staying at a hotel fell particularly sharply from the previous month.

U.S. airlines have been cutting ticket prices – a reversal from a year ago, when airlines strained to expand flying quickly enough to meet demand. Then, “everyone was traveling, and it didn’t really matter what it cost,” Delta Air Lines Chief Executive Ed Bastian said on Wednesday.

This summer, airlines have added more than enough flying to accommodate the record numbers of passengers at U.S. airports, and fares have eased. The discounting contributed to a sharply lower second-quarter profit when Delta reported results on Thursday.

Executives at PepsiCo, which also reported quarterly results on Thursday, indicated that **inflation-weary shoppers** are **cutting back**.



The run-up in the price of everything from cars to restaurant meals to housing since 2021 has been abnormally large.

For the past few years, even as prices soared, many consumers kept buying affordable treats like Doritos and Lay's in lieu of bigger-ticket splurges such as restaurants, concerts or travel. But now, they are limiting their spending in all areas, said Jamie Caulfield, chief financial officer.

"There is a cohort of consumers that have become more price conscious," Caulfield said. "They're looking for more deals to get more for their money."

Car insurance, meanwhile, remained a hot spot for inflation, reflecting in part the lingering impact of a previous increase in car prices. Those have come down more recently, including in June.

Declines in large tech stocks pulled the S&P 500 lower on Thursday. But the Russell 2000, an index of small and midsize companies, posted a big gain, reflecting enthusiasm about the inflation report.

A move by the Fed to start cutting interest rates could be especially helpful to smaller businesses because they tend to have more floating-rate debt than larger companies.

U.S. Treasurys also staged a robust rally, driving their **yields lower**. The yield on the benchmark **10-year Treasury note settled** at **4.192%,** down from 4.280% Wednesday. **Movements in yields tend** to **broadly reflect investors' expectations** for **short-term rates set by** the **Fed**.

Heading into Thursday, there had been signs the economy has cooled – not enough to stir fears of a recession but sufficient to spur a change of tone from the Fed. Officials are trying to balance the risk of cutting rates too soon and allowing inflation to persist with the risk of waiting too long and causing unnecessary damage to the job market.

Inflation soared to 9.1% in **June 2022**, a **40-year high**, as the economy faced a series of shocks that prompted the Fed to raise rates at the fastest pace in four decades. The **central bank increased** its **benchmark rate most recently** in **July 2023 to** around **5.3%**, the **highest level since 2001**.

While inflation has cooled notably over the last two years, many people have taken little comfort from milder 12-month inflation readings because the run-up in the price of everything from cars to restaurant meals to housing since 2021 has been abnormally large.

The White House cheered Thursday's news. President Biden has spent the week attempting to stop a stream of Democratic defections from his re-election support after a devastating debate performance and public appearances that haven't reassured voters concerned about his age.

"The report shows that households are getting some much-welcome breathing room in key areas of their family budget – not just lower inflation but price declines in gas, cars, airfares," said Jared Bernstein, chair of the Council of Economic Advisers, in an interview. "Our work is far from done, but this is a very solid move in the right direction."

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OECD Expects Jobs Markets to Cool

by Paul Hannon – WSJ – Jul. 10, 2024

Unemployment rates are **set to pick up only slightly across** the **world's rich countries** in the **short term**, **while real wages will continue** to **rise as profit growth cools**, the **Organization for Economic Cooperation and Development said** Tuesday.

In its annual report on the jobs market, the **Paris-based policy advisory body** said wages have been rising faster than prices during the past year, but real wages remain below their levels from late 2019 in a number of countries, including the U.S.

The OECD said there are signs that the jobs market is cooling, with the number of vacancies falling relative to the number of people looking for work. But it doesn't expect to see the sharp rise in jobless rates that have accompanied past periods in which central banks have raised their key interest rates to cool inflation.

"The labor market remains pretty strong," said Stefano Scarpetta, the OECD's director for employment. "The labor market is easing, but slowly."

In the U.S., the **OECD expects employment** to **increase by less than 1%** in **both 2024 and 2025**, **with** the **unemployment** rate remaining **around 4%.**

That is broadly in line with the outlook across the OECD's 38 members, which are mostly rich countries. The OECD forecast that employment will grow by 0.7% this year and next, having increased by 1.7% in 2023.

Workers suffered a decline in their real wages during the surge in consumer prices that began in early 2021. The OECD said that during the year through the first quarter of 2024, real wages were rising again as inflation cooled. Out of the 35 countries for which data was available, 29 recorded a rise in real wage. Among those that didn't were France and Japan.

On average, real wages were 3.5% higher than a year earlier, a development that should support consumer spending and economic growth. However, **real wages** were **still below** their **2019 levels in** 16 countries, including the **U.S.**, where the **shortfall** stood at **0.8%**.

The OECD expects the recovery in real wages to continue this year. Offsetting that upward pressure on prices, profit growth has slowed in most countries. While profits grew much more rapidly than wages in 2021, the OECD estimates that since the start of 2022, labor costs grew more rapidly than profits in about two-thirds of the countries with data available.

In the OECD's view, a squeeze on profits can allow for further wage rises without triggering a fresh pickup in inflation. That is an outcome that central banks have feared since the start of the inflation surge.

"There are no signs of a price-wage spiral," the OECD said.

However, it warned that wage rises could yet have an impact on inflation.

"Looking ahead, it will continue to be important to strike a balance between allowing wages to make up some of the ground they have lost in terms of purchasing power and limiting further inflationary pressures," the OECD said.

The recovery of the job market from the initial blow delivered by the spread of the Covid-19 virus has been particularly strong for workers in lower-wage parts of the economy, and for women, the OECD said. In 17 of the 33 countries with available data, traditionally lower-pay industries recorded a faster rise in real wages between 2019 and 2023, while employment growth for women has outpaced that of men over the same period.

"Wages are performing better in the lower end than in the middle or high end," Scarpetta said.

Looking forward, the OECD said the transition to jobs that produce lower greenhouse gas emissions could have big regional impacts, with many of the new jobs that are created being in different locations to those that are lost. The OECD estimates that just 7% of employment is in what it describes as high-emission industries, but those who lose their jobs might face a lengthy period of lower earnings without retraining.

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Northwest Senators Urge Caution as Bonneville Weighs Day-Ahead Power Markets

by Zack Hale,
Standard and Poor's Global Market Intelligence – Jul. 26, 2024

US senators representing parts of the Pacific Northwest are **urging** the **B**onneville **P**ower **A**dministration to **carefully assess participation** in competing **day-ahead wholesale markets in** the **US West**, given the long-term impacts of the choice and some uncertainties surrounding both markets.

"We urge you to act carefully and deliberately," **Sens**. Ron **Wyden** (D-OR.), Jeff **Merkley** (D-OR.), Patty **Murray** (D-**WA**.), and Maria **Cantwell** (D-**WA**.) said in a July 25 **letter** to the federal power marketing administration.

The letter comes after Bonneville Power Administration (**BPA**) **staff** in **April recommended** that the federal utility **join Southwest Power Pool's proposed Markets+ offering**, a suite of day-ahead and real-time products designed to optimize wholesale power market operations in the Western Interconnection. The 14-state grid operator plans to launch Markets+ sometime in 2027 after receiving approval from the Federal Energy Regulatory Commission.

Most wholesale power market transactions occur in the day-ahead market.

The **California ISO**, meantime, has already secured FERC's approval for its Extended Day-Ahead Market (**EDAM**), which aims to **build on** the success of CAISO's Western Energy Imbalance Market (**WEIM**). The CAISO is targeting a go-live date for EDAM in 2026.

"Given ongoing uncertainties and the changing landscape with regard to both day-ahead electricity markets, we are concerned that BPA has expressed a preference for one market before complete and final information is available for clear decision-making," the senators said.

Governance concerns

In April comments on SPP's Markets+ filing, BPA noted that "critically, Markets+ has had fully independent governance from day one, including the establishment of an interim Markets+ Independent Panel, with oversight from SPP's independent board of directors."

"Bonneville believes that the Markets+ framework would provide a level playing field for participants at the outset and on an ongoing basis as the market evolves," BPA said.

In contrast, **BPA raised governance concerns** in September 2023 comments filed in the CAISO's **EDAM** proceeding.

"Bonneville's primary concern focuses on the governance structure's lack of independence from the state of California because the [**CAISO's**] **board** of governors members are **appointed by** the **California governor** and the **CAISO's enabling statutes require** the **board** of governors to **specifically consider** the **interests** of **California consumers and ratepayers** when taking action," BPA told FERC.

In their July 25 letter, the Pacific Northwest lawmakers noted that **Step 1** of a straw proposal advanced under the **West-Wide Pathways Initiative** – a multi-state effort to eventually transition the WEIM governing body to an independent regional organization – is **on** the **verge** of **being triggered with** the **admission** of Berkshire Hathaway Energy subsidiary **NV Energy** Inc. **as** an **EDAM participant**.

The five-member governing body currently holds "joint authority" with CAISO's board of governors. Step 1 of the Pathways Initiative would create a dispute resolution process allowing dual "jump ball" tariff filings with FERC when consensus cannot be reached, similar to an existing framework between the ISO New England and its stakeholder group, the New England Power Pool.

"The firm position taken by BPA that governance reforms were necessary helped inspire the West-Wide Governance Pathways Initiative last year," the lawmakers said July 25. "Signing of the market implementation agreements will trigger Step 1 of the governance changes proposed in the Pathways Initiative."

Lawmakers seek answers on market tradeoffs

With those considerations in mind, the senators asked BPA to respond to a series of questions about the tradeoffs between Markets+ and EDAM.

Among other things, they asked BPA to address which of the day-ahead markets will result in lower energy costs for the Northwest, "including both federal and nonfederal power." The lawmakers also asked BPA to address grid reliability and extreme weather considerations, market seams concerns, and potential greenhouse gas emission reductions.

"The decisions BPA makes now will have lasting consequences on the modernization and expansion of the electrical grid and energy generation resources across the West," the lawmakers said. "BPA's decision to join a day-ahead market is monumental – BPA must be able to demonstrate that it is in the best interests of communities across the Northwest that are reliant on BPA for both power and transmission services."

The senators added that a full analysis should include the option to join neither market "at this time."

Step 2 of the Pathways Initiative's straw proposal would form a new nonprofit legal entity, a "regional organization," with independent governance over the WEIM and

EDAM. That step would likely require enabling legislation from California, according to legal analysts.

California Assembly Member Chris Holden introduced regionalization legislation in 2023 that would authorize the CAISO Board of Governors to develop and submit a proposal for a multi-state regional transmission organization, with independent governance reforms that include a "western states' committee." However, the bill – **AB 538** – **failed** to **advance out of committee**. The bill was the third effort by California lawmakers in seven years to transition the CAISO to an independent multi-state organization.

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Oregon Utility Watchdog Asks State to Intervene on Proposed Double-Digit Electricity Rate Hikes

by Alex Baumhardt – Portland Tribune – Aug. 6, 2024

Portland General Electric and Pacific Power say their latest proposed rate increases are due to the rising cost of insurance and needed investments to expand electrical grids and make them resilient to extreme weather.

If the state's two largest electric utilities get what they've asked for, their **1.5 million customers in Oregon could pay 40% more for electricity next year than they did just three years ago**.

Those utilities – Portland General Electric, or **PGE**, **and Pacific Power** – **say** their latest proposed increases are due to the rising cost of insurance and needed investments to expand electrical grids and to make them resilient to extreme weather.

But Oregon's Citizens' Utility Board, a watchdog group established by voters in 1984 to represent the interests of consumers, **says** the companies are using rate hikes to make massive investments in infrastructure in too short a period, as well as creating slush funds for potential wildfire payouts in the future.

PGE wants to raise residential rates by 11% next year while Pacific Power asked for a 15% residential rate increase. But the board asked the state's Public Utility Commission to cap them at 7% plus the rate of inflation, or 10% annually, whichever is lowest. A rate increase to cover costs that go over that would need to be pushed to the next year or beyond.

The board asked the commission, which is charged with regulating the rates of privately owned utilities, to apply this cap to natural gas companies as well.

"In normal circumstances, it should be rare for utilities to increase rates by more than 10%," the Citizens' Utility Board said in a news release. "Unfortunately, we have seen a growing pattern of Oregon's for-profit utilities asking for 15-20% increases nearly every year for the last four years. This is a call to Oregon regulators to implement a cap for all for-profit utilities."

The latest rate requests from the two utilities are not driven by the costs of producing electricity, but by factors such as capital investments, insurance, profit margins and employee pay. In November, when the electric utilities will incorporate the costs of energy production into the rate proposals, they could ask for higher rates again.

The Public Utility Commission will make a decision in December, and the rates will go into effect in January.

The **commission declined to** comment on the specific proposals. Kandi Young, an agency spokesperson, said it can't **discuss active rate reviews**.

PGE

Portland General Electric's request for an 11% residential hike comes on top of an 18% increase in January and a 15% increase in 2023.

PGEs rates have gone up more than 30% since 2022, according to the Citizens' Utility Board.

The company said in its rate proposal that the increases were due to needed investments in grid resilience, energy storage and renewable energy.

But Bob Jenks, executive director of the Citizens' Utility Board, said PGE is making massive and long overdue investments all at once on the ratepayers' dime. He said big capital projects are appealing to investors who get a financial return on the money they lend to the company, but not to the ratepayers who have to pay those investors back.

"At some point, you've got to say you can't do this all in a three- or four-year period of time. You've got to set priorities," Jenks said. " If the customers can't afford it, and if the company's not going to try to manage this situation and set priorities and keep rates affordable, then the Public Utility Commission regulators are going to have to crack down and create restraints on the company."

In April, three months after a cold snap in January, PGE shut off power to a record number of households – 4,700 in one month alone – due to nonpayment. Citizens' Utility Board officials said this is clear evidence Oregonians are struggling to pay.

"Because utilities disconnect for nonpayment after 90 days, it is clear that the combination of rising rates and extreme temperatures has pushed customers into debt to PGE," the board said in a news release.

Pacific Power

If Pacific Power gets its 15% increase in 2025, customers would face electric bills more than 40% higher next year than they were just two years ago. Pacific Power raised rates by 11% at the beginning of 2024 and 21% in 2023.

The company said that would translate to $21.50 more per month for an average consumer.

The company said in its proposal that about half of the 15% increase would cover infrastructure upgrades, including grid and clean energy expansion and weatherization. The other half would help pay for wildfire mitigation as well as insurance and liability coverage.

For both Pacific Power and PGE, corporate liability insurance has gone up rapidly.

Pacific Power, owned by the company PacifiCorp, settled in June with more than 400 Oregon victims of the 2020 Labor Day Fires, paying out nearly $180 million after a judge found the company was negligent and responsible.

Though Pacific Corp can't raise rates to cover payouts from previous fires, it can start creating a slush fund for future payouts, Jenks said.

"There's a point at which it's better for them to just put together a pot of money and call it self insurance that they could use in these cases," he said. "But it means customers have to fund it up front and build that pot of money up."

Both PGE and Pacific Power have also asked for some of the rate increases to cover higher staff wages and company profit margins.

Beyond asking for rate caps, the Citizens' Utility Board asked that the electric utilities stop raising rates in the middle of winter. Bills are significantly higher during the winter because heating homes takes more energy than cooling them, and heat is often left on at night while air conditioning is not. For companies hoping to show big revenues for the first quarter, boosting rates in the lead-up to January when energy demand is high can be lucrative. But, Jenks said, it's taking advantage of the utilities' poorest customers.

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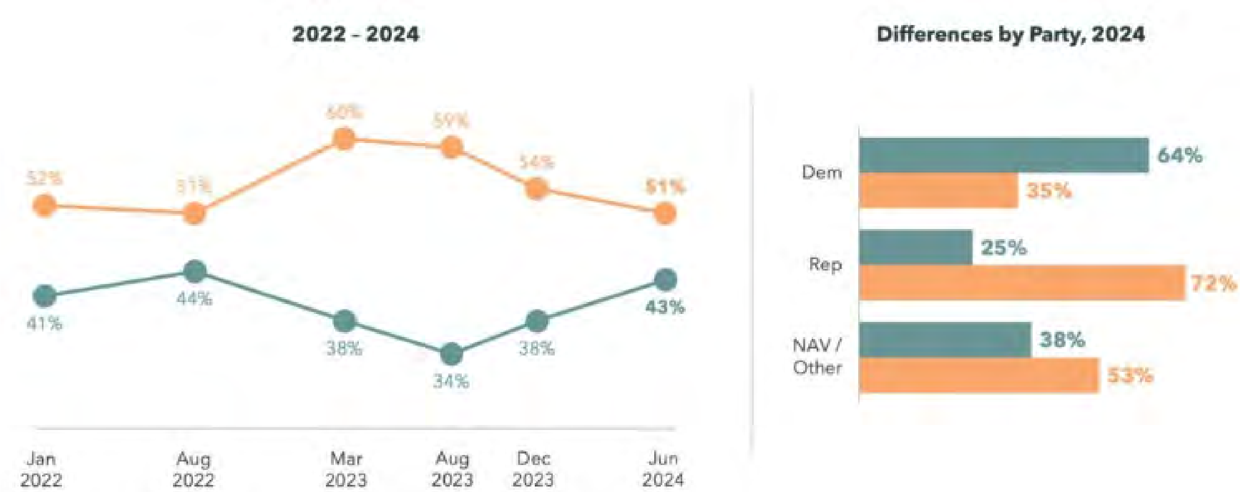
Oregonians Are Still Worried About the Economy

by Mike Rogoway – Oregonian – Aug. 4, 2024

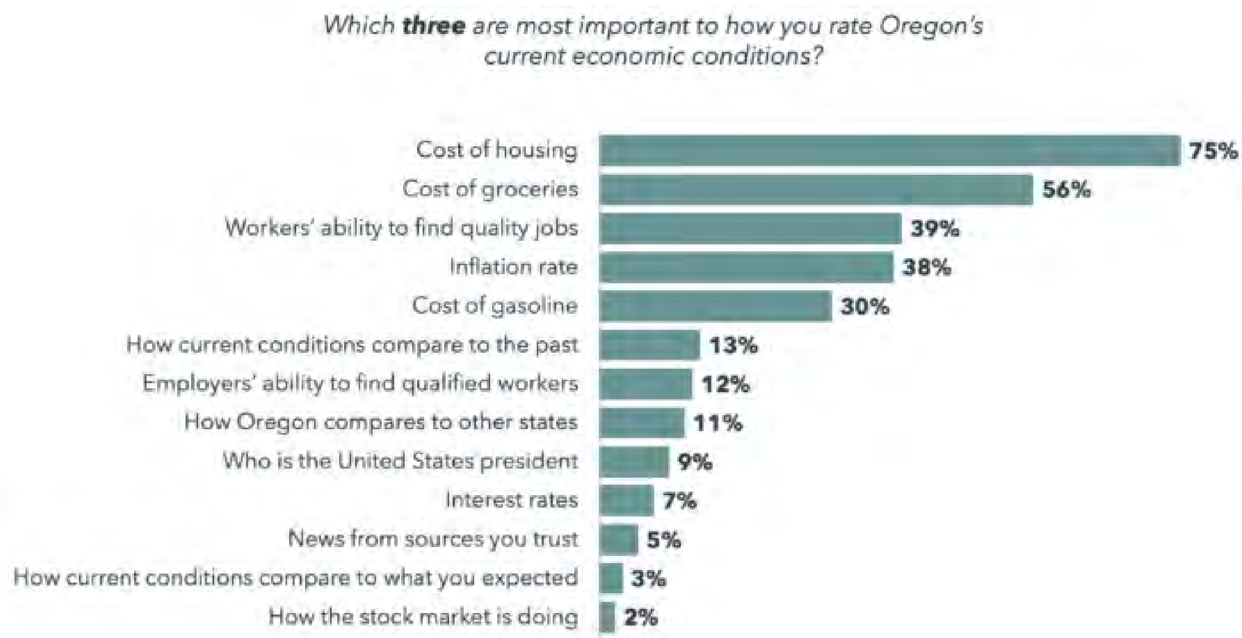


A **slim majority of Oregonians** continue to **believe** the **state's economy** is **performing poorly**, and **nearly as many say conditions are getting worse**, according to a new poll from DHM Research.

It's the latest indication of economic pessimism despite relatively low unemployment, rising wages and falling inflation.

Why do Oregonians feel so bad? **Higher prices remain** a **major issue**.

Poll respondents listed the costs of housing, groceries and gasoline, and inflation generally, among the most important factors influencing their perceptions of the economy.



Inflation peaked more than two years ago, but consumers still feel the sting of price increases that briefly approached double-digit percentages. And while some prices aren't climbing much at all now, other **costs** – **like** the **monthly electric bill** – **continue** to **rise steeply**.

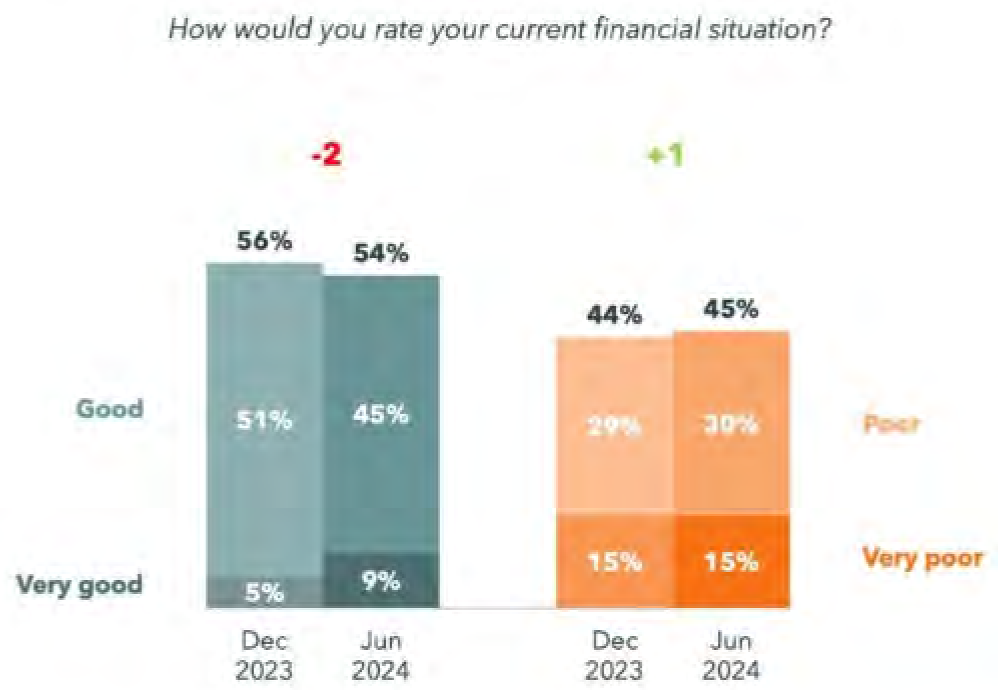
People are also concerned about whether workers can find quality jobs, according to the poll. While unemployment remains near a historic low, at 4.1%, state data shows that a **rising share of people are working part-time jobs because they can't find full-time work**.

Oregonians have had a persistently gloomy view of the economy in the pandemic's aftermath though the share of people rating the economy as poor has declined by 9 percentage points since last summer. Overall, a majority of Oregonians haven't rated the economy as good since 2019.

Intriguingly, though, most poll respondents say their own finances are OK.

Among those responding to DHM's latest poll, 54% said their personal finances were good or very good. Thirty percent called their circumstances poor, and 15% said they were very poor.

Detailed poll results offer some more insight into why people feel the way they do.



Two-thirds of Oregonians with just a high-school diploma or less rate their finances as poor. Just 24% of those with a college degree feel that badly.

There's a similar gender divide. Among men, just 39% rate their financial situation as poor. Fifty-one percent of women say their finances are in poor shape. (There wasn't much difference between how white and nonwhite Oregonians view their situations.)

Nothing affects Oregonians' perceptions more than housing. Three-quarters of those who own their own homes say their finances are in good shape. Just a third of renters feel the same way.

Taken together, the poll suggests **Oregonians' outlook** depends a lot on the economic opportunity they see for themselves and the **vulnerability** they feel **if** they're they feel if they're **renting** their homes.

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Oregon's Tech Industry Is Shrinking

by Mike Rogoway – Oregonian – Jul. 14, 2024
[Oregon's software industry is shrinking - oregonlive.com]

Oregon's software industry, which helped anchor the economic boom that followed the Great Recession, has turned south over the past two years.

Software employment statewide is **down 7.4% from** its **peak** in the **summer** of **2022**, according to data from the Oregon Employment Department. That's a period during which overall Oregon jobs grew steadily.

It could be just a blip. Perhaps Oregon's software industry is simply catching its breath after two years of strong growth in the pandemic's immediate aftermath.

"Some of those losses are likely related to a broader tech correction as some of the pandemic related demand subsidies," employment department economist Brian Rooney wrote in a recent analysis of one segment of the software industry.

Google, for example, laid off about 12,000 workers last year – about 6% of its total workforce. **Microsoft**, **Salesforce** and **other big tech companies have** also **cut jobs**, too, **over** the **past two years** as they repositioned their businesses.

The software cutbacks may mirror what's happening in **Oregon's chip industry**, which boomed during the pandemic and then lost jobs last year. **Economists expect semiconductor manufacturing will bounce back as** chipmakers cash in on **state and federal subsidies awarded** this year.

The **software industry isn't getting** any of those **government perks**, though. And there are reasons to worry about the health of Oregon software specifically.

For one, **venture capital investment in Oregon startups fell sharply last year** – to its lowest level since 2017. Relatively few entrepreneurs are starting tech companies in Oregon and those that are launching don't seem to be attracting much attention.

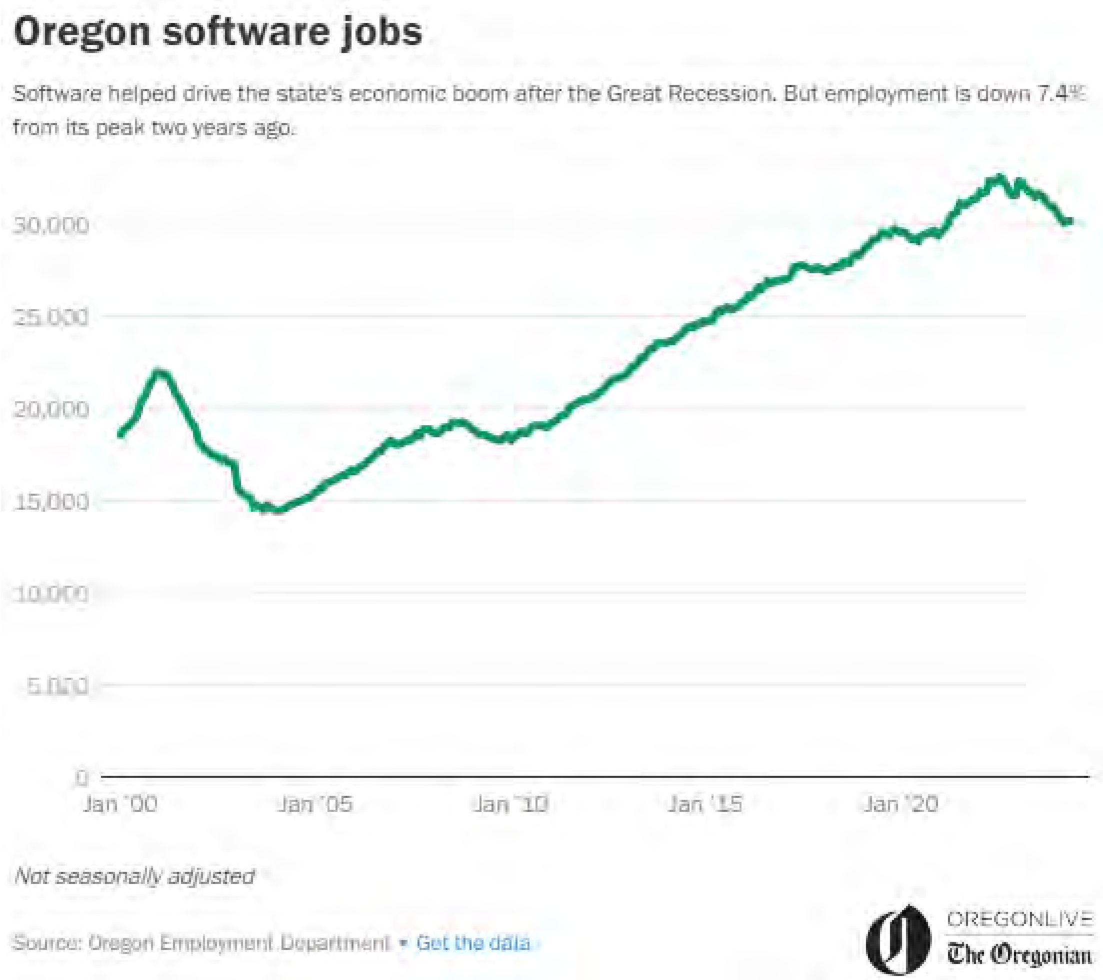
Multnomah County now has one of the highest personal income tax rates for high earners. That could make Portland less attractive for ambitious entrepreneurs hoping to build valuable new businesses.

The Portland Incubator Experiment, which was at the center of Oregon's software boom a decade ago, shut down its tech component last summer as tech entrepreneurship waned.

Software is a relatively small part of Oregon's total workforce, with just about 30,000 people working in the industry. But many others do some computer programming as a component of their jobs in other industries.

And software is economically significant because the industry pays an average wage of about $140,000 annually, more than double the average across all industries.

Portland used to be an attractive destination for remote software workers because the cost of living was so much lower here than in Silicon Valley or Seattle. The city is still cheaper than its neighbors to the north and south.



But the gap has narrowed, and the region's population has stagnated. Now, **slightly more people are leaving Oregon than** are **moving in**.

It could be that new generations of software developer and tech entrepreneur will find other places more appealing.

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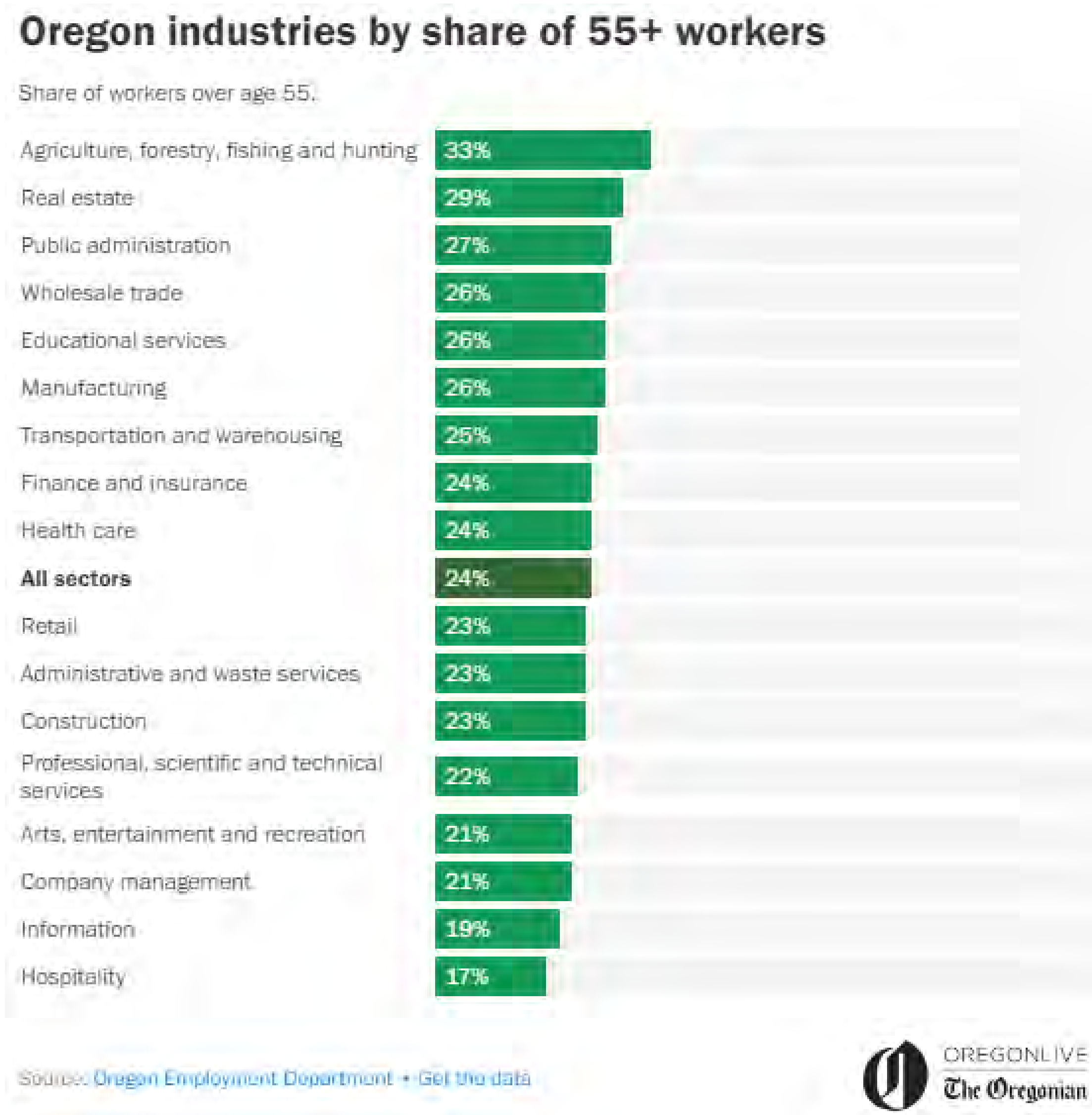
Oregon's Workforce is Aging.
Here Are the Industries with the Oldest Workers

by Mike Rogoway – Oregonian – Jul. 21, 2024
Oregon's workforce is aging. Here are the industries with the oldest workers - oregonlive.com

Nearly 1 in 4 Oregon workers is **over 55**, **nearing or beyond** the **typical retirement age**.



The **share of older workers in** the **state's labor force** has more than **doubled since 1990**, according to a new report from the Oregon Employment Department. If there's a **big wave of retirements** in the offing, that **could limit future economic growth** – especially in those industries with the highest share of older workers.

Oregon is **one of** the **oldest states in** the **nation**, with the median resident about 17 months older than the median American. That's showing up in **added demands on social service** agencies and on the state's **health care** system.

And it **could have** a **big impact on Oregon's economy**, too.

After three decades of the rapid growth that began in the 1990s, the **state's population** has **stagnated since** the **pandemic**. **Birth rates** are relatively **low**, and **slightly more people** have been **moving out of** the **state than moving in**.

Older workers leaving the labor force could create an even tighter labor market. That might be good for employees in some ways, pushing up wages as companies compete to attract workers. And older workers' departures would open up pathways for career advancement.

For employers, though, a smaller labor pool could make it tough to staff their operations and to expand.

Employment department economist Gail Krumenauer catalogued the Oregon industries with the oldest and youngest labor forces.

Agriculture, real estate and public administration are the oldest industries, all with more than a quarter of their workers over 55.

In terms of total number of workers over 55, though, health care is the largest with 70,000, followed by manufacturing (49,000) and retail (48,000). Those fields will all face big challenges in filling their ranks in the years ahead.

Oregon's hospitality and information industries have the smallest share of workers under 55 – 17% and 19%, respectively.

Hospitality includes hotels, bars and restaurants, which are often service jobs that don't require a lot of prior experience. And that attracts a younger set of people new to the workforce.

The information sector includes telecommunications, website development, online publishing and customer service. Those fields tend to skew younger and might not feel the pressures of Oregon's aging workforce quite as soon as other fields.

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POWER GRID INTERNATIONAL

How an Oregon Utility Achieved the Largest Customer Demand Shift in Its History

By John Engel – Power Grid Int'l – Jul. 22, 2024
How an Oregon utility achieved the largest customer demand shift in its history (power-grid.com)

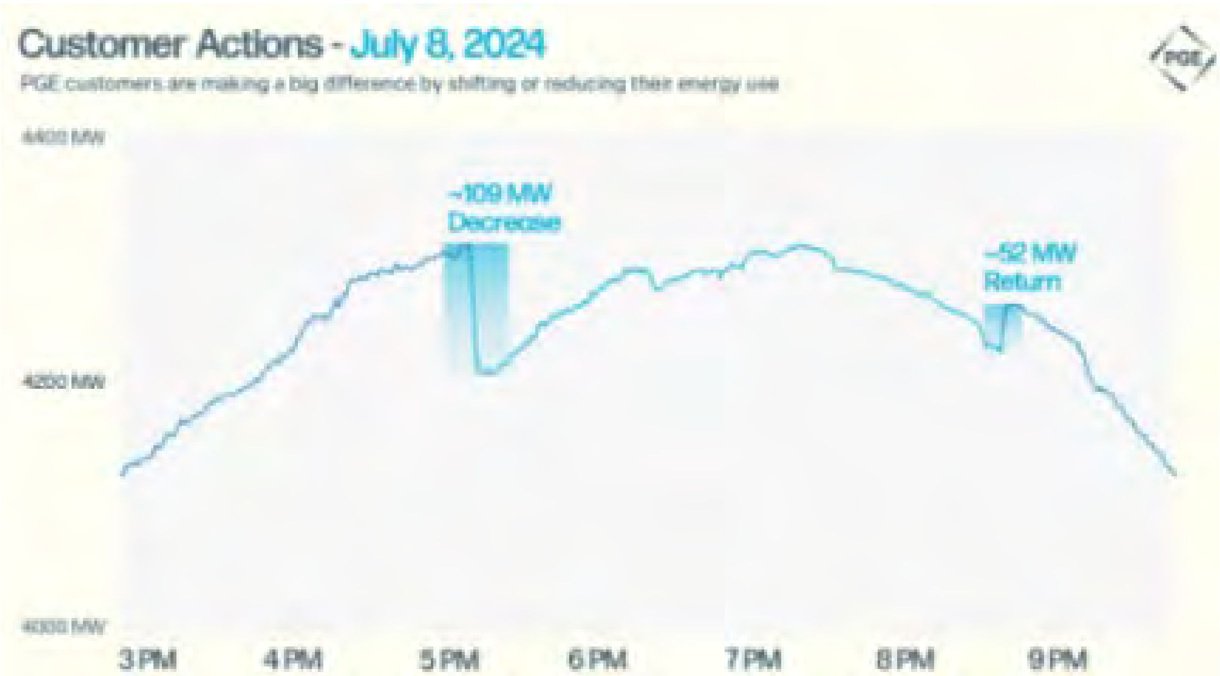
Customer actions reduced electricity demand by nearly 109 MW during peak demand hours on July 8 and 100 MW on July 9.

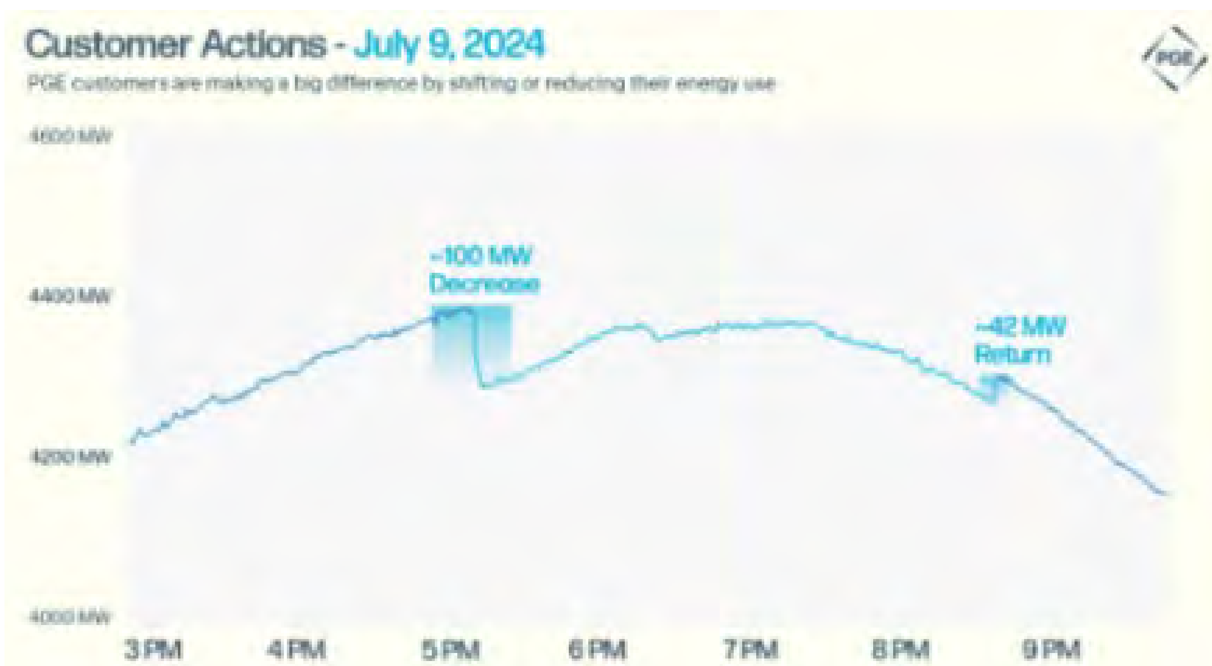
Portland, Oregon

It's summer in Portland, OR and it's hot – really hot – especially by Pacific Northwest standards. Last week, the season's first heat wave could have threatened the stability of the Portland General Electric grid had it not been for the largest customer electricity demand shift in the utility's history.

Customer actions reduced electricity demand by nearly 109 MW during peak demand hours on **July 8 and** 100 MW on **July 9**, according to PGE. That's enough shifted electricity to power over 90,000 homes for four hours.

On those days, **PGE activated** its **entire portfolio** of **voluntary energy shifting programs**, which include **peak rebates**, **smart thermostat intervention**, and **managed e**lectric **v**ehicle **charging**. In total, more than **200,000 PGE customers** — **21%** of the **utility's customer base** — **participate** in at least one energy shifting program. This is **only** the **second time PGE** has **activated** its **entire energy shifting program portfolio for multiple, consecutive days**, the utility said.





PGE credits smart grid investments for enabling versatile demand-side tools.

Last year, the utility released its first-ever Clean Energy Plan, in addition to its Integrated Resource Plan, which called for an onslaught of community-based renewable energy resources, including small-scale battery storage and solar power, as well as energy efficiency and demand response programs.

The utility said it foresees a significant capacity need of 1136 MW in summer, 1004 MW in winter, and a significant energy need of 905 MWa (~2,500 MW nameplate) by 2030. To help meet that need, it plans to add up to 155 MW of community-based resources by 2030 with plans to pursue at least 66 MW by 2026.

PGE is **also piloting** a **new smart grid chip**, powered by artificial intelligence, alongside electricity meters that integrate distributed energy resources to provide real-time visibility at the grid edge. The utility has partnered with **Utilidata** to install the chips at its smart grid test bed, which spans three neighborhoods and includes 20,000 participating customers.

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Portland General Aims to Review Renewable, Dispatchable Supply Bids in August

by Kassia Micek•Commodity,
Standard and Poor's Global Market Intelligence – Jul. 26, 2024

Portland **G**eneral **E**lectric Co. expects to have a final project shortlist for its all-source request for proposals in August, with final contracts executed in late 2024 or early 2025, executives said July 26.

Through the request for proposals (RFP), PGE seeks to procure about 753 MW of renewable resources to come online by the end of 2027 to align with the company's clean energy plan and integrated resource plan targets of adding 251 MW annually. The company has a goal to reduce emissions by 80% by 2030 and achieve net-zero greenhouse gas emissions by 2040.

"Our ongoing renewable generation and capacity RFP remains squarely in focus as we work to achieve our clean energy goals," company President and **CEO Maria Pope** said July 26 during a second-quarter earnings call.

PGE concluded bid submissions in April and the initial project shortlist was filed in early June with the Oregon Public Utility Commission.

"We're again seeing strong subscription for both generation and capacity resources with a mix of wind, solar, battery and pumped hydro projects that will move forward for further evaluation," Pope said. "A final project shortlist is expected in August, with bid selection this winter."

PGE reported GAAP earnings of $72 million, or 69 cents per share, for the second quarter of 2024, an **increase of 77%** compared with $39 million, or 39 cents per share, in second-quarter 2023. The S&P Capital IQ GAAP consensus estimate for PGE in the second quarter was 66 cents per share.

The utility attributed second-quarter results to **continued growth** in **industrial customer demand**, **primarily semiconductor manufacturing and datacenters**; mild weather and solid power cost performance; and a continued focus on cost management and risk mitigation.

"While these results mark an improvement from 2023, we recognize that there is still more work to do," Pope said. "We remain focused on meeting expectations for the year and improving our [return on investment] towards authorized levels."

Transmission expansion

PGE is upgrading existing transmission resources and working with partners to upgrade and expand its transmission capacity.

"Our transmission work focused on improvements within our footprint is moving forward to support customer growth," Pope said. "And we're also collaborating with tribal partners, Bonneville Power Administration and other regional utilities and stakeholders to make progress on critical transmission expansion that will facilitate more cost-effective renewable energy supply."

In **May**, **PGE signed** a **memorandum of understanding** with **private developer Grid United** LLC **and Allete** Inc. for **development** of the **North Plains Connector project** that stretches across three regions – the Southwest Power Pool, Midcontinent ISO and Western Electricity Coordinating Council. The roughly 415-mile, high-voltage direct-current transmission line will be constructed with endpoints near Bismarck, ND, and Colstrip, Mont.

"Our resource planning work, especially important in the context of the load growth that we're experiencing across the region, is progressing well," Pope said. "We're seeing further validation of our service territories trajectory underscored by robust industrial load growth from semiconductor manufacturing and technology infrastructure customers."

Datacenter growth

"Oregon's leaders remain focused on capturing the benefits of **recent legislation** and industry tailwinds," Pope said. "These efforts are bearing fruit with **additional federal and state funds flowing to local projects**."

Industrial load in the **second quarter increased 6.2%** weather-adjusted compared with the same quarter in 2023.

"We're also seeing meaningful growth among our region's **datacenter** sector," Pope said. "These customers are enabled by the Trans-Pacific subsea fiber landings on the west side of our served territory. Growth from both these important sectors represents an exciting opportunity, bringing quality jobs and infrastructure improvements at a level we have not seen in over 50 years."

Early July heat wave

The utility's service territory in and around Portland, OR., saw five consecutive days of record-high temperatures in early July. "Our resilience during this intense period of high heat underscores the value of new processes and training, procurement of additional hydro supply and diverse wind resources as well as capital investments and technology deployments that strengthened equipment reliability and energy supply management," Pope said. "These targeted investments also speak to our focus on affordability and how careful planning has reduced painful energy price volatility during extreme events."

In addition, demand response by customers' reduced energy consumption by 109 MW during peak periods of the heat wave, which Pope said was "the largest electricity demand shift we've seen. These collective actions during this period of extreme weather made a huge difference."

With the heat and dry conditions, **wildfire** mitigation remains a key focus for PGE, Pope said, adding the utility has a year-round program of system hardening, managing vegetation and sharpening operational practices that are key to this risk-based approach.

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PGE Seeks Bigger Electric Rate Hike for 2025

by Kristine de Leon – Oregonian – Aug. 2, 2024

Portland **G**eneral **E**lectric is **asking state regulators** to **approve** a **10.9% rate increase** for residential customers and businesses starting next year, according to a **July filing** with the state utility commission.

That's **up from** the investor-owned **utility's** initial **7.4% increase** request **for next year**, which was met with resistance from consumer groups. In April, the Oregon Public Utility Commission rejected efforts by a citizen watchdog group to dismiss the rate hike that would go into effect in January 2025.

It would **follow** an **18% jump** that took effect **in January and** a **12% hike a year earlier.**

PGE previously said it **needed** the **7.4% rate increase** to **pay** for **clean energy needs and** investments in **battery storage**, **transmission infrastructure upgrades and overall grid improvements**.

Sarah Hamaker, a spokesperson for **PGE**, **said** the **adjustment** to **PGE's rate review request** is **driven by power costs**.

"At this time, no final rate case determination has been made and no number is final," she said. "PGE continues to be actively engaged in this process with all stakeholders."

The Oregon **C**itizens' **U**tility **B**oard, a state nonprofit group that advocates for utility customers, said in a statement that PGE's latest "double-digit proposal comes on the heels of a record number of households disconnected in April and May."

The Oregonian/OregonLive previously reported that Oregon utilities cut off more customers for nonpayment this past April than in any month since the state began tracking shutoffs in 2018.

The watchdog group said these disconnections were driven by households' inability to keep up with the cost of electricity.

Customers are **already reeling from record-high bills** that resulted from this year's rate increase **and** the **ice storm** in **January**, said **Bob Jenks**, the Citizens' Utility Board's executive director, and another double-digit increase could make it harder for customers to afford their electric bills.

"We **need our utilities to control their spending**," Jenks said in a statement. "No one should have to choose between electricity and food, medicine, or other necessities."

The watchdog group is asking the Public Utilities Commission to delay or reject most of PGE's rate increase case.

If the Oregon Public Utility Commission approves PGE's new proposal, it would go into effect starting Jan. 1.

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Powell Tees Up Fed Rate Cut Next Month

by Nick Timiraos – WSJ – Aug. 1, 2024

Officials hold policy benchmark steady but signal progress in fighting inflation

Fed Chair Jerome **Powell said officials could cut interest rates at their meeting** in **September**, moving closer to a new phase that seeks to avoid weakness in the labor market amid signs inflation is heading lower.

While Powell and his colleagues **didn't commit** to any such move when they held rates steady on Wednesday, he appeared to **suggest** a **cut** was more **likely** than not during a news conference.

"The broad sense of the committee is that the economy is moving closer to the point at which it will be appropriate to reduce our policy rate," Powell said. "A reduction in the policy rate could be on the table as soon as the next meeting in September."

Powell cited better news on inflation, a desire to prevent a material rise in unemployment, and his view that policy is beginning to more meaningfully slow activity during a 50-minute news conference that did little to dispel widespread expectations in financial markets of a rate reduction at the Fed's next meeting.

U.S. stocks opened the day sharply higher, then held on to their gains after the Fed's news conference. **Treasury yields edged lower**.

While **Wednesday's decision** to **leave rates in** a **range between 5.25% and 5.5%**, a two-decade high, was unanimous, Powell suggested that at least one official had argued in favor of lowering rates at this week's two-day meeting.

"That was big, because if they were seriously talking about whether or not to go in July, September seems like a done deal unless we get something crazy between now and then," said Jamie Patton, cohead of global rates at TCW, a Los Angeles asset manager.

Investors now expect an **initial quarter-point reduction to be followed by two more at meetings** in **November and December**. "What speeds up the cycle is weakness in the labor market and what slows down the cycle is stickiness on inflation," said Michael de Pass, global head of rates trading at Citadel Securities.

Officials made two important changes to their policy statement that acknowledged recent progress in their inflation fight and that pivoted closer to lowering rates without making any explicit commitment.

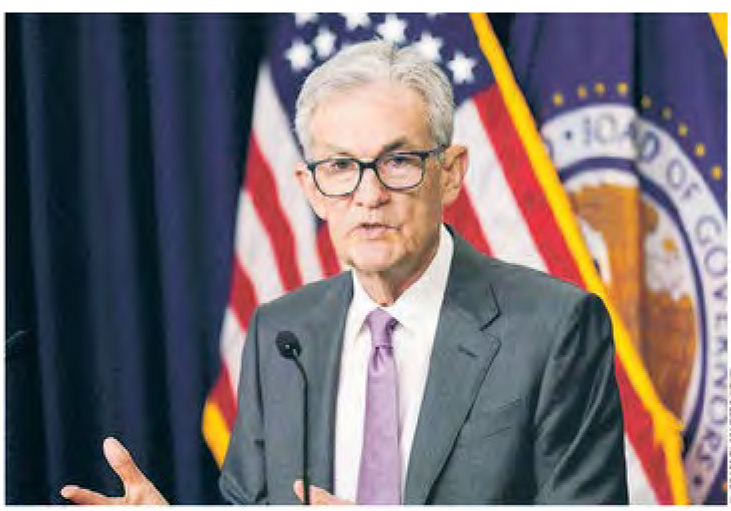
They described inflation as "somewhat elevated," a notable downgrade. And they underscored that this progress meant they could treat both sides of their mandate – to maintain low and stable inflation with sturdy labor markets – on a more equal footing for the first time since they rapidly raised rates starting two years ago to combat high prices.

"The committee is attentive to both sides of its dual mandate," the statement said, retiring language that for the past two years described policymakers as "highly attentive" to inflation risks.

The stakes are high for Fed officials, who have been trying to navigate two risks. One is that they ease too soon, allowing inflation to become entrenched at a level above their 2% target. The other is that they wait too long and the economy crumples under the weight of higher rates.

The economy has been sturdy this year. **G**ross **D**omestic **P**roduct, the broadest measure of U.S. economic output, **rose** at a **2.1% annual rate** during the **first half** of the **year**. While inflation was unexpectedly hot in the first quarter, more recent readings suggest a slowdown in price growth during the second half of last year has resumed and might be broadening.

"What we're seeing right now is better than last year," when price growth slowed rapidly but declines were concentrated in goods and not services, said Powell. "This is a broader disinflation."



Left: Fed Chair Jerome Powell at his news conference Wednesday in Washington.

In addition, recent earnings reports suggest **corporate America is enjoying less pricing power as consumers tighten their belts and push back**

against hefty price increases of the last three years.

McDonald's said sales sputtered in the April-to-June quarter, falling nearly 1% from a year earlier, and sounded a warning for the restaurant sector. "The consumer across a number of these markets is being very discriminating," said Chief Executive Chris Kempczinski in an earnings call on Monday.

Fed officials raised rates at the fastest pace in 40 years when inflation surged to a four-decade high in 2022. They feared rapid price increases could lead high inflation to grow entrenched across the economy, particularly if prices and paychecks rose in lockstep.

But recent data suggest that hasn't occurred. There were **1.2 job openings for every unemployed worker in June**, down from a high of 2 when the Fed began lifting rates in March 2022 and back to levels seen before the pandemic. Powell said on Wednesday he no longer saw the labor market as a source of inflation risk. "I would not like to see material further cooling in the labor market," he said.

While layoffs remain low, hiring rates have also **tumbled**. It is **taking workers longer to find jobs**, and the **unemployment rate** edged up to **4.1% in June** from 3.7% at the beginning of the year. Pressed over whether officials were concerned that this might presage further labor- market weakness ahead, Powell said, "We're watching really carefully for that."

Wage growth is cooling after the reopening from the pandemic ignited a rehiring frenzy. Private-sector wage and salaries grew 0.8% in the second quarter, the Labor Department said on Wednesday, the softest rise since 2020.

Moreover, some industries most sensitive to higher rates are facing more pressure. The number of housing units under construction nationally plateaued in 2022, after borrowing costs soared, but residential construction turned negative earlier this year and was down nearly 8% in June from a year earlier, the biggest drop since the 2006-11 housing bust.

A decline in mortgage rates below 7% in recent weeks hasn't done anything to boost demand for new mortgages, the Mortgage Bankers Association said on Wednesday.

The economy has been more resilient to higher interest rates than most economists expected, in part because many households and businesses locked in low borrowing costs during the pandemic. But those same buffers that weakened the transmission of interest rates on the way up could also work against the Fed on the way down if it needs to stimulate the economy, TCW's Patton said.

"That's why we think the Fed is a little overconfident thinking they can just ease rates as soon as they see weakness, and everything will be fine," she said.

Other sectors are dealing with the potential payback from a surge of demand unleashed by the Covid-19 pandemic. Brunswick, the world's largest maker of pleasure boats, said last week revenue had fallen 15% in the second quarter. The introduction of new model year products in June “did not catalyze boat purchases as we had anticipated,” Chief Executive David Foulkes said.

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Regulators Shut Down Vineyard Wind, Launch Probe After Turbine Blade Shatters

by John Siciliano – Standard and Poor’s Global Market Intelligence – Jul. 20, 2024

Federal regulators have **ordered** the **Vineyard Wind project** in **New England** to **cease producing power** until an **investigation** can uncover why a July 13 operational failure caused an **offshore wind turbine blade** to **shatter**, **sending** potentially hazardous **debris into** the **ocean** and **littering** the **Nantucket island coastline** – a prime beach resort and tourist area.

The US Bureau of Safety and Environmental Enforcement (**BSEE**) said on July 17 that it had issued a suspension order for Vineyard Wind to halt electricity production from all of its wind turbine generators until it can be determined whether the blade failure affected any other turbines.

A BSEE spokesperson said the agency also issued a preservation order to safeguard any evidence that may be relevant to determining the cause of the incident. A joint investigation is now underway between BSEE and Vineyard Wind, a **50/50 partnership between** utility **Iberdrola** SA **subsidiary Avangrid** Inc. **and Copenhagen Infrastructure Partners** P/S.

As of late **June**, **Vineyard Wind was supplying 136 MW** to the **New England grid from 10 operating turbines**. **When complete**, **62 turbines will produce 806 MW**. The offshore wind farm has been cited by the Biden administration to tout the forward movement the president has made in achieving his goal of deploying 30 GW of offshore wind by 2030.

However, the accident could lead to new federal safety requirements for Vineyard Wind and other offshore wind projects in the Northeast, potentially slowing construction of the massive projects, the BSEE suggested in announcing a separate independent safety probe into the incident.

The **US Interior Department agency will conduct its own independent assessment** "to ensure the safety of future offshore renewable energy operations," a spokesperson for BSEE said.

In addition, **GE Vernova** Inc., the **project's turbine and blade manufacturer** and installation contractor, **will be conducting its own investigation** "into the root cause of the incident," Vineyard Wind said.

GE Vernova stock was **down** more than **9% in heavy trading** on **July 17**. **Avangrid stock** was **unchanged** for the day.

As of July 17, there have been no reported injuries or harm to any marine resources or marine mammals as a result of the incident, the BSEE spokesperson said.

A beach closure that went into effect earlier in the week on Nantucket Island has now been lifted, although authorities warned beachgoers to use caution as pieces of the blades could be sharp and potentially dangerous.

In a July 17 company update on the cleanup effort with local authorities, Vineyard Wind reaffirmed its commitment to a prompt and full cleanup of debris on Nantucket and said it remains in close communication with local authorities to ensure safety remains a priority.

The company said more than **six truckloads** of **debris and several larger pieces** have been **removed from area beaches**. Cleanup efforts are expected to continue throughout the week as necessary until all debris is removed.

Although the Nantucket police had reopened the island's beaches to swimming, Vineyard Wind monitoring teams have been deployed to surveil eight of the most impacted beaches to help ensure safety, the company said.

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Rising US Power Prices Reflect New Reality for Utilities in Warming World

by Karin Rives
Standard and Poor’s Global Market Intelligence – Jul. 29, 2024
Susan Dlin contributed to this article.

During a July 2023 heat wave in New York, people rushed to buy air conditioners. The need for more cooling has contributed to rising power bills, straining household budgets.

Halfway through a US **summer of punishing heat domes** and **record-high temperatures**, **air conditioners** are **churning** and **energy bills** are **soaring**.

But a closer look at how such costs play out reveals vast disparities among states and demographic groups – suggesting a complex American energy reality that goes beyond partisan talking points and shows the challenges utilities face in a warming world, industry experts said.

Between 2018 and 2023, **average US household electricity prices rose 21.9%**, data from S&P Global Commodity Insights showed. Within that average were increases **as high as 65.6%** in **Maine** and **51.3%** in **New Hampshire**, while New Mexico and North Dakota saw only a 6.6% rise. Wyoming and Kansas residential power prices were slightly lower in 2023 than in 2018, while Florida's jumped 36%.

Economywide cumulative **inflation** was 22.2% during the same six-year period, according to the Federal Reserve Bank of Minneapolis.

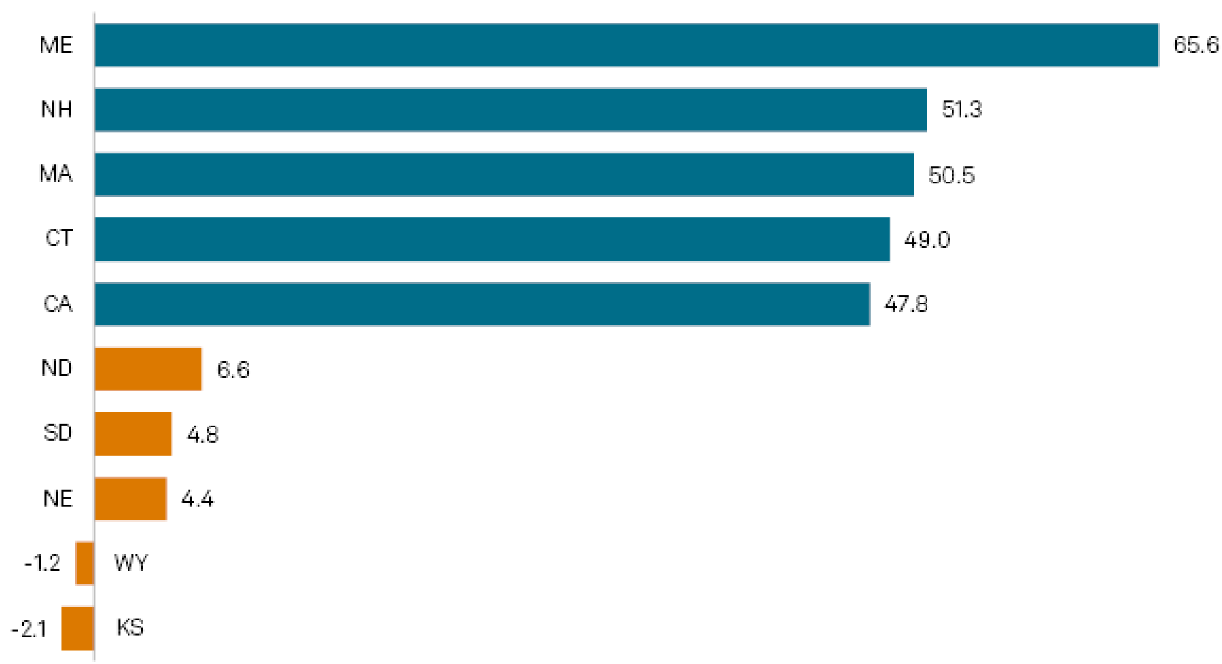
US power retail costs are inconsistent because bills now include charges that may have nothing to do with the costs that utilities incur when generating and distributing electricity, said Severin Borenstein, director of the University of California, Berkeley's Energy Institute at Haas and board member of the California ISO.

"I think the common theme here is we pay for a lot of stuff through price per kilowatt hour that is not a cost per kilowatt hour," Borenstein said in an interview. "Wholesale power prices have been very moderate over the last year, but we're still seeing retail prices grow."

In California, for example, costs associated with wildfire mitigation and liabilities accounted for nearly 13% of the average monthly bill that Pacific Gas and Electric Co.'s residential customers paid in 2023, according to the state's Public Utilities Commission. Wildfires that have devastated parts of California in recent years have been attributed to climate change.

Maine had the highest power cost increase of any state between 2018 and 2023, per Commodity Insights data. The hike was driven mainly by deferred costs of imported natural gas but also reflects **deferred storm costs** and **stranded assets** from a net metering program, a spokesperson for the Maine Public Utilities Commission said in an email.

Changes in household power rates in 10 states between 2018 and 2023



Data compiled July 24, 2024.
Includes public power, cooperatives, investor-owned utilities and/or other types of utility owners within each state.
Excludes American Samoa, Puerto Rico, Guam, Northern Mariana Islands, Marshall Islands, Virgin Islands and other outlying territories.
Source: S&P Global Market Intelligence.

Behind the Rhetoric

Rising energy prices have become a political football during this election year, as critics of the Biden administration's climate policies and state clean energy mandates have argued that American families are caught in the middle.

"Doubling down on policies to restrict oil and gas, to retire baseload power generation and to promote widespread unaffordable, unreliable electrification is not how we secure our energy future," Rep. Cathy McMorris Rodgers (R-Wash.), chair of the US House Energy and Commerce Committee, said during a May 1 congressional hearing. "Unfortunately, it's Americans that are feeling the impacts of this rush-to-green agenda."

Brendan Pierpont, director of electricity modeling at the think tank Energy Innovation, decided to dig into the data to try to understand why utilities in recent years began to ask regulators for large rate increases. Those requests coincided with the narrative arguing that clean energy investments drove such cost increases, he said.

"What we found was, first, that there's not really a systematic relationship between states that have increased renewable energy shares and those that saw large rate increases," Pierpont said in an interview. "And then when you zoom into some of the states that had rate increases that exceeded inflation, like California, you see costs associated with **mitigating wildfire risk** just **ballooning**."

Such costs continue to climb. California regulators in 2023 approved a $2.6 billion multiyear rate increase for Pacific Gas and Electric Co. that went into effect in January. More than 85% of the revenue will be used to reduce risks in the utility's electric and natural gas operations, primarily from wildfires.

Power lines against a California wildfire

New England and some Appalachian and Midwestern states also experienced rapid increases in electricity costs in recent years, and all for unique reasons, Pierpont concluded in a study published July 9.

Volatile wholesale gas prices caused power bills to spike in recent years in Massachusetts and several other New England states that are heavily dependent on imported natural gas, Pierpont said. The Energy Innovation analysis covered increases going back to 2010.

Appalachian states such as West Virginia have sought to delay the **retirement** of **coal plants**, necessitating expensive environmental upgrades whose costs are passed on to consumers. West Virginia household power rates rose 26% between 2018 and 2023, the Commodity Insights data showed.

Households Feel the Squeeze

At the receiving end of rising power rates are millions of residential customers.

Nearly 24% of **US households said** they were **unable** to **pay at least one monthly energy bill in** the **past year**, according to a July 16 report from the National Energy Assistance Directors Association and the Center for Energy Poverty and Climate. That number rose to **32% for households of color** and to **37% for low- and moderate-income households**, according to the study based on US Census data.

"We don't have an entitlement program for energy bills like we have for foods or Medicaid," Mark Wolfe, executive director of the National Energy Assistance Directors Association, said in an interview. "With energy assistance as a discretionary grant program, when the money runs out, it's over."

The federal **L**ow **I**ncome **H**ome **E**nergy **A**ssistance **P**rogram, which helps struggling households with their energy bills, **received** about **$4 billion** from Congress for fiscal year **2024**, **down from** over **$6 billion** in fiscal year **2023**. Wolfe said the reduced funding adds more pressure on the states. **Until** a **few years ago**, he noted, **80%** of the funding **went to home heating** in the **winter** and **20%** to **cooling**, **but** with summer heat waves lasting longer, the **ratios** are **changing**.

Whose Affordability Problem?

Some utilities in high-cost states have responded by rolling out programs to try to mitigate rising energy costs and address the needs of households whose cooling needs are growing in tandem with global temperatures. Without help, people can die, Wolfe said.

In 2023, Eversource Energy said it would offer up to a 50% discount on bills for New England customers facing financial hardship. The states the utility serves – Massachusetts, Connecticut and New Hampshire – were among the top five for residential power rate increases between 2018 and 2023.

"The affordability problem falls heaviest on utilities," Wolfe said. "They have to collect when people run behind on their bills and have to run shut-off programs and you talk to any utility, they don't like shutting people off from power. But utilities are not social service organizations. They're set up to make sure the power plant runs and the wires are up."

In states with high power rates, such as California, energy assistance programs provide some help without solving the underlying problem, Borenstein said.

"Which is why I'm a bigger fan of taking a lot of these costs off the bills and instead put them on the state budget," the business professor said. "We're paying for seawalls, flood protection, wildfire protection, because politicians like to have somebody else pay for things."

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The Rush to Shore Up the Power Grid Against Hurricanes, Heat and Hail

by Phred Dvorak – WSJ – Jul. 29, 2024

Energy companies are working to adapt as they confront record-setting temperatures, floods and windstorms.

A CenterPoint Energy employee worked to restore power in Houston this month.

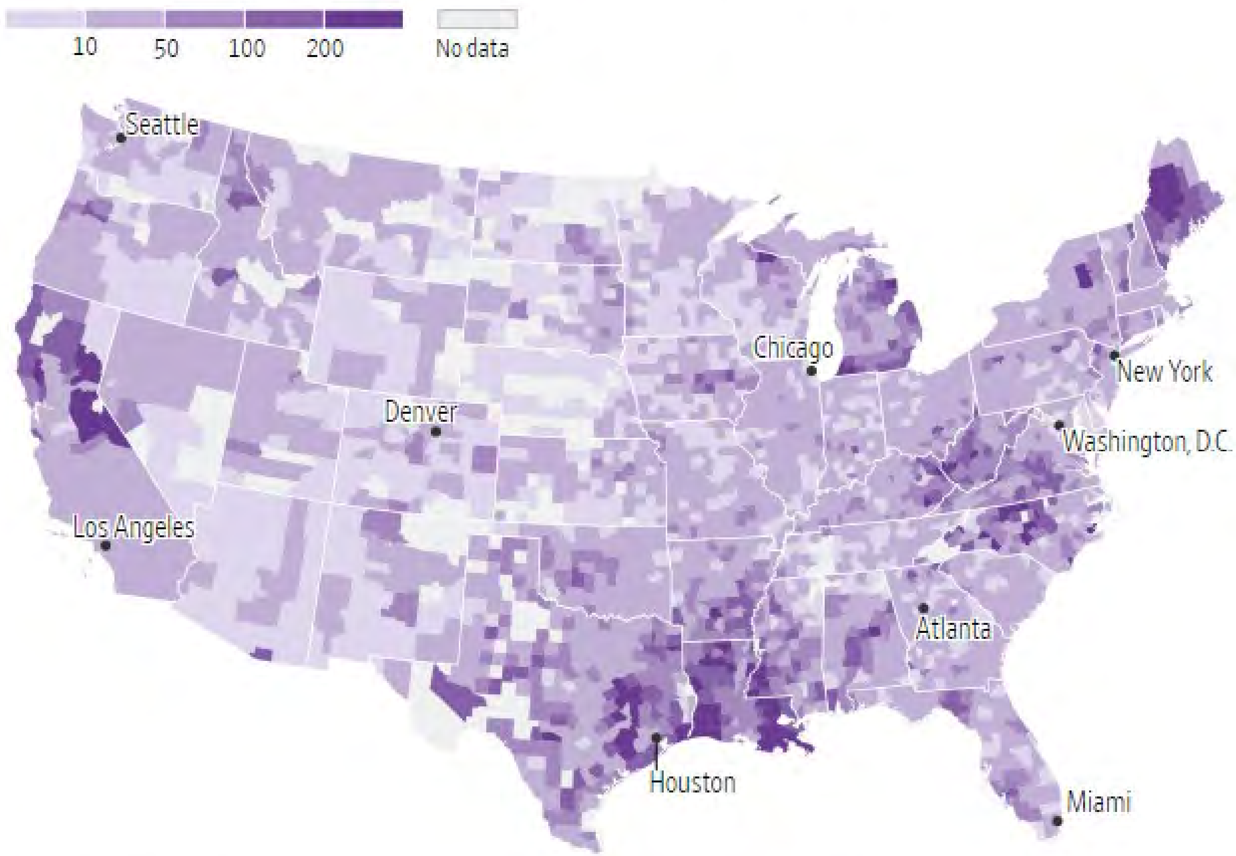
Extreme weather is putting power supplies around the U.S. to the test. Energy companies are racing to find answers.

Hurricane Beryl knocked out power for millions in Houston and surrounding areas this month. **CenterPoint** Energy the **city's main utility**, **took nearly two weeks to get power completely restored.**

Earlier this year, **floodwaters washed away an electric substation in Minnesota**, while **central states experienced** at least **four major tornado and windstorm outbreaks** that **left hundreds of thousands** of **customers without power**.

Energy companies are working to adapt to record-setting temperatures, floods and windstorms, as climate models forecast the weather will keep getting wilder. But researchers caution that the effects of global warming and current extreme-heat conditions still aren't well understood, making solutions hard to come by.

Average annual reported power outages per customer, 2019-2023



Note: Reported outages are for every 15-minute period. Customers per county as of 2022.
Source: Oak Ridge National Laboratory
Carl Churchill/WSJ

New York utility Consolidated Edison is trying to stay ahead of weather risks by working with New York state and Columbia University to predict what effect climate change could have on its operations and systems. In mid-**July**, a **heat wave and surge** in **air-conditioning use caused** some of the company's **underground power cables to fail in Harlem**.

Con Edison's latest climate-risk study, released last year, said all types of severe weather – from flooding to heat waves – are expected to increase in intensity or severity. Temperatures are likely to rise faster than it projected four years before, with levels that were expected in 2040 now coming a decade earlier, the study said.

Con Edison's engineers took those predictions and applied them to its electric systems to model its potential increase in equipment-failure rates, which go up as the temperature rises, says Christopher Jones, chief engineer for the company's electric distribution system. To help protect the system, **Con Edison** is **planning** to **add switches to** its **underground network** that would **limit** the **spread** of any **failures**.

The company is **also proposing** to counter increased flooding by **replacing hundreds** of **underground transformers** and **circuit breakers with units that work underwater**. It is stringing tough underground electric cables in place of about 100 miles of overhead power lines to reduce damage caused by storms blowing down trees and poles.

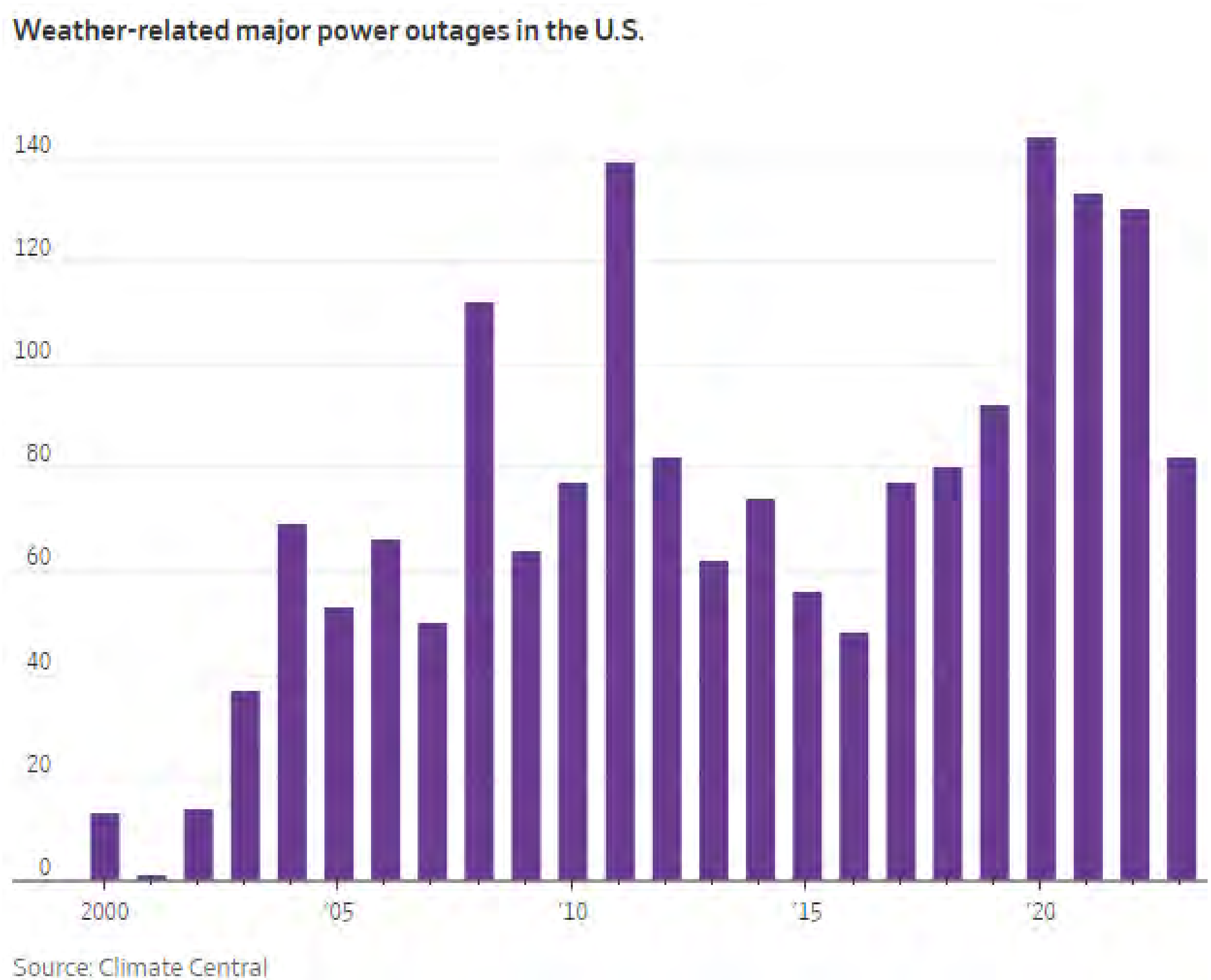
“Everything that you’re doing has to be built for the future climate,” says Nelson Yip, Con Edison’s director of climate resilience.

Worse weather, unclear science

Bad weather is hitting more frequently across the country and costing a lot more now than in previous years, according to the U.S. government.

Over the past five years, the U.S. has seen an average of 20 weather-related disasters a year with a price tag of $1 billion or more, adjusted for inflation, compared with a 43-year average of 8.5, according to data collected by the National Oceanic and Atmospheric Administration. There have already been 15 such disasters this year through June.

Severe weather is the **No. 1 cause** of **power outages nationally**, and a major factor in grid problems of all kinds.



Researchers say it will get worse. Although the exact effects of climate change on today's weather aren't clear, many scientists say it has made some weather events – such as heavy precipitation, droughts and heat waves—more severe and more frequent.

If greenhouse-gas emissions continue to increase at a high rate and global warming progresses, residents of Houston could experience a 72% rise in the number of major power outages toward the end of the century compared with now, according to a recent study by the Electric Power Research Institute and the Pacific Northwest National Laboratory.

"If companies don't adapt to better-withstand hurricanes, we will see worsening outages," says Andrea Staid, a researcher at EPRI.

Heat, storms and hail

Last year was declared the hottest year since global records began, and many forecasters are saying this year could surpass it.

While **heat** doesn't tend to knock out power like storms do, it **stresses** nearly **every part** of an electric**-supply chain**. It **lowers** the **performance** of **everything from gas-fired generators and wind farms** (**their turbines won't spin** as freely) **to nuclear plants** (**their cooling systems won't work as well**) **to electric wires** (they could **overheat and sag too much**).

Utilities deal with those risks in part by building extra capacity into their systems so they can meet demand at the highest expected temperatures. Some companies in especially-hot areas such as **Arizona** are **asking vendors** to make sure new **components** can **operate** at an **average daily temperature** of as much as **122 degrees Fahrenheit**, **rather than** the **current industry standard** of around **104**, says Andrew Phillips, EPRI's vice president of transmission and distribution infrastructure.

Storms are another big problem because they are expected to **increase** in **severity and frequency**. That means utilities, grid operators and power-plant owners will have to spend a lot more on things such as strengthening electric poles, transmission towers and other infrastructure, says Ed Hirs, an energy economist and fellow at the University of Houston.

A lot of Hurricane Beryl's damage to Houston's power lines likely came from trees and shrubs that were hurled by powerful winds; CenterPoint said it had removed more than 18,600 trees as it struggled to restore power. **Vegetation causes** roughly **30%** of **power outages in** the **U.S.**, **estimates** Josh Wepman, who advises on energy-industry challenges at **Leidos**, a defense and technology company.

Figuring out which trees are a threat to power lines and removing them is tough and expensive, he says, particularly because there are so many of them over a large area. **Many outages** are **caused by trees** that are **outside** of the **areas where utilities have** the **right to cut**, says Wepman.

Meanwhile, **hailstorms** have become a **big source of damage for solar farms** during the past few years, causing hundreds of millions of dollars in losses for insurers. As a result, **renewables insurer** GCube and others have **increased rates and lowered caps on hail claims**.

Two years ago, a hailstorm hit the huge **Prospero solar farm** in **West Texas**. The plant's solar panels were rocked by gale-force winds and **baseball-size hail**, with some areas clocking as many as 9,000 strikes. Prospero suffered more than **$30 million** in **damage and lost** about **16%** of its **power capacity**, **even though** it was **using new technology to protect panels from hail**.

Now **Longroad Energy** is **building** a **solar plant** near its Prospero project **with** more advanced and expensive hail protection. The new plant will be one of the first to mount its **solar panels on Nextracker racking** that **can tilt 75 degrees rather** than the **current 60**. That steeper angle will hopefully limit damage from hailstones even bigger than the ones that hit Prospero, although nobody will know for sure until the next big storm hits, says Michael Alvarez, Longroad's chief operating officer.

"At almost every project, we get some sort of record that has broken – it's the most rain, the most snowfall, the most whatever," says Donny Gallagher, vice president of engineering at Solv Energy, which built the Prospero project for Longroad.

Powerful winds caused much of Hurricane Beryl's damage to CenterPoint's power lines in Houston.

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Search for Safety Buoys Treasurys

by Sam Goldfarb – WSJ – Jul. 17, 2024

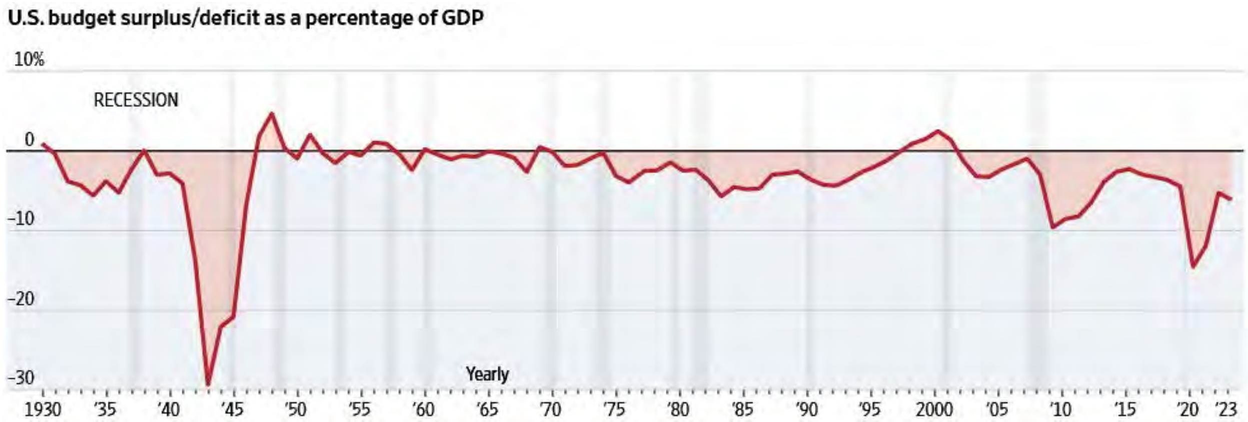
Demand is soaking up a huge increase in the supply of U. S. government debt.

The U.S. fiscal outlook is deteriorating. Wall Street doesn't seem bothered.

U.S. government bonds rallied this past month on the same day that the **C**ongressional **B**udget **O**ffice said that it expects the **fiscal 2024 budget deficit** to **reach $1.9 trillion** – up from $1.7 trillion last year and its previous estimate of $1.5 trillion. A broader rally has pulled Treasury yields well off their highs from 2023, despite a series of jumbo-sized debt sales needed to fill the gap between the government's spending and revenue.

That is surprising some analysts, who thought the growing debt pile might spark more market disruptions.

A **larger deficit means** the **government needs to sell more Treasurys**, and right now that deficit is unusually large when measured against the size of the economy. That is especially true for a time when the country isn't facing a crisis such as a world war or a pandemic.



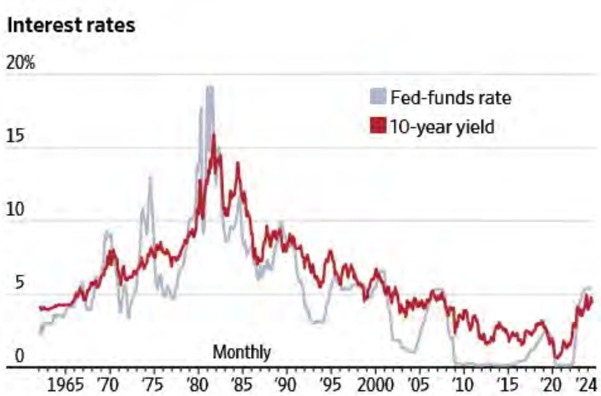
Bonds can be subject to the forces of supply and demand like anything else. If investors are satisfied with the amount of bonds they are holding, but are still offered more, that should drive down prices, pushing yields higher.

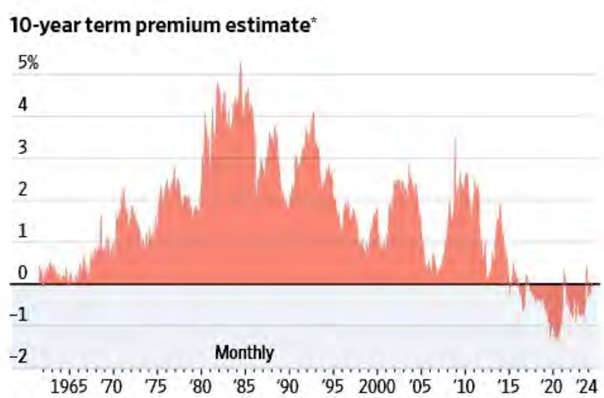
That could be risky for several reasons. Treasury yields reflect the cost of new borrowing for the U.S. government, which is seen as much less likely to default on its debt than any business or individual. As a result, rising yields up borrowing costs broadly.

Higher yields also can drag on stocks by providing investors with a more appealing safe alternative.

Typically, changes in the outlook for government borrowing affect yields only on the margin. But there can be moments when they matter more.

In August, for example, a sharp selloff in Treasurys followed an increase in the Treasury Department's quarterly borrowing estimates, which forced the government to boost the size of its bond auctions by more than investors had been anticipating.





That selloff raised alarms on Wall Street that the supply of Treasurys might be a bigger influence on yields going forward.

Ultimately, though, the yield on the 10-year note peaked at around 5% in late October. A subsequent rally in bonds got a boost when the Treasury surprised investors by increasing the size of its next round of auctions by a little less than they had expected.

Economic data also softened, and by the end of the year, the 10-year yield was back below 3.9%.

Benefit of safety

Today, the **10-year yield is around 4.2%**, **while** the **total** amount of **outstanding Treasurys has topped $27 trillion**.

How could investor demand keep up with so much supply?

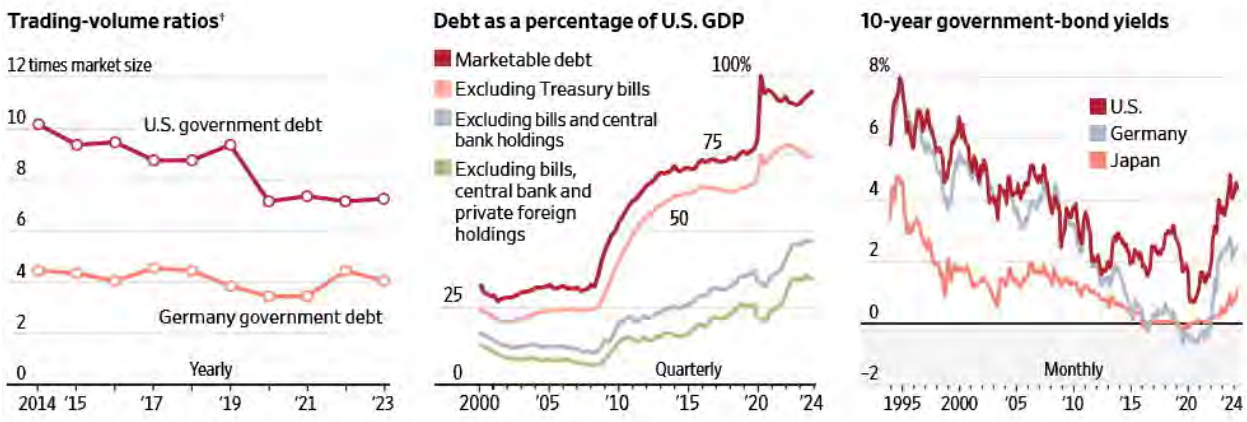
One major reason is that **Treasurys** still **offer** a **reasonable return for basically no risk**, **as long as they are held to maturity**.

Investors have alternative ways to earn a risk-free return. They can essentially lend to the Federal Reserve until the next day, getting paid an interest rate set by Fed officials at their regular policy meetings. They could do this for 10 years, continually rolling over their investment, and earning more when rates rise and less when rates fall. Or they could just lock in a return now by buying a 10-year Treasury note.

That generally keeps Treasury yields tethered to investors' expectations for what short-term rates will average over the life of a bond. If an influx of new bonds pushes the 10-year Treasury yield above what investors could get by rolling over short-term loans, there would be a strong incentive for investors to choose the 10-year notes instead. That rush of demand would then drive their yields back lower again.

Indeed, the key short-term rate set by the Fed and the 10year Treasury yield have exhibited a tight relationship over the past six decades.

It is impossible to know for sure how much the 10-year yield reflects forecasts for short-term interest rates versus other factors – such as supply and demand or concerns about unexpected inflation – that economists generally label as "**term premium**."



*Shows Adrian, Crump, and Moench (ACM) term premium estimate
†Shows ratio of trading volume to year-end volume of outstanding debt securities. Some differences in trading volumes could be due to different reporting methods.
Sources: Federal Reserve Bank of St. Louis (U.S. budget surplus/deficit, interest rates, debt held by public, yields); Federal Reserve Bank of New York (10-year term premium); Sifma (U.S.), Federal Republic of Germany - Finance Agency (Germany), WSJ calculations; Brad Setser (other categories for debt)

But economists have devised models to try to provide an answer. One, created by **New York Fed economists**, currently shows that the **10-year term premium is slightly negative**. The **implication** is that if the **supply of bonds** is pushing up yields, it is being **canceled out by** other factors, such as **investors wanting** to **buy Treasurys as** a **hedge against potential losses in stocks**.

Foreign demand

Countries such as Germany and Japan also sell government bonds that investors consider ultrasafe. But Treasurys have additional attributes that make them especially attractive to global investors.

One big advantage is that Treasurys are easier to trade than other bonds. **Size**, in this case, is **helpful**. The huge volume of outstanding Treasurys means investors can easily buy large amounts of bonds of practically any maturity. They also can feel free selling their own holdings knowing that they can quickly find replacements.

Some **$190 trillion** of **U.S. Treasurys** were **bought and sold in 2023**, more than **seven times** the **size** of the **market**, according to Sifma, a securities industry trade group. Trading volume of German government bonds totaled roughly $7 trillion, just four times the amount of the bonds that were outstanding at the end of the year, according to Germany's finance agency.

The **liquidity** of Treasurys is one reason why the dollar is known as the world's reserve currency, according to analysts.

For decades, Treasurys have also generally offered higher yields than their peers – a result of broad economic and demographic trends and a lack of government borrowing in Germany. This has ensured steady demand from **overseas buy-and-hold investors** such as **pension funds** and **life insurers**.

The road ahead

Many investors and analysts remain at least a little concerned about the mounting supply of Treasurys.

Last year's selloff served as a reminder that demand for Treasurys "is variable over time," said Gennadiy Goldberg, head of U.S. rates strategy at TD Securities. "The worry is that investors are buying Treasurys today – that doesn't mean they have to be buying tomorrow."

Still, Blake Gwinn, head of U.S. rates strategy at RBC Capital Markets, said that, to a large degree, forecasted deficits may already be reflected in current bond yields.

"Issuance from Treasury is a very long, slow, secular thing that we have lots and lots and lots of time as markets to digest," he said.

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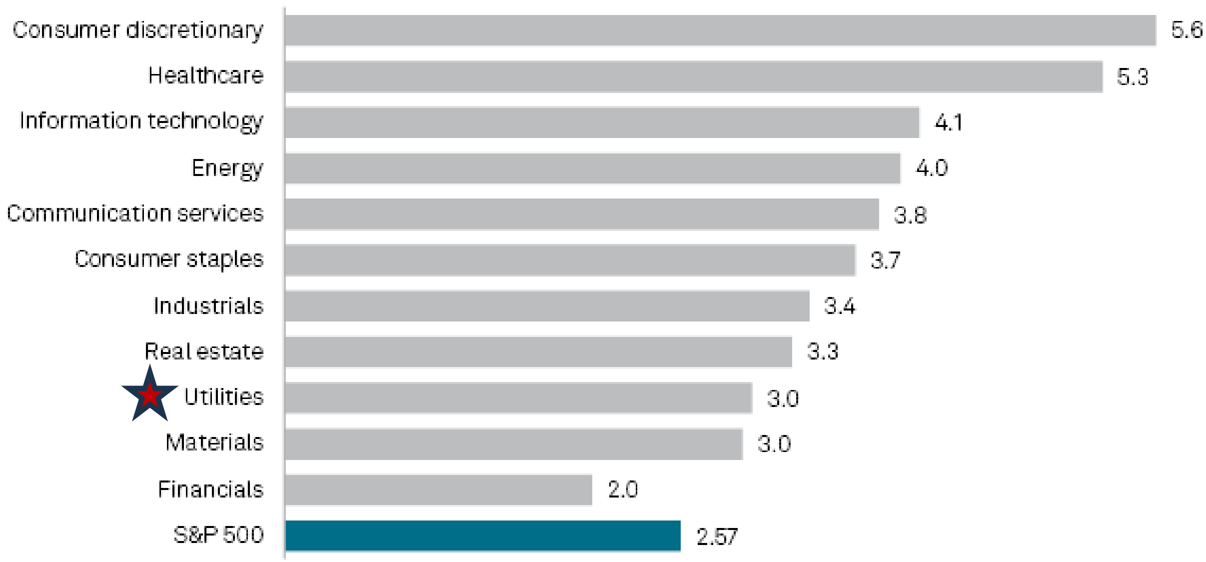
Short Sellers Boost Bets against Utility Stocks to Highest Level in Years

Brian Scheid and Annie Sabater,
Standard and Poor's Global Market Intelligence – Jul. 22, 2024

Short sellers increased their **bets against utility stocks** in **June** to the **highest level in** at least **eight years**.

Short interest in utilities, a sector that includes electric, gas and water companies, was at 3.0% at the end of June, up 70 basis points from the same point a year earlier, according to the latest S&P Global Market Intelligence data.

Average short interest over shares outstanding at end-June 2024 (%)
By sector



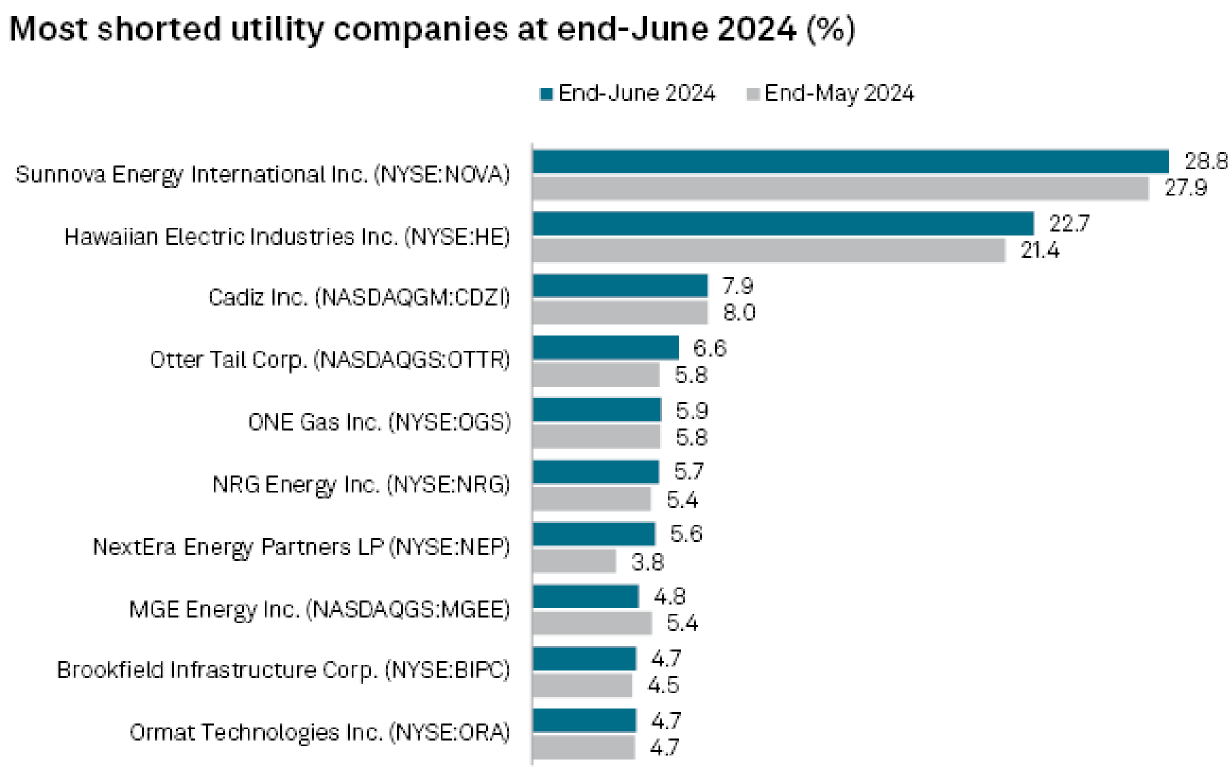
Data compiled July 15, 2024.
Analysis is limited to public companies with primary listing on major US stock exchanges. Excludes depositary receipts.
Industry classifications are according to the Global Industry Classification Standard.
Source: S&P Global Market Intelligence.

Short interest in utility stocks jumped to the highest level since 2016, to 3.0% at the end of June from 2.8% at the end of May, as the S&P 500 utilities sector fell by 5.8% during the month. As of July 17, the sector has rallied about 9.1% since the start of the year, despite its stumble in June.

Short interest increased in most sectors from the end of May to the end of June. Consumer discretionary remained the most-shorted sector, with short interest climbing from 5.4% to 5.6%, the highest level of bets against this sector since the end of April.

Sector breakdown

Within the utility sector, commercial and residential solar power company Sunnova Energy International Inc. was the most-shorted company with short interest at 28.8% at the end of June, up from 27.9% at the end of May. Sunnova's stock fell nearly 77% from the start of 2024 to May 1, but it has since rallied nearly 107%.



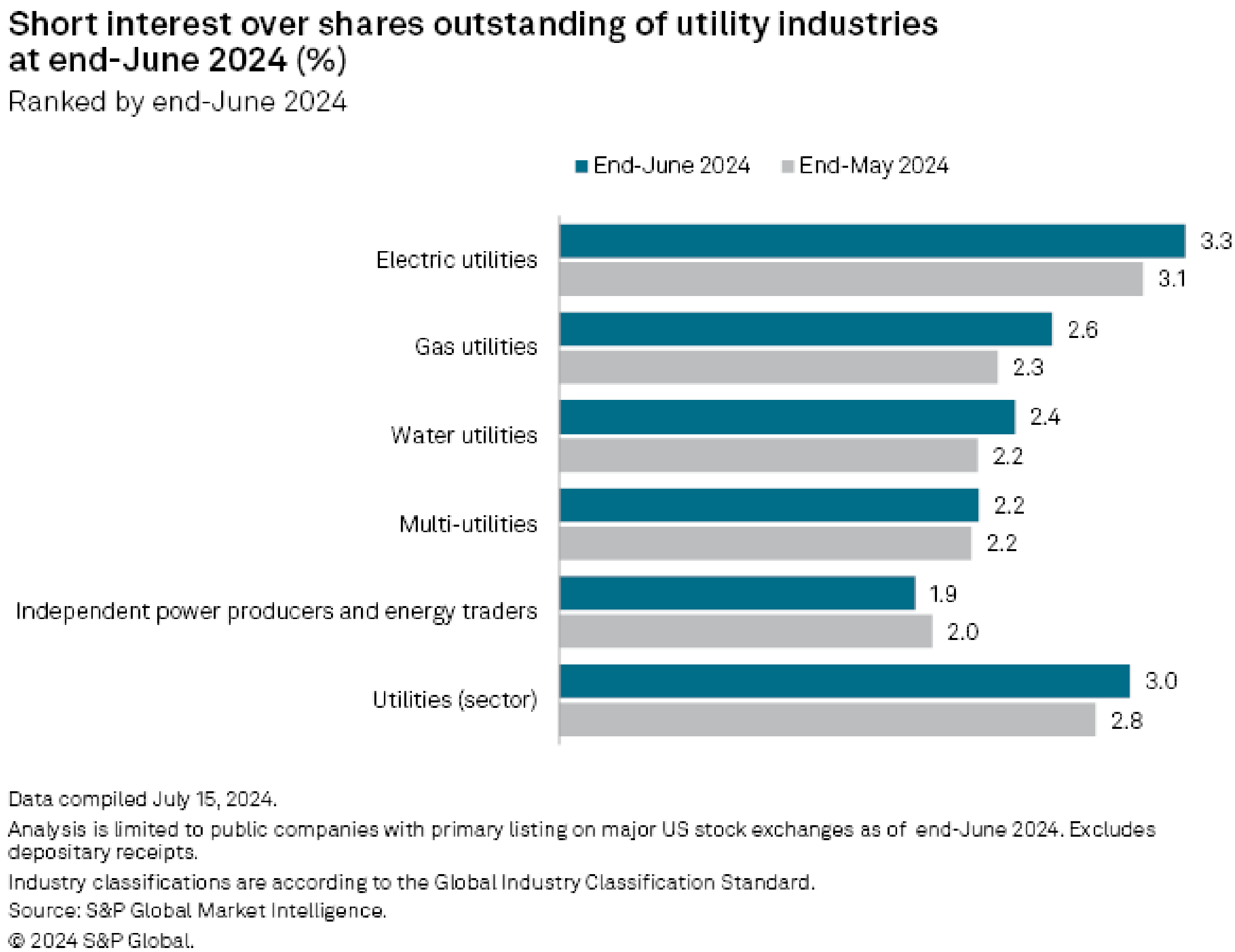
Data compiled July 15, 2024.

Analysis is limited to public companies with primary listing on major US stock exchanges as of end-June 2024. Excludes depositary receipts.

Industry classifications are according to the Global Industry Classification Standard.

Source: S&P Global Market Intelligence.

Hawaiian Electric Industries Inc. was the second most-shorted utility stock, with 22.7% short interest, up from 21.4% at the end of May. Hawaiian Electric's stock plummeted more than 75% after the devastating Maui fires in August 2023. The stock has gained 42% since the end of June on reports that Maui County is preparing a settlement for thousands of people impacted by the fires, which could potentially keep the electric company from some legal proceedings.

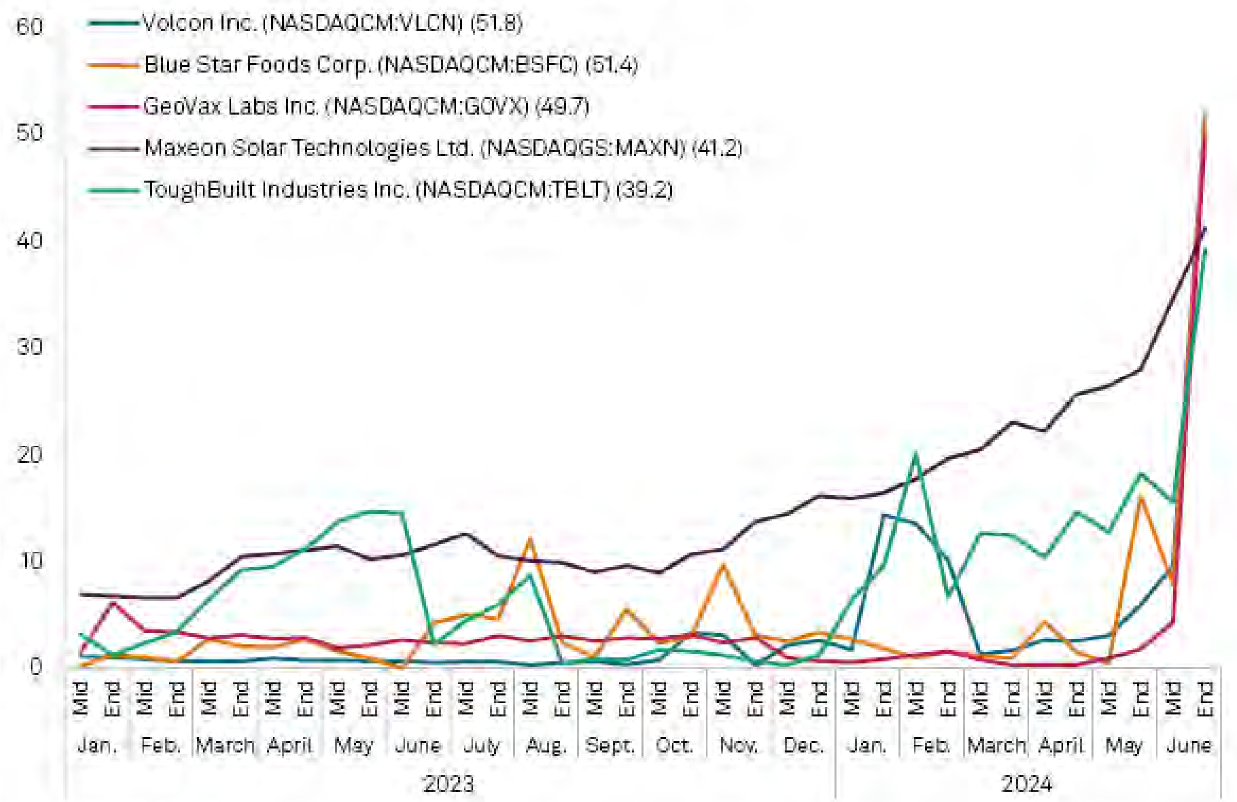


Within the utility sector, electric utilities were the most shorted industry at the end of June with 3.3% short interest, up from 3.1% at the end of May.

Most shorted overall

Volcon Inc. was the most-shorted stock on major US exchanges at the end of June, with 51.8% short interest, followed closely by Blue Star Foods Corp. with short interest at 51.4%

Most shorted stocks at end-June 2024 (%)



Data compiled July 15, 2024.

Analysis includes the five most shorted companies with largest short interest over shares outstanding at end-June 2024. Limited to stocks with primary listing on major US exchanges. Excludes depositary receipts.

Industry classifications are according to the Global Industry Classification Standard.

Source: S&P Global Market Intelligence.

GeoVax Labs Inc. was the third most-shorted stock, with short interest at 49.7% at the end of June.

Short interest in the three stocks increased dramatically from mid-June when short interest in all three was still in the single digits.

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Slowing US Inflation Boosts Chances of 3 Fed Rate Cuts in 2024

by Brian Scheid,
Standard and Poor's Global Market Intelligence – Jul. 12, 2023

The most reassuring inflation data since the US Federal Reserve began its battle against inflation through higher interest rates in March 2022 has lifted the odds of the central bank cutting rates as many as three times before the end of 2024.

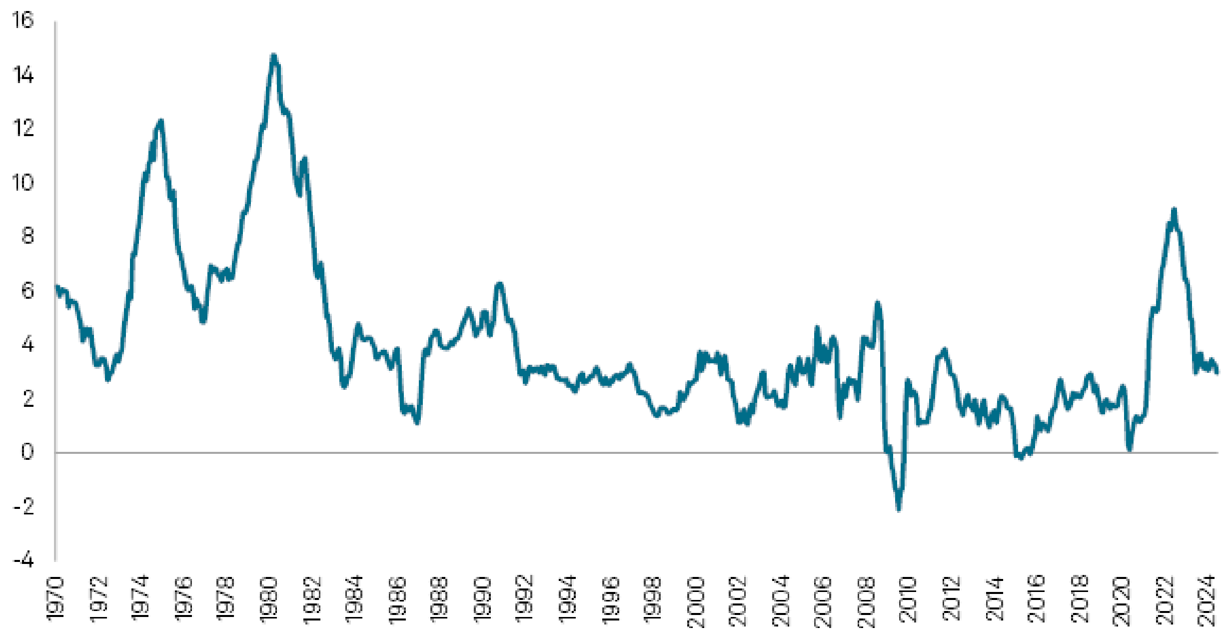
The **C**onsumer **P**rice **I**ndex **increased just 3% from June 2023 to June 2024**, the **US Bureau of Labor Statistics reported July 11**. That is the lowest annual increase in the market's preferred inflation measure since March 2021 and a **significant drop from June 2022**, **when annual growth peaked at** about **9%**. **On** a **monthly basis**, **prices fell 0.1% from May**.

Inflation now appears firmly on track toward the Fed's 2% target. While the latest data is not enough for Fed officials to seriously consider a cut at their next meeting at the end of July, it **may be enough to justify cuts at** the **September**, **November and December meetings**, economists said.

"This report doesn't solidify the case for three rates by year-end, but it will likely increase the odds of that scenario playing out," said Bret Kenwell, a US investment analyst at eToro. "The inflation trend is moving in the right direction and when combined with the recent softness in the labor market, it justifies a rate cut from the Fed."

Consumer price index all items YOY change (%)

January 1970–June 2024

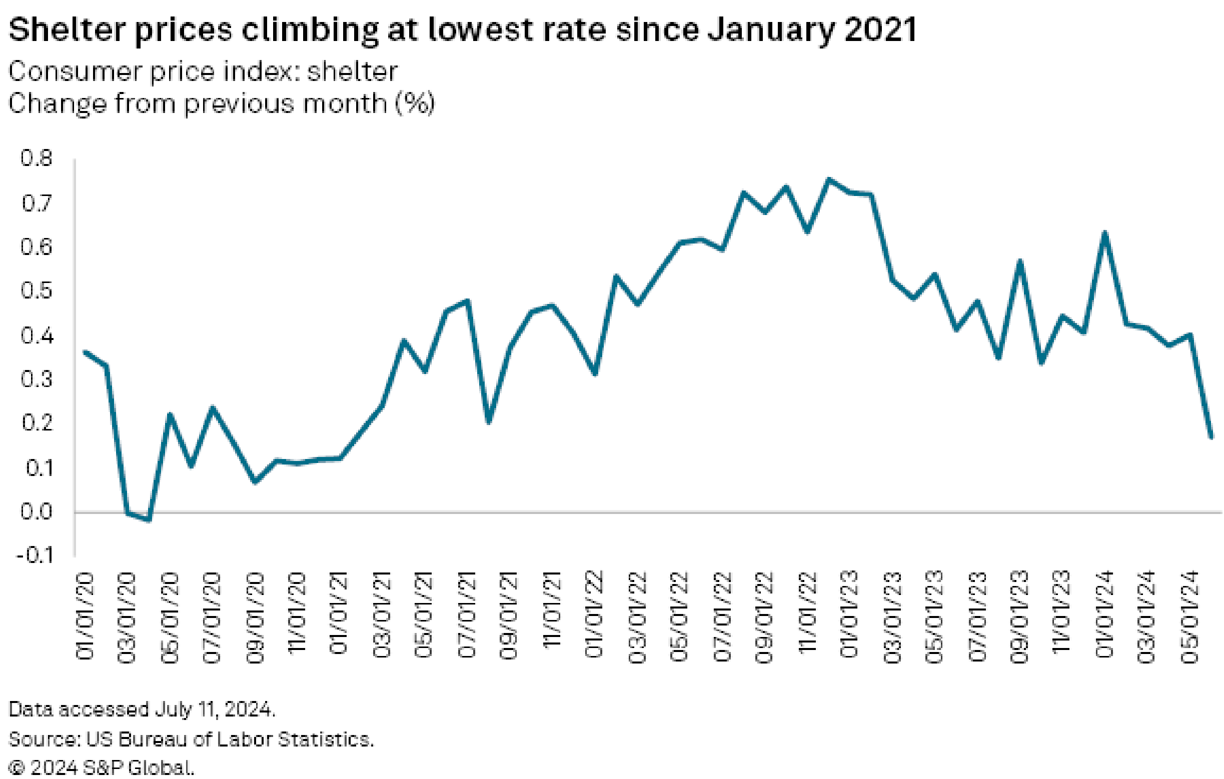


Data accessed July 11, 2024.
Based on data released July 11, 2024.
Data includes year-over-year change in non-seasonally adjusted consumer price index for all items.
Source: US Bureau of Labor Statistics.

On Track to Target

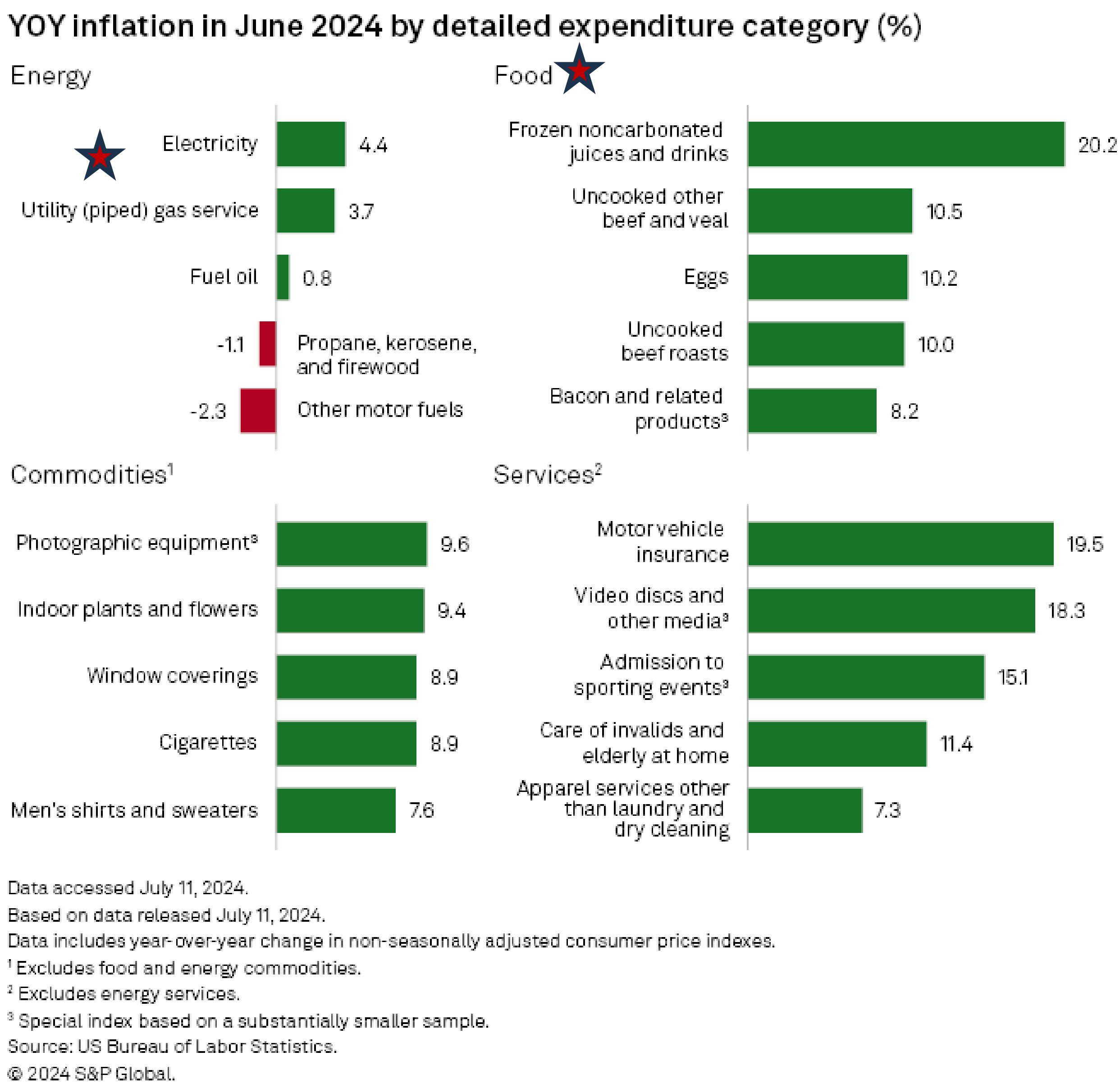
The odds of at least three rate cuts of 25 basis points each by the end of 2024 was at nearly 50% on July 11, up from about 15% a month earlier, according to the CME FedWatch Tool, which measures investor sentiment in the fed funds futures market.

The **Fed**, **which lowered** its **benchmark federal funds rate** to **near zero in** response to the **pandemic**, **raised rates** by a total of **525 basis points** during 11 meetings **from March 2022 to July 2023**. It has **held rates steady over** the **past year**, as the economy has averted a recession, inflation has proven stickier than anticipated and the labor market has remained resilient.



Inflation data is now on track to reach the Fed's 2% target in late 2025 and with more evidence of a cooling job market and decelerating consumer spending growth, a rate cut in September now looks nearly certain, said James Knightley, chief international economist with ING.

Fed Chairman Jerome Powell may use the central bank's annual conference in August to explicitly signal that more interest rate cuts are coming, Knightley said.



Little Need to Cut Twice

Still, after cutting once in September, the Fed may feel little need to cut again before the end of the year with unemployment remaining relatively low, at about 4%, and the number of job openings still outpacing the number of job seekers, said David Russell, global head of market strategy at TradeStation.

"The Fed probably won't feel a need to cut three times because the employment data hasn't broken into recession territory yet," Russell said. "Such aggressive easing could even spook markets."

In addition, the Fed may be reluctant to cut again in November and December due to US elections. If former President Donald Trump wins in November, he is expected to push forward policies that could increase inflation, including tariff hikes, tax cuts, and a crackdown on immigration, which could reheat the job market, said Stephen Pavlick, head of policy at Renaissance Macro Research.

"Why cut more when you're likely going to have to raise [rates] again?" Pavlick said.

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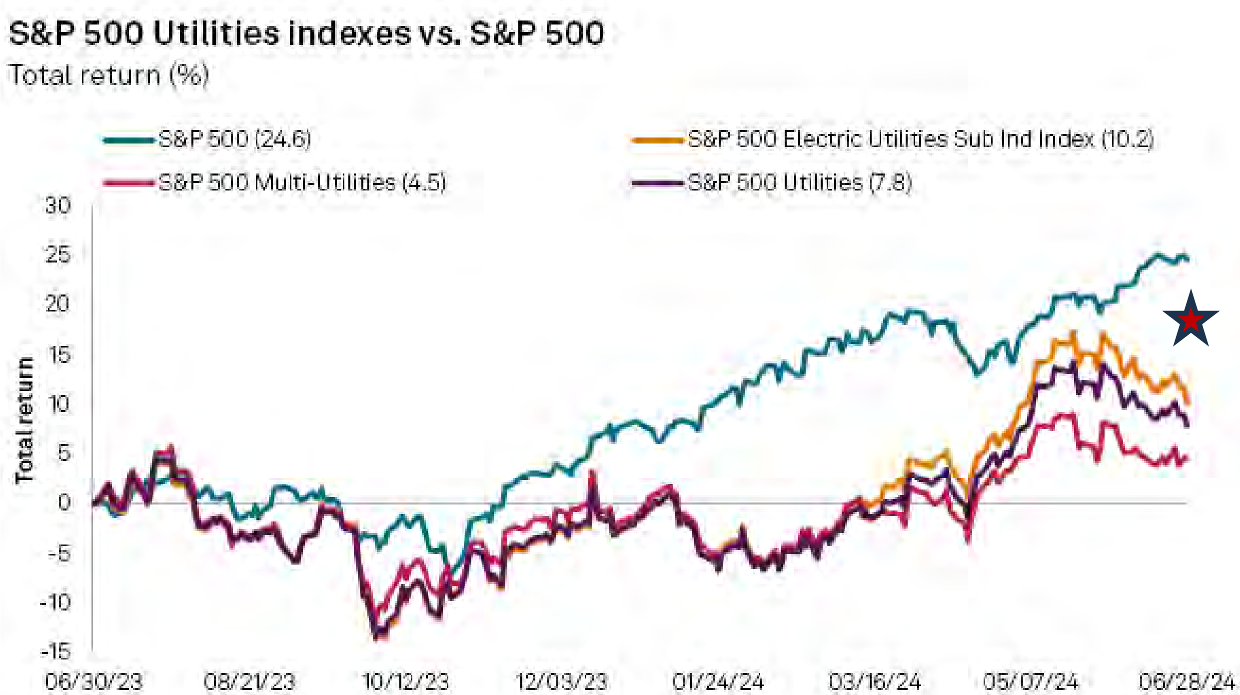
US, Canadian Power Utility Market Cap Falls 1.3% YOY, Led by Exelon, Eversource

by Shambhavi Gupta,
Standard and Poor’s Global Market Intelligence – Jul. 12, 2024

Market capitalization of the largest electric and multi-utility companies in the US and Canada slightly declined in the second quarter of 2024 as the sector continued to underperform the broader market.

Despite positive returns through the 12-month period ended June 28, sector indexes trailed behind the S&P 500's performance. The S&P 500 returned 24.6% during that period, compared with the S&P 500 Electric Utilities Sub Ind index, which returned 10.2%; the S&P 500 Multi-Utilities index, which logged a return of 4.5%; and the S&P 500 Utilities index, which recorded a return of 7.8%.



Data compiled July 1, 2024.
Analysis is limited to electric utilities and multi-utilities companies that currently trade on major US stock exchanges Nasdaq, NYSE and NYSEAM and major Canadian stock exchanges Toronto Stock Exchange and TSX-V. All indexes are market-cap weighted.
Source: S&P Global Market Intelligence.

Overall, the median market capitalization fell 0.2% from the previous quarter and 1.3% from the second quarter of 2023, based on an S&P Global Market Intelligence analysis.

The combined market value of the top 20 utilities totaled $855.92 billion as of June 28.

Exelon Corp. logged the largest quarter-over-quarter drop in market value in the sector on a percentage basis, shedding 7.9% in value to $34.61 billion at the end of the second quarter. The company slipped down to 10th place from seventh a year earlier as it recorded a 14.6% year-over-year drop in market value. In June, **Maryland regulators rejected** a **forward-looking multiyear rate plan proposed by Exelon subsidiary Potomac Electric** Power Co., **deciding in favor of** a **one-time rate increase for** the utility.

Top 20 North American electric and multi-utilities companies by market capitalization as of June 28, 2024

Ranking 06/28/24	Ranking 06/30/23	Company (exchange:ticker)	Market cap ($B)	Change in market cap from (%) Q1 2024	Change in market cap from (%) Q2 2023
1	1	NextEra Energy Inc. (NYSE:NEE)	145.48	10.9	-3.1
2	2	Southern Co.(NYSE:SO)	84.82	8.4	10.7
3	3	Duke Energy Corp. (NYSE:DUK)	77.35	3.7	11.9
4	12	Constellation Energy Corp. (NASDAQGS:CEG)	63.13	8.4	112.6
5	4	Sempra (NYSE:SRE)	48.13	5.9	5.1
6	5	American Electric Power Co. Inc. (NASDAQGS:AEP)	46.25	2.0	6.7
7	6	Dominion Energy Inc. (NYSE:D)	41.07	-0.3	-5.1
8	8	PG&E Corp. (NYSE:PCG)	37.31	4.3	8.2
9	11	Public Service Enterprise Group Inc. (NYSE:PEG)	36.71	10.3	17.5
10	7	Exelon Corp. (NASDAQGS:EXC)	34.61	-7.9	-14.6
11	10	Consolidated Edison Inc. (NYSE:ED)	30.92	-1.4	-1.3
12	9	Xcel Energy Inc. (NASDAQGS:XEL)	29.68	-0.5	-13.3
13	14	Edison International (NYSE:EIX)	27.63	1.5	3.9
14	13	WEC Energy Group Inc. (NYSE:WEC)	24.78	-4.4	-11.0
15	16	DTE Energy Co. (NYSE:DTE)	22.97	-1.0	1.3
16	20	Entergy Corp. (NYSE:ETR)	22.85	1.4	11.0
17	17	FirstEnergy Corp. (NYSE:FE)	22.03	-0.7	-1.1
18	21	PPL Corp. (NYSE:PPL)	20.40	0.5	4.6
19	15	Eversource Energy (NYSE:ES)	19.98	-4.7	-19.3
20	22	CenterPoint Energy Inc. (NYSE:CNP)	19.82	9.9	7.7
		Industry median		**-0.2**	**-1.3**

Primary industry Electric Utilities Multi-Utilities

Data compiled July 1, 2024.
Analysis is limited to electric utilities and multi-utilities companies that currently trade on major US stock exchanges: Nasdaq, NYSE and NYSE AM, and major Canada stock exchanges: TSX and TSX-V.
Industry is classified according to the Global Industry Classification Standard of S&P Global Market Intelligence.
Source: S&P Global Market Intelligence.

Eversource Energy recorded the largest year-over-year drop in value at 19.3% and slipped down to 19th place from 15th a year ago. Quarter over quarter, the company's market value declined 4.7% to $19.98 billion as of June 28. The company's stock is among the bottom performers for the electric utility sector in the second quarter.

NextEra Energy Inc. **remained by far** the **largest utility**, with a **market value** of **$145.48 billion as of June 28**. The Juno Beach, Fla.-headquartered company posted the highest quarter-over-quarter improvement in market cap at 10.9%, although it lost 3.1% in value on a year-over-year basis.

During the second quarter, NextEra moved CFO Kirk Crews to the role of chief risk officer. Crews was succeeded by Brian Bolster, a long-time Goldman Sachs employee, as finance chief. Separately, the company announced plans to spend up to $107 billion through 2027 to facilitate increasing electricity demand.

Among other large-cap US and Canadian power companies, Constellation Energy Corp. logged the largest year-over-year increase in market capitalization in the sector on a percentage basis, jumping 112.6% to $63.13 billion at the end of the quarter. The company is the fourth-largest company in the sector as of June 28, with a market cap nearly double that of Exelon, from which it was spun off in 2022.

In May, Constellation executives said they are looking at restarting a shuttered unit at the Three Mile Island plant in Pennsylvania to expand the capacity of its nuclear power fleet by up to 1,000 MW in the coming years.

Other notable power utilities that improved their rankings on the list included Public Service Enterprise Group Inc., which moved up to ninth place from 11th after market value gains of 10.3% quarter over quarter and 17.6% year over year, and Entergy Corp., which gained 11% in value year over year to land at 16th place from 20th a year ago.

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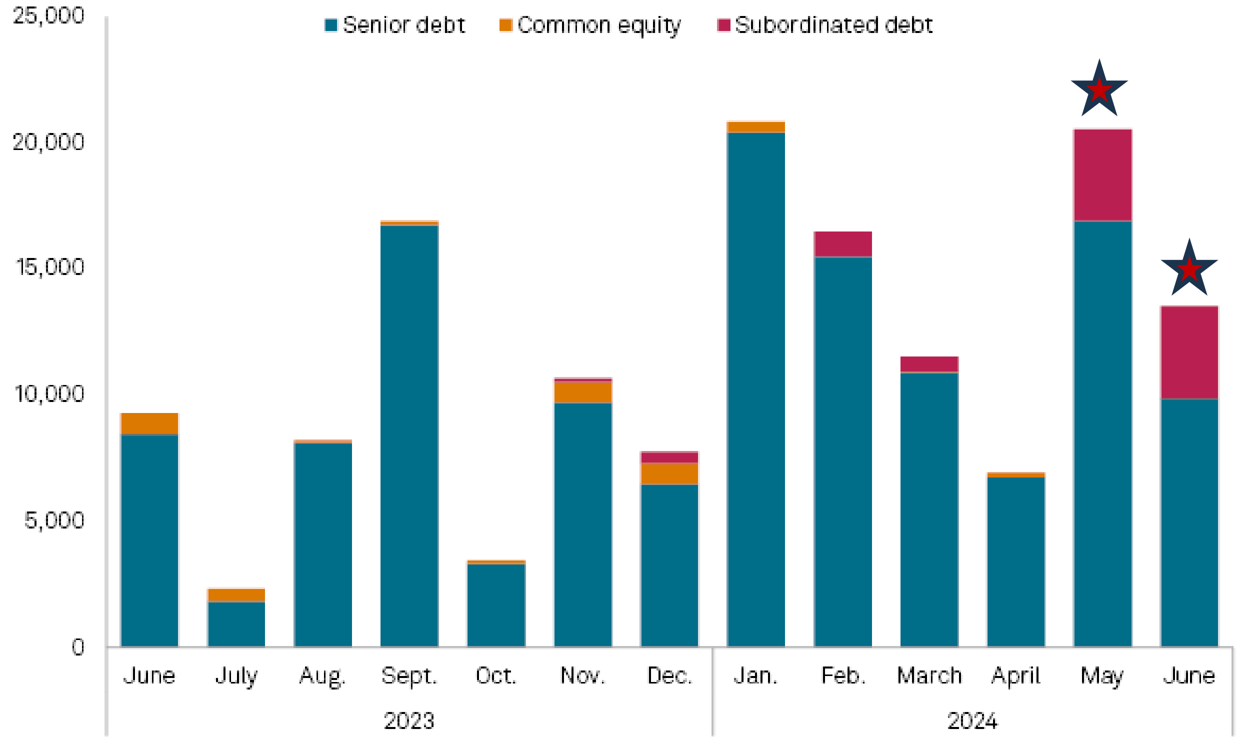
US, Canadian Utilities Raise $13.52B in June; YTD Total Reaches $89.82B

by Stephen Cedric Jumchai
Standard and Poor's Global Market Intelligence – Jul. 11, 2024

US and Canadian electric, gas and water utilities, power producers, and energy traders raised about $13.52 billion worth of capital in June, bringing year-to-date capital raises to $89.82 billion, according to S&P Global Market Intelligence data. The year-to-date total was up 1.4% from the $88.58 billion raised in the same period in 2023.

Last-13-months capital raising ($B)



Data compiled July 5, 2024.

Includes capital raises of US and Canadian companies classified by the Global Industry Classification Standard of S&P Global Market Intelligence as electric, gas and multi-utilities; independent power producers and energy traders; or renewable electricity.

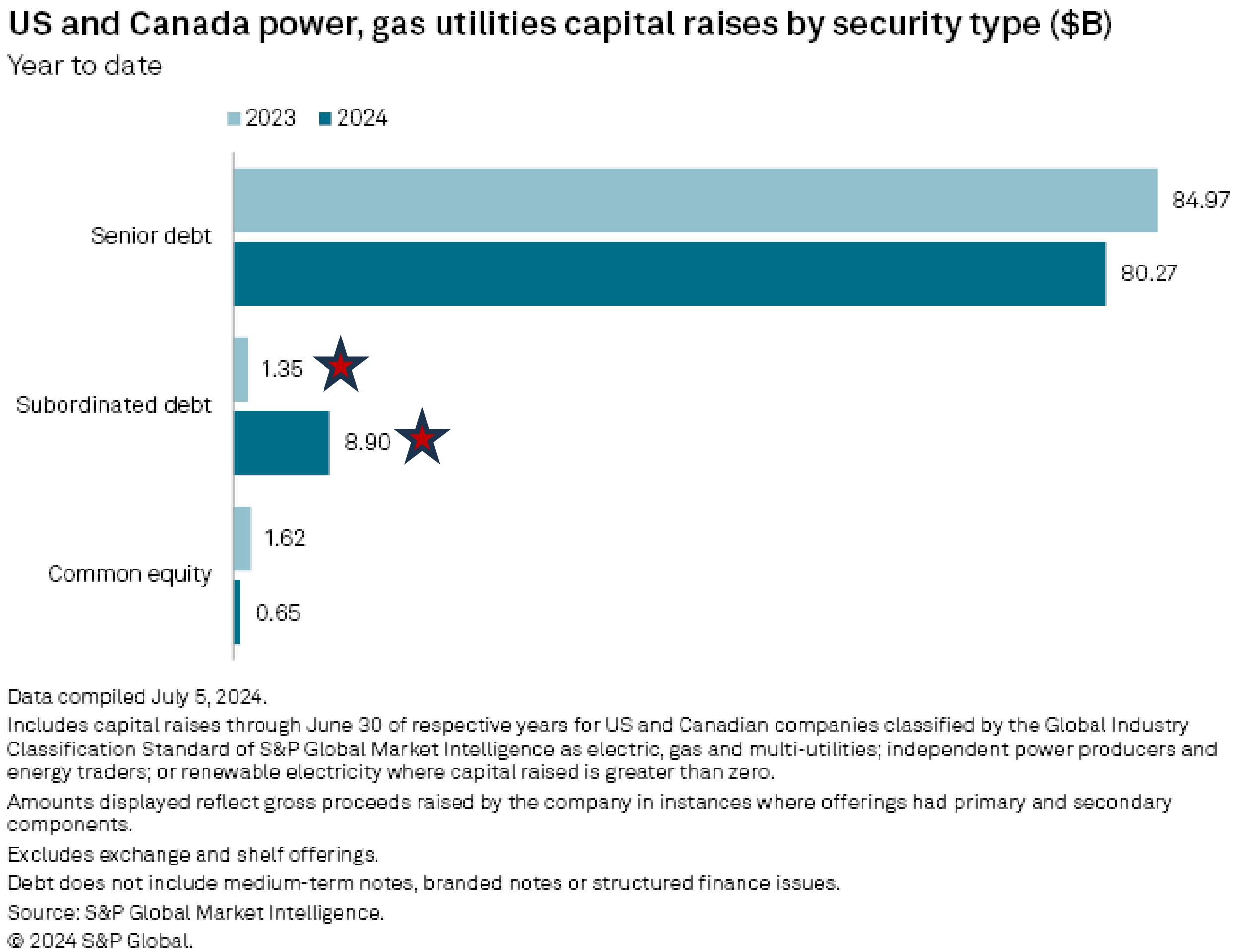
Amounts displayed reflect gross proceeds raised by the company in instances where offerings had primary and secondary components.

Excludes exchange and shelf offerings.

Debt does not include medium-term notes, branded notes or structured finance issues.

Source: S&P Global Market Intelligence.

As of the end of June, the **utility sector's financing consisted mostly of senior debt**, with some subordinated debt and common equity transactions.



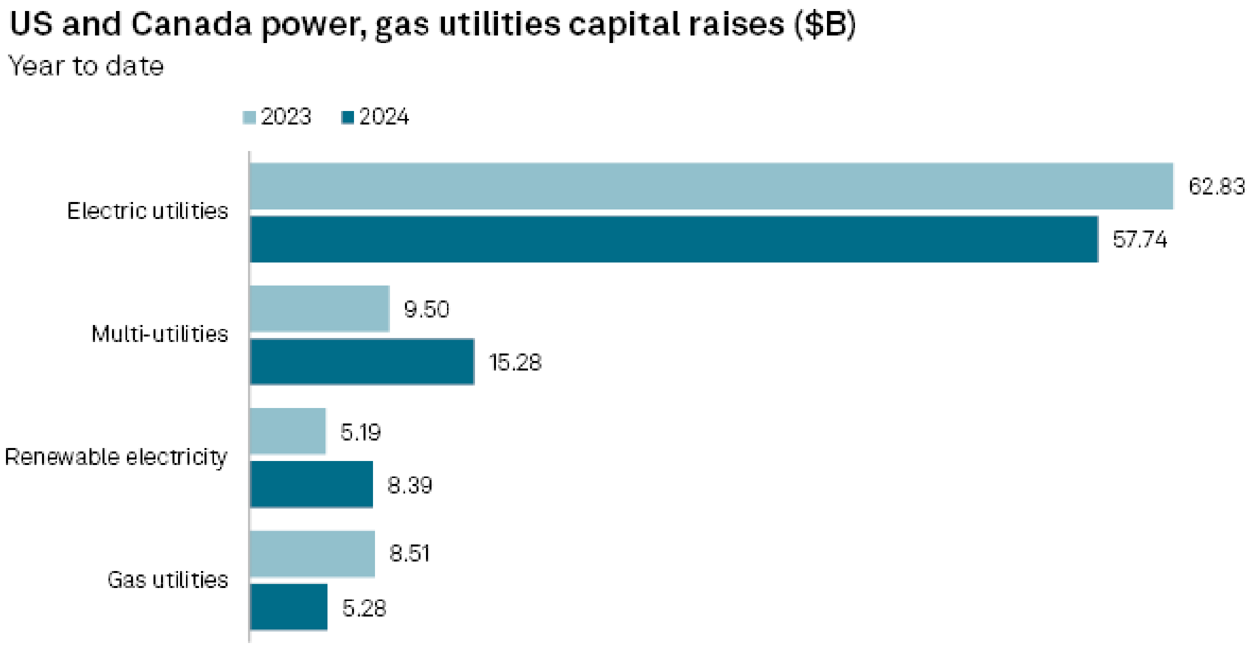
Electric, Gas Utilities Continue YOY Declines Through June

Two of the three covered utility segments recorded year-over-year decreases in capital raised through June.

The electric utilities segment raised $57.74 billion through June, a $5 billion decrease from the amount raised a year earlier. Natural gas utilities raised $5.28 billion, a nearly 38% drop from $8.51 billion in the year-ago period.

In contrast, multi-utilities raised $15.28 billion, an increase of $5.78 billion from the amount raised in the same period of 2023.

Renewable electricity producers raised $8.39 billion, up from the $5.19 billion raised through June 2023.



Data compiled July 5, 2024.
Includes capital raises through June 30 of respective years for US and Canadian companies classified by the Global Industry Classification Standard of S&P Global Market Intelligence as electric, gas and multi-utilities; independent power producers and energy traders; or renewable electricity where capital raised is greater than zero.
Amounts displayed reflect gross proceeds raised by the company in instances where offerings had primary and secondary components.
Excludes exchange and shelf offerings.
Debt does not include medium-term notes, branded notes or structured finance issues.
Source: S&P Global Market Intelligence.

Largest Offerings in June

The sector completed 22 senior debt transactions in June. Duke Energy Corp. had the largest offering of the month with the sale of $1.50 billion of securities comprising $750 million of 5.45% senior notes due 2034 and $750 million of 5.80% senior notes due 2054. The company plans to use net proceeds to repay a portion of its outstanding commercial paper and for general corporate purposes.

UGI Corp. had the second-largest offering with the sale of $1.31 billion of securities comprising a private placement of $700 million of 5% convertible senior notes due 2028 and an offering of $610 million of 5% convertible senior notes due 2028. The utility plans to use the proceeds from the $610 million offering to refinance debt and for general corporate purposes.

Also of note for the month was **NextEra** Energy Inc. subsidiary NextEra Energy Capital Holdings Inc.'s sale of $1.20 billion series R **junior subordinated debentures** due June 15, 2054. NextEra Energy Capital plans to add the net proceeds to its general funds, which will be used to finance investments in energy and power projects and for other general corporate purposes, including the repayment of a portion of the company's outstanding commercial paper obligations.

Other notable issuers for the montl

US and Canada power, gas utilities capital raises in June 2024

Issuer	Completion date	Amount offered including exercised overallotments ($M)
Senior debt		
Ontario Power Generation Inc.	06/28/24	365.3
Ontario Power Generation Inc.	06/28/24	365.3
Florida Power & Light Co.	06/27/24	167.1
Mississippi Power Co.	06/27/24	100.0
Oncor Electric Delivery Co. LLC	06/21/24	750.0
Oglethorpe Power Corp.	06/18/24	350.0
Atmos Energy Corp.	06/18/24	325.0
Ameren Illinois Co.	06/17/24	625.0
NiSource Inc.	06/17/24	600.0
Georgia Power Co.	06/13/24	55.0
UGI Corp.	06/11/24	700.0
UGI Corp.	06/06/24	610.0
Duke Energy Corp.	06/05/24	750.0
Duke Energy Corp.	06/05/24	750.0
Pinnacle West Capital Corp.	06/05/24	350.0
Capital Power Corp.	06/05/24	328.2
Pinnacle West Capital Corp.	06/04/24	475.0
Puget Sound Energy Inc.	06/04/24	400.0
Puget Sound Energy Inc.	06/04/24	400.0
Southwestern Public Service Co.	06/03/24	600.0
Baltimore Gas and Electric Co.	06/03/24	400.0
Baltimore Gas and Electric Co.	06/03/24	400.0
Total		**9,866.0**
Subordinated debt		
Edison International	06/25/24	500.0
American Electric Power Co. Inc.	06/17/24	600.0
American Electric Power Co. Inc.	06/17/24	400.0
CenterPoint Energy Resources Corp.	06/17/24	400.0
NextEra Energy Capital Holdings Inc.	06/05/24	1,200.0
PNM Resources Inc.	06/04/24	550.0
Total		**3,650.0**
Common equity		
Solar Alliance Energy Inc.	06/27/24	0.1

Data compiled July 5, 2024.

Includes capital raises of US and Canadian companies classified by the Global Industry Classification Standard of S&P Global Market Intelligence as electric, gas and multi-utilities; independent power producers and energy traders; or renewable electricity.

Amounts displayed reflect gross proceeds raised by the company in instances where offerings had primary and secondary components.

Excludes exchange and shelf offerings.

Debt does not include medium-term notes, branded notes or structured finance issues.

Source: S&P Global Market Intelligence.

Docket No. UE 435 Staff/2810
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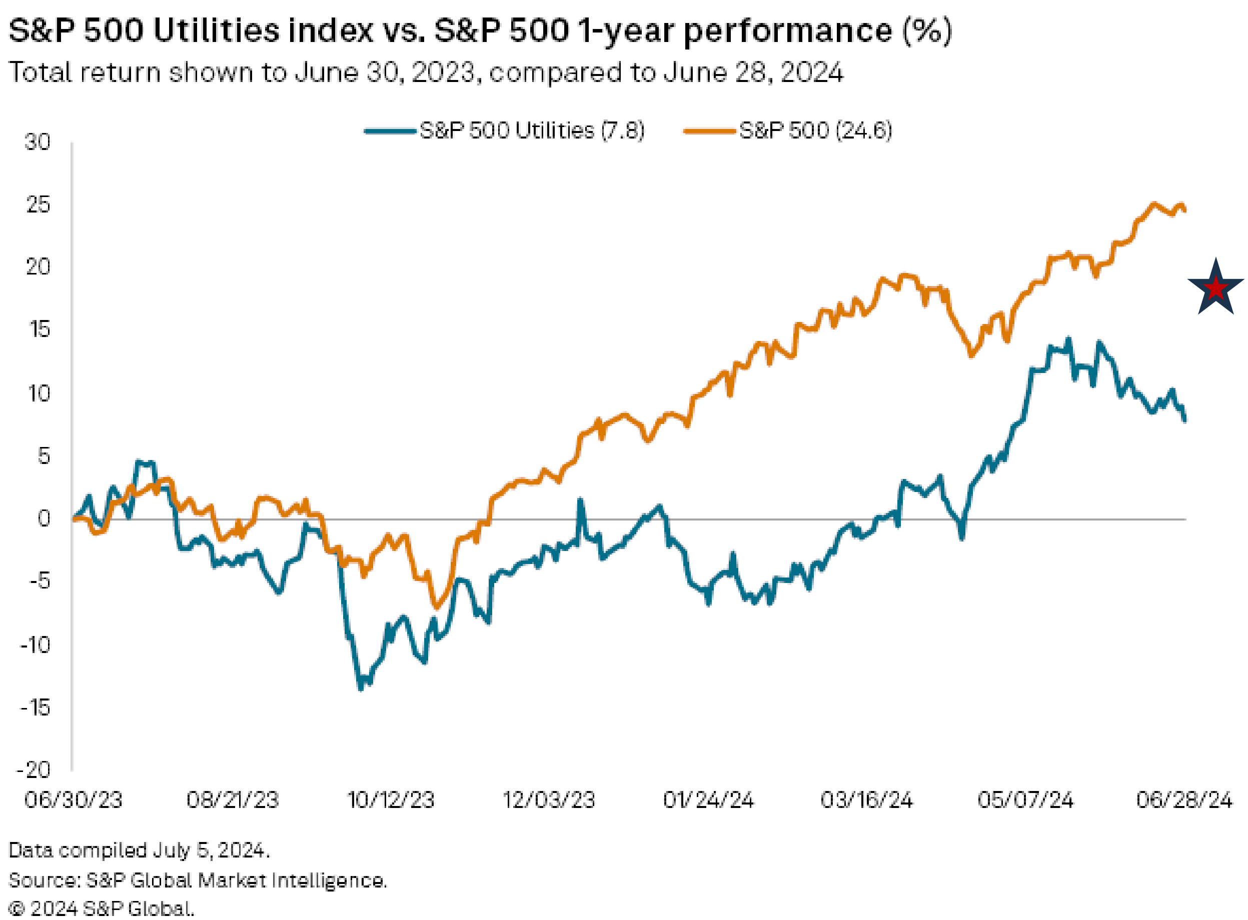
Exelon Corp. subsidiary Baltimore Gas and Electric Co. and Puget Holdings LLC subsidiary Puget Sound Energy Inc.

The S&P 500 Utilities index logged a 7.8% increase for the 12 months through June 30, while the broader S&P 500 index gained 24.6% over the same period.



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U.S. Economy Grew at Robust 2.8% in Second Quarter
by Harriet Torry – WSJ – Jul. 25, 2024

Household spending, the main driver of the U.S. economy, rose at a 2.3% rate in the second quarter.

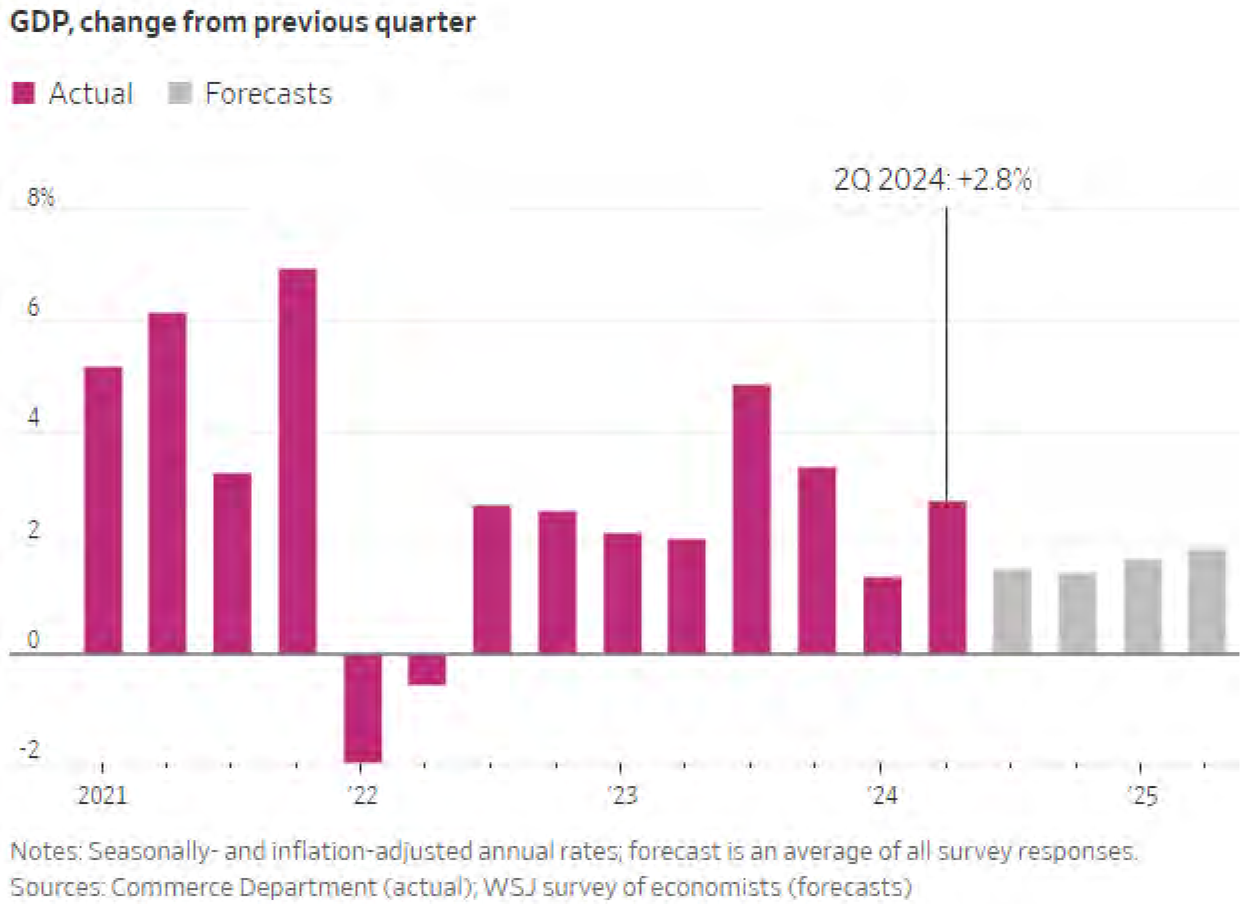
The **U.S. economy accelerated** in the second quarter as **consumers increased** their **spending**, **businesses invested more** in **equipment and stocked inventories**, **and inflation cooled**.

Gross **D**omestic **P**roduct – the value of all goods and services produced in the U.S., adjusted for inflation and seasonality – **rose** at an **annual rate** of **2.8%** for **April through June**, the Commerce Department said Thursday. That was more than the 1.4% rate during the first quarter, and well above the 2.1% rate economists had expected before the report.

Household spending, the **main driver** of the U.S. economy, **increased** at a **2.3%** rate in the second quarter, picking up from 1.5% in the first. Spending on goods increased while services spending moderated slightly.

The report shouldn't change the outlook for the Federal Reserve's next moves. Officials have signaled that they expect to hold interest rates steady at their meeting next week but could cut at their subsequent meeting, in September, if inflation continues to cool.

Thursday's report is one of the last major readings of the economy's temperature that Fed officials will see before next week's meeting. The report suggests the U.S. economy remains on solid footing.



"The sharper-than-expected pickup in second-quarter GDP growth to 2.8% annualized should make the Fed a bit more comfortable about keeping policy unchanged next week, but the recent loosening of labor market conditions and signs of slower price growth still mean that there is a strong case for a cut at the following meeting in September," Stephen Brown, an economist at Capital Economics, said in a note to clients.

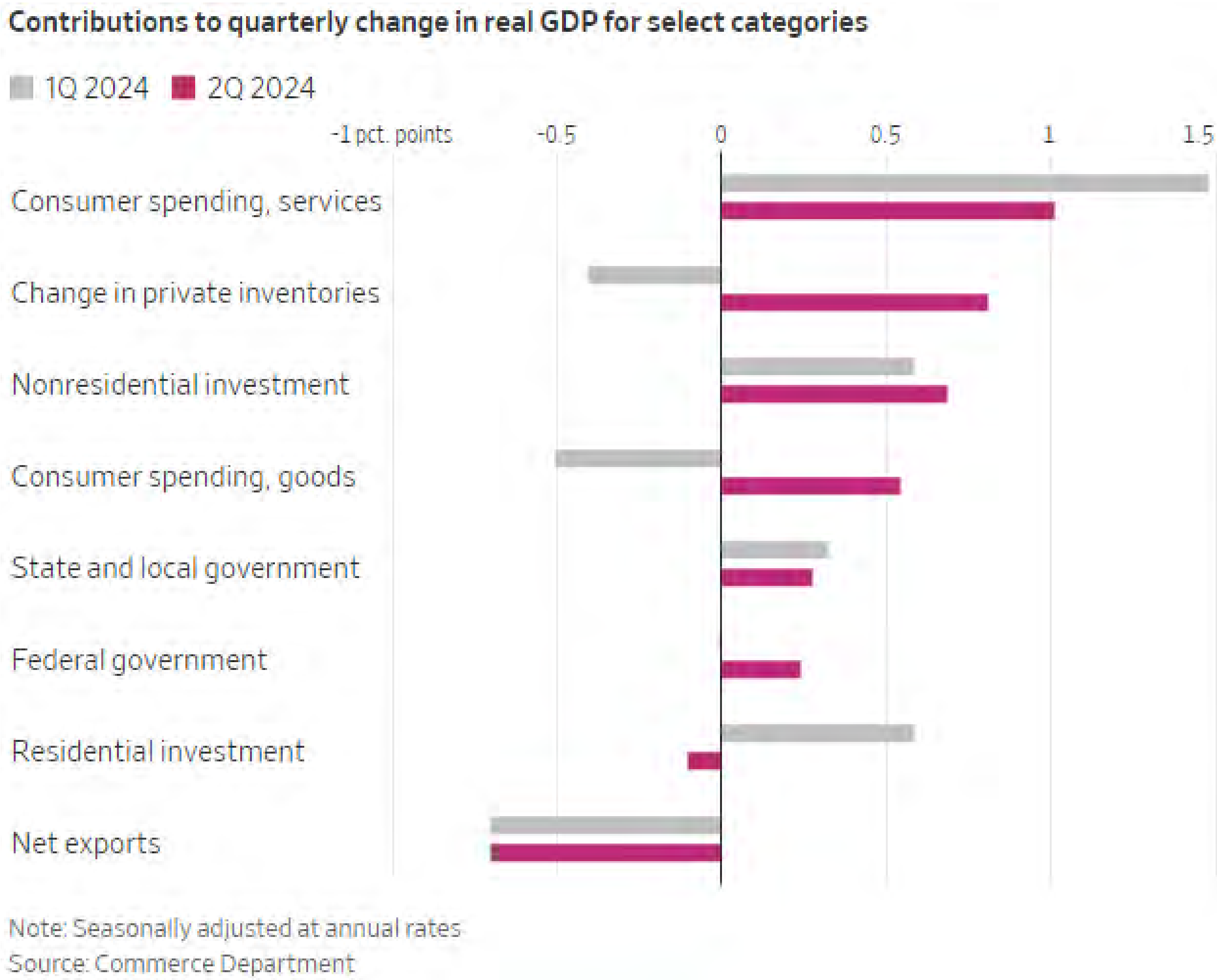
The pickup in consumer and business spending offset negative developments such as a decline in spending on residential investment. The spring home-buying season, usually the busiest time of year for the housing market, was a dud thanks to high prices and elevated mortgage rates. **Sales of existing homes decline in June** for the fourth straight month, **but prices hit** a **record**, **locking out many would-be buyers**.

A key category of **business** spending picked up: Nonresidential fixed investment, reflecting **spending** on **commercial construction**, **equipment** and **software**, **rose** at a

5.2% rate. **Capital expenditures** were **led by 11.6% growth** in **spending on equipment**, **while spending on structures declined**.

Excluding volatile food and energy prices, the **Personal-Consumption Expenditures Price index rose 2.9%** in the second quarter at an **annualized** rate, cooling from 3.7% in the first quarter.

Stocks were muted shortly after the opening bell, with the S&P 500 flat and the Dow Jones Industrial Average slightly higher.



Thursday's report provides a snapshot of how the economy is doing, two years after soaring inflation prodded the Federal Reserve to start raising interest rates at the fastest pace in decades. Higher rates are meant to slow the economy.

While the U.S. by many measures is doing well even amid high rates, and the pace of inflation has cooled, many Americans are unhappy that prices for groceries, cars and homes are so much higher than they were a few years ago.

And even though predictions of a recession have faded, there are signs of weakness.

A red-hot jobs market, which allowed millions of Americans to switch to jobs that paid more or fit them better, is starting to slow. **Although** the **unemployment** rate is **still historically low**, **employers added jobs at** a **slower pace** in the **second quarter** compared with the first.

Consumers are also facing mounting headwinds from still-high borrowing costs.

Companies are warning that consumers are increasingly tapped out. Packaged-food companies PepsiCo and Conagra Brands earlier this month reported weak quarterly results and said they see U.S. shoppers under pressure. United Parcel Service this week lowered its revenue outlook for the year. The company said **customers** were **trading down to cheaper options**, like lengthier ground delivery.

"Right now is a moment when many consumers are feeling stretched with low confidence in the economy and with less money to spend on discretionary items," Etsy Chief Executive Josh Silverman said at the company's annual shareholders meeting last month. "But it's a moment we believe will pass."

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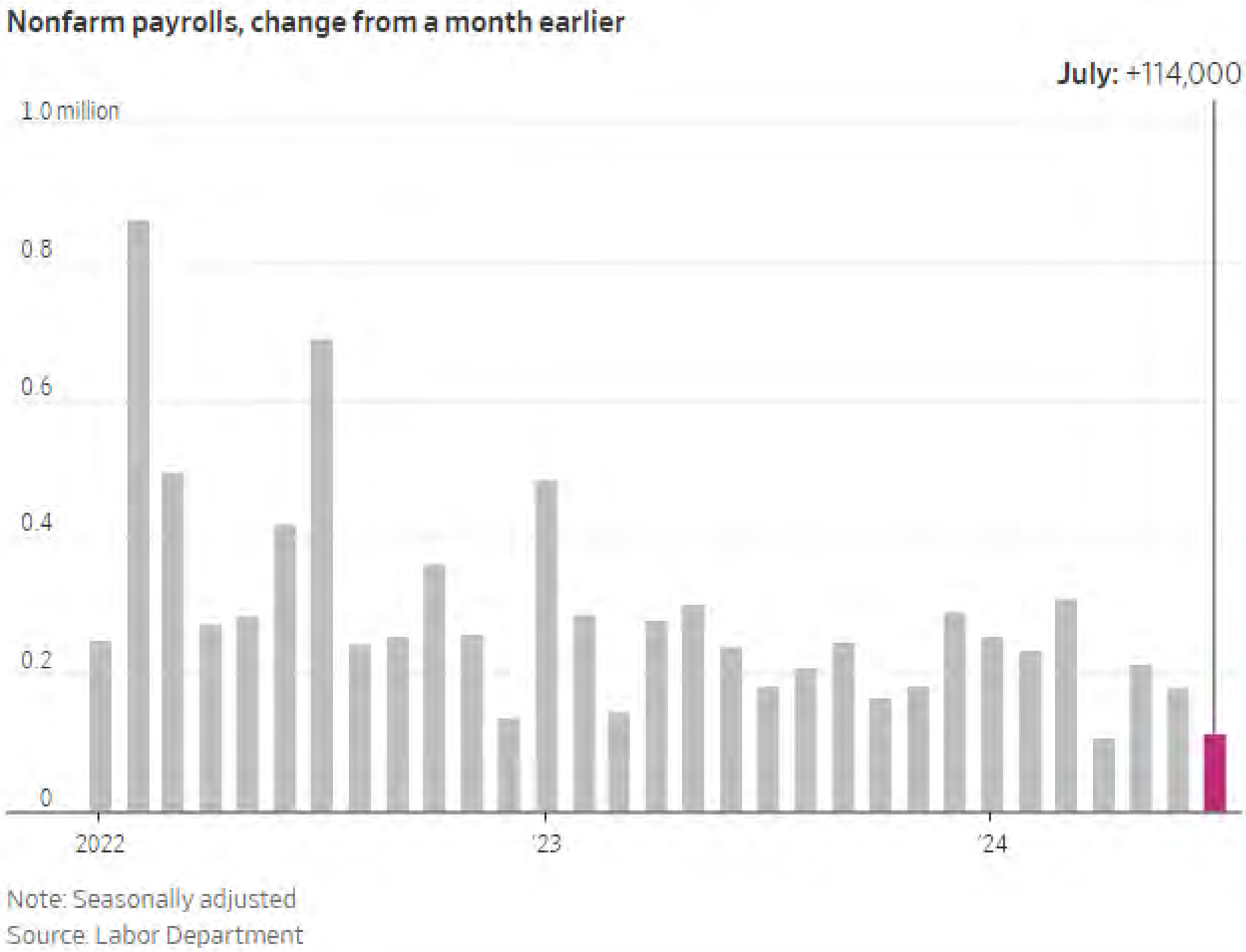
U.S. Hiring Slowed Sharply, with 114,000 Jobs Added in July

by Justin LaHart – WSJ – Aug. 2, 2024

Jobs report shows unemployment climbs to 4.3%

Job growth slowed sharply in July and the unemployment rate rose to its highest level since 2021, adding to evidence that a labor market whose strength is fading could actually be on its way to weakness.

America is **still adding jobs**, **but no longer at** a **red-hot pace**. The Labor Department reported on Friday that employers added 114,000 jobs last month, missing expectations. The **unemployment rate jumped to 4.3%** – its highest level in nearly three years, when the labor market was still clawing its way back from the pandemic.



Average hourly earnings were up 3.6% in July from a year earlier – above the recent pace of inflation, but the smallest gain since May 2021. The jobs count for May and June was revised down by a combined 29,000.

But the jump in the unemployment rate was from more people looking for jobs, rather than people losing their jobs. The labor-force participation rate, the share of working-age people who were employed or seeking work, rose to 62.7% from 62.6% in June. Absent the increase in participation, the unemployment rate would have stayed at 4.1%.

Stocks were down sharply in early trading, and **Treasury yields sank**, reflecting investors' renewed worries about a slowdown in the economy.

Some investors have started to question whether the Federal Reserve has waited too long to trim interest rates.

Interest rate futures went from implying Federal Reserve policymakers **would cut** their **benchmark interest rate** by a **quarter percentage point** when they next meet in **September to** a **half-point cut**.

July's job gains were **concentrated** in the **healthcare** sector, which added 55,000 jobs, **construction**, which added 25,000, and **leisure** and **hospitality**, which added 23,000. On the other side of the ledger, the **information sector shed** 20,000 **jobs**.

Better news on inflation and a desire to prevent a significant rise in joblessness are two major reasons why Fed policymakers on Wednesday cleared the path for a September interest-rate cut. "I would not like to see material further cooling in the labor market," said Fed Chair Jerome Powell at his press conference following the central bank's policy meeting.

To a degree, the slowdown in job creation last month might reflect the effects of **Hurricane Beryl**. The hurricane made landfall in Texas on July 8, near the start of the week the Labor Department uses for its employment readings. In the storm's wake, there was a notable move up in weekly readings on initial claims for unemployment insurance filed in Texas.

The Labor Department on Friday said that 461,000 people with jobs were unable to work because of weather in July. The average number of people missing work because of weather over the previous 10 Julys was 37,000. The August jobs figures could see a rebound, as those storm effects reverse.

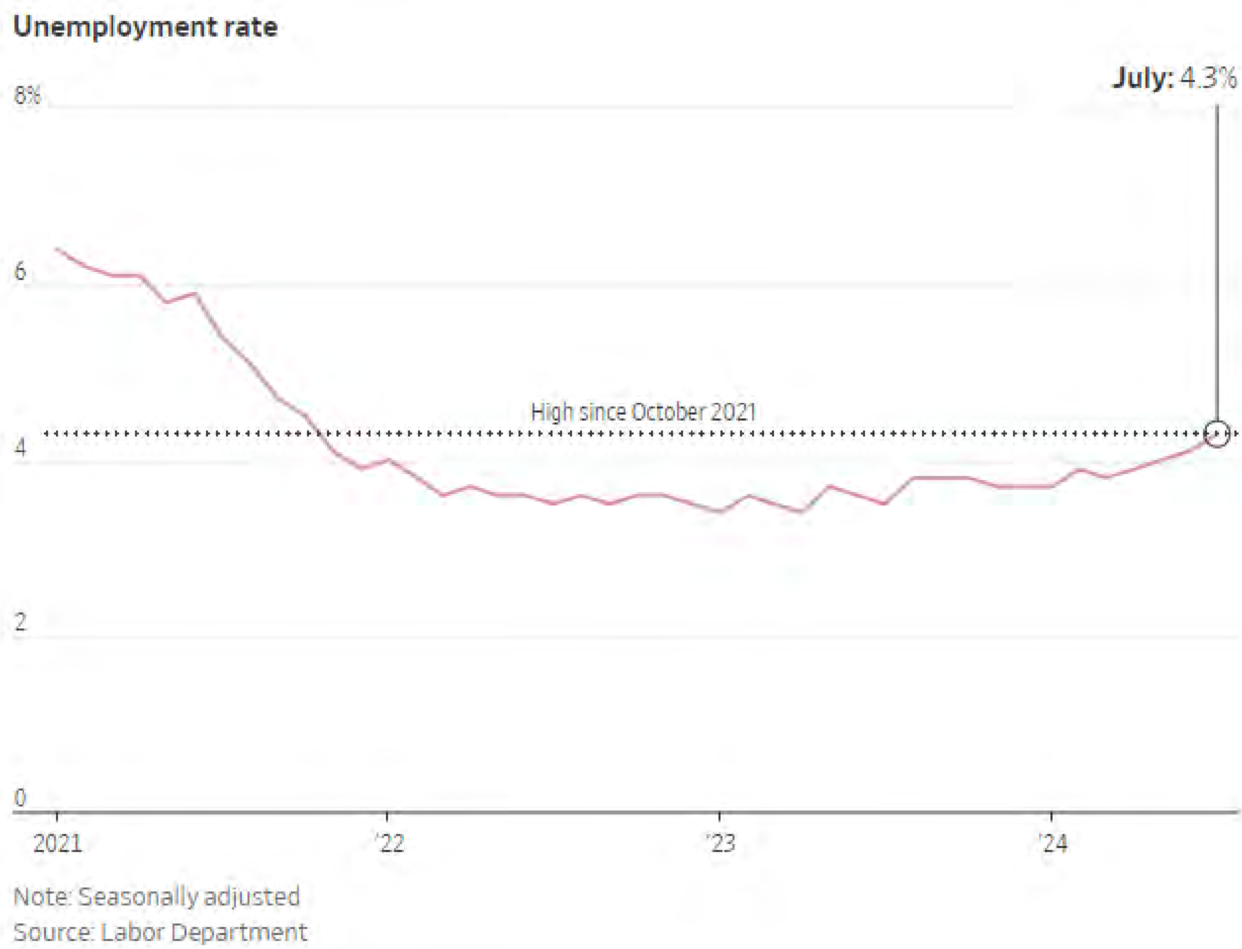
Warning signs

But other labor market measures are flashing warning signs.

The **Sahm rule**, an indicator popularized by economist Claudia Sahm, says that if the average of the unemployment rate over three months rises a half-percentage point or more above the lowest the three-month average went over the previous year, the economy is in a recession. Over the past three months, the unemployment rate has averaged 4.13%—0.53 percentage point above the three-month average low of 3.60% over the past year.

Powell characterized the Sahm rule as a "statistical regularity" on Wednesday. "It's not like an economic rule, where it's telling you something must happen," he said.

Sahm herself doesn't think the economy is on the immediate cusp of a recession. She reckons that changes in the supply of labor since the pandemic, including the recent jump in immigration, have led the Sahm rule to overstate how weak the job market is. But she worries about the direction things are heading: The unemployment rate is historically low, but it has been trending higher; the number of jobs the economy has been adding each month is still historically strong, but it has been trending down.



"We are still in a good place, but until we see signs of stabilizing, of leveling out, I'm worried," said Sahm, a former Fed economist who is now the chief economist at New Century Advisors.

Thursday, the Institute for Supply Management reported that its measure of manufacturing employment deteriorated in July, helping spark a **selloff in stocks**. After the close Thursday, **Intel** posted disappointing quarterly sales, and announced plans to lay off 15,000 people.

The pace of hiring has also slowed markedly, with the Labor Department on Tuesday reporting that the hires rate – the number of hires as a share of total jobs – slipped to 3.4% in June, marking its lowest level since April 2020, when the pandemic had just hit the economy. In 2019, that rate averaged 3.9%. One reason that the economy has been able to keep adding jobs despite the low hires rate is that layoff activity has been muted, too, with the June layoff rate matching its lowest level on record.

Ernie Tedeschi, director of economics at the Budget Lab at Yale University, reckons the recent data are consistent with an economy that is at full employment – one when there are fewer gains to be had than a year ago, when many employers were still struggling to find workers.

"In one sense, that is a positive story," he said. "In another sense, it should make us even more attuned to the risks involved."

For now he said he isn't too worried. But if there were signs of sharp deterioration – a significant increase in the number of people filing unemployment claims, say, or a drop in the share of people in their prime working years who are employed – he would be.

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US Would Keep More Hydropower under Agreement with Canada on Treaty Governing Columbia River

by Gene Johnson – Oregonian, AP – Jul. 21, 2024

The **U.S. and Canada** said Thursday they have agreed **to update** a **six-decade-old treaty** that **governs** the **use** of one of North America's largest rivers, the **Columbia**, with **provisions** that officials said would provide for effective **flood control**, **irrigation**, and **hydropower generation** and **sharing** between the countries.

The "agreement in principle," reached after six years of talks, provides a framework for updating the Columbia River Treaty. It calls for the **U.S. to keep more** of the **power generated by** its **dams** while **improving cooperation** between the Bonneville Power

Administration, which markets power from dams in the northwestern U.S., and Canadian utilities, **to help avoid blackouts**.

The **U.S. would pay Canada for reservoir capacity** to hold back water during flood seasons, protecting downstream communities, at a rate that would **begin** at **$37.6 million per year** and **increase with inflation**. And the agreement would **provide Canada** with **more flexibility** in **using** the **water stored in its reservoirs**.

“After 60 years, the Treaty needs updating to reflect our changing climate and the changing needs of the communities that depend on this vital waterway,” U.S. President Joe Biden said in a written statement Thursday.

But environmental groups lamented the deal as a missed opportunity to provide more water for imperiled salmon and steelhead runs that have been decimated by dam operations in the Columbia River basin over the past century. the original treaty ratified in 1964 was designed to cover flood control and hydropower generation, conservationists and Indigenous tribes have long argued that it should be updated to include river health and salmon restoration as a third principle.

Left President Joe Biden talks to Canada's Prime Minister Justin Trudeau, during a G7 world leaders summit at Borgo Egnazia, Italy, June 13, 2024. The U.S. and Canada said Thursday, July 11, that they have agreed to update a six-decade-old treaty that governs the use of one of North America’s largest rivers, the Columbia, with implications for electricity prices, irrigation, flood control and imperiled salmon runs.

“Our community is frustrated and disappointed today,” said Joseph Bogaard, of the nonprofit Save Our Wild Salmon. “The treaty needs to be a tool to address challenges for these fish. There are benefits and certainty for the power sector and for flood risk management, while salmon basically get status quo treatment.”

The Biden administration earlier this year brokered a $1 billion plan to boost salmon runs in the Northwest.

The Columbia River begins in Canada but flows mostly in the U.S. on its 1243-mile (2000.41 kilometer) journey to the Pacific Ocean. It forms most of the border between Washington state and Oregon. Its tributaries account for 40% of U.S. hydropower, irrigate $8 billion in agriculture products, and move 42 million tons of commercial cargo annually, officials noted Thursday.

The **Columbia River Treaty came together after** a **1948 flood washed away** the **Oregon** community of **Vanport**, **leaving** more than **18,000 people homeless**.

It provided for the construction of one dam in Montana, which flooded land in Canada, and three in British Columbia, completed between 1968 and 1973, that together more than doubled the amount of reservoir storage in the basin, providing benefits for both flood prevention and hydropower. The British Columbia dams also flooded tribal lands and retained much spring runoff that would otherwise be available for migrating salmon.

The treaty provided for what came to be known as the "**Canadian Entitlement**," under which Canada receives $250 million to $350 million a year worth of **electrical power in exchange** for **storing water in huge reservoirs** that can be released to boost U.S. hydropower generation. The cost is higher than anticipated by the United States when the treaty was signed, and it increased prices for U.S. customers, lawmakers in the Pacific Northwest long complained.

Under the agreement announced Thursday, the U.S. will immediately reduce by 37 percent the amount of Columbia Basin hydropower it delivers to Canada, with further cuts amounting to 50 percent by 2033. BPA administrator John Hairston said Thursday that will save the agency about $70 million next year and about $1.2 billion over the next two decades.

"These new terms will go a long way toward helping meet the growing demand for energy in the region and avoid building unnecessary fossil fuel-based generation," Hairston told reporters during a briefing Thursday.

U.S. Sens. Maria Cantwell, D-Washington, and Jim Risch, R-Idaho, who have pushed for updates to the treaty, called the agreement a positive step, but said they would need to review the details. Government negotiators will finalize details before the treaty is submitted to the U.S. Senate for ratification.

Indigenous tribes have long wanted the Columbia to flow more like a natural river, instead of a series of reservoirs with slow-moving water that often heat up to temperatures that kill migrating salmon.

U.S. and Canadian officials said the agreement would establish a tribal-led body that will provide recommendations on how treaty operations can better support ecosystem needs and tribal and indigenous cultural values.

In a written statement, Chief Keith Crow, of the Syilx Okanagan Nation in British Columbia, said the agreement gave him hope that one day his grandchildren might harvest salmon in the upper Columbia River region.

“We still have lots of work to do with Canada and B.C. to start addressing the past and ongoing impacts to our lands, waters and people,” Crow said.

Canada has been providing up to 1 million acre-feet of water a year to help juvenile salmon on their migration to the Pacific, with up to an additional half-million acre-feet in dry years, subject to negotiation between the countries, Bogaard, of Save Our Wild Salmon, said.

Researchers insist that the fish need 3 million to 5 million acre-feet per year released by Canada, but the agreement announced Thursday would reinforce the current amount, with the minor improvement that in dry years Canada would automatically provide the extra half-million acre-feet if available, he said.

“Salmon have suffered tremendous losses through the industrialization of the Columbia Basin’s rivers, in part, as a result of this Treaty," Neil Brandt, executive director of WaterWatch of Oregon, said in a written statement. “A modernized Treaty must do better for salmon."

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Wall Street Wants in on America’s Battery Storage Boom

by Amrith Ramkuma – WSJ – Jul. 17, 2024

Solar surge lets battery companies charge up when power prices are low, sell when high.

Intersect Power is installing Tesla Megapack batteries to store
and dispatch electricity in Scurry County, TX.

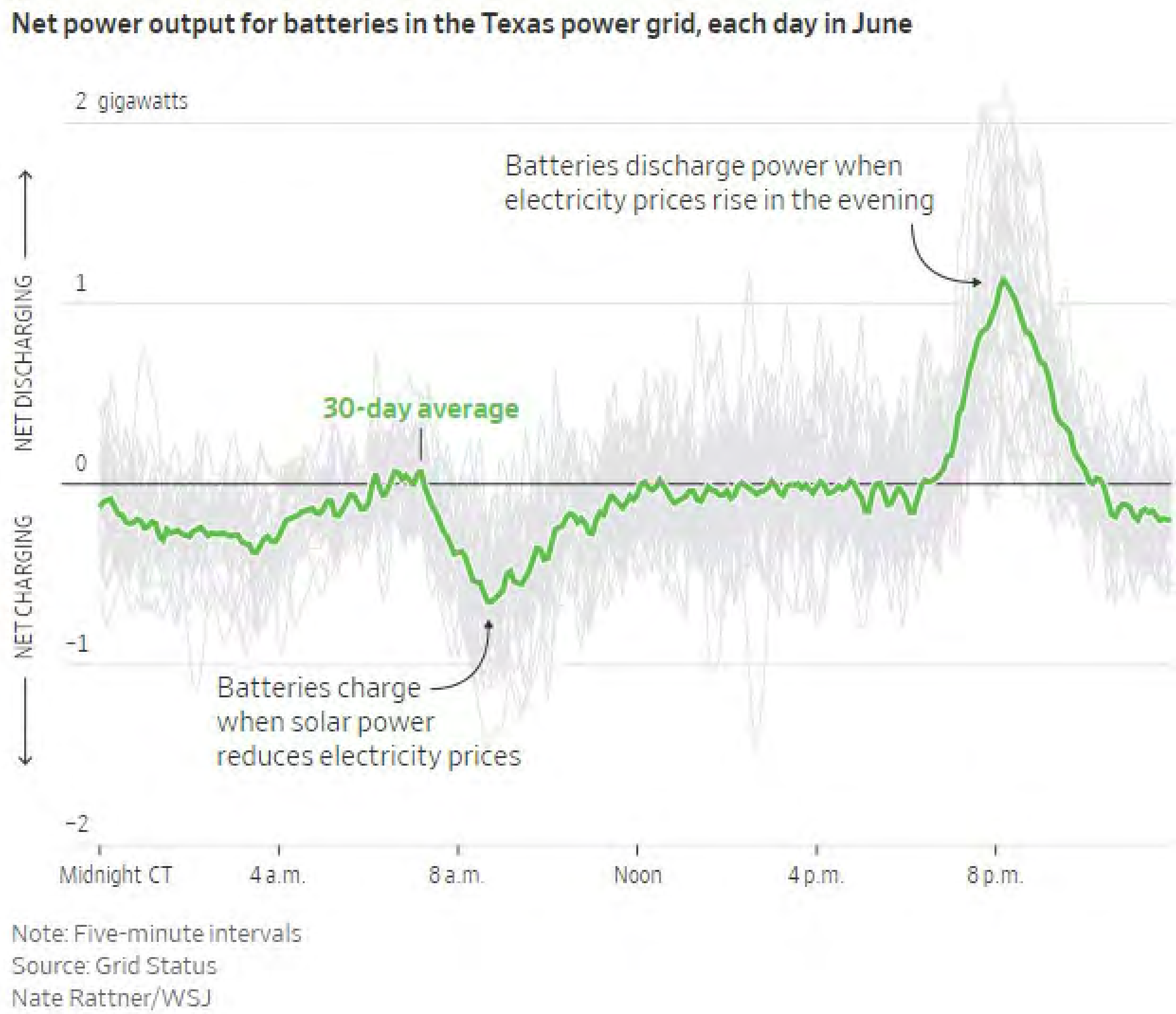
Sheldon Kimber sees a lucrative opportunity in bottling sunshine.

The 46-year-old entrepreneur is installing hundreds of giant batteries the size of shipping containers around sun-soaked Texas and California. The batteries charge up during the day when solar power is abundant. When electricity demand rises in the evening, straining the power grid, Kimber sells that stored energy at higher prices.

Kimber is betting that surging power demand and extreme weather events will make it an increasingly profitable trade.

“The only thing we can guarantee in the energy transition is that volatility will increase,” said Kimber, chief executive of renewable energy developer Intersect Power.

Kimber is part of a **nationwide race to profit from battery storage**, which helps stabilize the outdated power grid and smooth out intermittent electricity sources such as wind and solar. It is a rapidly growing sector that is being fueled by a boom in solar energy and billions of dollars from Washington and Wall Street.



In one of the largest battery storage deals, Intersect is raising $837 million in debt and equity tied to tax credits from Morgan Stanley, Deutsche Bank and HPS Investment Partners.

The money will fund three giant battery storage projects in Texas. Together, the 258 Tesla Megapack batteries will be able to provide enough power for nearly 400,000 homes for two hours when they begin operating in the coming months, Intersect says.

The sector's potential has been in the spotlight after **Hurricane Beryl** left millions of Houston residents without power. Many homeowners and businesses have been installing batteries to provide power during blackouts, as well as for other grid disruptions that are more common in the summer.

Storage capacity in the U.S. has grown enough in recent years to be able to power many millions of homes, according to S&P Global Market Intelligence. California and Texas dominate the industry, but projects are in the works in Nevada, Arizona and elsewhere to help meet growing power demand from artificial-intelligence data centers and manufacturing plants.

Private-equity firm Cerberus Capital Management recently agreed to a $315.5 million debt investment in Eos Energy Enterprises, a startup producing zinc batteries that could store energy for longer periods. A developer called rPlus Energies just raised over $1 billion for a big solar and storage project in Utah.

“It definitely feels like there’s a bit of a gold rush,” said Jacob Mansfield, a former power trader and CEO of Tierra Climate, a startup developing a financial product that would let battery companies get paid more for charging and discharging clean energy.

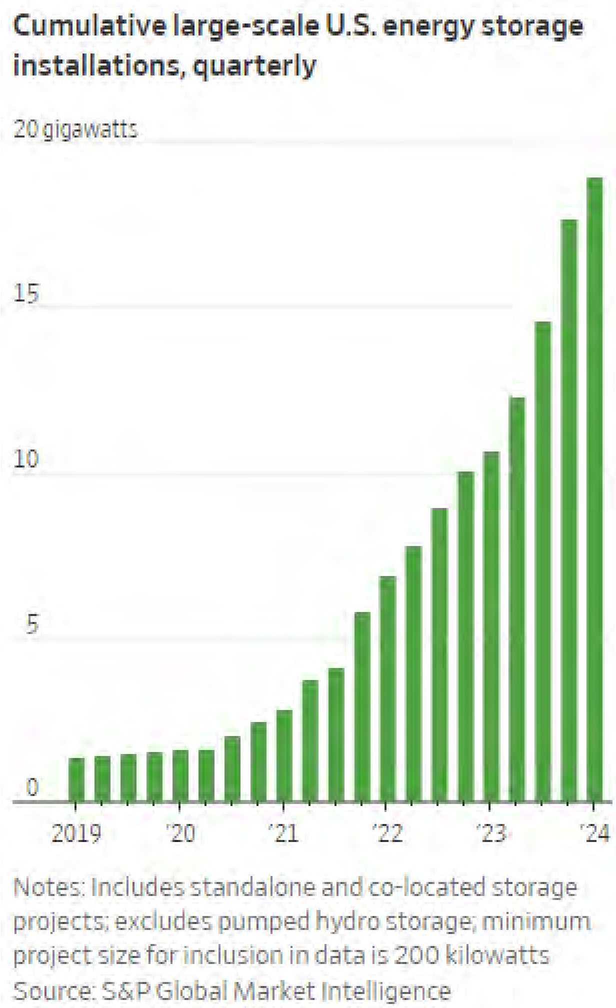
Founded in 2016, Intersect Power has raised billions of dollars to build solar projects for Apple, Morgan Stanley and others. Now the company is setting its sights on battery storage.

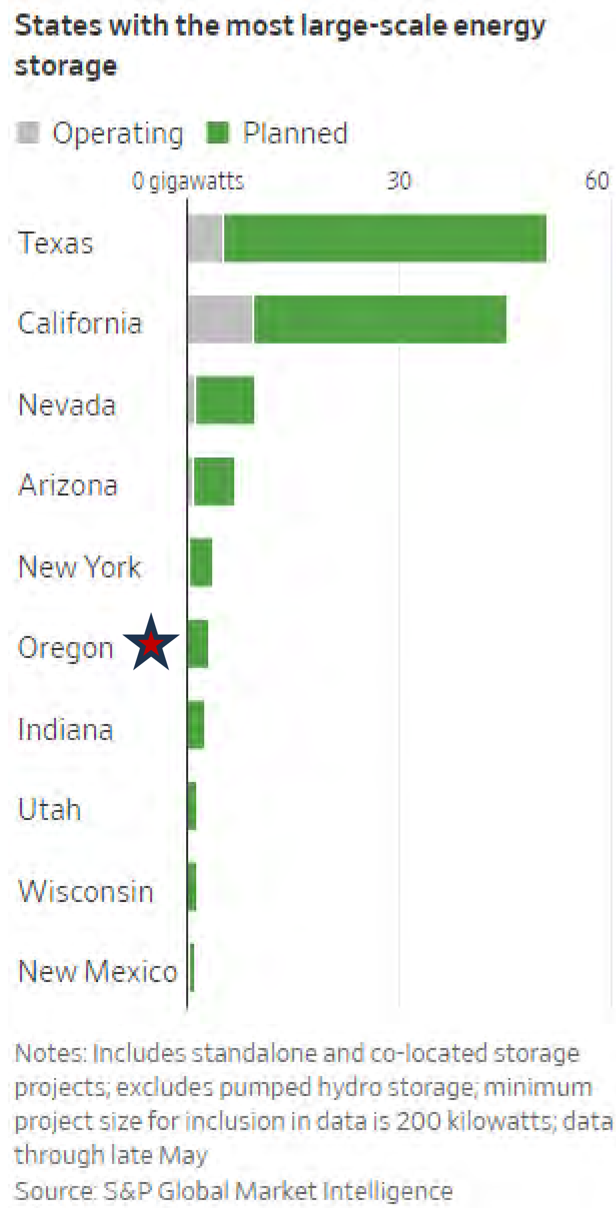
The company has agreed to buy billions of dollars worth of Tesla Megapack batteries to accelerate installations in California and Tesla is known for making electric cars, but its newer, smaller energy storage business is expected to grow faster.

Sheldon Kimber is CEO of Intersect Power, part of a nationwide race to profit from battery storage.

Having a domestic battery supplier lets Intersect qualify for more subsidies in the 2022 climate law. Tax credits are expected to cover roughly half the cost of the Texas battery projects.

Instead of the **long-term customer contracts with low, fixed prices** that are used by most clean-energy companies, **Kimber prefers shorter deals with more flexible pricing**. The strategy is riskier but **boosts revenue if prices surge**.





The payoff could be especially rich in **Texas**, where power traders play a big role in the state's **deregulated electricity market**. It is one of the markets where the difference between electricity prices during the day and evening has gotten so consistent that Intersect can include fixed prices in contracts with utilities and other customers.

Traders have guaranteed the company a minimum payment for its battery projects, based on the spread of electricity prices between when companies typically charge and discharge batteries. When the spread climbs above that level, Intersect keeps more of the money.

In states with more tightly regulated electricity markets, storage companies rely more heavily on other types of revenue, such as payments from utilities when their batteries are used.

The sector still faces speed bumps. **Other types of batteries** that **might potentially store energy for longer could make some projects relying on today's lithium-ion batteries obsolete**.

The rush of storage installations could also make electricity prices less volatile – and battery projects less profitable. Permitting snags and challenges hooking projects up to power grids in some states could hamper growth.

Investors are betting the surge in solar and falling costs for storage will make their bets pay off.

"It has been the hot topic over the last 24 months," said Michael Bonafide, director on the infrastructure and energy financing team at Deutsche Bank, which has invested in six storage deals over the last two years.

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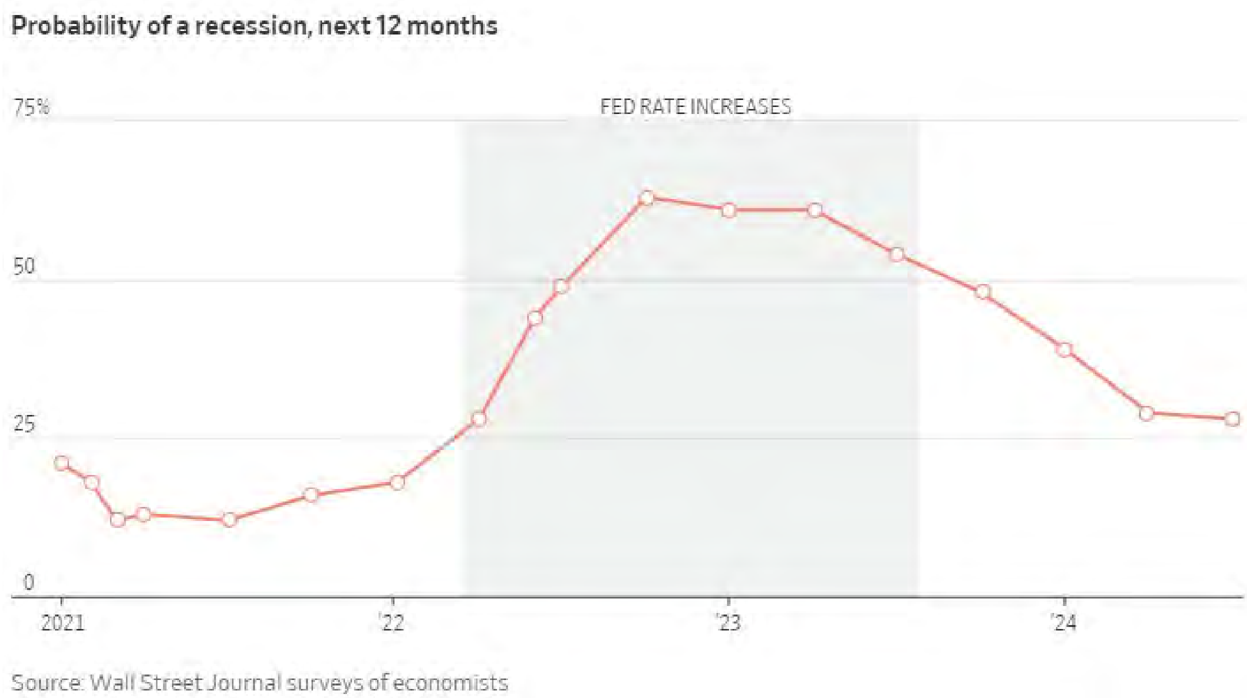
Where Do Economists Think We're Headed?

by Sam Goldfarb, Peter Santilli, and Anthony DeBarros – WSJ – Jul. 18, 2024

WSJ's latest quarterly survey shows economists' expectations for growth, inflation and interest rates.



The Wall Street Journal's latest quarterly survey of business and academic economists shows forecasters remain firmly optimistic about the economic outlook, despite some hints of weakness in recent data.

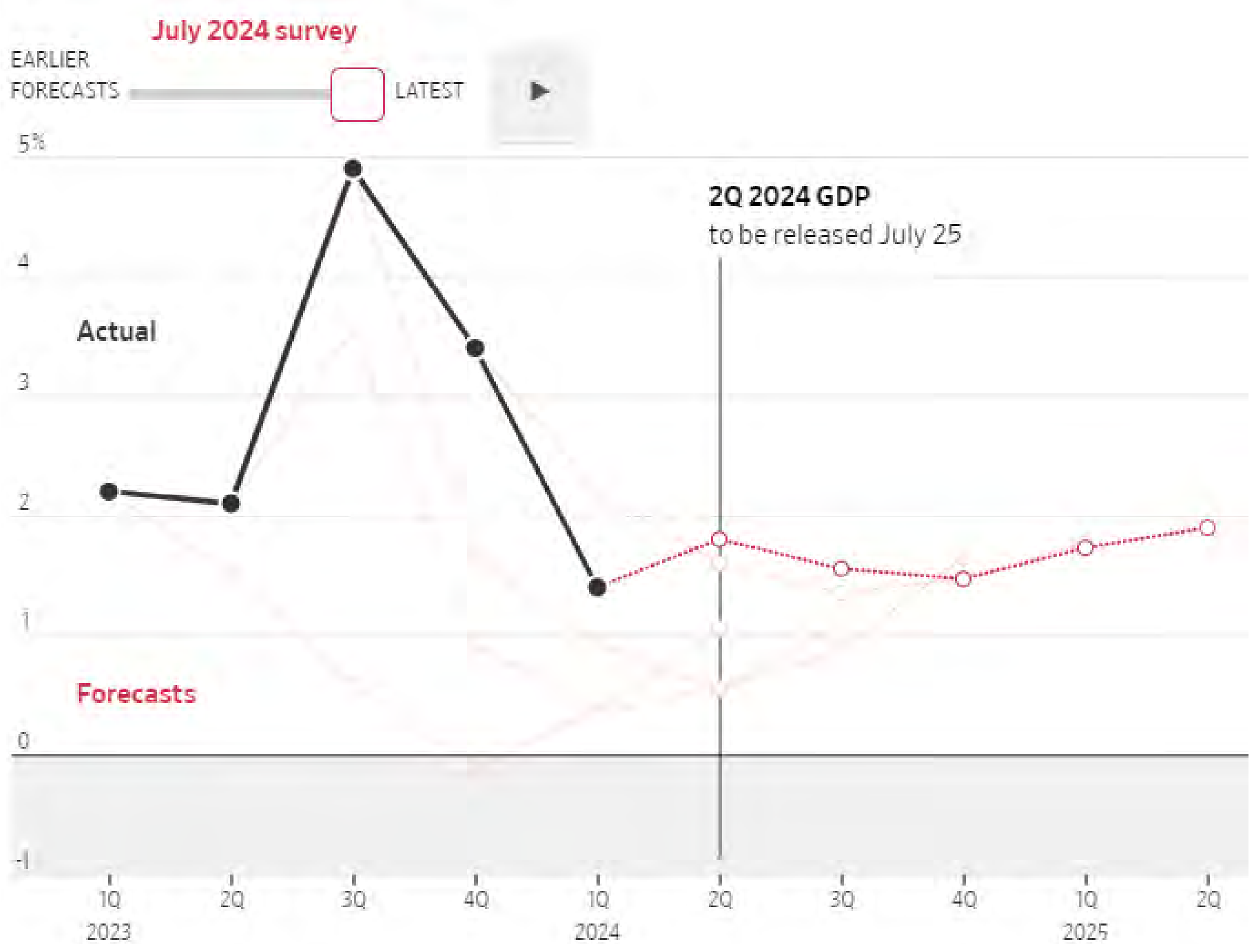
The following graphics show what economists are thinking now and how their forecasts – and the economy – have evolved over recent months and years. After looking at the charts, see if you can guess how economists answered questions about when the Federal Reserve will cut interest rates and how the election could affect the deficit, inflation and interest rates.

Welcoming normalization

For about two years, economists consistently underestimated the strength of the U.S. economy, forecasting the economy would grow slower than it did.

That changed recently when growth was lower than expected in the first three months of the year. Still, most economists believe that a slowdown was inevitable after a period of rapid expansion and too-high inflation. The economy, they argue, is normalizing rather than deteriorating.

GDP growth, with economists' forecasts



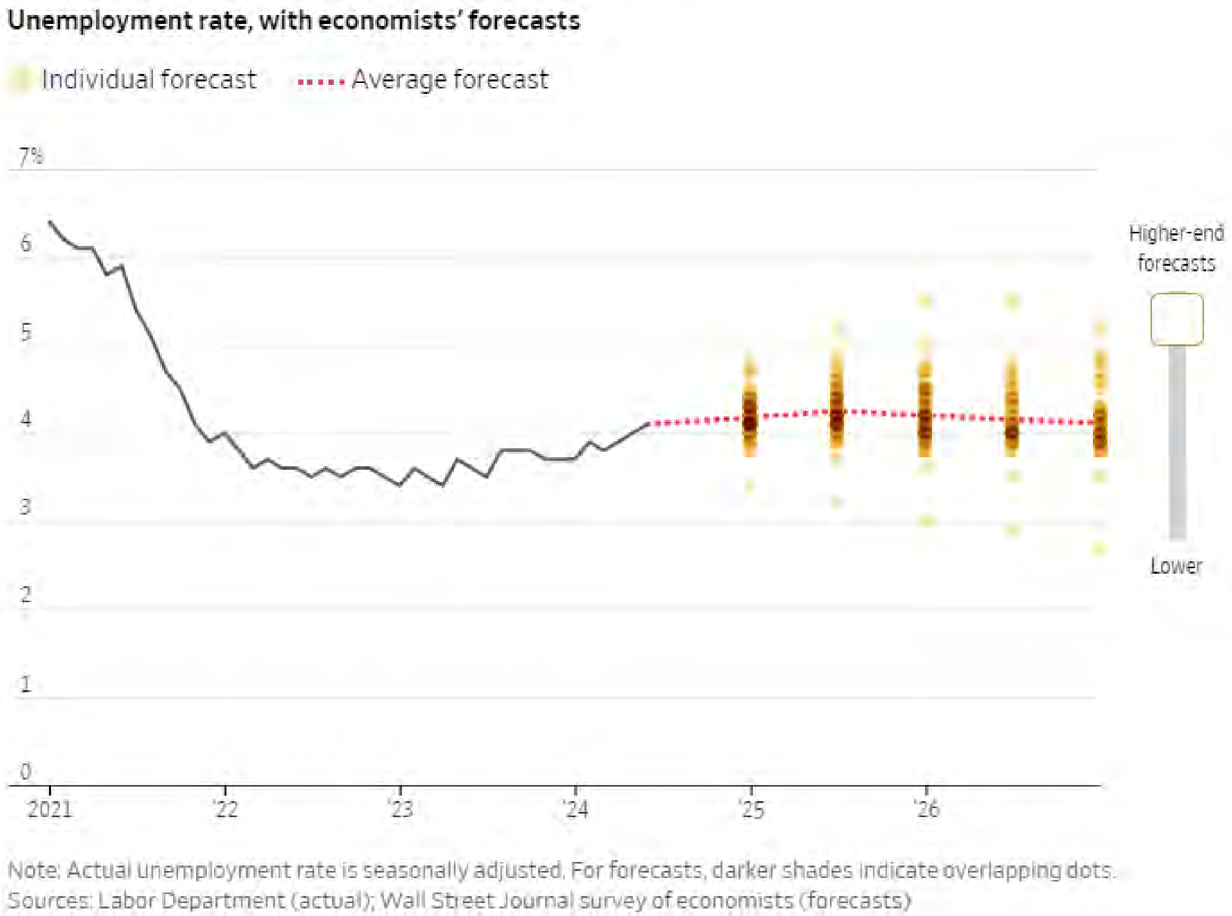
Note: Chart shows annualized change in real GDP from a quarter earlier, seasonally adjusted, and average forecasts among survey respondents.

Sources: Commerce Department (actual); Wall Street Journal survey of economists (forecasts)

Seeing no acceleration in unemployment

In another shift, the unemployment rate has also recently climbed a little faster than economists were expecting – rising to 4.1% in June from 3.4% in early 2023.

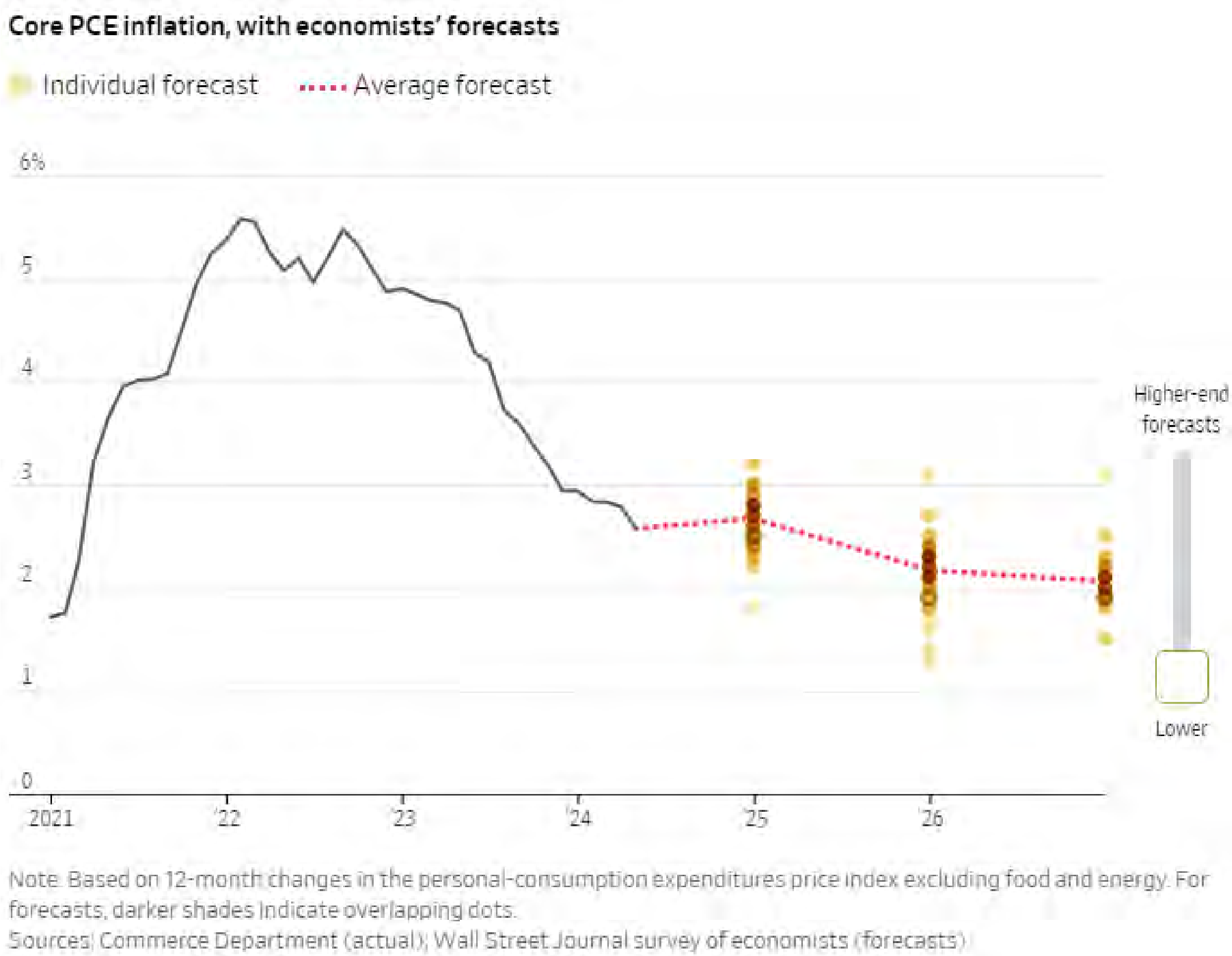
Demand for workers seems to be cooling even as job growth remains solid, thanks in part to increased immigration. Again, economists are optimistic that this represents a return to a more stable environment.



Slow but steady progress on inflation

The Journal's latest survey of economists concluded July 9, two days before consumer-price index data showed inflation easing substantially in June. T hat may partially explain why inflation forecasts nudged a bit higher since the last survey in early April.

The difference, though, is marginal. Current forecasts – like previous forecasts – show strong confidence that the Fed will succeed in bringing inflation down to its 2% target. The question has been what it would take to get there.

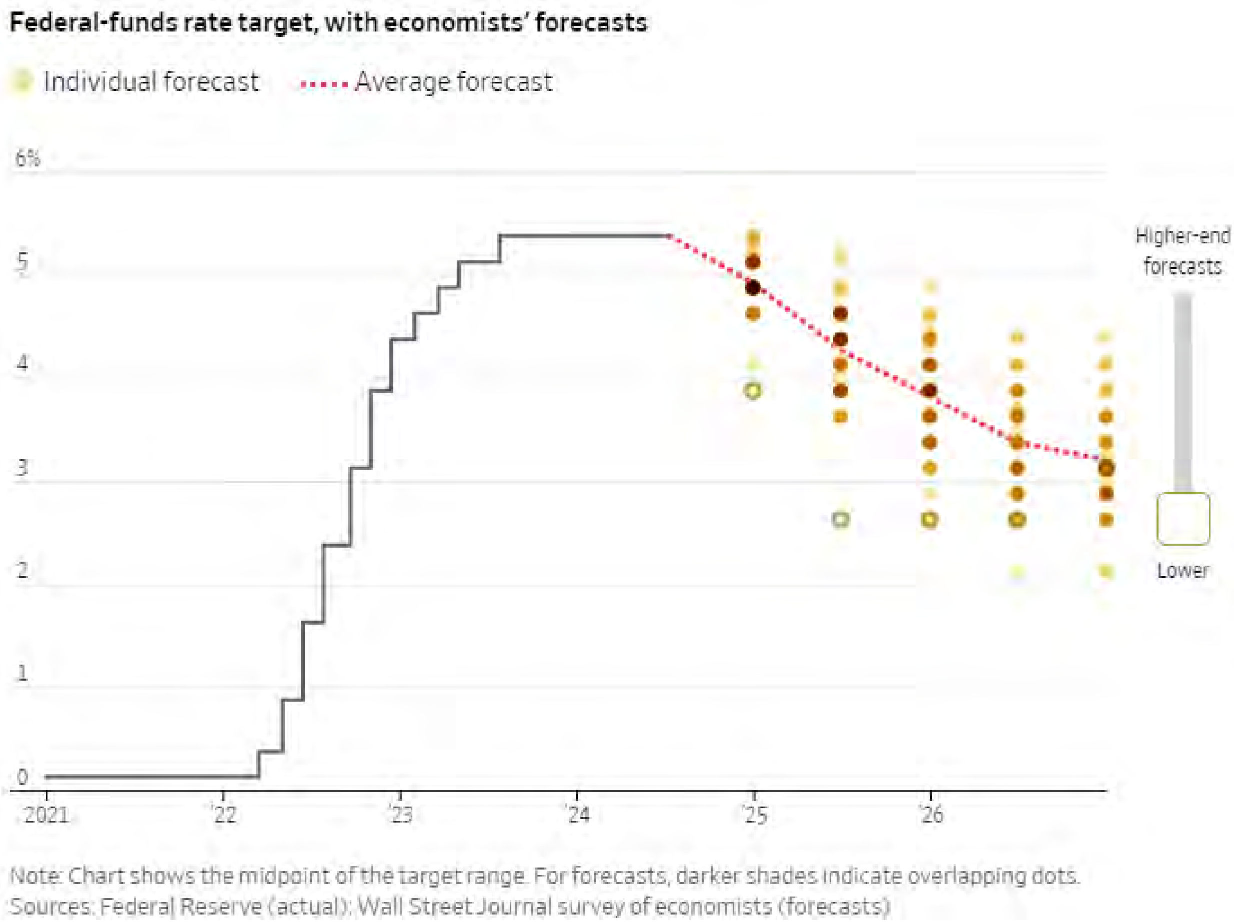


Higher-for-longer interest rates

The recent uptick in the unemployment rate and decline in inflation has rekindled hopes among investors that the Fed could cut short-term interest rates as many as three times this year – starting most likely in September.

Still, the recent good news on inflation has only come after a series of disappointing readings, including one that came out just after the April survey was conducted. As a result, the latest survey of economists shows a slightly higher path for rates.

Economists' optimistic outlook can be seen in the dispersion of rate forecasts. The Fed would likely cut rates more aggressively if it were worried about a recession. However, 22% of survey respondents think that rates will fall below 3.75% by June 2025 – down slightly from 25% of respondents in April.

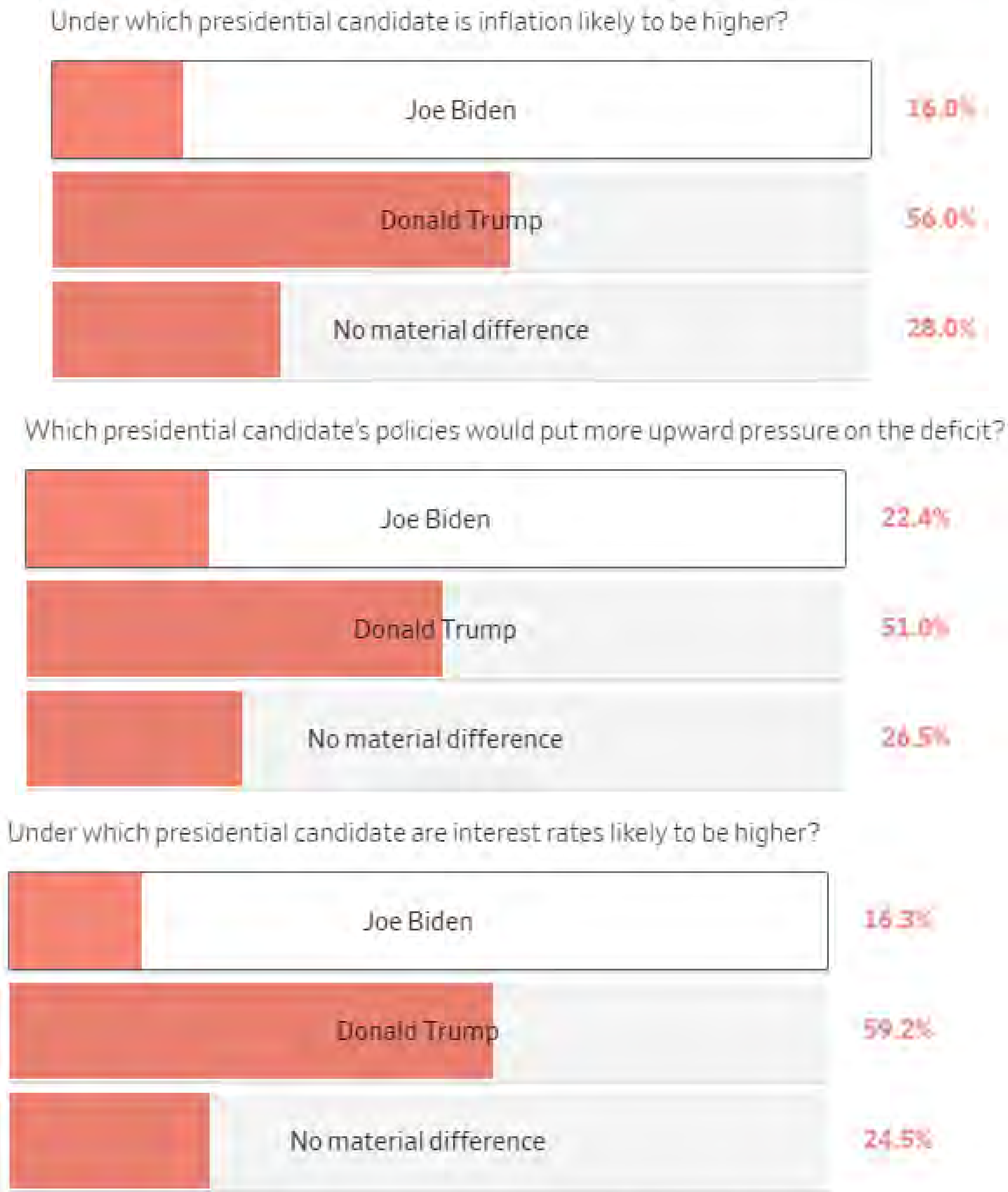


Test yourself against the economists

We asked survey respondents a number of questions on the economy.


At which meeting do you expect the Federal Reserve to make its next rate CUT?
July 30-31
1.5%
Sept. 17-18
64.2%
Nov. 6-7
14.9%
Dec. 17-18
13.4%
2025 or later
6.0%


At which meeting do you believe the Federal Reserve SHOULD make its next rate CUT?
July 30-31
24.6%
Sept. 17-18
45.6%
Nov. 6-7
12.3%
Dec. 17-18
7.0%
2025 or later
10.5%



Note: The survey was conducted July 5-9. For some questions, the wording here has been shortened. For complete results, visit the survey archive.

Source: Wall Street Journal survey of economists

In their own words

Here's what some of the survey respondents said about the economy.

While it is too early to declare victory in the pursuit of an economic soft landing, consumer and business spending has remained more resilient than not. That has kept a recession at bay so far, a trend that should continue over the coming months."

—Chad Moutray – National Restaurant Association

"The U.S. economy has proven economic forecasters wrong since the start of the Fed's tightening. Consumers keep shaking off talk of troubles. We are seeing business bankruptcies rise back to pre-pandemic levels – that is either worrisome regarding recession risk or reassuring that the economy is back to normal. I can't decide which it should be."

—Amy Crews Cutts – AC Cutts and Associates

"While the presidential election and the control of Congress are the great unknowns, there is little reason to think a recession is likely over the next twelve months. That implies inflation is not going to hit the Fed's target anytime soon."

—Joel Naroff – NAROFF ECONOMICS LLC

"Growth, inflation and hiring in the United States are all cooling toward a more sustainable pace which will most likely define the second half of the year as the Federal Reserve gets ready to reduce its restrictive policy rate.

—Joe Brusuelas – RSM US

"Downside risks are mounting given a slower glide path on rate cuts and delays to investment due to heightened uncertainty surrounding the outcome of the election. Policy uncertainty acts as a tax on the economy."

—Diane Swonk – KPMG

"Two years ago, forecasters were way too pessimistic while today the stock market appears far too optimistic. It may feel better, but excessive optimism is the more dangerous bias."

—Christopher Thornberg – Beacon Economics

"Consumers are in good financial shape."

—Russell Price – Ameriprise Financial

"Recent labor market developments are worrisome. In a world where the Fed pays equal attention to inflation and full employment, it would be cutting in July."

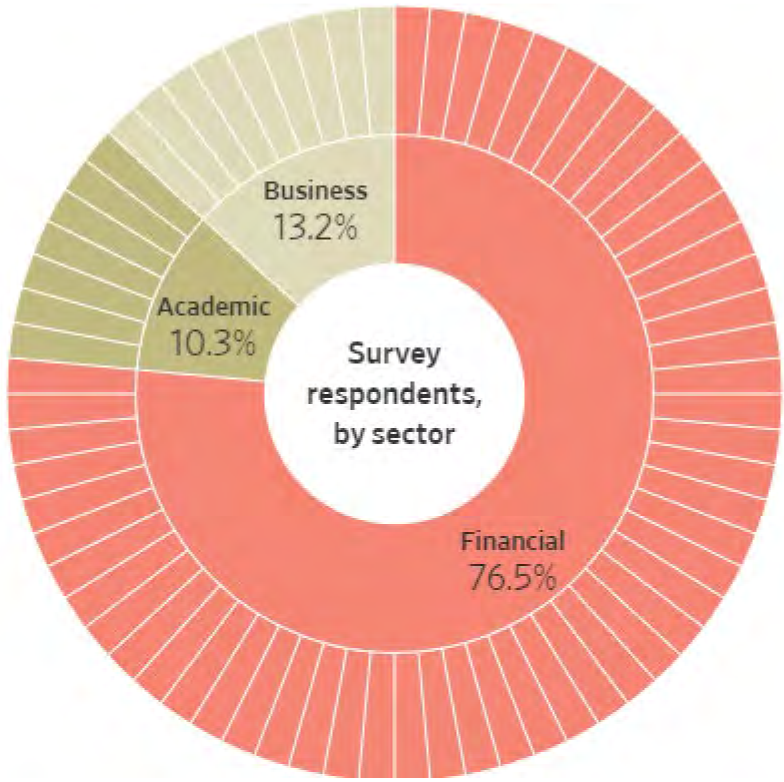
—Daniil Manaenkov – Research Seminar in Quantitative Economics, U. of Michigan

"The speed of increases in the unemployment rate of late raises the probability of not-so-soft landing."

—Yelena Shulyatyeva – BNP PARIBAS

Who participates

The Wall Street survey has been publishing consensus forecasts from a panel of academic, business and financial economists for nearly 40 years. Not every economist answers every question.



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Why Americans Aren't Having Babies

Rachel Wolfe, Christiana Botic – WSJ – Jul. 20, 20024

The costs and rising expectations of parenthood are making young people think hard about having any children at all.

Beth Davis says not having kids gives her and husband, Jacob Edenfield, more time to focus on their relationship.

Americans aren't just waiting longer to have kids and having fewer once they start – they're less likely to have any at all.

The shift means that childlessness may be emerging as the main driver of the country's record-low birthrate.

Women without children, rather than those having fewer, are responsible for most of the decline in average births among 35-to44-year-olds during their lifetimes so far, according to an analysis of the Census Bureau's Current Population Survey data by University of Texas demographer Dean Spears for The Wall Street Journal. Childlessness accounted for over two-thirds of the 6.5% drop in average births between 2012 to 2022.

While more people are becoming parents later in life, 80% of the babies born in 2022 were to women under 35, according to the Centers for Disease Control and Prevention's National Vital Statistics data.

"Some may still have children, but whether it'll be enough to compensate for the delays that are driving down fertility overall seems unlikely," says Karen Benjamin Guzzo, director of the Carolina Population Center at the University of North Carolina at Chapel Hill.

The **change is far-reaching**. **More women** in the **35-to-44 age range across all races, income levels, employment statuses, regions and broad education groups aren't having children**, according to research by Luke Pardue at nonprofit policy forum the Aspen Economic Strategy Group.

Birthrates among 35- to 44-year-olds give demographers who study fertility an early look into millennials' changing approach to parenthood. But these researchers also look closely at women over 40, reasoning that if a woman doesn't have a child by then, she is more likely to remain childless.

The number of American women over 40 who had no children was declining until 2018, according to Current Population Survey data, when it then began to rise again. Now, some demographers and economists expect the increase in childlessness will be sustained due to shifts in how people think about families.

In New Orleans, 42-year-old Beth Davis epitomizes some millennials' new views. "I wouldn't mess up the dynamic in my life right now for anything, especially someone that is 100% dependent on me," she says.

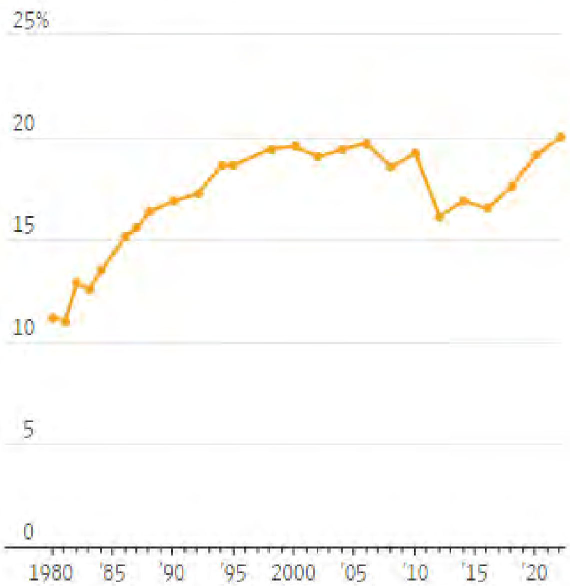
Edenfield and Davis.

'What Are Children For?'

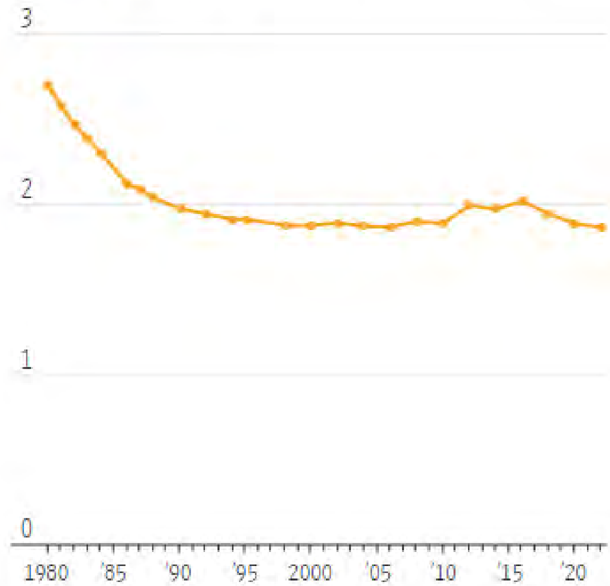
Throughout history, having children was widely accepted as a central goal of adulthood.

Yet when Pew Research Center surveyed 18- to 34-year-olds last year, a little over half said they would like to become parents one day. In a separate 2021 survey, Pew found 44% of childless adults ages 18 to 49 said they were not too likely, or not at all likely, to have children, up from 37% who said the same thing in 2018.

Share of women in the U.S. age 35 to 44 who don't have children



Average number of live births per woman in the U.S. age 35 to 44



Source: Current Population Survey data via the Aspen Economic Strategy Group

As more women gained access to birth control and entered the workforce in the 1970s, reshaping family life and expectations around gender, Americans began having fewer kids. By 1980, the average number of children per family was 1.8, down from a high of 3.6 during the post-Depression baby boom, according to Gallup.

Now, researchers say, having children at all has begun to feel optional.

"To be a human being, for most people, meant to have children," says Anastasia Berg, co-author with Rachel Wiseman of the new book "What Are Children For?: On Ambivalence and Choice.

"You didn't think about how much it would cost, it was taken for granted," she says.

But unlike their parents and grandparents, the authors say, younger Americans view kids as one of many elements that can create a meaningful life. Weighed against other personal and professional ambitions, the investments of child-rearing don't always land in children's favor.

With less pressure to have kids, economists say, more people feel they need to be in the ideal financial, emotional and social position to begin a family.

Giovanni Perez and Mariah Sanchez with their beagle, Prowler,
at their apartment in the Bronx.

Giovanni Perez, 38, has been trying to convince his wife, Mariah Sanchez, 32, that they're ready to become parents.

"People less well-off than us are having kids and I see it every day, and I'm pretty sure we could do better than most of them," says Perez, an after-school art teacher in the Bronx, N.Y.

Sanchez isn't sold.

With a single mom during her early childhood and a brother 15 years her junior, Sanchez grew up helping with diaper changes and bottle feedings. Before she has kids of her own, she wants to move from the couple's one-bedroom apartment into a bigger place. She also hopes to climb the ranks at the advertising agency where she works, ideally doubling their combined income of $100,000.

"I know what it's like for a child whose parent wasn't prepared for them," says Sanchez. Still, she admits, the amount she thought she needed to earn before having children was far lower a few years ago. "It feels like a moving target," she says.

Her mom, Michelle Morales, had Sanchez when she was 21. That was late by her Brooklyn community's standards, she says. (A dramatic drop in teenage births is another factor driving the fertility rate down.)

"There was no planning for kids, you just had them," says Morales, a 53-year-old college adviser in Naples, Fla.

While she worries she may never be a grandparent – "which I'd like to experience before I leave this Earth" – she respects the intention with which her children are approaching parenthood.

"These kids are a lot smarter in making decisions for themselves," she says.

Sanchez and Perez have different views on when is the right time to start a family.

How much kids actually cost

Nobody will dispute that kids are expensive. Whether they have become more so in recent years – and the extent to which that is driving down birthrates – is more complicated.

Parents *are* spending more on their children for basics such as housing, food and education – much of that due to rising prices. Another factor, however, is the drive to provide children with more opportunities and experiences.

Middle-class households with a preschooler more than quadrupled spending on child care alone between 1995 and 2023, according to an analysis of Bureau of Labor Statistics and Department of Agriculture data by Scott Winship at think tank the American Enterprise Institute.

Yet only about half of the increase is due to rising prices for the same quality and quantity of care. (Child care prices are up 180% overall since the mid-90s, according to BLS data.)

The remaining half is coming from parents choosing more personalized or accredited care for a given 3- to 5-year-old, or paying for more hours, Winship says.

"People say kids are more expensive, but a lot of this comes from parenting becoming more intensive so people are spending more on their kids," says Melissa Kearney, an economist at the University of Maryland who researches children and families.

It has always been costly and time-consuming to raise kids, she says, and it has always come into conflict with other priorities. What's changed is that more people are deciding not to have children at all.

"If it were socially acceptable for people in the past to remain childless, I wonder how many of them would have made the same decision," Kearney says.

'My autonomy'

Beth Davis loves her niece and nephew. But she isn't envious of how much time and money her siblings spend bouncing between volleyball tournaments, baseball games and trips to the mall to replace outgrown clothes.

Davis and Edenfield enjoy their life in New Orleans.

Davis, who works in marketing, and her husband, Jacob Edenfield, 41, both say they always expected to hit a moment when they, too, wanted to become parents. When that still hadn't happened by the time they started dating in their mid-30s, they decided to start reorienting their lives.

"People told me when I was younger, 'Oh, you'll grow into it, you'll develop those feelings, you'll want to start a family,' and that just did not happen," says Edenfield, a creative director.

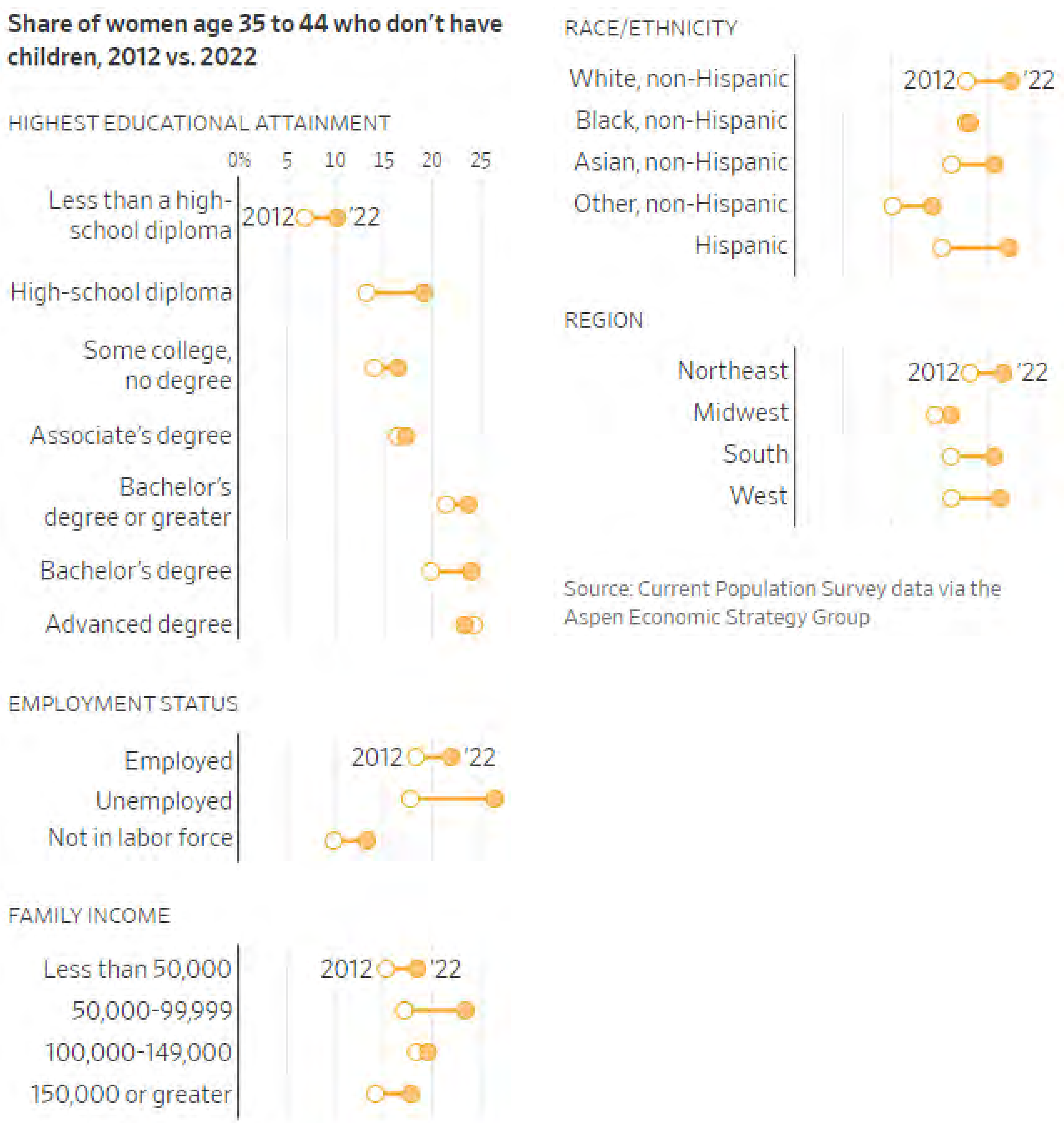
They moved to New Orleans a year ago in search of the city's joie de vivre – and other childless millennials.

With a combined income of $280,000, the couple is able to put about $4,500 a month toward what they hope will be a mid-50s retirement. Another $2,600 pays rent on a sprawling Creole townhouse. The remaining $8,000 or so – much of which they assume would have been eaten up by child-rearing – goes primarily toward enjoying their lives.

Edenfield takes a class at a holistic wellness center. He is also working on a novel.

The couple often dines at the city's upscale restaurants (including two recent $700+ dinners), regularly works out at a high-end wellness center and recently paid cash for a BMW. Edenfield meditates for an hour every morning and works on the novel he's writing at the local corner bar many nights. For companionship, the couple fosters a rotating cast of Bengal cats.

Edenfield's sibling, Caitlin Hopkins, was inspired in part by her brother and sister-in-law's lifestyle to also remain childless. While she and her husband, Will, love kids, they say they would rather focus on being the best possible aunt and uncle. "And then I get to still have my autonomy and routine," says Caitlin, a 35-year-old oyster farmer in Portland, Maine.



Changed expectations

The longer people wait to have kids, research shows, the less likely they are to have them.

One reason is biological: Women 35 and older are at increased risk of infertility and pregnancy complications. The other is social. People who already have fully formed adult lives are more reluctant to give up their freedom, says Brown University health economist Emily Oster. “All of a sudden you’ve chosen a different identity,” she says.

Trevor Galko and Keri Ann Meslar, 44 and 42, both grew up in the suburbs assuming kids were in their futures.

“I had never known someone that was 40 and married without kids, that would have been the weirdest thing I had ever heard,” says Galko, who works in software sales from Arlington, Va.

The couple, now engaged, dated for three years in their 20s before spending the next decade in other relationships, thinking kids would happen someday. But when they got back together in 2019, they decided they were too old and too set in their existing lives to start a family of their own.

While they both mourned that other possible path, they say they are content and have no regrets. Much of their disposable income now goes to travel, including recent trips to Greece, Spain and Guatemala in the span of three months.

For Meslar, who works in growth strategy for a CBD company, part of the justification for leaning into her kid-free reality was wanting to avoid making the same sacrifices she saw her parents make.

She says she can’t remember her mom or dad buying anything new for themselves while she was growing up so they could afford for her and her three siblings to join sports leagues and attend out-of-state colleges.

“I don’t think I could really live up to the example they set. Or I think I could, but I don’t think it would bring me the same joy,” she says.

MJ Petroni and Oleg Karpynets both went into their 20s wanting to be dads. Now in their late 30s, the couple no longer sees children in their future.

“It was almost shocking to me when I realized having a fulfilling life didn’t necessarily include my own kids,” says Petroni, 39, who runs an artificial-intelligence strategy firm from home in Portland, Ore. For 38-year-old Karpynets, who runs a neighborhood library, that has meant going back to school to get his business administration degree, hosting monthly parties sometimes with over 100 people and going out with friends whenever he wants.

An only child, Petroni says continuing the family name and giving his parents grandchildren was “always just kind of a given” during his suburban upbringing on the central coast of California. More recently, however, it’s his parents who have required care. He says he’s spent over $100,000 on their medical and living expenses, as well as travel to visit them, over the past three years.

MJ Petroni and his husband, Oleg Karpynets, in Portland, OR.

"I would like to be able to put more toward that than I'm currently able to," he says, adding it would be more difficult to do so if the couple decided to have kids.

The other side of that coin, points out Oster, the Brown University researcher, is how an increase in childlessness will play out as millennials age.

"A lot of our social structures kind of assume when people get old the person who is responsible for them is their children," Oster says.

Climate concerns

When Allie Mills and Connor Laubenthal get married next year, they'll be flanked on both sides of the altar by friends and family members who they say mostly intend to remain childless.

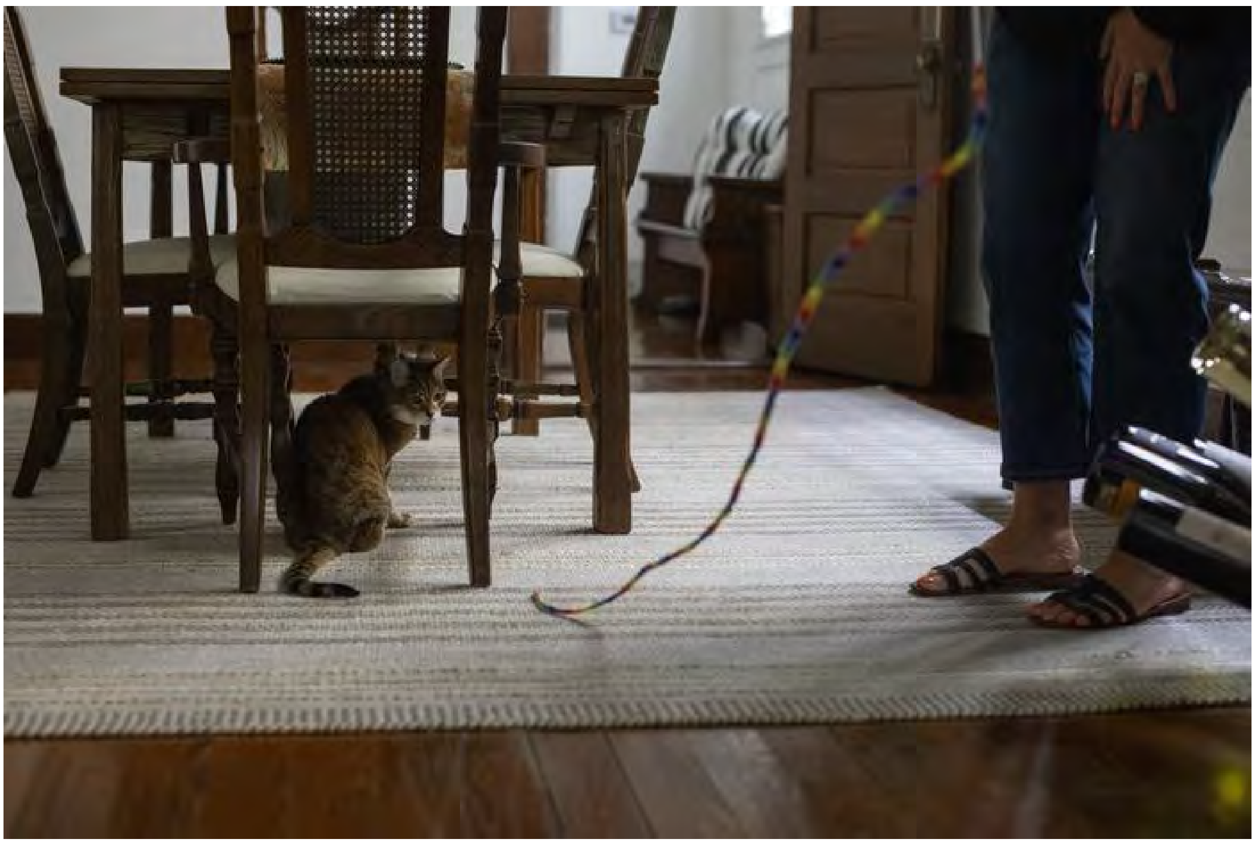
"With geopolitical issues, climate change, it's like what are you bringing them into and then dropping them off and saying, 'good luck!'" says Mills, who is 27 and works for a tech company. "There's no real confidence that things are going to get better."

Mills, who was raised in an evangelical Christian household, says her mindset is a radical departure from growing up wanting to be a mother and a homemaker. She struggles with anxiety, and worries how her own mental health would affect a child. And though her email signature proudly displays her status as “dog mom of two,” she says the only form of human parenthood she could picture at this point is fostering.

The couple’s other consideration is financial. Despite both having well-paying jobs, they say they haven’t been able to afford a house in Boston, where they live, amid low supply and high interest rates.

Laubenthal, a 27-year-old asset manager, calculated that they could retire at 55 with the same spending power if they don’t have kids. He then did the math to account for two children, factoring in costs of daycare, college, clothing and other essentials. That pushed their retirement back by 13 years, to age 68.

“That’s a big gap,” he says. His conclusion: Retire early and skip kids.



Davis and Edenfield foster cats in their spare time,
which Davis says would be more difficult if they had kids.

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Wildfires Pollute the Air, Threaten Visibility in West

by Ginger Adams Otis – WSJ – Jul. 29, 2024
Ken Thomas contributed to this article

Smoke from multiple wildfires ripping through the **U.S. and Canada** has created **air quality issues** in parts of the West, with officials warning of **reduced visibility** in some places.

The air quality was especially bad in proximity to some of the biggest fires in northern California and **Oregon**. But the impacts from smoke and particulate matter may be felt across the northern U.S. Plains and Midwest in coming days, according to the National Weather Service.

A series of blazes last summer in Canada created a dense and dangerous haze that altered air travel and disrupted daily life for millions of people. The current situation is similar but unlikely to reach the same intensity, weather service meteorologist Andrew Orrison said Sunday.

The **worst effects** are **currently over southern Oregon**, where the **air** is "**very unhealthy**," he said. There is also a substantial amount of smoke over places such as Montana and Idaho, he said.

"It's **not good** to **be outside in southern Oregon** in that smoke. People should not be breathing that kind of air," he said.

In places such as Las Vegas, people can feel the effects of smaller fires burning in Southern California, he said. Smoke conditions may worsen in Nevada over the next few days.

"It's the combination of all the fires, collectively," he said. "We'll see a continuation of smoke across the northern U.S. Plains and into the Midwest, and it may get a little bit worse in the latter part of the week."

Thousands of firefighters have been battling more than 100 wildfires across the Pacific Northwest and Canada in recent days, including the Park Fire in Northern California that has torn through 350,000 acres, an area roughly the size of Los Angeles.

Roughly two million acres have been damaged by fires in total to date, according to the National Interagency Fire Center.

The Park Fire erupted Wednesday and spread rapidly. As of Sunday, it was 12% contained, according to the California Department of Forestry and Fire Protection, known as Cal Fire. It is already the seventh-largest wildfire in California history, Cal Fire said. The largest to date was 2020's August Complex Fire that burned over a million acres, the agency said.

Arson caused the Park Fire, Cal Fire said. A man suspected of pushing a burning car into a gully and sparking the blaze was arrested by California authorities last week.

The White House said Sunday that President Biden had been briefed on the Park Fire. The White House said in addition to the federal assets that had already been deployed, Biden "directed his team to do everything possible to support ongoing fire suppression efforts."

The Park Fire burned Sunday along Highway 32 near Forest Ranch, Calif. The blaze was caused by arson, Cal Fire said.

Firefighters are unlikely to get any help from the weather this week, Orrison said. Temperatures in the West had cooled over the weekend, but it won't last, according to the forecast.

"Temperatures will warm up in the interior of the West but also in the central U.S. and central Plains," he said. "It's going to get quite hot out there—we expect some record highs to be set."

The **rise in temperatures** will also bring a **drop in humidity** by midweek, exactly what you "don't want to see when fighting fires," he said.

Arizona and New Mexico are other parts of the country expected to get rain this week, but there is no precipitation forecast for the western U.S. over the next five to seven days, according to Orrison.

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Algonquin Power to Sell Renewables Business to LS Power for $2.5B

by Selene Balasta and Allison Good,
Standard and Poor's Global Market Intelligence – Aug. 12, 2024

Algonquin Power & Utilities Corp. struck a deal **to divest** its **renewable energy business**, **excluding hydroelectric**, **to** a **subsidiary** of **LS Power** Development LLC **for $2.5 billion**, the companies said Aug. 9.

The business largely comprises **wind and solar assets**, including 44 operating assets with more than 3 GW of capacity and an 8-GW pipeline of wind, solar**, battery energy storage and renewable natural gas projects** in various stages of development, LS Power said in a news release. Approximately **2.7 GW** of the **assets** are **in** the **US**, with the **remaining 300 MW in Canada**.

"This represents a significant strategic investment in and expansion of LS Power's renewable energy portfolio," LS Power CEO Paul Segal said. "This business complements our existing fleet of more than 19,000 MW of top-performing renewable, energy storage, flexible gas and renewable fuels projects."

The transaction "is the result of a highly competitive strategic sale process," Algonquin CEO Chris Huskilson said in an Aug. 9 deal announcement.

In **August 2023, Algonquin** announced a decision to offload its renewable energy business following a **strategic review** that was launched **after** the **company terminated** a **deal to acquire A**merican **E**lectric **P**ower Co. Inc.**'s Kentucky utility assets**.

Hedge funds Ancora Holdings Group LLC and Starboard Value LP had called on Algonquin to execute asset sales, with Starboard specifying the unregulated renewables business, to reverse a then-plummeting stock price.

"This major milestone, coupled with our previously announced agreement to support the sale of our [Atlantica Sustainable Infrastructure PLC] shares, delivers on our plan to transform Algonquin into a pure-play regulated utility, optimize our regulated business activities, strengthen our balance sheet and enhance our quality of earnings," Huskilson said.

"Proceeds from the renewable sale plus our Atlantica shares will leave us with a very strong balance sheet," Algonquin CFO Darren Myers said Aug. 9 in a second-quarter earnings conference call.

"We are looking at spending capital at a level just above requisite maintenance, safety and environmental requirements in order for the company to digest the impacts of investments already made on behalf of our customers," Myers said. "Once we improve our returns to a more appropriate level, we will have the opportunity to increase our capital spending in a disciplined way."

The latest transaction excludes debt and consists of $2.28 billion of cash at closing and up to $220 million of cash pursuant to an earnout agreement relating to certain wind assets. The company expects to receive estimated cash proceeds of $1.6 billion, excluding the earnout, after repaying construction financing, and net of taxes, transaction fees and other closing adjustments.

Algonquin's board of directors has already approved the sale.

The deal is subject to customary closing conditions and is expected to close in the fourth quarter of 2024 or the first quarter of 2025.

JP Morgan is **exclusive financial adviser to Algonquin** on the transaction. **Milbank** LLP is **legal** adviser and **Scotiabank and BMO Capital Markets** Corp. are **financial advisers to LS Power**.

Q2 results

Algonquin shares, however, were **down** more than **11% in heavy trading** at about 3 p.m. ET on **Aug. 9 after** the **company also cut** its **third-quarter 2024 dividend by 40% to 6.5 cents.**

"We're not chasing a high payout ratio and excessive equity raises," Huskilson emphasized during the call. "We're reducing our capital spend and dividend to position the company for greater long-term value creation."

Algonquin, which is **headquartered in** Oakville, **Ontario**, **but reports in US dollars**, reported second-quarter adjusted net earnings of 9 cents per share, up from 8 cents per share in the same period in 2023. The results beat the S&P Capital IQ consensus estimate of 8 cents per share.

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Baby Bonus, Tax Credits Pitched to Aid Families

by Dalvin Brown – WSJ – Aug. 27, 2024

Vice President, Kamala Harris – presidential candidate
proposes one-time payment in addition to expanding the child tax credit.

The first year of a baby's life is costly and stressful for new parents, who often lose income as well as sleep as the bills mount.

Vice President Kamala Harris proposes giving families of newborns a $6,000 bonus in the form of a tax credit to support their finances and well-being – an approach used in a handful of other countries.

"That is a vital, vital year of critical development of a child, and the cost can really add up, especially for young parents who need to buy diapers and clothes and a car seat and so much else," Harris said during a campaign speech in Raleigh, N.C., on Aug. 16.

In addition to the bonus, Harris proposes reinstating the pandemic-era expansion of the child tax credit, which provided up to $3,600 per child.

Having a baby in the U**.S. causes a 10.4% income drop on average from** the **month** the **baby is born compared with before the pregnancy**, **as parents work fewer hours or stop working**, according to the Urban Institute. The **U.S. doesn't mandate paid parental leave**, as many countries do.

Left: Shybril McCullum, with husband Gary and their three children, says Vice President Kamala Harris's tax-credit proposal would have been of help to her family.

Meanwhile, families have **new expenses**: **diapers**, **food**, **medical bills**. The cost of **daycare** and **preschool rose** at nearly **twice** the **rate** of **inflation between 1991 and this spring**, according to a KPMG analysis. Infant care can top $1,400 a month in big cities, according to a Labor Department report in 2023.

Shybril McCullum said the $6,000 credit would have been a lifeline after her third child was born in 2022. She took 12 weeks of unpaid leave because of health concerns, she said.

"To manage, we had to make trade-offs," the 33-year-old teacher said. "We canceled cable, dropped auto insurance and skipped family trips."

She had a car accident in May, and she and her husband can't afford to replace the totaled car, so they share one car. She said an increase in the child tax credit couldn't come soon enough. "We could use it now," she said.

Financial relief

The expanded child tax credit during the pandemic temporarily raised 2.9 million children out of poverty, according to the Census Bureau. The full amount of the credit, up to $3,600 per child, was available to single filers making up to $75,000 and married couples making up to $150,000.

Families spent the money on essentials such as groceries, housing and utilities. About a quarter of families with young children used the payments for child-care costs, according to the Census Bureau's Household Pulse Survey.

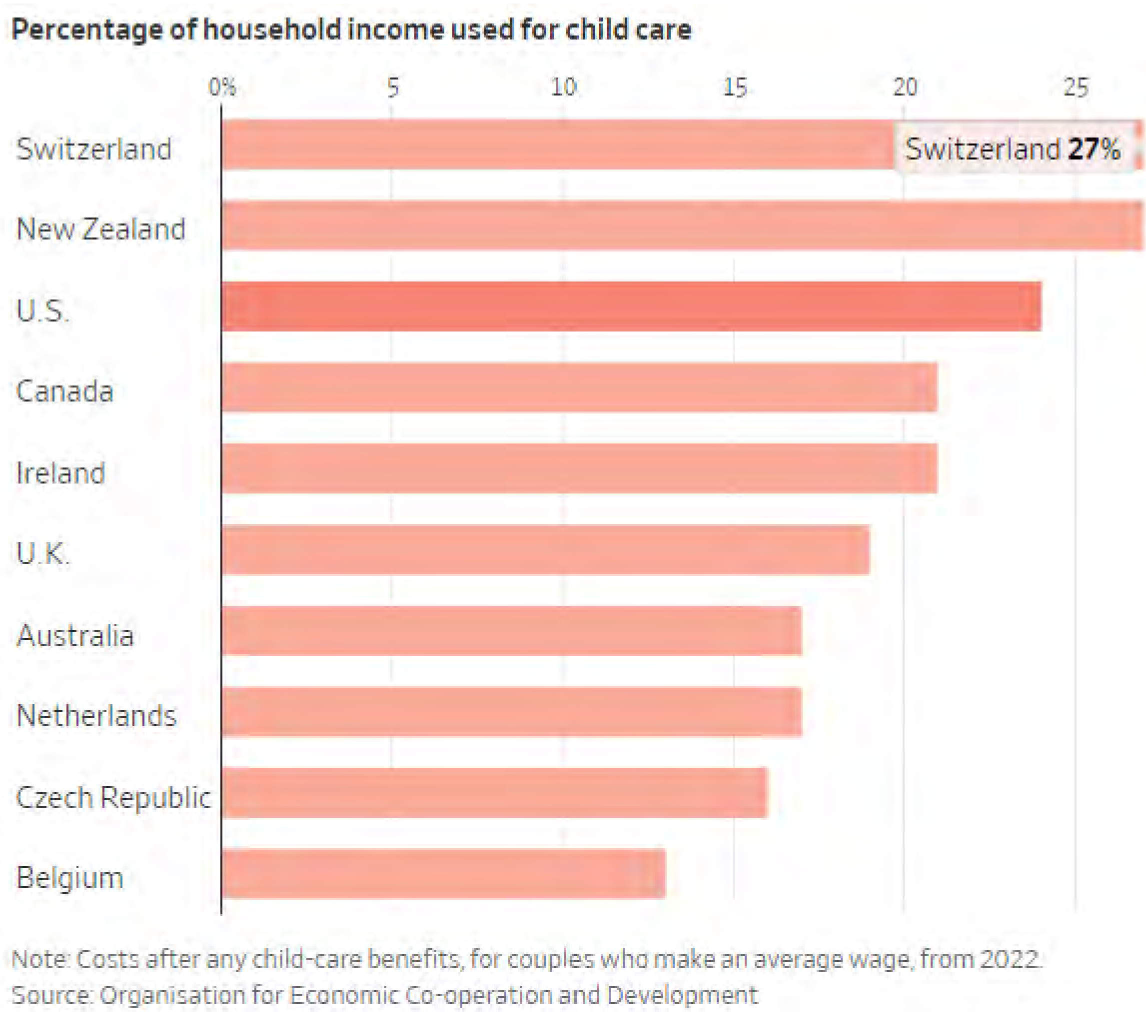
Under current law, most families can get a maximum child tax credit of $2,000 for each child under age 17. Families earning less than $2,500 don't qualify.

While specifics of Harris's proposal remain unclear, preliminary estimates suggest the combined cost of the newborn bonus and expanded child tax credit could cost $1.6 trillion over the next decade, according to the Tax Foundation, a conservative-leaning think tank.

Some Republican lawmakers also support expanding tax credits for children, a rare moment of common ground in Washington.

Sen. JD Vance, former President Donald Trump's running mate, backs a $5,000 yearly child tax credit. Trump has said he agrees with the idea of a credit, without specifying an amount. The campaign didn't respond to requests for comment on Harris's proposals.

Tax credits would require congressional approval, which is no sure thing. Republican opposition in the Senate in August killed a nearly $80 billion tax bill that would have expanded the child credit. They said the credit was too generous and would discourage people from working.



Bonus boom

Harris's baby bonus idea has been used elsewhere as a way to provide financial support and in some cases encourage people to have children at a **time of falling birthrates**.

When a baby bonus of up to 3,000 Australian dollars went into effect in Australia in July 2004, researchers estimated that more than 1,000 birth dates were changed, with parents delaying inducing and caesarean-section dates, sometimes for more than a week, so their children would be eligible for the policy.

"On July 1, 2004, more Australian children were born than on any other single date in the past 30 years," wrote Joshua Gans and Andrew Leigh, then professors in Australia, in a 2009 economics paper.

In 2014, Australia replaced the one-time bonus with monthly support.

Research suggests that a child's first year is a critical window for brain development. A study published in 2022 on the effects of cash support on low-income families found that when parents received $333 a month, the babies' brains showed brain activity that is associated with higher cognitive development.

Studies have also shown that boosting financial assistance for families can reduce child poverty, cut gender pay inequity and lower infant mortality rates.

"Kids learn the most they'll ever learn in their lives in those first few years," said Anne Hedgepeth, chief of policy at research agency Child Care Aware of America. "It pays off in the long run."

–

The American Dream Feels Out of Reach for Most

by Rachel Wolfe – WSJ – Aug. 28, 2024

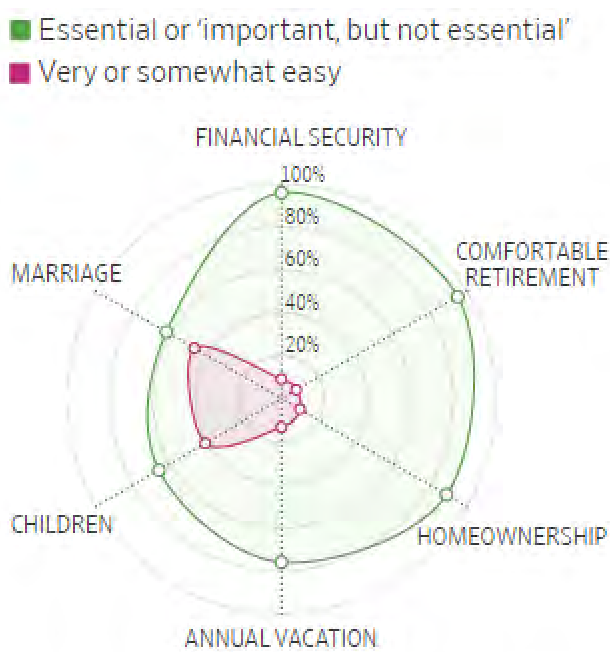
A Wall Street Journal poll shows people want a home, a family and a comfortable retirement, but say those goals are tough to achieve even with hard work.

Americans overwhelmingly desire all the traditional trappings of the American dream – owning a home, having a family, and looking forward to a comfortable retirement. But very few believe they can easily achieve it.

A July Wall Street Journal/NORC poll of 1,502 U.S. adults shows a stark gap between people's wishes and their expectations. The trend was consistent across gender and party lines, but held more true for **younger generations**, who have been **priced out of homeownership** and **saddled with high interest rates** and **student debt**.

While 89% of respondents said owning a home is either essential or important to their vision of the future, only 10% said homeownership is easy or somewhat easy to achieve. Financial security and a comfortable retirement were similarly labeled as essential or important by 96% and 95% of people, respectively, but rated as easy or somewhat easy to pull off by only 9% and 8%.

Twelve years ago, **when** researchers at Public Religion Research Institute **asked** 2,501 people **if** the **American dream** "**still holds true**," **more than half said it did**. When The Wall Street Journal asked the same question in **July**, that **dropped to** about a **third of respondents**.



Source: Wall Street Journal/NORC survey of 1,502 adults, conducted June 26–July 8, 2024; margin of error +/- 3.3 pct. pts.
Ming Li/WSJ

By many measures, economists say, people are right to feel that their shot at success has diminished.

"Key aspects of the American dream seem out of reach in a way that they were not in past generations," says Emerson Sprick, an economist at Washington, D.C., think tank the Bipartisan Policy Center.

Sprick points to the continued decline of **private-sector pensions** – leading to their **near-disappearance** – and the surge in the cost of homeownership as two of the biggest economic changes over the past decade.

Marquell Washington remembers that his elementary-school teachers instilled in him that high grades and a college degree would be his ticket out of the Chicago neighborhood where he grew up "hearing gunshots every day."

The promise, the now 22-year-old says, was that “you’d get a good job and enjoy the rest of your life in a house with a front gate.” He was the first person in his family to go to college, but dropped out during his junior year after three of his close friends were killed within months of one another.

He now makes around $30,000 a year working part time for youth development nonprofit My Block, My Hood, My City. He says he can’t afford to move out of his mother’s Section 8 apartment where he grew up, let alone to resolve the $10,000 debt he needs to transfer his transcripts to a school closer to home. He hasn’t given up on his American dream, he says, but he’s finding it much less straightforward than he thought.

“They don’t tell you how hard it is to obtain the American dream,” says Washington. “You have to learn that on your own.”

Economic mobility has declined in recent decades on the whole, economists say.

Left: Diane Thompson looking at coupons she collects to help save money on groceries and household items at the home she shares with her two daughters, son-in-law and grandchildren.

While around **90% of children born in 1940 were ultimately better off than their parents**, according to research by Massachusetts Institute of Technology economics professor Nathaniel Hendren and Harvard University economist Raj Chetty, **only** around **half** of **those born in the 1980s** were **able to say the same**. cohorts appear to be in a similar position based on median income growth, Hendren says, but likely experienced a slight post-Covid boost as wages for lower-income Americans have outpaced other earners. “It’s still a coin flip whether or not you’ll earn more than your parents, but mobility probably hit a record low in the early 2020s,” Hendren says.

Chetty looks at the American dream through the lens of how difficult it is for someone starting in a poor family to reach the middle class. For white Americans in particular, that goal has become significantly more challenging over the past 15 years, he says.

“People are right to feel that the American dream has become harder to achieve both in terms of their chances of doing better than their parents and their chances of rising out of poverty,” Chetty says.

A home of one’s own

Richard Thomas and Cherish Celetti were sure they had pulled off their own version of the American dream when they bought a five-bedroom split-level in Mount Vernon, N.Y., for $612,000 in 2017.

"It was like everything was going in the right direction," says Celetti, a 42-year-old lawyer who grew up poor among nine siblings.

Richard Thomas has had to contend with rising costs that could make it hard for him to hold on to his home.

Buying her first house not only meant the couple's children, now 8 and 11, could have their own bedrooms – a luxury both Thomas and Celetti used to pine for – but also that they had space to take in Celetti's mom, Diane Thompson, and 20-year-old sister.

The couple's $5,400 mortgage, including $689 in private mortgage insurance, was tight but doable, between Celetti's salary and her husband's as mayor of the town at the time. **But** seemingly overnight, their **energy costs doubled** to more than $2,000 a month, and grocery prices, insurance and other bills for the family of now six surged.

Both Thomas and Celetti lowered their retirement contributions to near zero, scrapped plans for vacations and started setting the thermostat above 80 degrees in the summer and below 65 in the winter. They know selling the house – which has more than doubled in value – would be their best bet, but don't know where they would go if they left.

"We want to stay in our community. We want to raise our kids here, but the dream of being able to do that really escapes us," says Thomas. "We had the American dream. N ow it's the American nightmare because it feels like the country made us a promise and then took it away."

Richard Thomas chats with mother-in-law Diane Thompson and son Harrison as they have dinner together at home.

Many are struggling to achieve their goals of homeownership at all. **Owning** a home was a **record 47% more expensive than renting** for the **12 months ending in June**, according to research by commercial real-estate services firm CBRE. That is **even after rents** have **skyrocketed** – though the firm forecasts improvement over the next year.

Left: Jessica Holland and Lily Roark feel priced out of a starter home where they live.

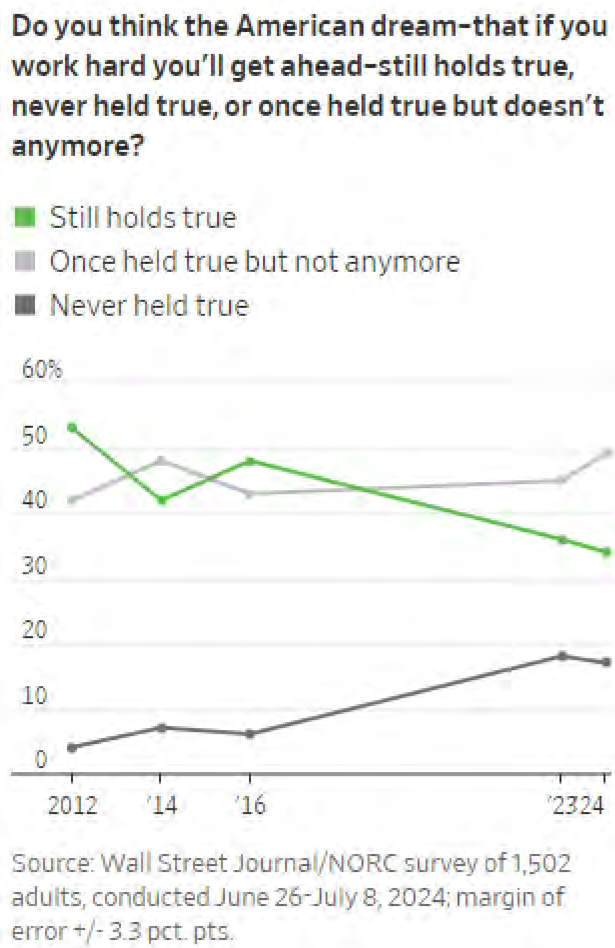
Lily Roark's father bought the eight-bedroom New Orleans fixer-upper she grew up in for $160,000 in the early 2000s. When she went to look for houses in Louisville, KY, with partner Jessica Holland this past spring, she was sure $250,000 would be a big enough budget for a starter with one or two bedrooms.

Instead, "we were looking at houses that had no walls and no floors," says Holland, a 28-year-old second grade teacher.

Since Roark and Holland still want to give priority to saving for a house, the couple feels as though they can't move forward with any of their other life goals getting engaged, having a wedding and planning for children.

They are both frustrated that homeownership and family formation seemed so much more attainable for their parents, who made less than their combined income of around $100,000 at their ages.

"We're doing everything right, we're saving, we went to good schools, I have a master's degree, and it's still so hard," Holland says.



The marriage question

In Des Plaines, Ill., 31-year-old Kevin Murphy believes that even finding a partner is more difficult than it used to be because of how expensive dating has become. He can't always afford to pick up the check, and worries that he is less desirable than someone who makes more than his $95,000 yearly income or owns a home.

In the WSJ/NORC poll, 62% of people said marriage was either essential or important to their vision of the American dream, but only 47% of people think it is easily attainable.

"For me, the American dream feels further away than it's ever been," says Murphy, who works in government affairs for an energy company. "I worry about when I'm 50 or 60 and if nothing changes, I'm going to be totally screwed."

He interacts with older Americans in that position every day in his side job as founder of the Jet City Coalition nonprofit, which provides free home maintenance to people in need.

"I take care of these people who trade insulin for groceries," says Murphy of choosing which essentials to go without. He says he's noticed a growing sense of hopelessness tied not only to high prices, but also to a seemingly more permanent state where "the math doesn't make sense."

Murphy is particularly worried about wealth inequality, which has increased over time, according to an analysis of Survey of Consumer Finances data by Scott Winship at right-leaning think tank the American Enterprise Institute.

In 1989, the typical net worth of the wealthiest 10% of households was just under 15 times the overall median net worth for all Americans, compared with almost 20 times that number in 2022. Though, Winship notes, median wealth is more than twice as high as it was in 1989 even after adjusting for inflation. The economy is working well for some people, including investors and many who bought homes when interest rates were low – creating a divide between higher-income Americans and most everyone else.

"It feels like my parents' generation has ruined it for us," Murphy says. "It's such a stark case of the haves and have-nots."

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Allete Shareholders Approve $6.2B Take-Private Offer

by Nephele Kirong,
Standard and Poor's Global Market Intelligence – Aug. 22, 2024

Allete Inc. **shareholders voted** to **approve** the **company's $6.2 billion sale to** the **Canada Pension Plan Investment Board and** Glo**bal Infrastructure Partners** during an **Aug. 21** special meeting.

CPP Investments and GIP agreed to take Allete private by acquiring all its **outstanding common shares** for $**67 per share** in **cash without interest**.

Based on the preliminary vote count, approximately **97%** of **votes cast** were **in favor** of the proposed transaction, **representing** about **74%** of all **outstanding shares**.

The **transaction remains subject** to certain **regulatory approvals**, including by the **Minnesota P**ublic **U**tilities **C**ommission, the **P**ublic **S**ervice **C**ommission of **Wisconsin** and the **F**ederal **E**nergy **R**egulatory **C**ommission, and other customary closing conditions.

Allete expects to **complete** the **transaction** in **mid-2025**.

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Maine Examiners' Report Recommends Avangrid Takeover be Exempt from Review

by Noah Schwartz,
Standard and Poor's Global Market Intelligence – Aug. 29, 2024

Maine Public **U**tilities **C**ommission **staff recommended** that **Iberdrola** SA's **proposed take-private transaction** of **Central Maine Power** Co. **and Maine Natural Gas** Corp. should **be exempted from further review**.

The exemption should be granted **because** the **commission previously allowed Iberdrola's indirect ownership** of Central Maine Power (CMP) and Maine Natural Gas **when** it **approved Iberdrola's 2008 acquisition** of **Avangrid predecessor Energy East** Corp., according to an Aug. 26 examiners' report.

"An exemption is warranted based on the commission's prior approval of the corporate structure that petitioners now seek to resurrect along with the plethora of conditions on that approval that remain in effect and continue to serve ratepayers' interests," the report said. CMP also argued that the transaction "will not have a direct financial impact or operational impact" on it or Maine Natural Gas.

Iberdrola in **May announced** a **$2.5 billion deal** to **acquire** the **remaining 18.4%** of **Avangrid** Inc. **at $35.75 per share**. **Avangrid is** the **parent company** of **Central Maine Power and Maine Natural Gas**.

The examiners' report sought to determine whether Iberdrola should be granted exemption from a **Maine law requiring** that the **P**ublic **U**tilities **C**ommission **approve** the **reorganization** of **any entity** that **directly or indirectly owns 10% or more** of the

voting securities of a **Maine public utility**. **If** the **transaction** was **not granted** an **exemption**, the **examiners' report would determine whether to recommend applying** a "**net benefits**" **or** "**no net harms**" **standard to** the **transaction**.

In **2019**, **Maine changed** the standard of approval for utility reorganization from "no net harms" **to** "**net benefits**," **under which** the **PUC must address whether** the **reorganization will lead to rate increases or** a **loss of local utility control**.

The Maine Office of the Public Advocate (**OPA**) **argued against exempting** CMP from further review, saying that exemptions should be limited to transactions involving "distant affiliates" with no impact on Maine ratepayers.

"Applying these principles, the OPA suggests that an exemption is not appropriate here because the transaction involves the reorganization of a direct parent – not a distant company – and the question of whether there is a potential harm to ratepayers is a fact question that can only be resolved after weighing the evidence. Thus, the OPA requests the commission deny the exemption so it may develop a record to gain clarity about how the transaction will impact ratepayers," the report said.

The OPA was joined in opposition to the exemption by the Natural Resources Council of Maine and Our Power, an advocacy group that pushes for local control of Maine's utilities. The parties have until Sept. 3 to file exceptions to the report.

The **deal** is **also subject to review** by the **New York P**ublic **S**ervice **Commission and** the **F**ederal **E**nergy **R**egulatory **C**ommission.

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Oregon's Timber Sector Is Cutting Jobs

by Mike Rogoway – Oregonian – Sep. 1, 2024

https://www.oregonlive.com/business/2024/09/oregons-timber-sector-is-cutting-jobs-here-is-where-the-industry-matters-most.html#:~:text=Oregon%20mills%20have%20announced%20nearly,from%20Banks%20to%20John%20Day.

Oregon mills have announced nearly **500 layoffs** over the **past year**, cutting jobs in response to poor log supply, weak demand and difficulty finding qualified workers.

The job cuts have hammered cities from Banks to John Day. **Oregon's mills** are **concentrated** in its **small towns and rural counties**, **places where even** a **relatively modest layoff** can have a **mammoth impact on** the **local economy**.

“It’s still a huge, important economic pillar for a lot of our communities even if at a statewide level it’s relatively small,” **interim state economist Josh Lehner** told Oregon lawmakers at a hearing last week in Salem.

The state’s logging and mill jobs pay an **average wage** of a little more than **$65,000 annually**, according to the Oregon Employment Department. **In** the **counties with** the **densest concentration of timber jobs**, the Oregon Office of Economic Analysis said timber wages are **17% higher than** the **average across all industries**.

The recent string of layoffs began last fall when Hampton Lumber laid off 58 at a sawmill in Banks. More cuts followed in Springfield, Philomath, Riddle, Toledo, John Day and at the Willamette Falls paper mill in West Linn.

Most of the layoffs came at independent firms with limited access to logs or other raw materials. They’re also facing a difficult market, with high interest rates dampening construction activity.

The state’s quarterly economic forecast, issued this past week, digs into the timber industry’s impact across Oregon.

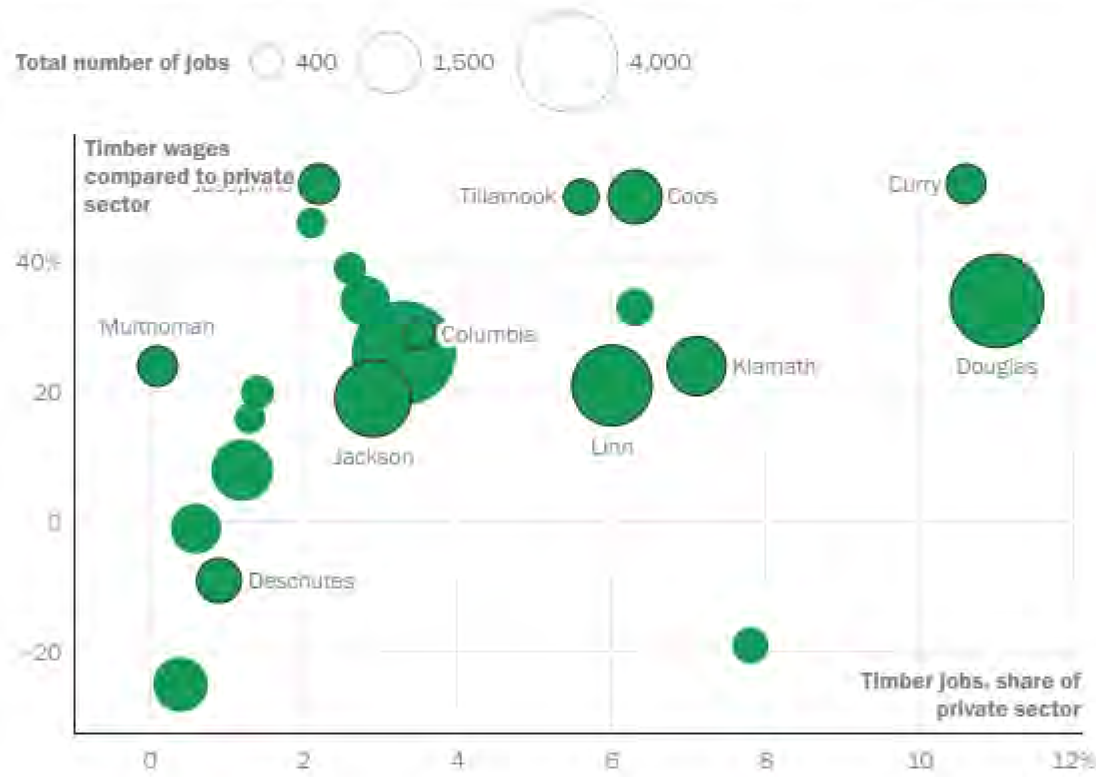
Lane County has the most timber jobs, a little more than 4,300. The county’s timber wages are 26% higher than the county’s average wage. The timber industry employs 3,500 in Douglas County, accounting for more than 1 in 10 private sector jobs there.

A handful of wood products companies are expanding, aiming to ride out the weak market and position themselves for a revival.

Roseburg Forest Products announced last year it would spend $700 million to build a fiberboard panel factory and wood trim plant in Douglas County and upgrade existing plants. And economic boosters have put great hope in mass timber, using a novel technology that uses wood to replace steel and concrete in construction.

Where Oregon timber has the greatest impact

Counties in the upper right-hand corner are where timber has the biggest impact, where the industry pays relatively high wages and employs a high share of all local jobs. Those with the largest bubbles have the greatest number of timber jobs.



Only includes counties with at least 300 timber jobs.

Source: Oregon Office of Economic Analysis, Oregon Employment Department, U.S. Bureau of Labor Statistics • Get the data

OREGONLIVE The Oregonian

Still, **Oregon has lost 40%** of its **forestry jobs since 2001**, according to state figures, and a **third of its mill jobs**. Tourism has helped backfill some of that decline in rural communities, but Lehner said those travel industry jobs don't fully compensate for what's lost when the timber jobs go away.

"It's an important (economic) driver," Lehner said, "and it still pays higher wages compared to the other local opportunities.

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Intel Stock Jumps on Bloomberg Report
It Might Break Up the Company or Cancel New Factories

by Mike Rogoway – Oregonian – Sep. 1, 2024

One option reportedly under consideration would sell off Intel's manufacturing arm.

Intel shares climbed 9.5% Friday after Bloomberg reported that the company is talking with investment bankers about the **possibility** of **selling** off **its factories or shelving plans to build new ones**.

The report, citing sources familiar with Intel's plans, said the company's board will take up the subjects at a meeting next month. But Bloomberg said no major decisions are imminent and that it's more likely that Intel would slow its expansion plans rather than break up the business.

A **breakup would have** a **profound impact on Oregon**, where Intel's factories are one of the state's leading economic engines. The **chipmaker employs 23,000** in **Washington County**, more than any other business in the state.

When CEO Pat Gelsinger joined Intel in 2021, he committed tens of billions of dollars to advancing the company's technology and building advanced factories to manufacture leading-edge chips.

But as Intel's spending ramped up, its sales went in the opposite direction, falling from $79 billion in 2021 to $54 billion last year.

Intel responded this month by **announcing plans** to **cut 15,000 jobs by** the **middle** of **November** and **slash $10 billion from** its **2025 spending plans**. The company also suspended its shareholder dividend.

"It's been a difficult few weeks," Gelsinger told an investment conference Thursday, before Bloomberg's report.

Intel has always maintained that has a competitive advantage because, unlike other semiconductor companies, it designs and builds its own chips. Intel says that gives it an edge in controlling costs and in moving fast to deploy more advanced chip designs.

Four years ago, as **Intel's technology fell behind rivals**, the company came under growing pressure from investors to consider a breakup. But the company's board went the other way, hiring Gelsinger and committing to his plan to rebuild Intel's culture of innovation.

A breakup might be a difficult prospect for Intel because the two main parts of the company – its chip design business and its manufacturing arm – are each having their own problems and might not be any more attractive to investors as standalone businesses.

The design side doesn't have chips for training artificial intelligence, the hottest market in the semiconductor industry. And, as Gelsinger acknowledged Thursday, the production side has been surprisingly slow to attract contract manufacturing business from other chip companies.

Gelsinger said Thursday that Intel is slowing the pace of its spending because it doesn't expect a big rebound in its revenues anytime soon. That could suggest the company might scale back its construction plans.

Intel is building **new factories** in **Arizona** and **Ohio** and has set plans to add others in **Ireland**, **Germany** and **Israel**, and to build a **fourth phase** of its **D1X research factory** in **Oregon**.

Intel has already taken on outside investors to help fund the new plants in Ireland and Arizona and has **lined up billions of dollars** in **government subsidies** for the broader buildout. The **company could save billions if it scrapped some** of those **factories but would presumably forfeit** some of that **government money if it does so**.

Intel shares closed Friday at $22.04, up $1.91.

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

CURRENT REPORT

Date: September 4, 2024

Registrant's Tel#: (503) 464-8000

FORM 8-K

PORTLAND GENERAL ELECTRIC COMPANY

Common Stock, no par value **POR** New York Stock Exchange

Item 8.01 Other Events.

As previously disclosed, Portland General Electric Company (the "Company") was informed in 2021 that the Division of Enforcement of the U.S. Securities and Exchange Commission (the "**SEC**"), the Division of Enforcement of the Commodity Futures Trading Commission (the "CFTC"), and the Division of Enforcement of the Federal Energy Regulatory Commission (the "**FERC**") were conducting **investigations** arising out of the **energy trading losses** the Company previously **announced** in **August 2020**. The Company has been cooperating in these investigations.

The Company has entered into a **settlement agreement with** the **SEC** in connection with its investigation. In connection with that settlement, **on September 4, 2024**, the SEC entered an administrative cease-and-desist order for violations of Sections 13(b)(2)(A) and 13(b)(2)(B) of the Securities Exchange Act of 1934, as amended, and Rule 13a-15(a) thereunder. These violations relate to the sufficiency of the Company's internal accounting controls, books and records and disclosure controls and procedures regarding the accounting for derivatives and regulatory transactions. The settlement **does not include any monetary penalties**.

The SEC's administrative order recognized numerous remedial measures promptly undertaken by the Company and its cooperation during the investigation. Such remedial measures, which were adopted by the Company in 2020 based on the recommendations of an independent committee of the Company's Board of Directors, included enhancements to the oversight of energy trading and associated risk management reporting, policies and practices. Management cannot predict whether there will be any further developments related to the CFTC or FERC investigations.

SIGNATURE

Pursuant to requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed by:

Date: September 5, 2024, By: /s/ Joseph R. Trpik
Joseph R. Trpik, *Senior Vice President, Finance and Chief Financial Officer*

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Soft Hiring for Summer Sets Up Fed

by Nick Timiraos and David Uberti – WSJ – Sep. 7, 2024

U.S. job growth rebounded in August from levels that were softer than initially reported this summer, leaving the Federal Reserve on track to begin a series of rate cuts when officials meet later this month.

The **economy added 142,000 jobs**, according to the Labor Department, an **uptick from July** data that sparked slowdown fears and jarred global financial markets. The **unemployment** rate in **August ticked lower to 4.2%**.

In an additional sign that summertime hiring was weak, the **government revised down** its **estimates** for **June** and **July job growth** by a combined **86,000 jobs**.

The latest report was heavily anticipated on Wall Street because a weak reading could have pushed Fed officials to begin a likely series of rate reductions this month with a half--percentage- point cut rather than a more traditional quarter-point cut. The headline figures in August likely weren't weak enough to do that, but the negative revisions to reported job growth for June and July suggest the decision could still be a close call.

Traders chafed at the lack of direction, with the S&P 500 veering 1.7% lower Friday and notching its steepest weekly loss in 18 months. The **yield on 10-year Treasurys** slid to 3.71%, its lowest level since the middle of last year, while the global benchmark price of oil skidded to $71.06 a barrel, its cheapest price since 2021.

Friday was the last day **Fed officials** could speak publicly before their **next meeting** on **Sept. 17-18**. Central-bank officials have generally tried to set expectations about coming decisions so they can avoid taking investors by surprise. On Friday, they seemed to leave their options open.

Fed officials who spoke after the release of the report didn't explicitly state a preference for the size of the first reduction. They implied that the economy wasn't faltering in a manner that would demand a larger half-point reduction this month, but they didn't explicitly rule out a bigger cut.

"The data that we have received in the past three days indicates to me that the labor market is continuing to soften but not deteriorate, and this judgment is important to our upcoming decision," said Fed governor Christopher Waller.

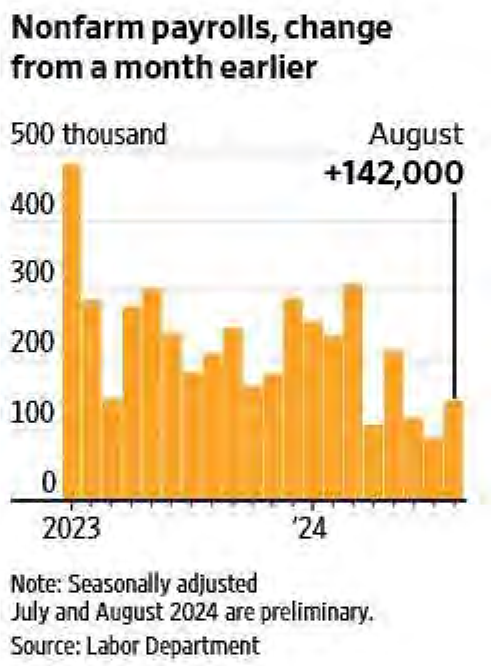
Waller added that a sequence of cuts was likely to be appropriate and that he would be open-minded about accelerating the pace of those cuts if new data suggested the labor market was deteriorating.

The Fed has tended to raise or lower rates in increments of a quarter percentage point, or 25 basis points. But officials hiked more to fight high inflation in 2022 and 2023, often in 50- or 75-basis-point increments. The increases pushed the benchmark rate from around zero to around 5.3%.

"I was a big advocate of front-loading rate hikes when inflation accelerated in 2022, and I will be an advocate of front-loading rate cuts if that is appropriate," Waller said.

New York Fed President John Williams, a top ally of Fed Chair Jerome Powell, told reporters he didn't have a view on the size of the coming cut.

Chicago Fed President Austan Goolsbee said that to achieve a fabled "soft landing" that brings inflation down without a recession, the Fed couldn't wait for signs of labor-market deterioration to accelerate rate cuts. "If you're going to have a soft landing, you can't be behind the curve," he said in an interview.



The market expects Fed officials to lower rates several times this year, at the meeting this month and then at the remaining meetings in November and December. But the size of the first cut will be closely watched for clues about the central bank's broader strategy.

Powell signaled in a speech last month he was poised to respond forcefully to any further slowdown in the labor market. Slow-walking rate cuts now "would risk market turmoil and an ill-timed tightening of financial conditions" that could threaten a "fragile equilibrium" in the labor market, said Krishna Guha, vice chairman at Evercore ISI.

One option would be to conclude that softer hiring since the Fed's last meeting, in late July, justifies a half-point cut. Fed officials held rates steady on July 31 but might have cut by a quarter point at that time if they had known about weak jobs numbers that were released two days later. That could make Fed officials more willing to cut by a half point this month.

A second option would be to **cut by a quarter point in September**, and then to signal several more cuts in quarterly economic projections that will be released at the meeting.

Because Friday's report was "broadly in line with what was expected," it should "build the **case for 25 basis points** at this meeting, with a **signal** that you're going to **continue at 25 basis points for the next couple of meetings as** a **baseline**," **said James Bullard**, **dean** of **Purdue University's business school**.

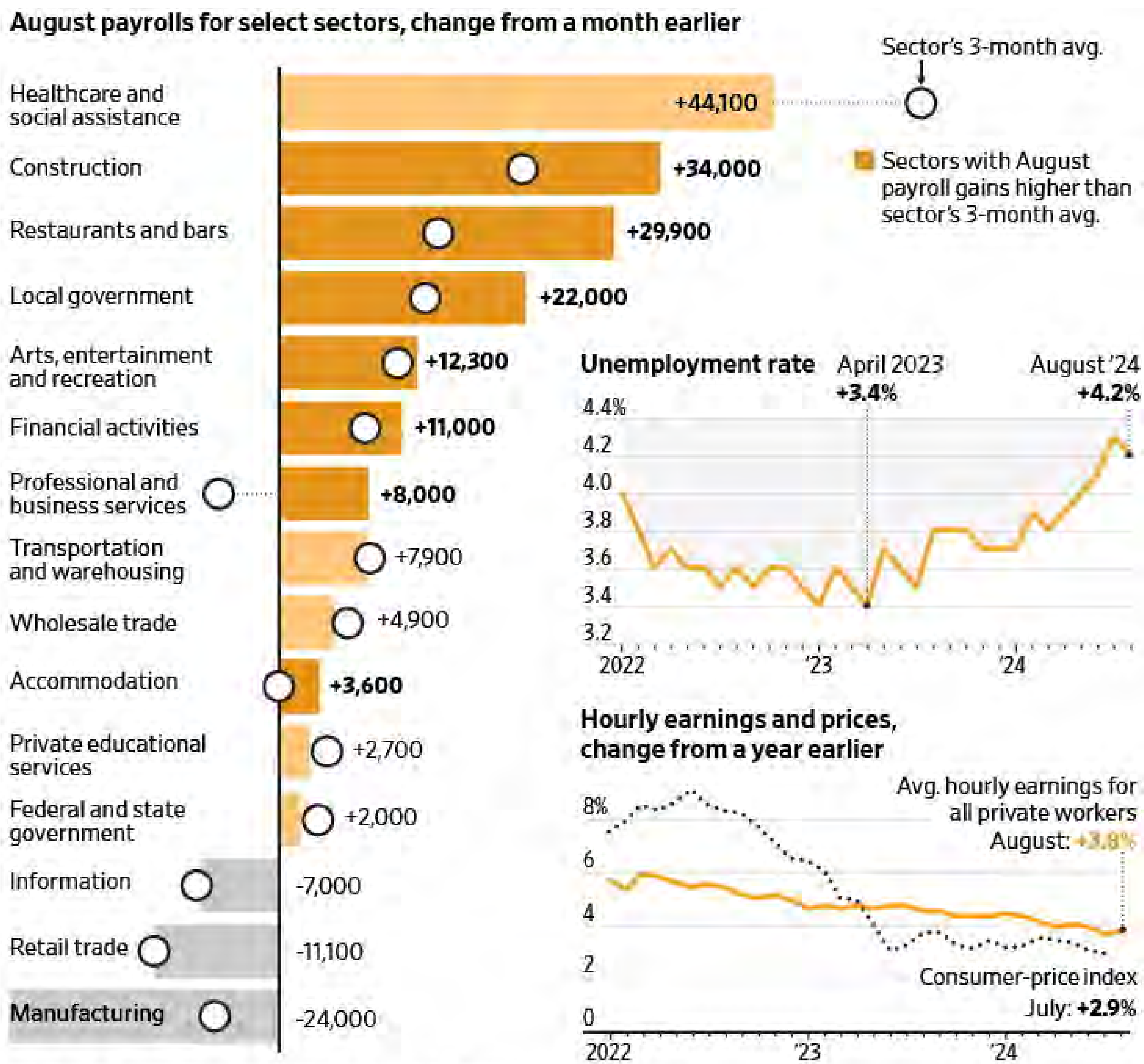
While the Fed might be "a little out of position now, I just don't think they're far enough out of position to say that they're going to go 50 basis points, which will set up an expectation that they would go very rapidly to neutral," said Bullard, who was St. Louis Fed president from 2008 to 2023.

More-gloomy analysts warn the job market is cooling in a fashion that will worsen if the central bank cuts too slowly.

“The bottom has not fallen out on the labor market at this point, but there are sufficient jitters for the Fed to take a hard look at a [half-point] cut later this month,” said Jason Pride, chief of investment strategy and research at wealth-management firm Glenmede.

Others think the economy is simply healing after the pandemic prompted firms to rapidly lay off and then rehire workers.

“We are in the no-recession camp,” said Alejandra Grindal, chief economist at Ned Davis Research. Slower hiring “could just be a sign of things returning to normal.”



Note: Payrolls, unemployment and earnings are seasonally adjusted.
Payrolls and earnings for July and August 2024 are preliminary.
Source: Labor Department

KURT WILBERDING/WSJ

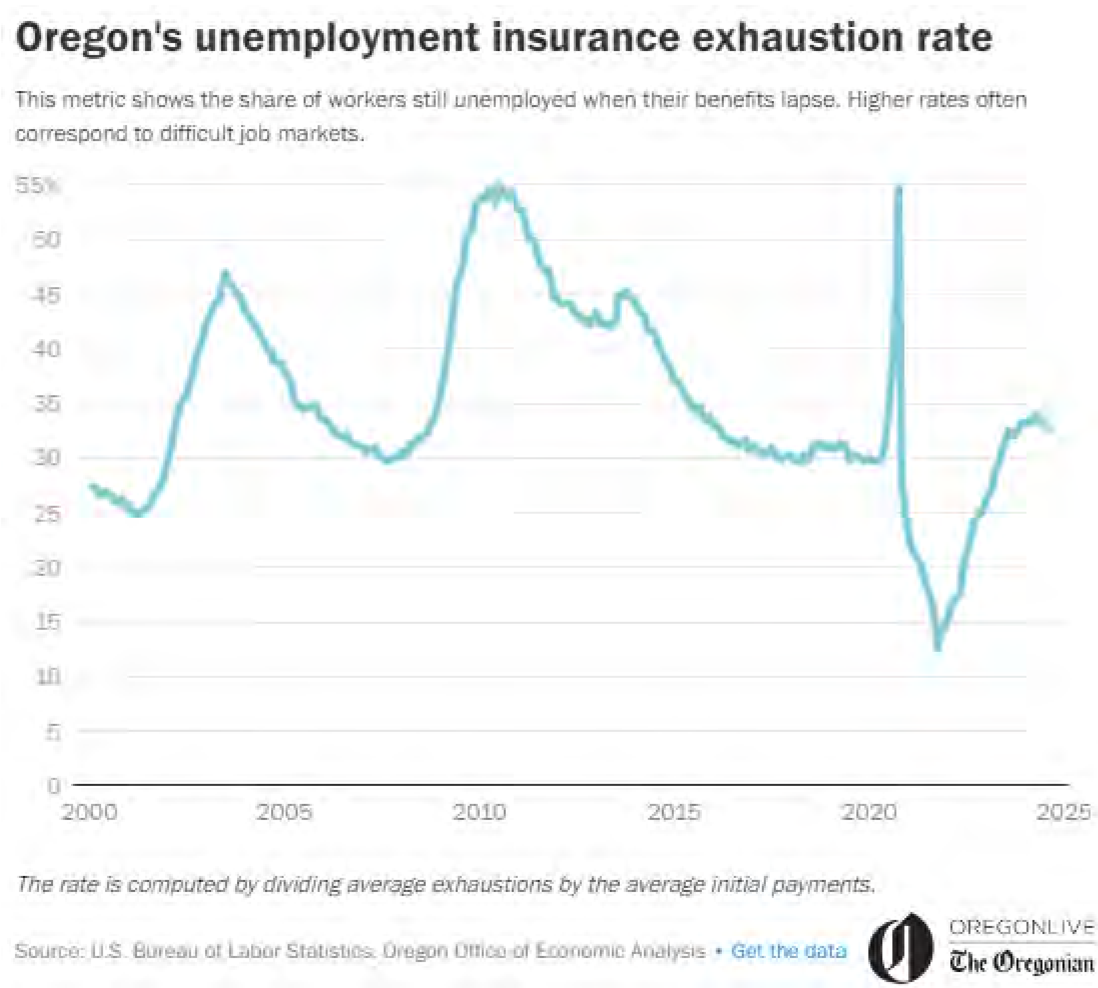
Oregon’s Job Market “Is Softer than It Appears

by Mike Rogoway – Oregonian – Sep. 8, 2024
https://www.oregonlive.com/business/2024/09/oregons-job-market-looks-solid-on-paper-but-economists-see-worrying-signs.html

Oregon’s unemployment rate remains low by historical standards and the state continues adding jobs – including 8,500 new jobs in July, according to the latest figures.

And yet **state economists** are more **downbeat about** the **job picture** than they have been in years.

“All told, the **labor market is softer than it appears**,” they wrote last month in their quarterly economic forecast. Underscoring the point, the federal government issued a national jobs report Friday that shows the rate of job growth continuing to slow – though not yet stalling.



Oregon hasn’t had many large layoffs since the pandemic, but the state economists note that **businesses** have **slowed hiring** and are **leaving positions unfilled when workers quit or retire**. That’s a big change from the years immediately after the pandemic recession, when Oregon had more open jobs than it had unemployed people.

The slowing pace of hiring is showing up in several ways. The **state's jobless rate** has crept up from 3.4% last year to **4.1% in July**, according to the most recent state data. That's still low by historical standards but translates into about **16,000 more unemployed Oregonians than in 2023**.

Fewer workers are quitting, too, presumably because they no longer see better alternatives if they leave their current jobs.

The number of **job openings** has **fallen by 17%** in the **past year** to fewer than 58,000, according to the Oregon Employment Department. The state's employers had 107,000 vacant jobs in 2021.

Perhaps most tellingly, the **rate** of **unemployed Oregonians who haven't found work by** the **time** their **26 weeks** of **jobless benefits run out** has **climbed above 30%** for the first time since the pandemic. It's a worrying signal, indicating that a considerable number of laid-off workers are struggling to find new jobs.

Pay also isn't rising at the same rapid clip of recent years.

"The softer labor market is also showing up in **slowing wage growth**, both per worker and in aggregate wages and salaries," according to state economists. **State economists forecast just** a **3.3% increase in nominal wages this year**, **down from 5.7% in 2023**.

Oregon's job market figures to get tougher in the weeks ahead, with **hundreds** of **layoffs** at **Nike** this year, a **succession of timber mill closures around Oregon** and the prospect of **thousands** of **job cuts this fall at Intel's sites** in **Washington County**.

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2811

EEI 2023 Financial Review
[July 18, 2024 Edition]

September 10, 2024

EEI
Edison Electric
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2023 Financial Review

Annual Report of the U.S. Investor-Owned Electric Utility Industry

Thank you to the following EEI Power Member for sponsoring the 2023 Financial Review.

Edison Electric INSTITUTE

2023 FINANCIAL REVIEW

ANNUAL REPORT OF THE U.S. INVESTOR-OWNED ELECTRIC UTILITY INDUSTRY

About EEI and the Financial Review

The Edison Electric Institute (EEI) is the association that represents all U.S. investor-owned electric companies. Our U.S. members provide electricity for 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the U.S. and contributes 5 percent to the nation's GDP. The 2023 Financial Review is a comprehensive source for critical financial data covering 39 investor-owned electric companies whose stocks are publicly traded on major U.S. stock exchanges. The report also includes data on five additional companies that provide regulated electric service in the United States but are not listed on U.S. stock exchanges because they are owned by holding companies not primarily engaged in the business of providing retail electric distribution services in the United States. These 44 companies are referred to throughout the publication as the U.S. Investor-Owned Electric Utilities. Please refer to page 78 for a list of these companies.

Contents

Highlights of 2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

FINANCIAL ($ Millions)	2023	2022r	% Change
Total Operating Revenues	$411,173	$412,757	(0.4%)
Utility Plant (Net)	$1,507,915	$1,407,967	7.1%
Total Capitalization	$1,455,785	$1,363,510	6.8%
Earnings Excluding Non-Recurring and Extraordinary Items	$61,265	$49,871	22.8%
Dividends Paid, Common Stock	$32,980	$31,016	6.3%

Note: r = revised. Percent changes may reflect rounding.

Abbreviations and Acronyms

AFUDC	Allowance for Funds Used During Construction
BTU	British Thermal Unit
CFTC	Commodity Futures Trading Commission
CPI	Consumer Price Index
DOE	Department of Energy
DOJ	Department of Justice
DPS	Dividends per share
EEI	Edison Electric Institute
EIA	Energy Information Administration
EITF	Emerging Issues Task Force
EPA	Environmental Protection Agency
EPS	Earnings per share
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
GDP	Gross Domestic Product
GW	Gigawatt
GWh	Gigawatt-hour
IPP	Independent Power Producer
IRS	Internal Revenue Service
ISO	Independent System Operator
ITC	Independent Transmission Company
kWh	Kilowatt-hour
M&A	Mergers & Acquisitions
MW	Megawatt
MWh	Megawatt-hour
NARUC	National Association of Regulatory Utility Commissioners
NERC	North American Electric Reliability Corporation
NOx	Nitrogen Oxide
NOAA	National Oceanic & Atmospheric Administration
NRC	Nuclear Regulatory Commission
O&M	Operations and Maintenance
PSC	Public Service Commission
PUC	Public Utility Commission
PUHCA	Public Utility Holding Company Act
PURPA	Public Utility Regulatory Policies Act
ROE	Return on Equity
RTO	Regional Transmission Organization
SEC	Securities and Exchange Commission
SO_2	Sulfur Dioxide
T&D	Transmission & Distribution

Company Categories

Two categories are used throughout this publication that group companies based on their percentage of total assets that are regulated. These categories are used to provide an informative framework for tracking financial trends:

Regulated: 80% or more of total assets are regulated.

Mostly Regulated: Less than 80% of total assets are regulated.

Note: In prior editions of the Financial Review, a "Diversified" category was included for companies with less than 50% of total assets that are regulated. Some tables with historical data therefore include a "Diversified" category.

President's Letter

2023 Financial Review

For more than 90 years, EEI has represented America's investor-owned electric companies, and we are proud of their steadfast commitment to delivering reliable, affordable, and resilient clean energy to the customers and communities they serve. Today, electricity demand is growing significantly across our nation's economy, and the work that our members do has perhaps never been more significant than it is today.

In January of this year, I was honored to assume the critical role of EEI president and CEO. My predecessor, Tom Kuhn, held this role with distinction for more than 30 years, establishing EEI as one of the most respected energy institutes in the world. I am committed to building on the successes of the past, while adding a new perspective and experience to critical policy debates that will shape the industry's future.

After years of flat demand growth, the Federal Energy Regulatory Commission recently revised its five-year growth projection up to 4.7 percent from 2.6 percent. Grid planners now are preparing for the challenge of meeting peak demand growth of up to 38 gigawatts by 2028. That is an enormous amount of electricity that is going to come on the energy grid in a relatively short amount of time. What we do in the next several years as an organization and as an industry will ultimately determine our country's path for decades to come.

Thanks largely to the leadership of our member companies, we can chart a course for an American energy future that is secure, resilient, and affordable, using cleaner sources of generation in the process. Carbon emissions from the U.S. electric power sector today are as low as they were nearly 50 years ago, while demand for electricity has doubled and continues to grow.

We lead the world in reducing carbon emissions and are enabling the clean energy transition: More than 40 percent of U.S. electricity generation now comes from clean, carbon-free sources. And, since 2005, our sector's carbon emissions are down more than 41 percent.

It's more important than ever that we are able to use all the tools in the energy toolbox to meet demand growth and customer needs, preserving both our nuclear fleet and our ability to utilize natural gas as a partner to integrate renewable energy resources reliably and affordably.

And, we must build new energy infrastructure of all kinds. EEI and our member companies remain focused on the implementation of the 2021 Bipartisan Infrastructure Law and the 2022 Inflation Reduction Act—which included nearly $272 billion in clean energy tax credits. Together with the siting and permitting provisions included in the 2023 Fiscal Responsibility Act, this legislation is spurring critical infrastructure investments and technological innovation.

As an industry, we face a growing number of threats, and we continue to work across the sector and with our government and private-sector partners on several fronts, including to enhance our cyber and physical security posture and to strengthen our capabilities for managing weather and wildfire risks. Through our work with the CEO-led Task Force on Wildfires and the CEO-led Electricity Subsector Coordinating Council, industry leaders are partnering with the highest levels of government to enhance our industry's collective capability to mitigate and manage risk.

Over the past decade, EEI member companies have invested more than

"Energy security is at the core of everything we do as an industry. We cannot have a robust, prosperous economy without it. We must do all that we can to ensure that the electricity we provide is there when and where our customers need it—and that the infrastructure delivering electricity to homes and businesses across the country is modern, resilient, and secure.

$1 trillion to make the energy grid smarter, stronger, cleaner, more dynamic, and more secure. Last year alone, more than $170 billion was invested, with more than $30 billion of that in adaptation, hardening, and resilience projects to strengthen the nation's transmission and distribution infrastructure for all customers.

Energy security is at the core of everything we do as an industry. We cannot have a robust, prosperous economy without it. We must do all that we can to ensure that the electricity we provide is there when and where our customers need it—and that the infrastructure delivering electricity to homes and businesses across the country is modern, resilient, and secure.

EEI continues our advocacy for stable, constructive policies that support our member companies' infrastructure investments. Related to this, we are asking the U.S. Treasury Department to implement the Corporate Alternative Minimum Tax without unduly impacting electricity customers or undermining needed investment in grid infrastructure.

And, as you will see in the Financial Review, EEI's member companies have continued to build upon a strong financial foundation. In 2023, the industry's average credit rating at the parent company level remained at BBB+ for the tenth straight year, having increased from BBB in 2014. This improved credit quality continues to support the electric power industry as the most capital-intensive industry in the country. Total industry capital expenditures were $171.9 billion in 2023, a record high for the 12th consecutive year.

Our industry extended its long-term trend of widespread and consistent dividend increases last year, with 87 percent of EEI member companies increasing their dividend rate. That percentage aligns with 2022's performance and the 82 percent to 93 percent range seen from 2015 through 2021. As of December 31, 2023, 38 of the 39 companies in the EEI Index were paying a common stock dividend.

We find ourselves at a truly transformational moment in this industry, and I have no doubt that we are up to the challenges that lie before us.

It has never been more important for America to maintain its position of leadership as the world enters an increasingly electric and energy-intensive era. The U.S. economy, and, indeed, the global economy, are counting on our industry to meet rising demand. Customer expectations for a resilient clean energy future are higher than ever before.

We truly value the partnership that we share with the financial community and the role that you all play in helping us deliver the future of energy.

Dan Brouillette

President and CEO
Edison Electric Institute

Capital Markets

Stock Performance

Major market indices extended Q3's weakness into late October when the S&P 500's year-to-date gain had eroded to just 7%. But Federal Reserve Chairman Jerome Powell's comments at the Fed's November 1 policy meeting—the second-straight with no rate increase—hinted rate hikes were over. Markets surged in November and December. The S&P 500 gained 11.7% in Q4 to end 2023 with a 26.3% return. The Dow Jones Industrials jumped 13.1% to finish 2023 with a 16.2% return. The red-hot Nasdaq surged 13.4% in the year's last quarter to close the year up 43.3%.

Few market watchers expected anything like this when the year began; recession calls were then widespread while fears that "something will break" from the Fed's rate hikes also kept outlooks muted. The sole bullish theme through much of 2023 was investors' enthusiasm for the commercialization potential of artificial intelligence (AI). Market strength was focused in the so-called "Magnificent Seven" large-cap tech companies—Google, Amazon, Apple, Meta (Facebook), Microsoft, AI chip maker Nvidia and Tesla—along with others seen as agents or

2023 Index Comparison

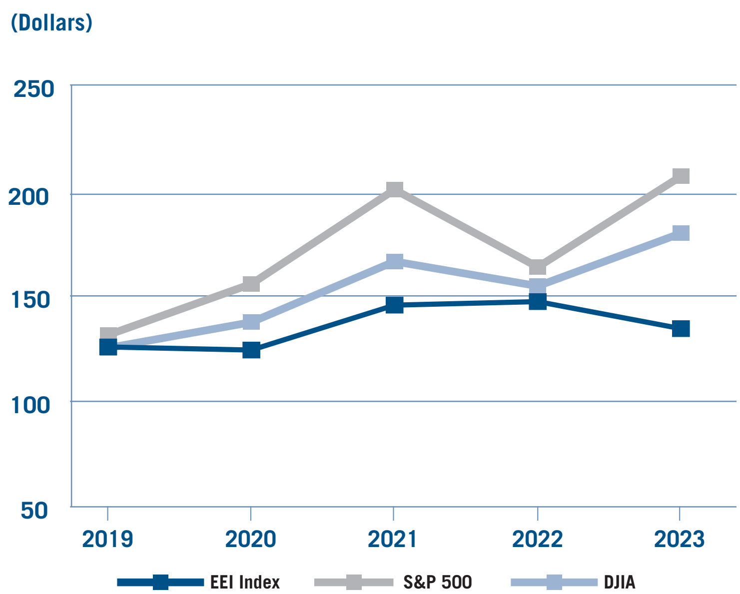
EEI Index	**(8.7)**
Dow Jones Industrial Average	16.2
S&P 500	26.3
Nasdaq Composite*	43.3

* Price gain/(loss) only. Other indices show total return.

Source: EEI Finance Department and S&P Global Market Intelligence.

Comparison of the EEI Index, S&P 500, and DJIA Total Return

REFLECTS REINVESTED DIVIDENDS



All returns are annual.
Note: Assumes $100 invested at closing prices December 31, 2018.

Source: EEI Finance Department and S&P Global Market Intelligence.

EEI Index Top 10 Performers
Twelve-month period ending 12/31/2023

Company	Total Return %	Category
Otter Tail Corporation	48.0%	R
Edison International	17.4%	R
PG&E Corporation	10.9%	R
Unitil Corporation	5.7%	R
MGE Energy, Inc.	5.0%	R
Public Service Enterprise Group Inc.	3.6%	R
Southern Company	2.2%	R
NiSource Inc.	0.5%	R
Sempra Energy	0.0%	R
ALLETE, Inc.	-0.7%	MR

Note: Return figures include capital gains and dividends.
Source: EEI Finance Department.

Sector Total Shareholder Return 2023

Sector	Total Return %
Technology	65.1%
Consumer Services	34.1%
Industrials	19.8%
Financials	16.1%
Consumer Goods	13.9%
Basic Materials	11.0%
Telecommunications	3.5%
Healthcare	1.9%
Oil & Gas	-1.0%
Utilities	-7.2%
EEI Index	**-8.7%**

Source: EEI Finance Dept., Dow Jones & Company.

beneficiaries of AI-driven innovation. Absent those seven names, the S&P 500 would have been 3% lower for the year by late October. But November and December's market gains were broad-based.

The EEI Index returned 8.0% in Q4, lifted by a sudden fall in interest rates and roughly matching the broader Utilities' sector's 8.6% return. However, neither index could fight rising interest rates through most of 2023 or compete with the AI optimism of the "Magnificent Seven", and the EEI index finished the year down about 9%.

Economic Strength Thwarts Recession Fears

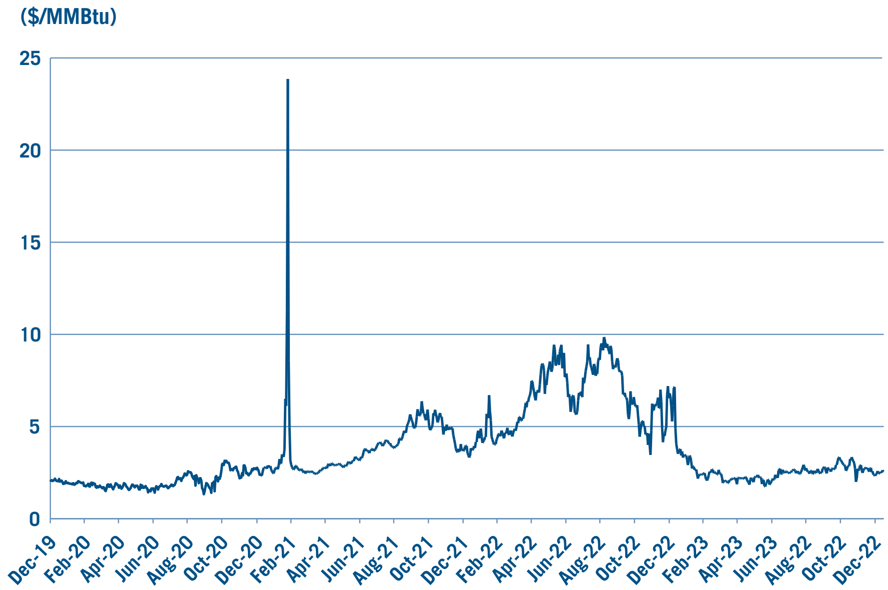
Recession fears that colored economic outlooks as the year began melted in the face of surprisingly strong data as 2023 evolved. Estimated Q1 real gross domestic product (GDP) rose from a first estimate of 1.1% to a final reading of 2.2%. Q2 produced 2.1% growth. But it was late October's Q3 GDP report at 4.9% that fueled the bullish spirits spurred by Fed Chairman Powell's perceived pivot.

Economic bears missed their 2023 recession call but took analytical solace in what proved to be an earnings recession. Corporate profits for all S&P 500 companies (according to data compiled by Zacks Investment Research) declined 2.3% year-to-year in Q1 and 6.7% in Q2, marking three quarters of negative comparisons (including Q4 2022's 5.5% decline). As Q4 ended, full-year 2023 earnings were pegged to be unchanged from 2022. Optimism returned to 2024 and 2025 with projected 10%+ growth. While individual companies and pockets of the market showed good earnings gains, the aggregate picture imbues 2023's market advance with a macro-driven and thematic quality that broad fundamentals don't quite substantiate.

Interest Rates Drop

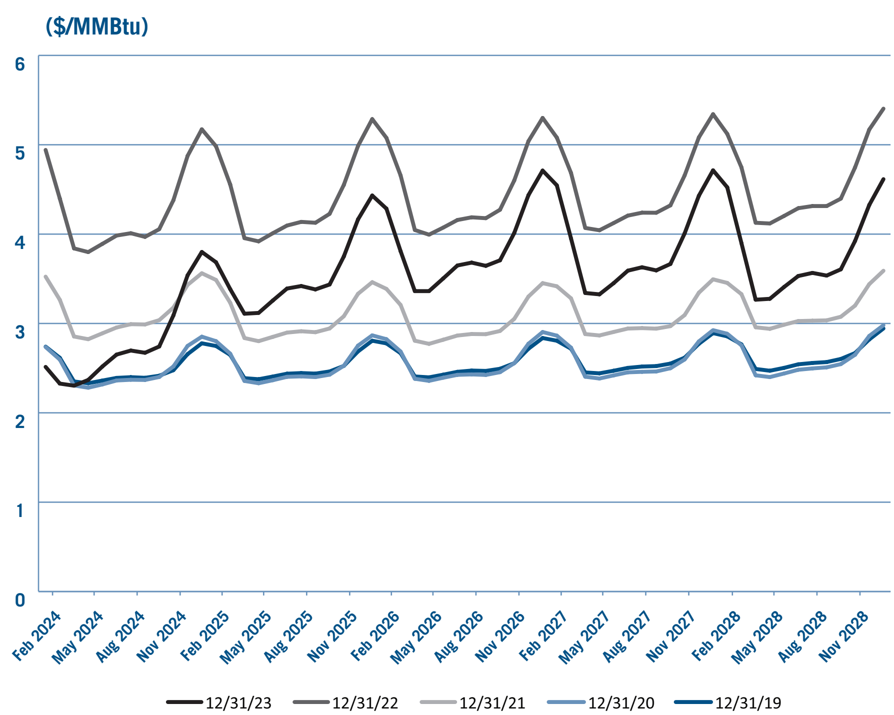
Utility shares have faced the headwind of rising interest rates since 2020, when the 10-year Treasury yield reached a record low 0.6%. Starting 2023 at 3.7%, the 10-year yield rose to nearly 5% by late October, causing much of utilities' 2023 negative return. In addition to Fed rate hikes, Wall Street pundits in

Natural Gas Spot Prices - Henry Hub
12/31/19 through 12/31/23



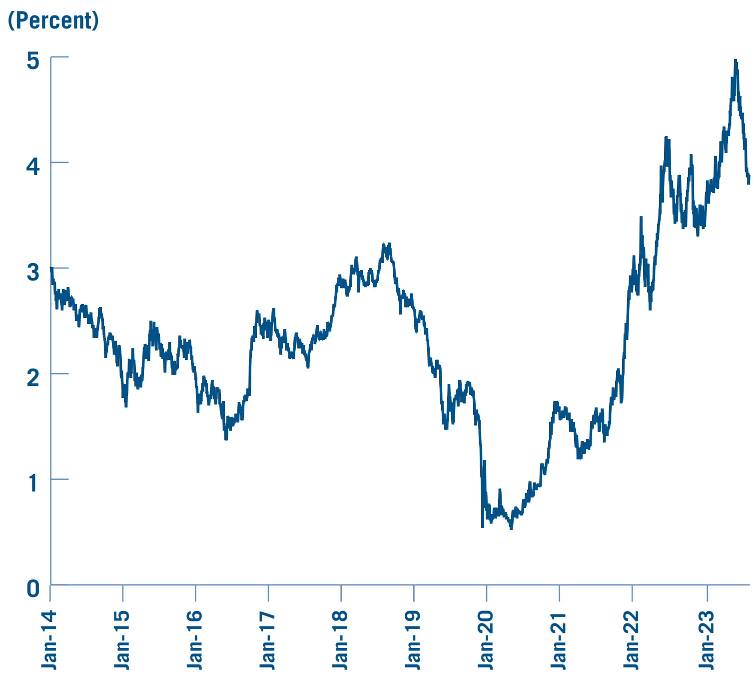
Source: S&P Global Market Intelligence.

NYMEX Natural Gas Futures
February 2024 through December 2028



Source: S&P Global Market Intelligence.

10-Year Treasury Yield



Source: U.S. Federal Reserve.

Q3 attributed rising yields to bond investors' newfound exhaustion at Washington's big deficits and rising debt, which seem likely to rise further when the economy weakens. Yet after the Fed's November meeting, rates fell steadily from late October's 5.0% to 3.8% as December ended, driving the EEI Index's 8.0% Q4 gain. Interest rates also took direction from inflation data; monthly CPI inflation held in a narrow range of 3.0% to 3.2% through Q4, the lowest levels of the year and down from 5% readings through May.

Fundamental Concerns Color Thinking

During much of 2023, Wall Street's utility research grappled with several factors that weighed on utility stocks in addition to the share price impact of higher interest rates.

Cost of Capital. Analyst research noted some utilities face the prospect of refinancing maturing debt over the next few years at what may be much higher interest costs. Lower share prices also raise the equity cost of capital for utilities.

Wildfires. Wildfire risk was typically seen as a concern for California utilities. But Hawaii's August fires made headlines and Wall Street's Q3 research noted similar risks in Oregon and Colorado.

Inflation. If inflation raises renewable build-out costs and threatens long-term capex planning, utility growth plans may suffer. Related supply chain bottlenecks may also delay construction.

Regulation. Analysts cited scattered regulatory outcomes in 2023 that disappointed investors. With electric bills rising due to higher capex, Wall Street closely watched rate reviews for signs of waning support for utility investment.

Presentations Convey Steady Outlooks

Wall Street's worry over threats to the industry's fundamental picture took a back seat to parsing the Q3 earnings reports and investor presentations that occurred during Q4.

Utilities release Q3 earnings in October and November each year and hold conference calls with investors to review outlooks. Wall Street's published research in Q4 generally saw Q3 earnings as on target, with several utilities slightly raising earnings guidance. Utilities' Q3 conference call presentations, taken as a whole, presented a cautiously optimistic picture. Several utilities formally raised 5-year capex projections while others noted opportunities not yet included in current outlooks. A few raised load growth forecasts due to economic development in service territories along with record-setting peak loads in 2023. Many noted demand boosts from data centers (one facet of utility exposure to AI-driven innovation) and the "re-shoring" of industrial production. Several Q3 earnings presentations cited favorable regulatory support for clean energy investment. Wall Street said utilities appear to be successfully managing rising interest costs and the impact of inflation on company operations and capex planning. Many companies cited room for additional operations & maintenance (O&M) cost efficiencies, in some cases from deployment of AI-driven approaches to system monitoring.

EEI's Financial Conference in November, along with other industry conferences, added news flow that Wall Street research analyzed and reported. Constructive themes that were extended from Q3 earnings calls included steady or rising capex outlooks, boosts to demand growth at some utilities, and maintenance of the mid-single-digit, five-year earnings growth forecasts that have been a constant for much of the industry in recent years.

Yet Wall Street is paid, in part, to be critical thinkers; analysts also noted industry balance sheets are a bit stretched from aggressive capex financing and remained wary that state regulation may turn less supportive of capex—especially if the economy turns down. For the time being, Wall Street appears in agreement with utilities' general view that state commissions and ratepayers will tolerate 2% to 4% bill inflation, given that's required to fund the nation's clean energy transition and the jobs and local economic development that come with it. But the multi-year trend back to nearly a fully regulated focus makes state-by-state regulatory relations an ever-present Wall Street concern.

2023 Returns By Quarter

Index	Q1	Q2	Q3	Q4
EEI Index	(2.9)	(3.0)	(10.3)	8.0
Dow Jones Industrial Average	0.9	4.0	(2.1)	13.1
S&P 500	7.5	8.7	(3.3)	11.7
Nasdaq Composite*	16.8	12.8	(4.1)	13.4
Category	**Q1**	**Q2**	**Q3**	**Q4**
All Companies	(0.5)	(2.7)	(10.5)	8.1
Regulated	(0.0)	(2.5)	(8.7)	8.0
Mostly Regulated	(3.8)	(3.9)	(23.3)	9.2

* Price gain/loss only. Other indices show total return.
For the Category comparison, straight, equal-weight averages are used (i.e., not market-cap-weighted).

Source: EEI Finance Department, S&P Global Market Intelligence.

2023 Category Comparison

Category	Return (%)
EEI Index	**(6.3)**
Regulated	(3.9)
Mostly Regulated	(22.5)

Regulated: 80% or more of total assets are regulated.
Mostly Regulated: Less than 80% of total assets are regulated.

Note: For the Category Comparison, straight, equal-weight averages are used (i.e., not market-capitalization-weighted).

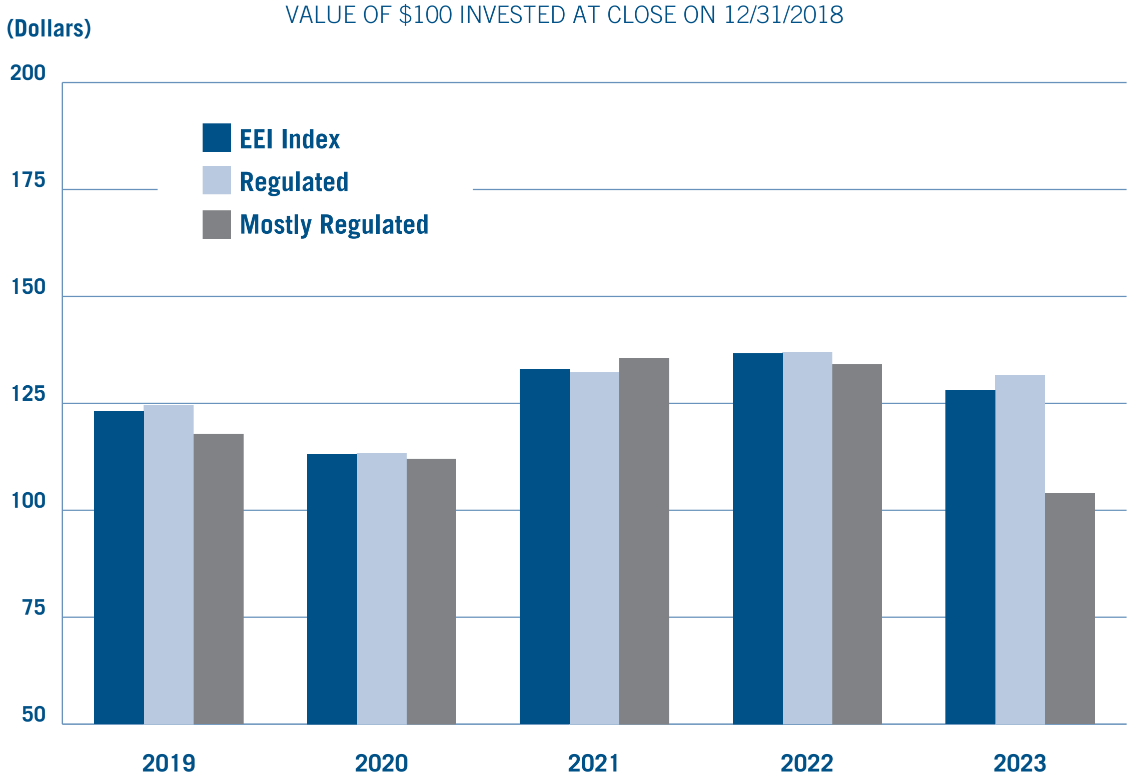
Source: EEI Finance Dept., S&P Global Market Intelligence, company reports

Wall Street Turns More Positive on Valuation

Utility stocks have fought rising interest rates since mid-2020 and have lagged a surging, albeit volatile, stock market in four of the last five years. Will utilities get any respect in 2024? If industry news stays positive and outlooks steady the answer likely depends on interest rates, although company-specific regulatory outcomes can override macro forces and shape stock moves on a company-by-company basis. Wall Street broadly sees utilities as cheaper than they've been in years and set up to shine should rates fall and earnings outlooks remain steady. In 2023, the Nasdaq 100 had its best year since the 1999 tech bubble. The broader Nasdaq peaked in March 2000 then collapsed; it took 15 years to recover. It's hard to be a bear in a bull market, but long-term investors have reason to like utility stocks in early 2024. The next five years may be very different than the past five.

Comparative Category Total Annual Returns

U.S. INVESTOR-OWNED ELECTRIC UTILITIES,
VALUE OF $100 INVESTED AT CLOSE ON 12/31/2018



	2019	2020	2021	2022	2023
EEI Index Annual Return (%)	23.06	(8.07)	17.62	2.74	(6.30)
EEI Index Cumulative Return ($)	123.06	113.12	133.05	136.69	128.08
Regulated EEI Index Annual Return	24.56	(9.01)	16.72	3.59	(3.92)
Regulated EEI Index Cumulative Return	124.56	113.33	132.28	137.03	131.67
Mostly Regulated EEI Index Annual Return	17.87	(4.95)	21.09	(1.15)	(22.50)
Mostly Regulated EEI Index Cumulative Return	117.87	112.04	135.67	134.12	103.94

- For the Category Comparison, straight, equal-weight averages are used (i.e., not market-cap-weighted).
- Cumulative Return assumes $100 invested at closing prices on December 31, 2018.

Source: EEI Finance Dept., S&P Global Market Intelligence

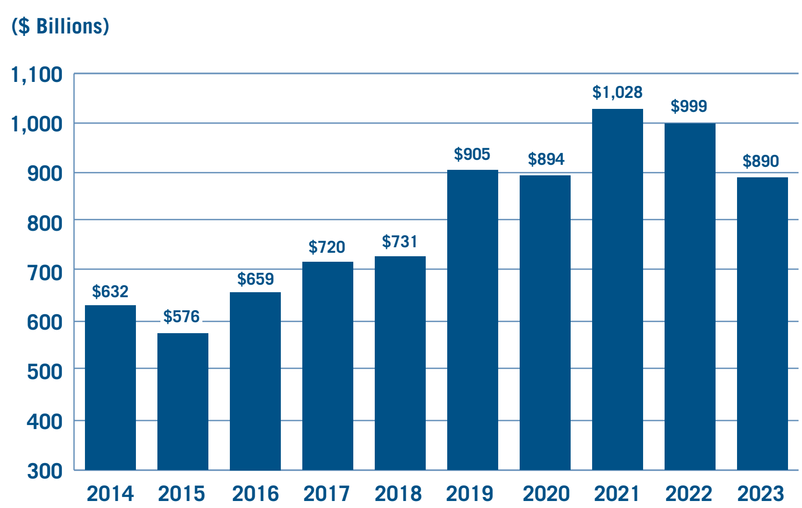
Market Capitalization at December 31, 2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Company Name	Ticker	Market Cap.	% of Total
NextEra Energy, Inc.	NEE	123,381	13.86%
Southern Company	SO	76,571	8.60%
Duke Energy Corporation	DUK	74,818	8.41%
Sempra Energy	SRE	47,083	5.29%
American Electric Power Company, Inc.	AEP	42,272	4.75%
Dominion Energy, Inc.	D	39,330	4.42%
PG&E Corporation	PCG	38,061	4.28%
Exelon Corporation	EXC	35,756	4.02%
Xcel Energy Inc.	XEL	34,174	3.84%
Consolidated Edison, Inc.	ED	31,385	3.53%
Public Service Enterprise Group Inc.	PEG	30,453	3.42%
Edison International	EIX	27,381	3.08%
WEC Energy Group, Inc.	WEC	26,547	2.98%
DTE Energy Company	DTE	22,714	2.55%
Eversource Energy	ES	21,584	2.43%
Entergy Corporation	ETR	21,398	2.40%
FirstEnergy Corp.	FE	21,006	2.36%
PPL Corporation	PPL	19,976	2.24%
Ameren Corporation	AEE	19,011	2.14%
CenterPoint Energy, Inc.	CNP	18,033	2.03%
CMS Energy Corporation	CMS	16,898	1.90%
Alliant Energy Corporation	LNT	13,005	1.46%
AVANGRID, Inc.	AGR	12,538	1.41%
Evergy, Inc.	EVRG	12,011	1.35%
NiSource Inc.	NI	10,978	1.23%
Pinnacle West Capital Corporation	PNW	8,151	0.92%
OGE Energy Corp.	OGE	6,996	0.79%
IDACORP, Inc.	IDA	4,987	0.56%
Portland General Electric Company	POR	4,371	0.49%
MDU Resources Group, Inc.	MDU	4,032	0.45%
Black Hills Corporation	BKH	3,632	0.41%
PNM Resources, Inc.	PNM	3,581	0.40%
Otter Tail Corporation	OTTR	3,542	0.40%
ALLETE, Inc.	ALE	3,511	0.39%
NorthWestern Energy	NWE	3,076	0.35%
Avista Corporation	AVA	2,742	0.31%
MGE Energy, Inc.	MGEE	2,615	0.29%
Hawaiian Electric Industries, Inc.	HE	1,557	0.17%
Unitil Corporation	UTL	846	0.10%
Total Industry		**890,003**	**100%**

Source: EEI Finance Department and S&P Global Market Intelligence. All dollar amounts presented in millions.

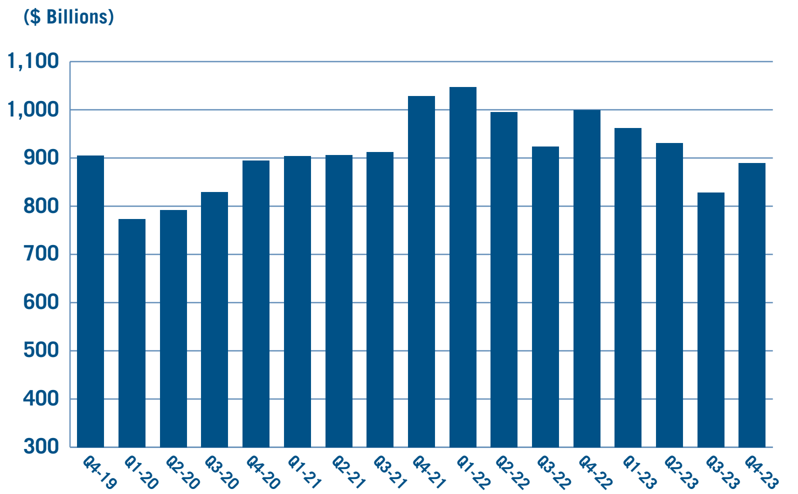
EEI Index Market Capitalization



Note: Results are as of December 31 of each year.

Source: EEI Finance Department and S&P Global Market Intelligence.

EEI Index Market Capitalization by Quarter



Source: EEI Finance Department and S&P Global Market Intelligence.

Dividends

The investor-owned electric utility industry continued its long-term trend of widespread dividend increases in 2023. A total of 34 companies increased or reinstated their dividend for the second straight year; this compares to 32 in 2021, 34 in 2020, 37 in 2019, 39 in 2018 and 36 to 40 companies annually from 2012 through 2017. One company suspended its dividend in 2023. One company reduced its dividend in 2022, zero did so in 2021 and two did in 2020.

The percentage of companies that raised or reinstated their dividend in 2023 was 87% for the second straight year. This was up from 82% in 2021 and in line with the 85% to

Dividend Patterns 1996–2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

	Raised	No Change	Lowered	Omitted*	Reinstated	Not Paying	Total	Dividend Payout Ratio
1996	48	44	2	1	1	2	98	70.7%
1997	40	45	6	2	–	3	96	84.2%
1998	40	37	7	–	–	5	89	82.1%
1999	29	45	4	–	3	2	83	74.9%
2000	26	39	3	1	–	2	71	63.9%
2001	21	40	3	2	–	3	69	64.1%**
2002	26	27	6	3	–	3	65	67.5%
2003	26	24	7	2	1	5	65	63.7%
2004	35	22	1	–	–	7	65	67.9%
2005	34	22	1	1	2	5	65	66.5%
2006	41	17	–	–	–	6	64	63.5%
2007	40	15	–	–	3	3	61	62.1%
2008	36	20	1	–	1	1	59	66.8%
2009	31	23	3	–	–	1	58	69.6%
2010	34	22	–	–	–	1	57	62.0%
2011	31	22	–	1	1	–	55	62.8%
2012	36	14	–	–	1	–	51	64.2%
2013	36	12	1	–	–	–	49	61.5%
2014	38	9	1	–	–	–	48	60.4%
2015	39	7	–	–	–	–	46	67.0%
2016	40	4	–	–	–	–	44	62.9%
2017	38	4	–	1	–	–	43	64.0%
2018	39	1	1	–	–	1	42	63.9%
2019	37	2	–	–	–	1	40	62.6%
2020	34	2	2	–	–	1	39	65.3%
2021	32	6	–	–	–	1	39	62.7%
2022	34	3	1	–	–	1	39	70.8%
2023	33	4	–	1	1	–	39	63.7%

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Average of the Increased Dividend Actions***	5.7%	5.8%	5.6%	5.6%	5.7%	5.1%	5.1%	4.8%	5.2%	5.1%
Average of the Declining Dividend Actions***	(34.5%)	NA	NA	NA	(79.8%)	NA	(40.6%)	NA	(51.8%)	(100.0%)

* Omitted in current year. This number is not included in the Not Paying column.

** * Prior to 2000: Total industry dividends/total industry earnings. Starting in 2000: Average of all companies paying dividend.

*** Excludes companies that omitted or reinstated dividends.

2022 current year figures reflect dividend changes (raised, lowered, etc.) through 12/31/2022 and earnings and dividends through 12/31/2022 (payout ratio).

Source: S&P Global Market Intelligence and EEI Finance Department

93% range from 2015 through 2020. By contrast, only 27 of the 65 utilities tracked by EEI increased their dividend in 2003, just prior to the passage of legislation that reduced dividend tax rates. The percentages noted above are drawn from a dataset that begins in 1988. Mergers and acquisitions reduced the number of publicly traded utilities included in the EEI Index from 65 in 2003 to 39 at year-end 2023.

As shown in the Dividend Patterns table, 38 of the 39 publicly traded utilities in the EEI Index were paying a common stock dividend as of December 31, 2023. Each company is limited to one action per year in the table. For example, if a company raised its dividend twice during a year that counts as one in the Raised column. Electric utilities generally use the same quarter each year for dividend changes, with Q1 the most common.

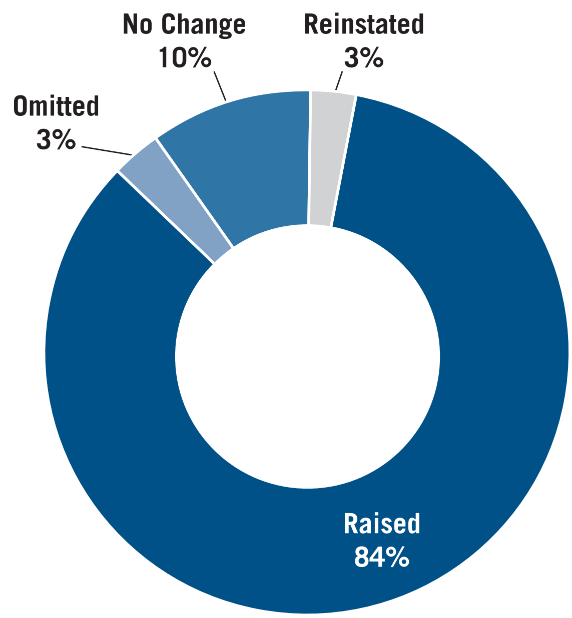
2023 Increases Average 5.1%

The average dividend increase in 2023 was 5.1%, with a range of 1.0% to 10.0% and a median increase of 5.4%. NextEra Energy (+10.0% in Q1), WEC Energy (+7.2% in Q1), DTE Energy (+7.1% in Q4), Ameren (+6.8% in Q1), Xcel Energy (+6.7% in Q1), PPL Corporation (+6.7% in Q1) and Exelon (+6.7% in Q1) posted the largest percentage increases.

NextEra Energy, headquartered in Juno Beach, Florida, increased its quarterly dividend from $0.425 to $0.4675 per share during the first quarter. The increase is consistent with its plan, announced in 2022, to target roughly 10% annual growth in its per-share dividend through at

2023 Dividend Patterns

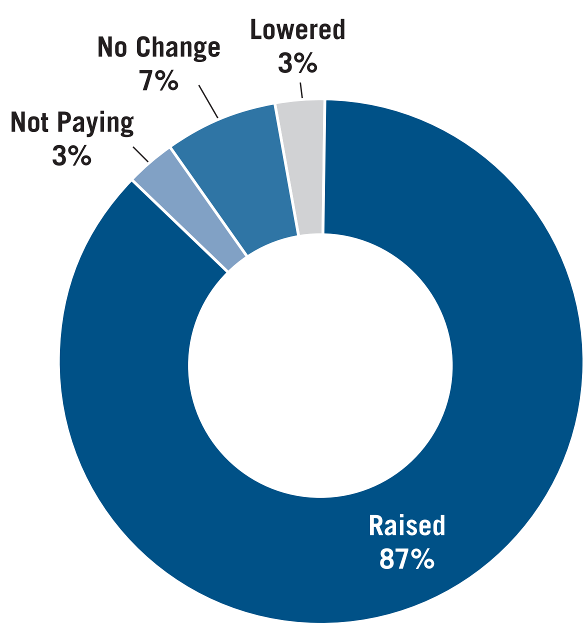
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department.

2022 Dividend Patterns

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department.

least 2024, off a 2022 base. NextEra recorded the industry's highest percentage increases in 2022 (+10.4%), 2021 (+10.0%), 2020 (+12.0%) and 2019 (+12.6%), which followed the second-highest percentage increase in 2018 (+13.0%) and the largest percentage increases in both 2017 (+12.9%) and 2016 (+13.0%, along with Edison International and DTE Energy).

WEC Energy Group, based in Milwaukee, Wisconsin, raised its quarterly dividend from $0.7275 to $0.78 in the first quarter. This marked its 322nd consecutive quarterly common stock dividend, dating back to 1942, and the 20th straight year with a dividend increase. WEC Energy continues to target a dividend payout ratio of 65 to 70 percent of earnings.

DTE Energy, headquartered in Detroit, Michigan, increased its quarterly dividend from $0.9525 to $1.02 per share during the fourth quarter. The company noted the move continues its more than 100-year history of issuing a cash dividend.

Ameren, based in St. Louis, Missouri, raised its quarterly dividend from $0.59 to $0.63 per share in Q1, marking the tenth consecutive annual increase. The company anticipates dividend growth will be in line with the company's long-term earnings-per-share growth expectations and within a payout ratio of 55% to 70%.

Xcel Energy, headquartered in Minneapolis, Minnesota, increased its quarterly dividend from $0.4875 to $0.52 per share during Q1. Since increasing its dividend growth objective in 2015 to a range of 5% to 7% annually, Xcel has delivered average annual dividend increases above 6%.

PPL Corporation, based in Allentown, Pennsylvania, raised its quarterly dividend from $0.225 to $0.24 per share in Q1. The company reaffirmed expectations of 6% to 8% annual EPS and dividend growth through at least 2026.

Exelon, headquartered in Chicago, Illinois, increased its quarterly dividend from $0.3375 to $0.36 per share during Q1. In February 2022, the company completed the separation of Constellation Energy, Exelon's former power generation and competitive energy business, with Exelon continuing as the parent company for its fully regulated transmission and distribution utilities.

Hawaiian Electric announced in August 2023 that it would suspend its dividend effective Q4 2023 due to the impact from the Maui wildfires. The company's quarterly dividend rate had been $0.36 per share. Prior to the dividend suspension, Hawaiian Electric's last dividend increase occurred in Q1 2023.

The industry's average and median increases have been relatively consistent in recent years. The average was 5.2% in 2022, 4.8% in 2021, and ranged between 5.1% and 5.7% from 2016 through 2020. The median increase was 5.6% in 2022 and ranged between 4.8% and 5.5% from 2017 through 2021.

PG&E Reinstates Dividend

PG&E in Q4 declared a cash dividend on its common stock for the first time since 2017. The company stated that "reinstating the common dividend reflects Pacific Gas and Electric Company's substantial progress in becoming a safe and stable utility that can now attract more long-term investors. Since 2017, we have reinvested the vast majority of our earnings back into our system and will continue to do so. Our earnings have gone directly into infrastructure projects focused on improving safety and reliability for our customers." The reinstated dividend was set initially at an annual rate of $0.04 per share.

Payout Ratio and Dividend Yield

The industry's dividend payout ratio was 62.2% for the twelve months ended December 31, 2023, exceeding all other U.S. business sectors. The industry's payout ratio was 63.7% when measured as an un-weighted average of individual company ratios; 62.2% represents an aggregate figure. From 2000 through 2022, the industry's annual payout ratio ranged from 60.4% to 70.8%.

While the industry's net income has fluctuated from year to year, its payout ratio has remained relatively consistent after eliminating non-recurring and extraordinary items from earnings. We use the following approach when calculating the industry's dividend payout ratio:

1. Non-recurring and extraordinary items are eliminated from earnings.
2. Companies with negative adjusted earnings are eliminated.
3. Companies with a payout ratio in excess of 200% are eliminated.

Sector Comparison Dividend Payout Ratio
For 12-month period ending 12/31/23

Sector	Payout Ratio (%)
EEI Index Companies*	**62.2%**
Utilities	59.8%
Consumer Staples	53.8%
Materials	39.6%
Energy	39.4%
Industrial	34.1%
Health Care	33.5%
Financial	27.2%
Technology	25.3%
Consumer Discretionary	21.9%

* For this table, EEI (1) sums dividends and (2) sums earnings of all index companies and then (3) divides to determine the comparable DPR.

Assumptions:
1. EEI Index Companies payout ratio based on LTM common dividends paid and income before nonrecurring and extraordinary items.

2. S&P sector payout ratios based on 2023E.

For more information on constituents of each S&P sector, see http://www.sectorspdr.com/.

Source: AltaVista Research, S&P Global Market Intelligence, and EEI Finance Department.

Sector Comparison, Dividend Yield
As of December 31, 2023

Sector	Dividend Yield (%)
EEI Index Companies	**3.8%**
Energy	3.6%
Utilities	3.5%
Consumer Staples	2.7%
Materials	2.0%
Financial	1.8%
Health Care	1.6%
Industrial	1.5%
Technology	0.9%
Consumer Discretionary	0.8%

Assumptions:
1. EEI Index Companies' yield based on last announced, annualized dividend rates (as of 12/31/2023); S&P sector yields based on 2023E cash dividends (estimates as of 12/31/2023).

For more information on constituents of each S&P sector, see http://www.sectorspdr.com/.

Source: AltaVista Research, S&P Global Market Intelligence and EEI Finance Department.

The industry's average dividend yield was 3.8% on December 31, 2023, leading all U.S. business sectors. The industry's average dividend yield was 3.4% at year-end 2022, 3.3% at year-end 2021, 3.6% at year-end 2020, 3.0% for 2019 and 3.4% at each of the three previous year-ends. An overall decline in utility stock prices along with strong dividend activity resulted in a higher yield at year-end 2023; the market cap weighted EEI Index returned -8.7% for the year. We calculate the industry's average dividend yield using an un-weighted average of the yields of EEI Index companies paying a dividend.

Business Category Comparison

The Regulated category's dividend payout ratio was 62.9% for the twelve months ended December 31, 2023, compared to 68.5% for the Mostly Regulated category. The Regulated group produced the higher annual payout ratio in 2020, 2017, 2015, 2011, 2010 and in each year from 2003 through 2008.

The Regulated and Mostly Regulated average dividend yields were 3.8% and 3.9%, respectively on December 31, 2023, compared to 3.4% and 3.3% at year-end 2022, 3.3% and 3.0% at year-end 2021, 3.6% and 3.4% at year-end 2020 and 3.0 and 3.1% at year-end 2019. The dividend yields for both categories at year-end 2018 and 2017 were 3.4%.

Electric Utilities' History of Strong Dividends

The electric utility sector has long been known as a leading dividend payer among U.S. business sectors. This reputation is founded on:

Category Comparison, Dividend Payout Ratio

Category	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
EEI Index	**60.4**	**67.0**	**62.9**	**64.0**	**63.9**	**62.6**	**65.3**	**61.6**	**70.8**	**63.7**
Regulated	59.4	68.7	61.1	68.7	60.1	62.1	65.3	59.5	69.2	62.9
Mostly Regulated	63.8	62.6	68.0	53.3	72.8	64.1	65.2	69.0	77.4	68.5
Diversified	56.4	64.9	64.6	–	–	–	–	–	–	–

Regulated: 80% or more of total assets are regulated
Mostly Regulated: Less than 80% of total assets are regulated
Diversified: Prior to 2017, less than 50% of total assets are regulated

*2023 figures reflect earnings and dividends through 12/31/2023.

Source: S&P Global Market Intelligence, company reports, and EEI Finance Department

- A steady stream of income from a product that is universally needed and with low elasticity of demand.
- A mostly regulated industry that provides reasonable returns on investment and relatively low investment risk.
- A mature industry comprised of companies with very long track records of maintaining and/or steadily increasing their dividends over time.

Category Comparison, Dividend Yield
As of December 31, 2023

Category	Dividend Yield
EEI Index	**3.8%**
Regulated	3.8%
Mostly Regulated	3.9%

Regulated: 80% or more of total assets are regulated
Mostly Regulated: Less than 80% of total assets are regulated
Source: S&P Global Market Intelligence, company reports and EEI Finance Department

These characteristics are especially attractive to an aging population of investors who seek a combination of growth and income. A typical total return model for electric utilities is approximately 4% to 6% annual earnings growth and a 3% to 4% dividend yield, producing highly visible and relatively stable 7% to 10% annualized long-term total return potential.

Dividend Tax Rates

The top tax rate for dividends and capital gains in 2023 was 20%, applied at income thresholds of $553,850 for couples and $492,300 for individuals. Below these thresholds, dividends and capital gains are each taxed at rates of 15% or 0%, depending on the filer's income. A 3.8% Medicare tax that was included in 2010 health care legislation is also applied to all investment income for couples earning more than $250,000 ($200,000 for singles).

The Tax Cuts and Jobs Act (TCJA), signed into law in December 2017, maintained the pre-existing and equal tax rates for dividends and capital gains. This parity is crucial to avoid a capital raising disadvantage for companies, such as electric utilities, that rely on a strong dividend to attract investors and finance capital spending.

Dividend Summary

As of December 31, 2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Company Name	Stock	Company Category	Annualized Dividends	Payout Ratio	Yield (%)	Last Action	To	From	Date Announced
ALLETE, Inc.	ALE	MR	$2.71	86.9%	4.4%	Raised	$2.71	$2.60	2023 Q1
Alliant Energy Corporation	LNT	R	$1.81	64.9%	3.5%	Raised	$1.81	$1.71	2023 Q1
Ameren Corporation	AEE	R	$2.52	57.2%	3.5%	Raised	$2.52	$2.36	2023 Q1
American Electric Power Company, Inc.	AEP	R	$3.52	73.0%	4.3%	Raised	$3.52	$3.32	2023 Q4
AVANGRID, Inc.	AGR	MR	$1.76	100.6%	5.4%	Raised	$1.76	$1.73	2018 Q3
Avista Corporation	AVA	R	$1.84	82.3%	5.1%	Raised	$1.84	$1.76	2023 Q1
Black Hills Corporation	BKH	R	$2.50	62.7%	4.6%	Raised	$2.50	$2.38	2022 Q4
CenterPoint Energy, Inc.	CNP	R	$0.80	52.2%	2.8%	Raised	$0.80	$0.76	2023 Q3
CMS Energy Corporation	CMS	R	$1.95	84.2%	3.4%	Raised	$1.95	$1.84	2023 Q1
Consolidated Edison, Inc.	ED	R	$3.24	66.4%	3.6%	Raised	$3.24	$3.16	2023 Q1
Dominion Resources, Inc.	D	R	$2.67	77.3%	5.7%	Raised	$2.67	$2.52	2022 Q1
DTE Energy Company	DTE	R	$4.08	53.2%	3.7%	Raised	$4.08	$3.81	2023 Q4
Duke Energy Corporation	DUK	R	$4.10	69.9%	4.2%	Raised	$4.10	$4.02	2023 Q3
Edison International	EIX	R	$3.12	48.2%	4.4%	Raised	$3.12	$2.95	2023 Q4
Entergy Corporation	ETR	R	$4.52	38.2%	4.5%	Raised	$4.52	$4.28	2023 Q4
Evergy, Inc.	EVRG	R	$2.57	76.6%	4.9%	Raised	$2.57	$2.45	2023 Q4
Eversource Energy	ES	R	$2.70	52.8%	4.4%	Raised	$2.70	$2.55	2023 Q1
Exelon Corporation	EXC	R	$1.44	59.9%	4.0%	Raised	$1.44	$1.35	2023 Q1
FirstEnergy Corp.	FE	R	$1.64	73.5%	4.5%	Raised	$1.64	$1.56	2023 Q3
Hawaiian Electric Industries, Inc.	HE	MR	$0.00	52.1%	0.0%	Lowered	$0.00	$1.44	2023 Q4
IDACORP, Inc.	IDA	R	$3.32	62.4%	3.4%	Raised	$3.32	$3.16	2023 Q4
MDU Resources Group, Inc.	MDU	MR	$0.50	37.1%	2.5%	Raised	$0.50	$0.49	2022 Q4
MGE Energy, Inc.	MGEE	R	$1.71	51.3%	2.4%	Raised	$1.71	$1.63	2023 Q3
NextEra Energy, Inc.	NEE	MR	$1.87	65.8%	3.1%	Raised	$1.87	$1.70	2023 Q1
NiSource Inc.	NI	R	$1.00	61.1%	3.8%	Raised	$1.00	$0.94	2023 Q1
NorthWestern Energy	NWE	R	$2.56	79.4%	5.0%	Raised	$2.56	$2.52	2023 Q1
OGE Energy Corp.	OGE	R	$1.67	79.9%	4.8%	Raised	$1.67	$1.66	2023 Q3
Otter Tail Corporation	OTTR	R	$1.75	24.8%	2.1%	Raised	$1.75	$1.65	2023 Q1
PG&E Corporation	PCG	R	$0.04	0.0%	0.2%	Raised	$0.04	$0.00	2023 Q4
Pinnacle West Capital Corporation	PNW	R	$3.52	75.4%	4.9%	Raised	$3.52	$3.46	2023 Q4
PNM Resources, Inc.	PNM	R	$1.55	69.8%	3.7%	Raised	$1.55	$1.47	2023 Q4
Portland General Electric Company	POR	R	$1.90	78.5%	4.4%	Raised	$1.90	$1.81	2023 Q2
PPL Corporation	PPL	R	$0.96	54.2%	3.5%	Raised	$0.96	$0.90	2023 Q1
Public Service Enterprise Group Inc.	PEG	R	$2.28	44.2%	3.7%	Raised	$2.28	$2.16	2023 Q1
Sempra Energy	SRE	R	$2.38	41.0%	3.2%	Raised	$2.38	$2.29	2023 Q1
Southern Company	SO	R	$2.80	81.1%	4.0%	Raised	$2.80	$2.72	2023 Q2
Unitil Corporation	UTL	R	$1.62	58.0%	3.1%	Raised	$1.62	$1.56	2023 Q1
WEC Energy Group, Inc.	WEC	R	$3.12	65.2%	3.7%	Raised	$3.12	$2.91	2023 Q1
Xcel Energy Inc.	XEL	R	$2.08	58.1%	3.4%	Raised	$2.08	$1.95	2023 Q1
Industry Average				**63.7%**	**3.8%**				

NOTES
Business Segmentation: Assets as of 12/31/2022
R = Regulated: 80% or more of total assets are regulated. **MR = Mostly Regulated:** Less than 80% of total assets are regulated.

Dividend Per Share: Per share amounts are annualized declared figures as of 12/31/2023.
Dividend Payout Ratio: Dividends paid for 12 months ended 12/31/2023 divided by net income before nonrecurring and extraordinary items for 12 months ended 12/31/2023. While net income is after-tax, nonrecurring and extraordinary items are pre-tax, as there is no consistent method of gathering these items on a tax adjusted basis under current reporting guidelines. On an individual company basis, the Payout Ratio in the table could differ slightly from what is reported directly by the company.
“NM” applies to companies with negative earnings or payout ratios greater than 200%.
Dividend Yield: Annualized Dividends Per Share at 12/31/2023 divided by stock price at market close on 12/31/2023.
By Business Segment: Average of Dividend Payout Ratios and Dividend Yields for companies within these business segments.

Source: EEI Finance Department and S&P Global Market Intelligence.

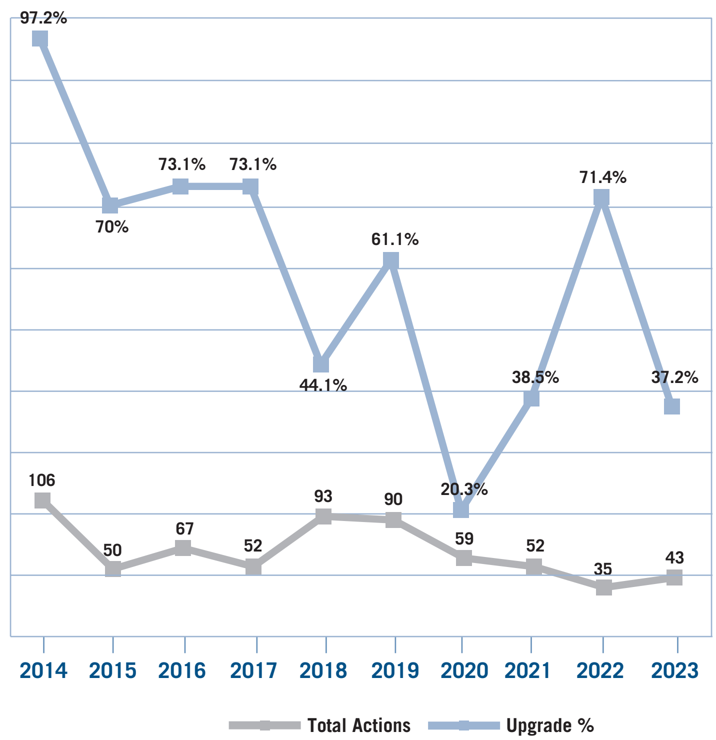
Credit Ratings

The industry's average parent company credit rating in 2023 remained at BBB+ for the tenth straight year, although four parent-level downgrades caused a weakening in aggregate holding company credit quality. There were only 43 total actions—16 upgrades and 27 downgrades—affecting both parents and subsidiaries. This pace was far below the 68-action annual average of the previous ten calendar years and is the second-lowest annual total in our historical dataset (back to 2000).

On December 31, 2023, 68% of parent company ratings outlooks were "stable" and 16% were "positive" or "watch-positive". Only 16% of outlooks were "negative" or "watch-negative"; this is an increase over the 11% at year-end 2022, which was the lowest negative share since 2013.

Direction of Rating Actions

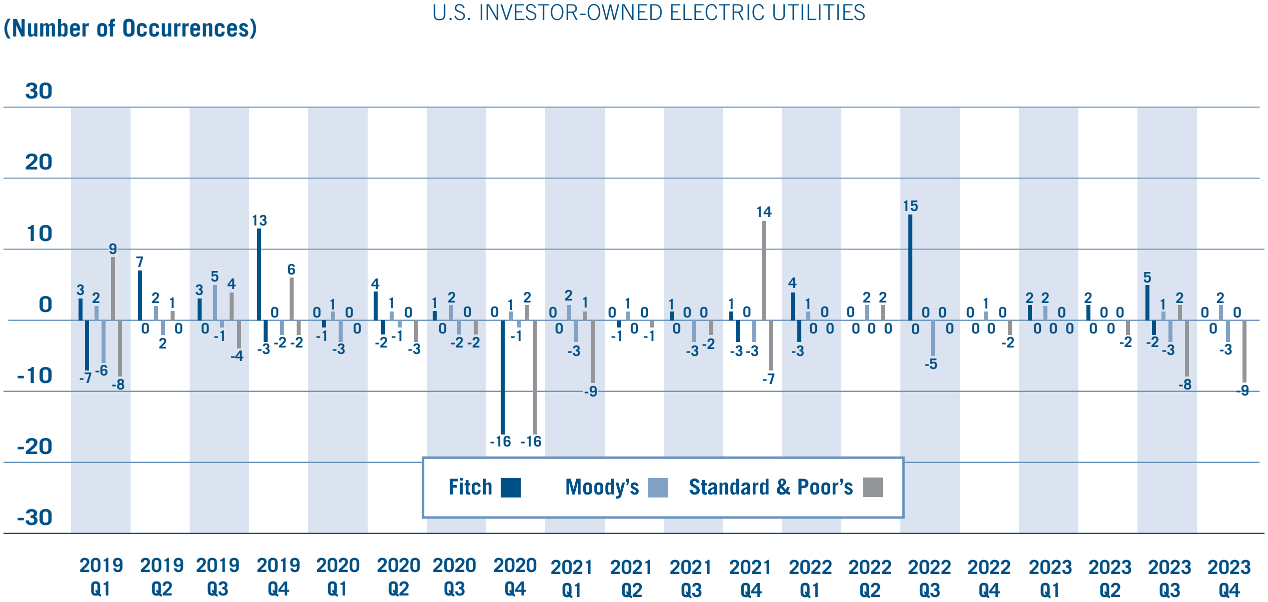
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: Fitch Ratings, Moody's, and Standard & Poor's.

Credit Rating Agency Upgrades and Downgrades

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Note: Data presents the number of occurrences and includes each event, even if multiple actions occurred for a single company.

Source: Fitch Ratings, Moody's, and Standard & Poor's.

Credit Rating Agency Upgrades and Downgrades

	2019		2020		2021		2022		2023	
	Total Upgrades	Total Downgrades	Total Upgrades	Total Downgrades	Total Upgrades	Total Downgrades	Total Upgrades	Total Downgrades	Total Upgrades	Total Downgrades
Fitch										
Q1	3	(7)	0	(1)	0	0	4	(3)	2	0
Q2	7	0	4	(2)	0	(1)	0	0	2	0
Q3	3	0	1	0	1	0	15	0	5	(2)
Q4	13	(3)	0	(16)	1	(3)	0	0	0	0
Total	**26**	**(10)**	**5**	**(19)**	**2**	**(4)**	**19**	**(3)**	**9**	**(2)**
Moody's										
Q1	2	(6)	1	(3)	2	(3)	1	0	2	0
Q2	2	(2)	1	(1)	1	0	2	0	0	0
Q3	5	(1)	2	(2)	0	(3)	0	(5)	1	(3)
Q4	0	(2)	1	(1)	0	(3)	1	0	2	(3)
Total	**9**	**(11)**	**5**	**(7)**	**3**	**(9)**	**4**	**(5)**	**5**	**(6)**
S&P										
Q1	9	(8)	0	0	1	(9)	0	0	0	0
Q2	1	0	0	(3)	0	(1)	2	0	0	(2)
Q3	4	(4)	0	(2)	0	(2)	0	0	2	(8)
Q4	3	(2)	2	(16)	14	(7)	0	(2)	0	(9)
Total	**26**	**(11)**	**2**	**(21)**	**15**	**(19)**	**2**	**(2)**	**2**	**(19)**

Note: Chart depicts the number of occurrences and includes each event, even if multiple downgrades occurred for a single company.
Source: Fitch Ratings, Moody's, and Standard & Poor's.

Electric utility industry credit quality has generally improved over the past decade. The industry's average parent-level rating has held at BBB+ since increasing from BBB in 2014. Upgrades have outnumbered downgrades in six of the past ten calendar years with an annual average upgrade percentage of 59% over the decade.

EEI captures upgrades and downgrades at both the parent and subsidiary levels. The industry's average credit rating and outlook are the unweighted averages of all Standard & Poor's (S&P) parent holding company ratings and outlooks. However, our upgrade/downgrade totals reflect all actions by the three major ratings agencies affecting parent holding companies as well as individual subsidiaries. Our universe of 44 U.S. parent company electric utilities on December 31, 2023 included 39 that are publicly traded and five that are either a subsidiary of an independent power producer, a subsidiary of a foreign owned company, or owned by an investment firm.

Credit Actions at Parent Level

The only parent-level ratings actions in 2023 by S&P were four downgrades. By comparison, there was one downgrade and no upgrades in 2022, three downgrades and one upgrade in 2021, and three downgrades, one upgrade and one reinstatement in 2020.

On August 15, S&P Global Ratings downgraded Hawaiian Electric Industries (HE) to BB- from BBB-. Subsidiaries Hawaiian Electric, Maui Electric, and Hawaii Electric Light were also downgraded to BB- from BBB. The downgrades resulted from the worst wildfires in Hawaii's history, predominantly on the island of Maui, with over 2,200 structures destroyed and many fatalities. S&P noted that the severity of the fires showed that wildfire risk for the utilities was higher than previously expected, and that class action lawsuits related to the event would significantly increase uncertainty and financial risk going forward.

On August 24, S&P Global Ratings again downgraded HE to B- from BB- following the announcement that its dividend would be suspended beginning in Q3 as a result of the wildfires. Subsidiaries Hawaiian Electric, Maui Electric, and Hawaii Electric Light were also downgraded to B- from BB-. S&P cited growing concern about the company's access to capital markets due to class action lawsuits.

On November 8, S&P Global Ratings downgraded MDU Resources Group (MDU) to BBB from BBB+ after MDU completed a strategic review and announced the divestiture of its construction services business by year-end 2024. MDU completed a spinoff of its construction materials business, Knife River, in 2023. S&P said the November 8 downgrade reflected the fact that MDU Resources will no longer have the diversification benefit of multiple uncorrelated business lines.

On November 29, S&P Global Ratings downgraded Evergy (EVRG) to BBB+ from A-. Subsidiaries Evergy Kansas Central, Evergy Kansas South, and Evergy Missouri West were also downgraded to BBB+ from A-, while subsidiary Evergy Metro was downgraded to A- from A. S&P cited two recent rate review settlements in Kansas as the primary cause of the downgrades; these were the first rate review decisions in Kansas since the merger between Great Plains Energy and Westar Energy in 2018.

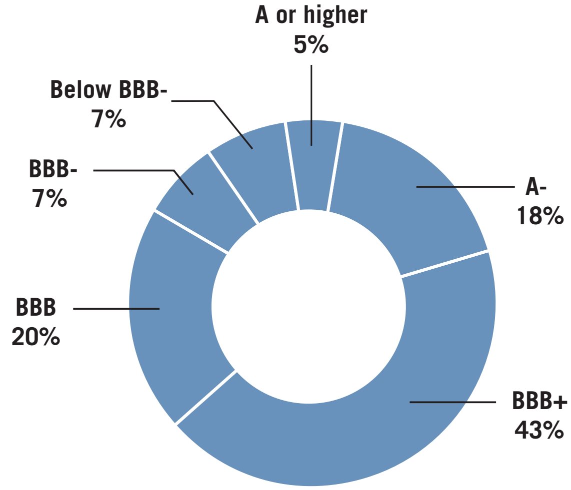
Ratings Activity Remained Slow in 2023

The 43 ratings actions during 2023 (upgrades and downgrades) was the second-lowest total for any year since our dataset's inception in 2000. By comparison, there were 35 actions in 2022, 52 actions in 2021, 59 actions in 2020, and an annual average of 68 over the last decade.

The industry's 16 upgrades in 2023 versus 27 downgrades produced an upgrade percentage of 37.2%, down from 71.4% in 2022 and 38.5% in 2021. Upgrades outnumbered down-

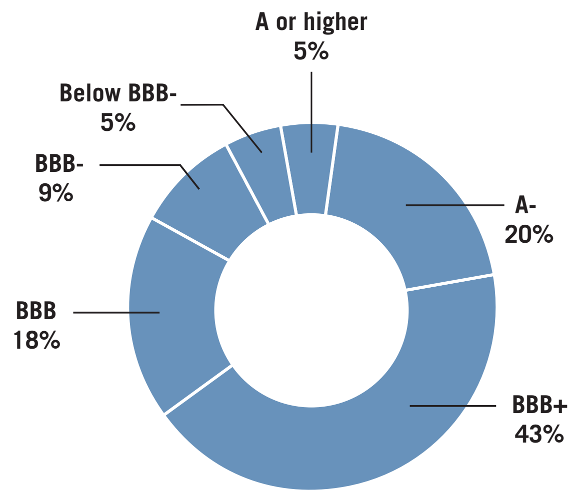
Bond Ratings December 31, 2023
as rated by Standard & Poor's

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



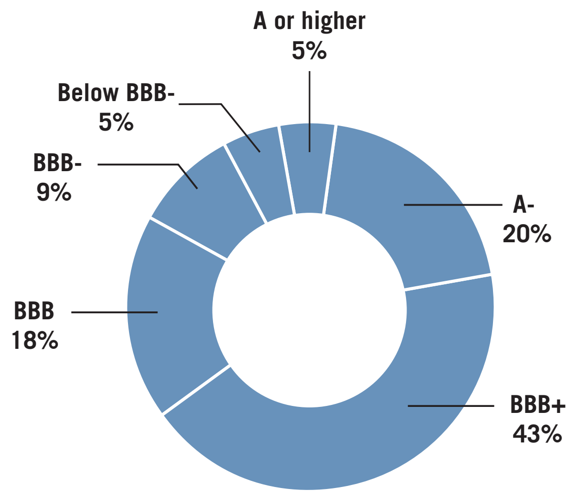
Bond Ratings December 31, 2022
as rated by Standard & Poor's

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



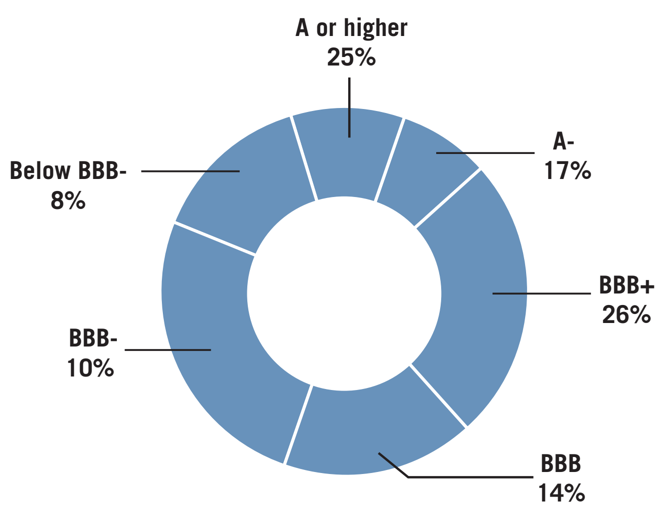
Bond Ratings December 31, 2021
as rated by Standard & Poor's

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Bond Ratings December 31, 2001
as rated by Standard & Poor's

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



grades in six of the past ten calendar years, with an annual average upgrade percentage of 59%.

The Credit Rating Agency Upgrades and Downgrades table presents quarterly activity by all three ratings agencies. Following are full-year totals for 2023:

Fitch (9 upgrades, 2 downgrades)

Moody's (5 upgrades, 6 downgrades)

Standard & Poor's (2 upgrades, 19 downgrades)

Upgrades in 2023

Many of the year's upgrades cited reduced financial uncertainty and reduced regulatory lag due to a more predictable regulatory framework. Other upgrades were driven by improved metrics related to wildfire risk in California, with a significant decline in the number of wildfires linked to utility equipment in the state.

On February 23, Moody's upgraded Edison International (EIX) to Baa2 from Baa3 and its Southern California Edison subsidiary to Baa1 from Baa2. Moody's noted the progress made by Southern California Edison to address wildfire risk, combined with its access to the state's wildfire fund and the legislative reform of the wildfire cost recovery process, has materially improved overall credit quality.

On March 20, Fitch upgraded PG&E (PCG) to BB+ from BB and upgraded subsidiary Pacific Gas & Electric to BB+ from BB. Fitch cited as primary catalyst for the upgrades the significant decline in the number

Rating Agency Activity

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Total Ratings Changes	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fitch	14	11	16	15	33	36	24	6	22	11
Moody's	85	12	13	12	23	20	12	12	9	11
Standard & Poor's	7	27	38	25	37	34	23	34	4	21
Total	**106**	**50**	**67**	**52**	**93**	**90**	**59**	**52**	**35**	**43**

Source: Fitch Ratings, Moody's, Standard & Poor's, S&P Global Market Intelligence, and EEI Finance Department.

of wildfires involving PG&E equipment during 2019–2022 compared with 2017–2018, along with lower related liabilities. The upgrades were also driven by California's wildfire-related legislative reforms, by PG&E's ongoing management efforts to reduce wildfire risk, and by Fitch's expectation that credit metrics at the utilities will improve.

On April 28, Fitch upgraded Edison International (EIX) to BBB from BBB- and upgraded subsidiary Southern California Edison to BBB from BBB-. The upgrades mostly reflect the significant decline in wildfires linked to Southern California Edison's equipment after 2018 despite elevated wildfire activity in California in 2020 and 2021, as well as ongoing efforts to enhance system resilience. With the large majority of 2017/2018 wildfire liabilities resolved, Fitch also said it expects EIX's 2023-2026 credit metrics to improve significantly.

On July 24, S&P Global Ratings upgraded Xcel Energy subsidiary Northern States Power to A from A-. The move followed a final order by the Minnesota Public Utility Commission authorizing a $306 million aggregate rate increase for 2022-2024. S&P Global Ratings cited constructive regulation in Minnesota that includes a multi-year ratemaking framework for electric rates based on forecasted rate-base estimates. The agency noted this reduces regulatory lag, cash flow volatility and uncertainty for the utility and its stakeholders.

On July 26, S&P Global Ratings upgraded Exelon subsidiary Commonwealth Edison to A- from BBB+ due to an improved assessment of governance. The U.S. District Court for the Northern District of Illinois dismissed a bribery charge against the utility following completion of a three-year deferred prosecution agreement that required increased oversight and training related to internal controls.

On July 28, prior to the wildfires in Maui, Fitch upgraded Hawaiian Electric Industries (HE) to BBB+ from BBB and upgraded subsidiary Hawaiian Electric to A- from BBB+. Fitch cited a more predictable regulatory framework implemented in 2021 as the primary reason; regulatory adjustments have improved stability of earnings and cash flow and will moderate the impact of inflation. Fitch also expected Hawaiian Electric to narrow the gap between allowed and earned ROEs over the next few years.

On September 1, Fitch upgraded Southern Company subsidiary Georgia Power to BBB+ from BBB due to the successful start of commercial operation at Vogtle Unit 3. The nuclear unit was placed into service on July 31, 2023. The upgrade also reflects a constructive agreement with the Georgia Public Service Commission (PSC) and other intervenors that allows Georgia Power to recover $7.6 billion of capital costs and $1.0 billion of capitalized financing costs associated with construction of the two Vogtle nuclear units.

On September 22, Fitch upgraded utility parent company Otter Tail (OTTR) to BBB from BBB- and upgraded subsidiary Otter Tail Power to BBB+ from BBB. Fitch cited the predictable earnings and cash flow from the company's regulated operations and strong performance at its non-utility manufacturing and plastics business segments. Fitch expects the regulatory environment to remain supportive of credit quality across the company's three state jurisdictions (Minnesota, North Dakota and South Dakota).

On September 26, Moody's upgraded Southern Company subsidiary Mississippi Power to A3 from Baa1 based on an improved Mississippi regulatory environment. Moody's cited the consistency and predictability shown by the Mississippi PSC during the last few years as it approved rate orders in several Mississippi Power regulatory proceedings.

On November 20, Moody's upgraded Consolidated Edison (ED) to Baa1 from Baa2 and upgraded subsidiary Consolidated Edison (CECONY) to A3 from Baa1. Moody's noted better regulatory support as the primary reason, citing recent decisions by the New York PSC that resulted in revenue increases and improved financial metrics. Moody's stated that stakeholder relationships have improved since the last rate order in 2020, with increased political support, more predictable regulatory outcomes and better cost recovery.

Downgrades in 2023

Many of the year's downgrades were related to the Maui wildfires in August 2023. Additional downgrades were related to a terminated acquisition, increased wildfire risk in Oregon, and increased debt from capital investment.

On April 20, S&P Global Ratings downgraded AEP subsidiary Kentucky Power to BBB from BBB+ following cancellation of the planned sale of Kentucky Power to Liberty Utilities. The downgrade was driven by weakening stand-alone financial measures at Kentucky Power. In 2021 and 2022, Kentucky Power's FFO to debt was 11.6% and 11.4%, respectively, significantly below S&P's downgrade threshold of 15%.

On June 20, S&P Global Ratings downgraded Berkshire Hathaway Energy subsidiary PacifiCorp to BBB+ from A following a negative decision in a class action lawsuit related to four Oregon wildfires in 2020. In S&P's view, the verdict that the company contributed to the wildfires significantly increases operating risk for PacifiCorp. S&P also noted that the jury award on a per-plaintiff basis was materially above base-case assumptions. The jury also found that a broader absent class affected by the fires could bring more claims against the company.

On August 11, Moody's downgraded DPL to Ba2 from Ba1 and downgraded subsidiary Dayton Power & Light (DP&L) to Baa3 from Baa2. Moody's observed that the pace of DP&L's investments in transmission, distribution and smart-grid improvements is driving a significant increase in debt, which will more than double between 2021 and 2024. While DP&L's Energy Security Plan IV recently became effective in Ohio, allowing it to implement a delayed base-rate increase, Moody's noted DP&L's agreement to not pursue decoupling exposes its cash flow to more volatility.

On August 18, Moody's downgraded Hawaiian Electric Industries subsidiary Hawaiian Electric Company to Ba3 from Baa1 due to the Maui wildfires. Moody's expects significant financial liabilities if the utility is found to be at fault once investigations are complete. Moody's also noted the future regulatory risk related to cost recovery for system rebuilding.

On August 21, Fitch downgraded Hawaiian Electric Industries to B from BBB+ and downgraded subsidiary Hawaiian Electric to B from A-. Fitch also assigned first-time ratings of B to Hawaiian Electric Company's subsidiaries Maui Electric and Hawaii Electric Light. If investigations find that utility equipment caused the August wildfires and the utility is deemed by a court to be negligent, Fitch believes the companies may be subject to large third-party liabilities in a process that could take several years.

On October 27, Moody's downgraded Eversource Energy (ES) to Baa2 from Baa1 and downgraded subsidiary NSTAR Electric to A2 from A1. Moody's cited heightened uncertainty related to the company's pending offshore wind project sale and concerns that additional balance sheet actions would be needed to offset the challenges associated with the wind project transaction. Moody's also noted a challenging regulatory environment in Connecticut.

On November 20, S&P Global Ratings downgraded Berkshire Hathaway Energy (BHE) subsidiaries MidAmerican Energy, Nevada Power, and Sierra Pacific Power to A- from A. The downgrades were driven by an assessment that BHE will not provide extraordinary support to its subsidiaries under all foreseeable circumstances. S&P said it now ex-

S&P Utility Credit Ratings Distribution by Company Category

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

	2019		2020		2021		2022		2023	
	#	%	#	%	#	%	#	%	#	%
Regulated										
A or higher	1	3%	1	3%	1	3%	1	3%	1	3%
A-	11	31%	11	32%	8	23%	8	22%	7	18%
BBB+	11	31%	10	29%	14	40%	15	42%	18	47%
BBB	8	23%	7	21%	7	20%	7	19%	7	18%
BBB-	2	6%	2	6%	3	9%	3	8%	3	8%
Below BBB-	2	6%	3	9%	2	6%	2	6%	2	5%
Total	35	100%	34	100%	35	100%	36	100%	38	100%
Mostly Regulated										
A or higher	1	10%	1	10%	1	11%	1	13%	1	17%
A-	1	10%	1	10%	1	11%	1	13%	1	17%
BBB+	7	70%	6	60%	5	56%	4	50%	1	17%
BBB	0	0%	1	10%	1	11%	1	13%	2	33%
BBB-	1	10%	1	10%	1	11%	1	13%	0	0%
Below BBB-	0	0%	0	0%	0	0%	0	0%	1	17%
Total	10	100%	10	100%	9	100%	8	100%	6	100%

Note: Totals may not equal 100.0% due to rounding.
Refer to page v for category descriptions.
Source: Standard & Poor's, S&P Global Market Intelligence, and EEI Finance Department.

pects BHE's extraordinary support for subsidiary PacifiCorp would be limited should PacifiCorp receive further adverse outcomes in a class action lawsuit related to wildfires.

On December 11, Moody's downgraded Alliant Energy subsidiary Wisconsin Power and Light to Baa1 from A3. Moody's stated that WPL's financial metrics have been weak since 2018 largely due to a three-year base rate freeze associated with the 2017 Tax Cuts and Jobs Act and the coronavirus pandemic, additional debt issuance to help finance higher capital expenditures, and under-recovered fuel costs.

Ratings by Company Category

The S&P Utility Credit Ratings Distribution by Company Category table presents the distribution of credit ratings over time by company category (Regulated and Mostly Regulated) for the investor-owned electric utilities. Ratings are based on S&P's long-term issuer ratings at the holding company level, with only one rating assigned per company. On December 31, 2023, the average rating for the Regulated category was BBB+ and the average rating for the Mostly Regulated category was BBB.

Rating Agency Credit Outlooks

The three major ratings agencies held divergent utility industry credit outlooks as 2024 began. S&P maintained a stable outlook for regulated utilities. Moody's maintained the stable outlook for regulated utilities that it had revised from negative in late 2023. Fitch retained its deteriorating outlook for North American utilities. The agencies cited increased physical risks to utility infrastructure, elevated capital expenditures and related customer bill impacts, and stability of financial metrics as key themes they are watching. We note that the groups of underlying companies vary slightly across the three rating agency outlooks.

Standard & Poor's (S&P)

Published in January 2024, S&P's report "Industry Credit Outlook 2024—North America Regulated

Long-Term Credit Rating Scales

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

	Moody's	Standard & Poor's	Fitch
Investment Grade	Aaa	AAA	AAA
	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
	A2	A	A
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-

	Moody's	Standard & Poor's	Fitch
Speculative Grade	Ba1	BB+	BB+
	Ba2	BB	BB
	Ba3	BB-	BB-
	B1	B+	B+
	B2	B	B
	B3	B-	B-
	Caa1	CCC+	CCC+
	Caa2	CCC	CCC
	Caa3	CCC-	CCC-
	Ca	CC	CC
	C	C	C

	Moody's	Standard & Poor's	Fitch
Default	C	D	D

Source: Fitch Ratings, Moody's, and Standard & Poor's.

Utilities" maintained the agency's stable industry outlook. However, the report observed that downgrades outpaced upgrades for the fourth consecutive year in 2023. And, given that 28% of the industry has a negative outlook versus 14% with a positive outlook, the agency said it's possible that downgrades may outpace upgrades once again in 2024.

S&P's base case assumes that industry credit quality will remain challenged in 2024. For many utilities, the physical risk to system infrastructure is growing as climate change increases the frequency of extreme weather events such as wildfires. S&P cited industry initiatives that are addressing wildfire risk, including detailed wildfire mitigation plans, system hardening, improved weather forecasting using machine learning, implementation of public safety power shutoffs (PSPS) programs, and vegetation management. S&P also noted that, while the industry's robust capital spending represents necessary investment in safety, reliability, and the nation's energy transition, it is also leading to rising leverage. Consistent access to the capital markets will be necessary for the industry to fund its debt maturities and cash flow deficits.

S&P noted that effective management of regulatory risk will be key to maintaining the industry's credit quality going forward. This will require constructive rate case orders, minimized regulatory lag, and management of customer bill impacts. Timely recovery of capital expenditures and operation and maintenance costs will also be necessary for the industry to maintain credit quality.

Moody's

In its "Outlook—Regulated Electric and Gas Utilities—US" (published in September 2023), Moody's revised its outlook for the sector to stable from negative. Moody's noted that sustained lower natural gas prices, moderating inflation, and continued regulatory support for the recovery of fuel and purchased power costs will improve credit metrics for the industry. The significant decline in natural gas prices since mid-2022 has provided relief to utilities and has eased both affordability pressures and regulatory risk.

The report also stated that interest rates and capital spending will continue to pressure holding company credit metrics. Although the pace and magnitude of interest rate increases have slowed, increased debt and debt refinancing costs will pressure parent company metrics. Moody's expects utilities to maintain high levels of capital spending as they focus on reducing carbon emissions and investing in system resilience and reliability. Moody's noted that, despite many challenges, aggregate sector FFO metrics have been remarkably steady and are likely to remain so. The sector's aggregate industry funds from operations (FFO) to debt ratio will likely stabilize at 14% in 2024, according to the report.

Moody's listed several factors that could change its outlook back to negative: 1) if there is a sustained decline in regulatory support for timely cost recovery, 2) if capital market access becomes less certain or the availability of bank credit facilities becomes constrained, or 3) if the sector's aggregate FFO-to-debt ratio dips materially below 14%. Factors that could change its outlook to positive were: 1) if the regulatory and political environment turns even more credit supportive, and 2) if the sector's aggregate FFO-to-debt ratio rises to around 18% on a sustainable basis.

Fitch Ratings

In its "North American Utilities, Power & Gas Outlook 2024" (released December 2023), Fitch Ratings maintained its deteriorating outlook for the sector. Fitch stated that macroeconomic headwinds, elevated capital expenditures, and higher funding costs will continue to pressure utility credit metrics. Fitch noted that customer affordability concerns will persist despite reductions in natural gas prices and inflation. However, with 90% of companies at a stable ratings outlook, Fitch expects little ratings movement in 2024. Fitch expects median leverage metrics for the sector to improve in 2024, driven by the recovery of deferred fuel balances.

Fitch also cited the catastrophic wildfires in Maui to highlight the heightened physical risks faced by electric utilities as a result of climate change. The agency explained that California provides a roadmap for other states to follow regarding the development of comprehensive plans to prevent, mitigate and respond to wildfires. Some other states have begun to address this issue, and Fitch believes that progress on these initiatives could improve utility credit risk.

The report also noted positive tailwinds for the industry. Several electric utilities have begun to see sales growth from data centers, expansion of manufacturing facilities, and electrification trends in oil and gas drilling. Fitch expects weather-normalized total retail sales to be 0.5%–1.0% higher in 2024 compared with 2023. Fitch also expects authorized ROEs to start trending up with the increase in interest rates, although with a lag that could be longer than in previous cycles. Fitch stated that the gap between authorized and earned ROEs continues to narrow. Fitch also views the Inflation Reduction Act as a positive for credit quality since its tax incentives for clean generation will help offset inflationary bill pressures.

Business Strategies

Business Segmentation

The industry's regulated business segments—regulated electric and natural gas distribution—grew their combined assets by $81.3 billion, or 4.6%, in 2023, extending a multi-year trend and driving a $95.7 billion, or 4.7%, increase in total industry assets. Regulated assets were 84.9% of the industry total at year-end, unchanged from the same 84.9% total at year-end 2022. The Regulated Electric segment's share of total industry assets increased to 71.9% from 70.9% at year-end 2022; that segment's total assets grew $91.4 billion, or 6.2%. Natural Gas Distribution assets decreased by $10.2 billion, or 3.5%, and Competitive Energy assets increased $6.5 billion, or 4.0%. Assets for the relatively small Natural Gas Pipeline segment decreased by $182 million, or 0.5%. A record-high $171.9 billion of capital expenditures in 2023 and generally constructive regulatory relations supported the significant growth in Regulated assets.

Nationwide power demand in 2023 declined 1.6% from 2022's total due to mild weather, and natural gas prices fell sharply from 2022's elevated levels. As a result, the Regulated Electric business segment's revenue increased by only $1.3 billion, or 0.4%. Natural Gas Distribution revenue decreased $5.9 billion, or 8.7%. Competitive Energy revenue decreased $2.0 billion, or 6.1%. Natural Gas Pipeline revenue decreased by $1.7 billion, or 26.8%. Total industry revenue was $415.5 billion in 2023, a decline of $8.9 billion, or 2.1%, versus 2022's $424.4 billion.

2023 Revenue by Segment

Regulated Electric revenue increased by $1.3 billion, or 0.4%, to $311.1 billion from $309.7 billion in 2022. The segment's share of total industry revenue rose to 73.1% from 71.3% in 2022, remaining well above its level at the start of the industry's

Business Segmentation—Revenues

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

($ Millions)	2023	2022	$ Change	% Change
Regulated Electric	311,077	309,739	1,337	0.4%
Competitive Energy	30,498	32,480	(1,982)	(6.1%)
Natural Gas Distribution	61,542	67,426	(5,884)	(8.7%)
Natural Gas Pipeline	4,772	6,518	(1,745)	(26.8%)
Other	17,439	18,128	(689)	(3.8%)
Discontinued Operations	111	0	111	0.0%
Eliminations/Reconciling Items	(9,943)	(9,863)	(80)	0.8%
Total Revenues	**415,495**	**424,428**	**(8,933)**	**(2.1%)**

r = revised

Note: Difference and percent change columns may reflect rounding. Totals may reflect rounding.

Business Segmentation—Assets

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

($ Millions)	12/31/23	12/31/22	$ Change	% Change
Regulated Electric	1,567,683	1,476,245	91,438	6.2%
Competitive Energy	167,982	161,501	6,481	4.0%
Natural Gas Distribution	281,268	291,443	(10,175)	(3.5%)
Natural Gas Pipeline	35,191	35,373	(182)	(0.5%)
Other	126,905	117,516	9,389	8.0%
Eliminations/Reconciling Items	(64,516)	(63,257)	(1,259)	2.0%
Total Assets	**2,114,512**	**2,018,820**	**95,691**	**4.7%**

r = revised

Note: Difference and percent change columns may reflect rounding. Totals may reflect rounding.

two-decade-long migration back to a regulated focus (Regulated Electric's share was only 51.9% in 2005).

Natural Gas Distribution revenue fell $5.9 billion, or 8.7%, to $61.5 billion from $67.4 billion in 2022. Volatile natural gas prices drove revenue gains of 26.1% in 2022 and 18.0% in 2021 for this segment, a decrease of 3.3% in 2020, and increases of 4.4% in 2019, 3.0% in 2018, 17.6% in 2017 and 8.9% in 2016. Revenue growth in 2016 and 2017 was also due to completion in 2016 of four large acquisitions of natural gas distribution businesses.

Total regulated revenue — the sum of the Regulated Electric and Natural Gas Distribution segments — decreased by $4.5 billion, or 1.2%, to $372.6 billion in 2023. The industry's focus on state-regulated operations has driven a steady growth in these business segments' share of industry revenue in recent years. Regulated revenue accounted for 87.6% of total industry revenue in 2023 compared to 86.8% in 2022, totals well above 2005's 65.3% share.

Eliminations and reconciling items are added back to total revenue to arrive at the denominator for the segment percentage calculations shown in the graphs *Revenue Breakdown 2023 and Revenue Breakdown 2022*.

2023 Assets by Segment

Regulated Electric assets increased $91.4 billion, or 6.2%, during 2023. The segment's share of total industry assets was 71.9% at year-end, above its 70.9% share at year-end 2022. Natural Gas Distribution assets decreased by $10.1 billion, or 3.5%, while Competitive Energy assets increased by $6.5 billion, or 4.0%. The Natural Gas Pipeline segment's relatively small asset total declined slightly, falling by $182 million, or 0.5%, to $35.2 billion at year-end 2023 and representing 1.6% of industry assets.

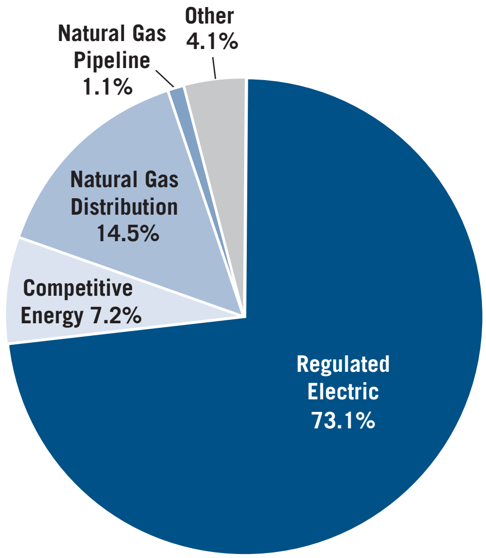
Total regulated assets (Regulated Electric and Natural Gas Distribution) grew $81.3 billion, or 4.6% in 2023 for a 84.9% share of total industry assets at year-end; this is identical to the 84.9% share at year-end 2022. This aggregate share measure has risen steadily from 61.6% at year-end 2002, underscoring the significant regulated rate base growth and widespread divestitures of non-core businesses over that 21-year period. Twenty-seven of the industry's 44 constituent companies (61%) either increased regulated assets as a percent of total assets or maintained a 100% regulated structure in 2023.

Regulated Electric

Regulated Electric segment operations include the generation, transmission and distribution of

Revenue Breakdown 2023

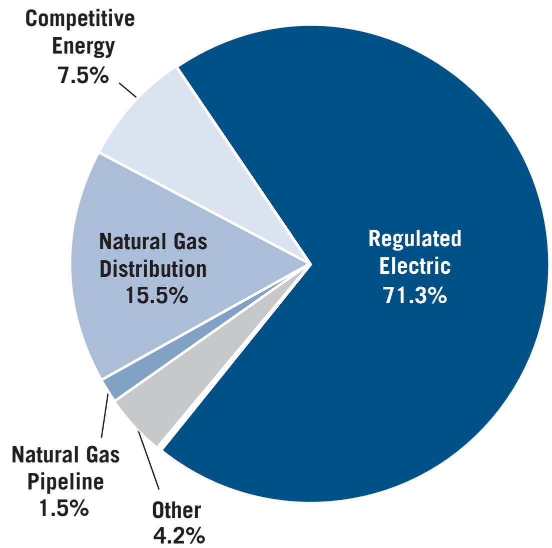
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department and company annual reports.

Revenue Breakdown 2022

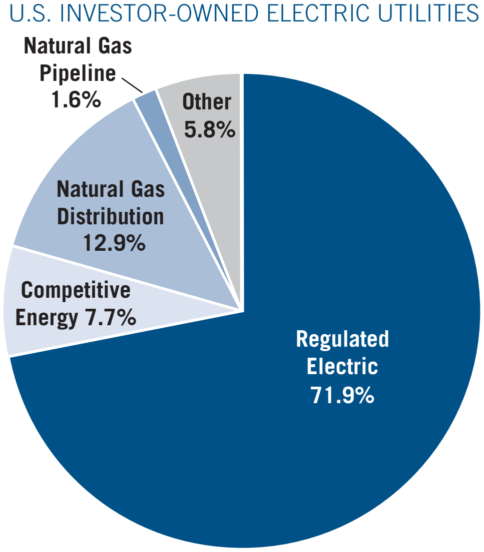
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department and company annual reports.

Asset Breakdown
As of December 31, 2023

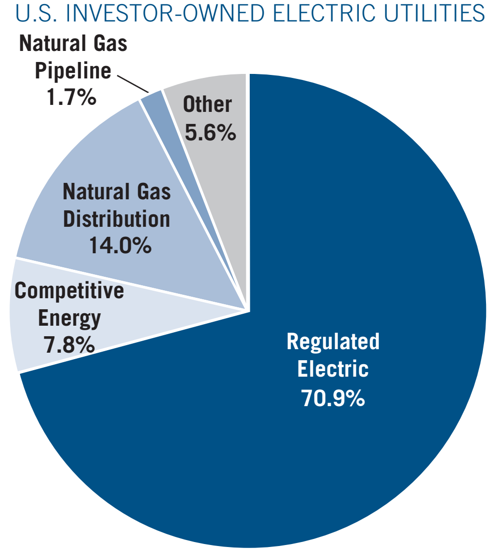
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department and company annual reports.

Asset Breakdown
As of December 31, 2022

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department and company annual reports.

electricity under state regulation for residential, commercial and industrial customers. Regulated Electric revenue increased slightly in 2023, rising $1.3 billion, or 0.4%. Twenty-one companies, or 48% of the industry, had higher Regulated Electric revenue in 2023 than in the prior year. Regulated Electric revenue increased by 14.1% in 2022 and 8.0% in 2021, fell by 0.8% in 2020 and by 0.5% in 2019, was unchanged in 2018, and grew by 0.8% in 2017.

Total nationwide electric output decreased 1.6% in 2023 after rising 2.8% in 2022 and in 2021. On a weather-adjusted basis, electric output rose 1.4% in 2023. Electric output has risen in only eight of the past sixteen years. Prior to this period, a year-to-year output decline was a rare event in an industry that typically experienced low single-digit percent demand growth. Energy efficiency initiatives, demand-side management programs, and the off-shoring of formerly U.S.-based manufacturing and heavy industry are all forces that have suppressed the growth of electricity demand since the late 20th century.

Regulated Electric assets increased by $91.4 billion, or 6.2%, in 2023, representing the largest asset growth in dollar terms of all business segments. The industry's record-high $171.9 billion of capital expenditures in 2023 and generally constructive regulatory relations supported the increase in regulated assets. The 2023 capital expenditure total was the twelfth consecutive annual record high, with the expansion well represented across the industry's Regulated Electric and Natural Gas Distribution segments over this period. Asset growth is also evident in the industry's net property, plant, and equipment in service, which rose 6.4% from year-end 2022 and 21.6% over the level five years earlier, at year-end 2018. Such robust growth in assets reflects the size of the industry's build-out of new renewable and clean generation, new transmission, reliability-related infrastructure, and other capital projects in recent years.

Competitive Energy

Competitive Energy assets increased by $6.5 billion, or 4.0%, to $168.0 billion at year-end 2023 from $161.5 billion at year-end 2022. Competitive Energy assets fell $47.4 billion, or 22.7%, in 2022 relative to 2021 due to the spin-off of Constellation Energy, Exelon's power generation and competitive energy business, in February 2022. Competitive Energy revenue decreased by $2.0 billion, or 6.1%, to $30.5 billion from $32.5 billion in 2022. Competitive Energy covers the generation and/or sale of electricity in competitive markets, including both wholesale and retail transactions. Wholesale buyers are typically regional power pools, large industrial customers, and electric utilities looking to supplement generation capacity. Competitive Energy also includes the trading and marketing of natural gas. Of the 16 companies that maintain Competitive Energy operations, seven (44%) grew these assets during 2023 and six (38%) had revenue gains from this segment.

Natural Gas

Natural Gas Distribution assets decreased by $10.2 billion, or 3.5%, to $281.3 billion at year-end 2023 from $291.4 billion at year-end 2022. The segment's revenue decreased by $5.9 billion, or 8.7%, to $61.5 billion from $67.4 billion in 2022 as natural gas prices declined from elevated 2022 levels. Revenue grew 26.1% in 2022 and 18.0% in 2021, as natural gas prices surged. Only eight of the 27 companies that report gas distribution revenue showed a year-to-year increase in 2023 after all companies did in both 2022 and 2021. This followed increases at 26%, 70%, 86% and 93% of reporting companies in 2020, 2019, 2018 and 2017, respectfully. Natural Gas Distribution includes the delivery of natural gas to homes, businesses and industrial customers throughout the United States.

Natural Gas Pipeline assets decreased by $182 million, or 0.5%, to $35.2 billion at year-end 2023 from $35.4 billion at year-end 2022. Three of the six companies that report this segment showed asset growth. This segment's revenue decreased by $1.7 billion, or 26.8%, to $4.8 billion in 2023 from $6.5 billion in 2022, which was somewhat impacted by lower natural gas prices. The Natural Gas Pipeline business concentrates on the transmission and storage of natural gas for local distribution companies, marketers and traders, electric power generators and natural gas producers.

Added together, the Natural Gas Distribution and Natural Gas Pipeline segments decreased assets by $10.4 billion, or 3.2%, in 2023 and produced revenue of $66.3 billion, down from $73.9 billion in 2022. The contribution to total industry revenue from these two natural gas activities decreased to 15.6% in 2023 from 17.0% in 2022.

Strategic Moves Completed in 2023

Several companies completed strategic transactions in 2023 that notably affected their business segmentation reporting.

- Dominion Energy sold its remaining 50% stake in the Cove Point LNG facility to Berkshire Hathaway Energy for $3.3 billion. As a result, Berkshire Hathaway Energy increased its stake in the terminal operator to 75%, with the remaining 25% held by a subsidiary of Brookfield Infrastructure Partners.
- Con Edison completed the divestiture of its renewables business to RWE Renewables Americas for $6.8 billion. Con Edison said it will focus on its core utility business and the investments needed to lead New York's clean energy transition.
- NextEra Energy finalized the sale of its Texas Natural Gas Pipeline portfolio to Kinder Morgan for $1.8 billion.

Strategic Announcements in 2023

In addition to 2023's completed transactions, several announcements were made that, if completed, will impact business segment reporting in 2024 and beyond.

- Dominion intends to sell three gas utilities to Enbridge for $14.0 billion; these include East Ohio Gas, Public Service Company of North Carolina, and Questar Gas (which distributes gas in Utah, Wyoming, and Idaho). Dominion said it would use after-tax proceeds of $8.7 billion to reduce parent-company debt.
- Cleco announced the intent to sell its competitive electric business, Cleco Cajun, to private investor group Atlas Capital Resources for $600 million. Cleco expects to complete the transaction in June 2024.
- FirstEnergy announced an additional 30% divestiture of its transmission business, FirstEnergy Transmission, to Brookfield Partners for $3.5 billion. In 2022, FirstEnergy sold a 19.9% stake to Brookfield for $2.4 billion.

2023 Year-End List of Companies by Category

Early each calendar year, EEI updates our list of investor-owned electric utility holding companies organized by business category. The list is based on the prior year-end business segmentation data presented in 10Ks. Our two categories are Regulated (80% or more of holding company assets are regulated) and Mostly Regulated (less than 80% of holding company assets are regulated).

We use assets rather than revenue for determining category membership because we believe assets provide a clearer picture of strategic trends; fluctuating commodity prices for natural gas and power can impact revenue so greatly that a company's strategic approach to business segmentation may be distorted by reliance on revenue data alone. Comparing the list of companies from year to year reveals company migrations between categories and shows the general trend in industry business models. We also base our quarterly category financial data during the year on this list.

There was only one company that migrated across categories in 2023; Otter Tail Corporation moved to the Mostly Regulated category. The company began the year just above the 80% threshold and fell just below this percentage by year-end. Otter Tail is split between its larger regulated Electric segment and its unregulated Manufacturing segment, which includes a metal fabrication company, a custom plastics parts manufacturer, and two PVC pipe manufacturing companies.

The number of parent companies in the EEI universe remained at 44, the same as the year-end 2022 total. (See List of Companies by Category on December 31, 2023).

List of Companies by Category at December 31, 2023

Regulated (37)

Alliant Energy Corporation
Ameren Corporation
American Electric Power Company, Inc.
Avista Corporation
Black Hills Corporation
CenterPoint Energy, Inc.
*Cleco Corporate Holdings LLC**
CMS Energy Corporation
Consolidated Edison, Inc.
Dominion Energy, Inc.
*DPL Inc.**
DTE Energy Company
Duke Energy Corporation
Edison International
Entergy Corporation
Evergy, Inc.
Eversource Energy
Exelon Corporation
FirstEnergy Corp.
IDACORP, Inc.
*IPALCO Enterprises, Inc.**
NiSource Inc.
NorthWestern Energy
MGE Energy, Inc.
OGE Energy Corp.
PG&E Corporation
Pinnacle West Capital Corporation
PNM Resources, Inc.
Portland General Electric Company
PPL Corporation
Public Service Enterprise Group Incorporated
*Puget Energy, Inc.**
Sempra Energy
Southern Company
Unitil Corporation
WEC Energy Group, Inc.
Xcel Energy Inc.

Mostly Regulated (7)

ALLETE, Inc.
AVANGRID, Inc.
*Berkshire Hathaway Energy**
Hawaiian Electric Industries, Inc.
MDU Resources Group, Inc.
NextEra Energy, Inc.
Otter Tail Corporation

Note:* Non-publicly traded companies.

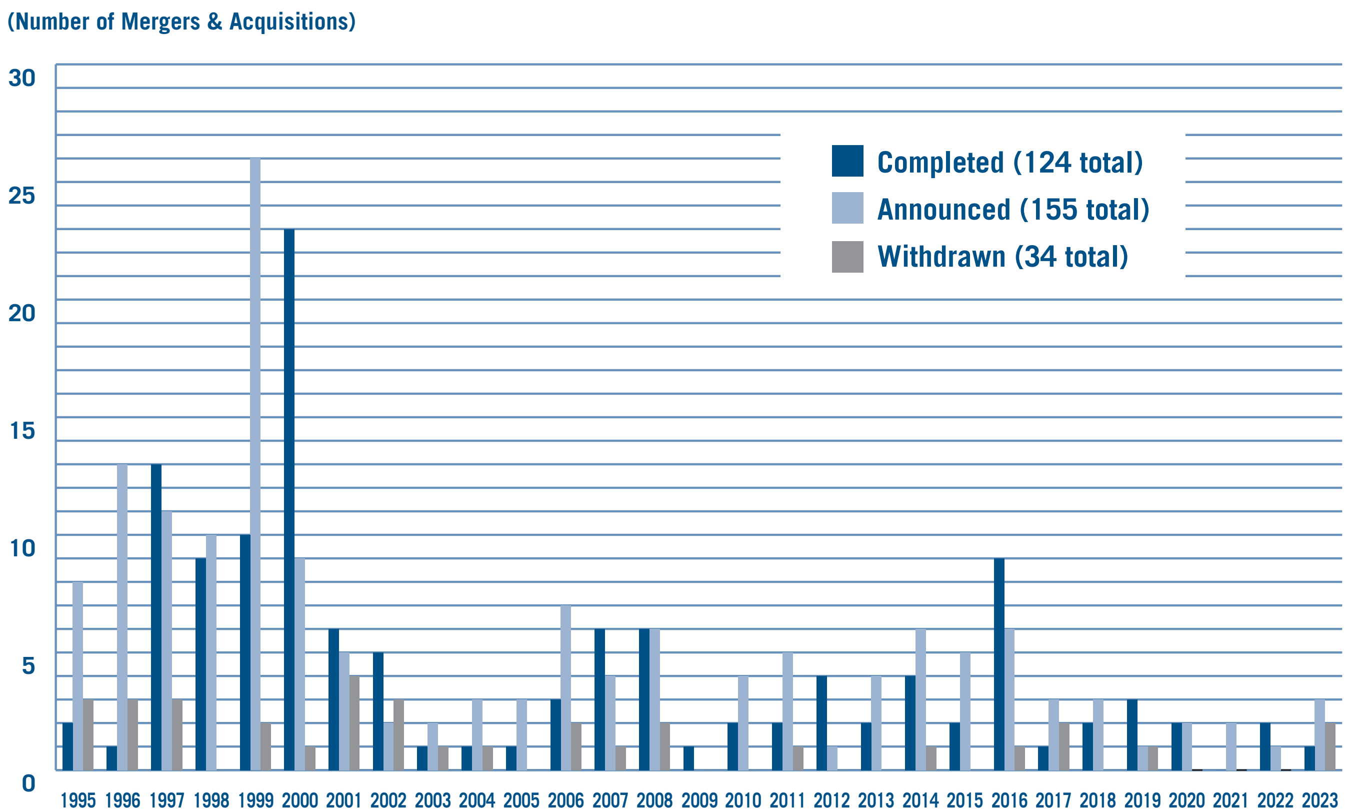
Mergers & Acquisitions

Utility merger and acquisition (M&A) activity involving whole operating companies with regulated service territories remained slow in 2023. The year's three new announcements were Dominion's move to sell its natural gas distribution utilities to diversified energy company Enbridge, NextEra's sale of Florida City Gas to Chesapeake Utilities, and Entergy's announced sale of its Louisiana natural gas distribution business to a Baton Rouge-based private equity firm.

The number of utilities tracked by EEI remained at 39 for the fourth straight year. By contrast, consolidation from the mid-1990s through 2019 reduced the number of holding companies by more than half, from 98 to 40. The reduced number of holding companies alone constrains the opportunity set for new M&A. But industry fundamentals do as well. Most utilities are focused on ambitious investment programs that seek internal growth through expansion of regulated electric rate base focused on clean energy infrastructure. And the Inflation Reduction Act (IRA), passed in August 2022, provides a strong public policy tailwind for clean energy investment, already incentivized by state renewable portfolio standards, carbon mitigation programs and support from state regulators and the public. Most of the now-smaller group of utilities don't see M&A as a priority, particularly given the well-known challenges steering deals through a complex state and federal regulatory approval process. These challenges were clear in the termination of the two deals pending when 2023 began: AVANGRID cancelled its bid to buy New Mexico-based PNM Resources while AEP and Canadian utility

Status of Mergers & Acquisitions 1995–2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: EEI Finance Department.

Algonquin ended their plan to shift ownership of AEP's Kentucky operations to the Canadian utility.

Strategic activity in 2023 focused again on asset sales rather than M&A. The last few years have been active on this front as companies look to simplify corporate structures — generally around regulated utility operations — and reduce risk through the exit of merchant generation and other non-core businesses. Sale proceeds have strengthened balance sheets and reduced the need for external equity, which has become more expensive given the industry's discounted share prices in a world of higher interest rates. Private equity buyers continued to step up in 2023 as a natural home for the merchant renewable generation portfolios regulated utilities sought to sell, and as minority stake venture partners with utilities engaged in aggressive clean power capex programs.

Status of Mergers & Acquisitions 1995–2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Year	Completed	Announced	Withdrawn
1995	2	8	3
1996	1	13	3
1997	13	11	3
1998	9	10	–
1999	10	26	2
2000	23	9	1
2001	6	5	4
2002	5	2	3
2003	1	2	1
2004	1	3	1
2005	1	3	–
2006	3	7	2
2007	6	4	1
2008	6	6	2
2009	1	–	–
2010	2	4	–
2011	2	5	1
2012	4	1	–
2013	2	4	–
2014	4	6	1
2015	2	5	–
2016	9	6	1
2017	1	3	2
2018	2	3	–
2019	3	1	1
2020	2	2	–
2021	–	2	–
2022	2	1	–
2023	1	3	2
Totals	**124**	**155**	**34**

Source: EEI Finance Department.

Announced Transactions

Dominion Energy to Sell Natural Gas Businesses

On September 5, 2023, Virginia-based Dominion Energy said it agreed to sell its three natural gas local distribution companies (LDCs) to Canadian diversified energy company Enbridge for $9.4 billion cash plus debt in a transaction valued at $14 billion. The three LDCs — East Ohio Gas, Public Service Company of North Carolina, and Questar Gas (with subsidiary Wexpro) — serve three million homes and businesses in Ohio, North Carolina, Utah, Wyoming, and Idaho. Dominion noted the move came from its internal strategic review process, announced in November 2022, which looks to better position the utility to create maximum long-term value for shareholders. Dominion said sale proceeds will be used to reduce debt and strengthen its credit position. The utility is focusing its growth strategy on state-regulated electric infrastructure, noting that data center expansion, bolstered by artificial intelligence (AI), along with electrification and general economic activity in its service territories are driving the most significant electric demand growth in the company's history. It said this demand growth will require considerable regulated capital investment to ensure reliable energy for its nearly 3.5 million electric utility customers.

NextEra Energy Sells Florida City Gas

NextEra Energy on September 26, 2023 said its regulated utility subsidiary Florida Power & Light (FPL) would sell FPL's gas distribution subsidiary Florida City Gas (FCG) to Chesapeake Utilities in a transaction valued at $923 million, including $145 million of intercompany debt. NextEra, as the nation's largest utility focused on development of renewable energy infrastructure, noted the transaction supports its strategy of redeploying capital into its core renewables businesses. Chesapeake Utilities, conversely, is a diversified energy company with a commitment to natural gas transmission and distribution. Chesapeake said FCG, which serves about 120,000 residential and commercial natural gas customers, would expand its footprint in the high-growth Florida market. Chesapeake noted Florida offers considerable investment opportunities for natural gas pipeline replacement, expansions to support customer growth, and increased gas transmission capabilities to reach new developments and support increased demand. The transaction was completed on December 1.

Entergy to Sell Gas Distribution Business

On October 30, 2023, Entergy said it agreed to sell its gas distribution business to Bernhard Capital Partners, an infrastructure-focused private equity management firm, for approximately $484 million in cash. Entergy Louisiana's gas business serves about 200,000 homes and businesses in the Baton Rouge and New Orleans regions. Entergy said net proceeds from the transaction, if it's approved, will be used to strengthen Entergy's credit through the repayment of debt and to support investment needs in its growing electric utility business.

Withdrawn Transactions

AEP/Algonquin Cancel Plan to Sell Kentucky Power

On April 17, 2023, AEP and Algonquin Power & Utilities jointly agreed to end plans to sell AEP's Kentucky operations to Liberty Utilities, a subsidiary of the Canadian utility holding company. Announced in April 2021, the planned sale came after AEP said it would conduct a strategic review of its Kentucky operations. AEP said it planned to use the expected $1.45 billion cash proceeds to eliminate equity needs and boost investment in regulated renewable energy infrastructure. The deal ran into resistance from the Federal Energy Regulatory Commission (FERC), which rejected the merger in late 2022. The deal also faced resistance from Kentucky state regulators. AEP said it would pursue a renewed strategy for Kentucky that is consistent with the goals of the Kentucky commission, including filing a new base rate review, right-sizing Kentucky's rate base and encouraging economic development in the region.

Avangrid Terminates Plan to Acquire PNM Resources

While not technically a 2023 termination, on January 2, 2024, AVANGRID said it would end its three-year-long effort to buy New Mexico-based PNM Resources. When announced, AVANGRID said the transaction would support its U.S. growth strategy focused on regulated businesses and renewables. PNM, which operates regulated utilities in Texas and New Mexico, called the move a strategic fit that would help the utility invest in clean energy distribution and transmission and expand its position in renewables. Despite widespread stakeholder support and approvals by PNM shareholders, Texas regulators and the FERC, the New Mexico Public Regulation Commission rejected the merger on December 8, 2021. The deal remained in limbo throughout 2022 after media reports said PNM and AVANGRID had appealed the rejection to the New Mexico Supreme Court. In early 2023, news reports said the New Mexico Public Regulation Commission had joined PNM and AVANGRID in requesting the Supreme Court to send the case back to the commission for a "rehearing and reconsideration" following a move by the state's governor to replace the previous five-member commission with a new three-member body. The companies' merger agreement was extended through December 31, 2023, while awaiting a decision from the New Mexico Supreme Court.

Utilities Exit Commercial Renewable Generation

Con Edison completed the sale of its commercial renewables business on March 1, 2023. In October 2022, Con Edison announced it would sell its wholly owned commercial renewables subsidiary, Con

Edison Clean Energy Businesses, to RWE Renewables Americas for $6.8 billion. RWE Renewables Americas is owned by German multinational energy giant RWE AG. Con Edison said it would cancel plans to issue up to $850 million of common equity in 2022 and focus on its core utility businesses and the investments needed to lead New York's ambitious clean energy transition.

On June 12, 2023, Duke Energy announced it would sell its unregulated utility scale commercial renewables business to Brookfield Renewable, one of the world's largest owners and operators of renewable power assets, for an enterprise value of approximately $2.8 billion, including non-controlling tax equity interests and the assumption of debt. Duke Energy said it would use the net proceeds to strengthen its balance sheet and avoid more holding company debt issuance. It said this will allow it to focus on investment opportunities in its regulated businesses, including grid reliability and integration of 30,000 megawatts of regulated renewable energy into its system by 2035. Duke said the sale's completion on October 25 marked the last step in its transition to a fully regulated utility.

On February 22, 2023, American Electric Power said it agreed to sell its 1,365-megawatt (MW) unregulated, contracted renewables portfolio to IRG Acquisition Holdings (a partnership owned by Invenergy, CDPQ and funds managed by Blackstone Infrastructure) for an enterprise value of $1.5 billion including project debt. AEP said it was committed to

Merger Impacts 1995–2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Date	No. of Utilities	Change
12/31/95	98	–
12/31/96	98	–
12/31/97	91	(7.14%)
12/31/98	86	(5.49%)
12/31/99	83	(8.79%)
12/31/00	71	(14.46%)
12/31/01	69	(2.82%)
12/31/02	65	(5.80%)
12/31/03	65	–
12/31/04	65	–
12/31/05	65	–
12/31/06	64	(1.54%)
12/31/07	61	(4.69%)
12/31/08	59	(3.28%)
12/31/09	58	(1.69%)
12/31/10	56	(3.45%)
12/31/11	55	(1.79%)
12/31/12	51	(7.27%)
12/31/13	49	(3.92%)
12/31/14	48	(2.04%)
12/31/15	47	(2.08%)
12/31/16	44	(6.38%)
12/31/17	43	(2.27%)
12/31/18	42	(2.33%)
12/31/19	40	(4.76%)
12/31/20	39	(2.50%)
12/31/21	39	–
12/31/22	39	–
12/31/23	39	–

Number of Companies Declined by 60% since Dec.'95

Note: Based on completed mergers in the EEI Index group of electric utilities.

Source: EEI Finance Department.

Mergers & Acquisitions Announcements (2000–2023)

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Ann'cd	Buyer	Seller/Acquired/Merged	Status	New Company	Complet-ed Date	Months to complete	Bus.	Terms	Est. Trans Value ($MM)
10/30/23	Bernhard Capital Partners	Entergy Louisiana (Gas) / Entergy New Orleans (Gas)	Pending				PG	$484 million in cash to acquire two gas distribution companies from Entergy	484.0
9/26/23	Chesapeake Utilities	Florida City Gas	Completed		12/1/23	3	GG	$923 million in cash to acquire Florida City Gas from NextEra Energy	923.0
9/5/23	Enbridge	East Ohio Gas / PSNC Gas / Questar Gas	Pending				GG	$9.4 billion cash + $4.6 billion debt to acquire three gas distribution companies from Dominion Energy	14,000.0
2/11/22	Ullico Inc.	Hope Gas, Inc.	Completed		8/31/22	6	EG	Ullico Inc. paid $690 million in cash to acquire Hope Gas Inc. (parent company Dominion Energy)	690.0
10/26/21	Algonquin Power & Utilities Corp	Kentucky Power Company & AEP Kentucky Transmission Company Inc	Withdrawn		4/17/23		EE	$1.221 billion debt + $1.625 billion cash (valuation multiple of 1.3x rate base)	2,846.0
3/18/21	PPL Energy Holdings, LLC	Narragansett Electric Company	Completed		5/25/22	14	EG	$1.5 billion debt + 3.8 billion cash (valuation multiple of 1.7x rate base)	5,270.0
10/21/20	AVANGRID	PNM Resources	Withdrawn		12/31/23		EE	AGR to pay $50.30/share in cash (roughly 10% premium) for PNM common stock	4,300.0
7/5/20	Berkshire Hathaway Energy	Dominion Energy Natural Gas Transportation and Storage	Completed		11/1/20	4	EG	$5.7 billion debt + $4.0 billion cash	9,700.0
6/3/19	JP Morgan Investment Management	El Paso Electric	Completed		7/29/20	13	EE	JPMorgan pays $68.25/share in cash for each share of El Paso Electric Co. common stock	4,285.7
5/21/18	NextEra Energy, Inc.	Gulf Power Company	Completed		1/1/19	7	EE	NEE to pay $4.35 billion in cash to acquire Gulf Power Company from Southern Company	4,350.0
4/23/18	CenterPoint Energy	Vectren Corporation	Completed		2/1/19	10	EG	CNP pays $72.00/share in cash for each share of Vectren common stock	6,000.0
1/3/18	Dominion Energy, Inc.	SCANA Corporation	Completed		1/1/19	12	EE	$6.7B debt + $7.9 stock (per share value of $55.35, roughly 31% premium)	14,600.0
8/21/17	Sempra Energy	Oncor Electric Delivery Co	Completed		3/8/18	6	EE	$9.5B cash	9,450.0
7/19/17	Hydro One Limited	Avista Corporation	Withdrawn		1/23/19			$5.3B cash (per share value of $53.00, roughly 24% premium)	5,300.0
7/7/17	Berkshire Hathaway Inc.	Oncor Electric Delivery Co	Withdrawn		8/21/17			$9.0B cash	9,000.0
9/28/16	DTE Energy	Appalachia Gathering System / Stonewall Gas Gathering	Completed		10/20/16	1	EG	Undisclosed	1,300.0
7/29/16	NextEra Energy, Inc.	Oncor Electric Delivery Co	Withdrawn		10/31/17			$6.8B debt + $4.4B cash	11,178.0
5/31/16	Great Plains Energy	Westar Resources	Completed	Evergy, Inc.	6/5/18	24	EE	$3.6B debt + $8.6 stock and cash (per share value of $60.00)	12,200.0
2/9/16	Fortis Inc.	ITC Holdings Corp.	Completed		10/14/16	8	EE	$4.4B debt + $6.9B common shares and cash (per share value of $44.90, roughly 33% premium)	11,300.0
2/9/16	Algonquin Power & Utilities	Empire District Electric Co	Completed		1/1/17	11	EE	$1.6B debt + additional debt and equity (per share value of $34.00, roughly 21% premium)	2,400.0
2/1/16	Dominion Resources, Inc.	Questar Corporation	Completed		9/16/16	8	EG	$1.5B debt + $2.4B cash + $500M equity (per share value of $25.00, roughly 30% premium)	4,400.0
10/26/15	Duke Energy	Piedmont Natural Gas	Completed		10/3/16	12	EG	$3.3B debt + $1.0B cash + $625M equity (per share value of $60.00, roughly 40% premium)	4,900.0
9/4/15	Emera	TECO Energy, Inc.	Completed		7/1/16	10	EE	$6.5B debt + $3.9B equity (per share value of $27.55, roughly 48% premium)	10,400.0
8/24/15	Southern Company	AGL Resources	Completed		7/1/16	10	EG	$4.1B debt + $8.0B equity (per share value of $66.00, roughly 36% premium)	12,060.4
7/12/15	Black Hills Corporation	SourceGas Holdings	Completed		2/12/16	10	GG	$760M debt + $1.13B cash	1,890.0
2/25/15	Iberdrola USA	UIL Holdings	Completed	AVANGRID, Inc.	12/16/15	10	EE	$1.8B debt + $0.6B cash + $2.4B equity (per share value of $52.75, roughly 25% premium, of which $10.50 will be cash)	4,756.0
12/3/14	NextEra Energy, Inc.	Hawaiian Electric	Withdrawn		7/18/16		EE	NEE to acquire HE for $2.6B equity + $1.4B debt (fixed exchange ratio of 0.2413 NEE shares)	3,963.0
10/20/14	Macquarie-led Consortium	Cleco	Completed		4/13/16	18	EE	$3.4B equity (all Cleco shares at $55.37 / share in cash (~15% premium)) + $1.3 debt	4,700.0
6/23/14	Wisconsin Energy	Integrys	Completed	WEC Energy Group	6/30/15	12	EE	WEC to acquire TEG for $5.758B equity + $3.374B debt (fixed exchange ratio of 1.128 WEC shares + $18.58)	9,100.0
5/1/14	Berkshire Hathaway Energy	AltaLink (Canadian)	Completed		12/1/14	7	ET	BHE to acquire AL for $3.2B cash + $2.7B debt	5,927.0
4/30/14	Exelon	Pepco	Completed		3/23/16	24	EE	EXC to acquire POM for $6.8B in cash ($27.25 per POM share)	12,337.0
3/3/14	UIL Holdings	Philadelphia Gas Works	Withdrawn		12/4/14		EG	UIL to acquire assets & liabilities of PGW from city of Philadelphia for $1.86 billion in cash	1,860.0
12/12/13	Fortis Inc.	UNS Energy	Completed		8/15/14	8	EE	Fortis pays $60.25 / share (31% premium to announcement day's close) + $1.8B in debt	4,578.1
11/4/13	Avista	Alaska Energy & Resources Company	Completed		7/1/14	8	EE	AVA to acquire Alaska Energy & Resources Company for $145MM equity + $24.5MM debt	169.5
5/29/13	MidAmerican Energy Holdings Co.	NV Energy	Completed	Berkshire Hathaway Energy	12/19/13	7	EE	MidAmerican pays $23.75 / share + assume $4.8 billion debt	10,494.3
5/25/13	TECO Energy, Inc.	New Mexico Gas Intermediate, Inc.	Completed		9/2/14	15	EE	TECO will pay $950 million, including assume $200 million debt to Continental Energy Systems LLC	950.0
2/20/12	Fortis Inc.	CH Energy Group	Completed		6/27/13	16	EE	Fortis pays $65.00/share cash & assumes approx. $687.37 MM debt.	1,609.7
5/27/11	Fortis Inc.	Central Vermont Public Service Corp	Withdrawn		7/11/11		EE	Fortis pays approx. $35.10/share cash & assumes approx. $226.4 mill in debt.	701.6
1/8/11	Duke Energy	Progress Energy	Completed		7/3/12	18	EE	0.87083 Duke shares (after 1-3 reverse split) for each Progress share + assume $12.1 billion net debt.	32,000.0
7/11/11	Gaz Metro LP	Central Vermont Public Service Corp	Completed		6/27/12	12	GE	Gaz Métro pays $35.25/share for each CVPS share & assumes $226 million debt.	704.2
10/16/10	Northeast Utilities	NSTAR	Completed		4/10/12	18	EE	1.312 NU shares for each NSTAR shr, plus $3.36 bill assume debt	7,566.7
4/28/11	Exelon Corp.	Constellation Energy Group Inc.	Completed		3/12/12	11	EE	CEG receive 0.93 shares of EXC for each CEG share. EXC assumes approx. $2.9 bill net debt	10,623.2
4/19/11	AES Corporation	DPL Inc.	Completed		11/28/11	7	EE	AES pays 30.00/share cash & assumes approx $1.1 billion of net debt	4,613.2
4/28/10	PPL Corp.	E.ON U.S.	Completed		11/1/10	6	EE	$6.83 billion cash + $764.0 million in assumed debt	7,625.0
3/12/10	Emera Inc	Maine & Maritimes	Completed		12/21/10	9	EE	$76 mm cash + $28.6 mm debt + $13.8mm postretirement benefits	117.4
2/10/10	FirstEnergy	Allegheny Energy	Completed		2/25/11	12	EE	$4.3 billion in equity + $4.7 billion in assumed debt	9,273.2
9/17/08	Berkshire Hathaway	Constellation Energy Group Inc.	Withdrawn		12/17/08		PE	$4.7 bill cash + $4.4 bill net debt and adjustments	9,152.5

7/25/08	Sempra Energy	EnergySouth Inc.	Completed		10/1/08	3	EG	$499 million cash + 283 million debt	771.9
7/1/08	MDU Resources Group, Inc.	Intermountain Gas Co.	Completed		10/1/08	3	EG	$245 million cash + $82 million debt	327.0
6/25/08	Duke Energy	Catamount Energy Corp.	Completed		9/15/08	3	EP	$240 million cash + $80 million assumed debt	320.0
2/15/08	Unitil Corp.	Northen Utilities / Granite State Gas Transmission	Completed		12/1/08	10	EG	$160 million cash	160.0
1/12/08	PNM Resources, Inc.	Cap Rock Holding Corp.	Withdrawn		7/22/08		EE	$202.5 million	202.5
10/26/07	Macquarie Consortium	Puget Energy	Completed		2/6/09	16	EE	$3.5 billion cash + $3.02 billion net debt	6,520.2
6/25/07	Iberdrola S.A.	Energy East Corp.	Completed		9/16/08	15	EE	$4.5 billion cash + $4.1 billion net debt	8,600.0
2/26/07	KKR & Texas Pacific Group	TXU Corp.[1]	Completed	Energy Future Holdings Corp.	10/10/07	8	PE	$31.8 billion cash + $12.1 billion net debt	43,882.0
2/7/07	Black Hills Corp. / Great Plains Energy Inc.[2]	Aquila Inc. (CO elec. util. + CO, KS, NE, IA gas utils.)	Completed		7/14/08	17	EG	$940 million cash +working capital and other adjustments	940.0
7/8/06	MDU Resources Group, Inc.	Cascade Natural Gas Corporation	Completed		7/2/07	12	EG	$305.2mm in cash + ($173.6 in debt - $13.0 in cash equivalents)	465.8
7/8/06	WPS Resources Corporation	Peoples Energy Corporation	Completed	Integrys Energy Group	2/21/07	7	EG	$2.47 billion	2,472.4
7/5/06	Macquarie Consortium	Duquesne Light Holdings	Completed		5/31/07	10	EE	$1.59 billion cash + $1.09 billion total debt	2,674.4
6/22/06	Gaz Metro LP	Green Mountain Power Corp.	Completed		4/12/07	10	EE	$187 million in cash + ($100.8 debt - $9.1mm in cash equivalents)	279.5
5/11/06	ITC Holdings Corp	Michigan Electric Transmission Co.	Completed		10/10/06	5	EE	$485.6mm cash + $70mm common stock + $311mm assumed debt	866.6
4/25/06	Babcock and Brown Infrastructure	NorthWestern Corp.	Withdrawn		7/24/07		EE	$2.2 billion cash	2,200.0
2/27/06	National Grid	KeySpan Corp.	Completed		8/24/07	18	EE	$7.4 billion cash + $4.5 billion long-term debt	11,877.5
12/19/05	FPL Group Inc.	Constellation Energy Inc.	Withdrawn		10/25/06		EE	$11.3 billion equity + $4.1 billion net debt and pension liabilities	15,311.5
5/24/05	MidAmerican Energy Holdings Co.	Pacificorp	Completed		3/21/06	10	EE	$5.1 billion cash + $4.3 billion in net debt and preferred stock	9,300.0
5/9/05	Duke Energy Corp.	Cinergy Corp.	Completed		4/3/06	11	EE	$9.1 billion equity + $5.5 billion net debt and pension liabilities	14,600.0
12/20/04	Exelon Corp.	Public Service Enterprise Group	Withdrawn		9/14/06		EE	$12.3 billion in equity + $13.4 billion in net debt and pension liabilities	25,700.0
7/25/04	PNM Resources	TNP Enterprises	Completed		6/6/05	12	EE	$189 million in stock and cash and $835 million in debt	1,024.0
2/3/04	Ameren Corp	Illinois Power[3]	Completed		10/1/04	8	EE	$1.9 billion in debt, pref stock, & other liab + $400 million in cash	2,300.0
11/24/03	Saguaro Utility Group L.P.	UniSource Energy	Withdrawn		12/30/04		PE	$850 million cash + $2 billion in debt	2,850.0
11/3/03	Exelon Corp.	Illinois Power	Withdrawn		11/22/03		EE	$275 million cash + $1.8 billion in debt + $150 million promissory note	2,225.0
4/30/02	Aquila Inc	Cogentrix Energy Inc	Withdrawn		8/2/02		EIPP	$415 million cash + $1.125 billion in assumed debt	1,540.0
4/29/02	Ameren Corp	CILCORP[4]	Completed		1/31/03	9	EE	$541 million cash + $781 in assumed debt + $41 million in pref stock	1,400.0
10/8/01	Northwest Natural Gas	Portland General	Withdrawn		5/16/02		GE	$1.55 billion cash + $250mm in stock	1,800.0
9/20/01	Duke Energy	Westcoast Energy	Completed		3/14/02	6	EG	Equity + cash valued at $27.90 per Westcoast share	8,500.0
9/10/01	Dominion Resources	Louis Dreyfus Natural Gas	Completed		11/1/01	2	EG	$890mm cash + $900mm stock +$505mm debt	2,295.0
2/20/01	Energy East	RGS Energy	Completed		6/28/02	16	EE	$1.4 bill. cash & equity + $1.0 bill. net debt	2,400.0
2/12/01	Pepco	Conectiv	Completed		8/1/02	18	EE	$2.2 bill cash & equity + $2.8 bill. net debt	5,000.0
11/9/00	PNM	Western Resources[5]	Withdrawn		1/8/02		EE	Stock transfer	4,442.0
10/2/00	NorthWestern	Montana Power[6]	Completed		2/15/02	16	EE	$1.1 billion in cash	1,100.0
9/5/00	National Grid Group	Niagara Mohawk	Completed		1/31/02	16	EE	$19 per share	8,900.0
8/8/00	FirstEnergy	GPU Inc.	Completed		11/7/01	15	EE	$35.60 per share	12,000.0
7/31/00	FPL Group	Entergy	Withdrawn		4/2/01		EE	1/1 - FPL, 0.585/1 - ETR	27,000.0
7/17/00	AES Corporation	IPALCO	Completed		3/27/01	8	IPPE	$25 per share	3,040.0
6/30/00	NS Power	Bangor Hydro	Completed	Emera	10/10/01	16	EE	$26.50 per share	206.0
5/30/00	WPS Resources	Wisconsin Fuel and Light	Completed		4/2/01	11	EG	1.73 shares of WPSR	55.0
2/28/00	PowerGen plc	LG&E	Completed		12/11/00	10	EE	$24.85 per share	5,400.0
8/8/00	FirstEnergy	GPU Inc.	Completed		11/7/01	15	EE	$35.60 per share	12,000.0
7/31/00	FPL Group	Entergy	Withdrawn		4/2/01		EE	1/1 - FPL, 0.585/1 - ETR	27,000.0
7/17/00	AES Corporation	IPALCO	Completed		3/27/01	8	IPPE	$25 per share	3,040.0
6/30/00	NS Power	Bangor Hydro	Completed	Emera	10/10/01	16	EE	$26.50 per share	206.0
5/30/00	WPS Resources	Wisconsin Fuel and Light	Completed		4/2/01	11	EG	1.73 shares of WPSR	55.0
2/28/00	PowerGen plc	LG&E	Completed		12/11/00	10	EE	$24.85 per share	5,400.0

[1] TXU (now Energy Future Holdings Corp.) was acquired by the Texas Energy Future Holdings Limited Partnership (TEF) on 10/10/2007. TEF was formed by a group of investors led by Kohlberg Kravis Roberts and Texas Pacific Group to facilitate the merger.

[2] Aquila was divided with Black Hills Corp. acquiring the electric utility in Colorado and NG utilities in CO, IA, KS, and NE. Great Plains Energy Inc. acquired the MI electric utility, stock, and other corporate assets.

[3] Ameren purchased Illinois Power from Dynegy Corporation. Dynegy Corp acquired Illinois Power in February 2000.

[4] Ameren purchased CILCORP from AES Corporation. AES Corp acquired CILCORP in October 1999.

[5] PNM purchased Western Resources' electric operations including generation, transmission, and distribution.

[6] NorthWestern Corporation purchased Montana Power's electric and natural gas transmission and distribution assets.

General Note: sum of Announced, Completed, Withdrawn, and Pending may not total due to inclusion of transactions announced prior to the 1994 window (e.g., a transaction announced in 1993 and completed in 1994 is included as a completion, but not as an announcement).

C = Completed	E = Electric
W = Withdrawn	G = Gas
PN = Pending	O = Oil
	IPP = Independent Power Producer
	P = Privatized

Source: EEI Finance Department, SNL Financial de-risking the company and prioritizing investments in its core regulated businesses. AEP said net sale proceeds of approximately $1.2 billion will fund opportunities to develop clean energy infrastructure. In 2022, AEP announced it would divest unregulated commercial renewables businesses over the next two years and focus on transmission and regulated renewable investments.

Divestitures To Fund Regulated Electric Capital Expenditures

On July 10, 2023, Dominion Energy said it agreed to sell its 50% interest in the Cove Point liquified natural gas (LNG) export facility to its operator, Berkshire Hathaway, in a transaction valued at $3.5 billion. Cove Point is an LNG shipping terminal on Maryland's Chesapeake Bay. Consistent with its overall strategic review, Dominion called the Cove Point investment non-core to Dominion Energy and said the sale shows its commitment to a strong credit profile as it focuses on state-regulated electric utility operations. The sale was completed on September 1.

On February 2, 2023, FirstEnergy said it would sell an additional 30% ownership interest in its FirstEnergy Transmission (FET) business to Brookfield Super-Core Infrastructure Partners (Brookfield). FirstEnergy said proceeds from the $3.5 billion all-cash deal will strengthen its financial position and support additional smart grid and clean energy investments in its regulated transmission and distribution businesses. In May 2022, FirstEnergy completed the sale of a 19.9% non-controlling interest in FET to Brookfield. FirstEnergy noted it will remain the majority owner of FET and FirstEnergy's workforce will continue to run the business.

On June 20, 2023, NiSource said it agreed to sell a 19.9% interest in its Indiana electric and gas utility NIPSCO to infrastructure investor Blackstone Group for $2.15 billion. NiSource called the transaction a highly attractive and efficient form of equity financing. NiSource said it will use the capital infusion to support NIPSCO's growth, de-lever its balance sheet and fund the renewable generation transition underway. Through 2030, NIPSCO expects to invest $3.5 billion in electric generation transition investments, with this investment primarily focused on installing new renewable generation to replace coal-fired generation.

At year-end 2023, most industry analysts expected whole company M&A to remain slow. The lower stock prices, as of December 31, 2023, made equity currencies less valuable and the industry's focus on strengthening balance sheets to fund internal capex makes uncertain regulatory approval a risky proposition. Yet, by its nature, M&A is hard to predict, and a changing macro landscape combined with company-specific nuance may allow even larger deals to make sense. Time will tell if the EEI list of utilities remains at 39 at year-end 2024 for a fifth straight year.

Construction

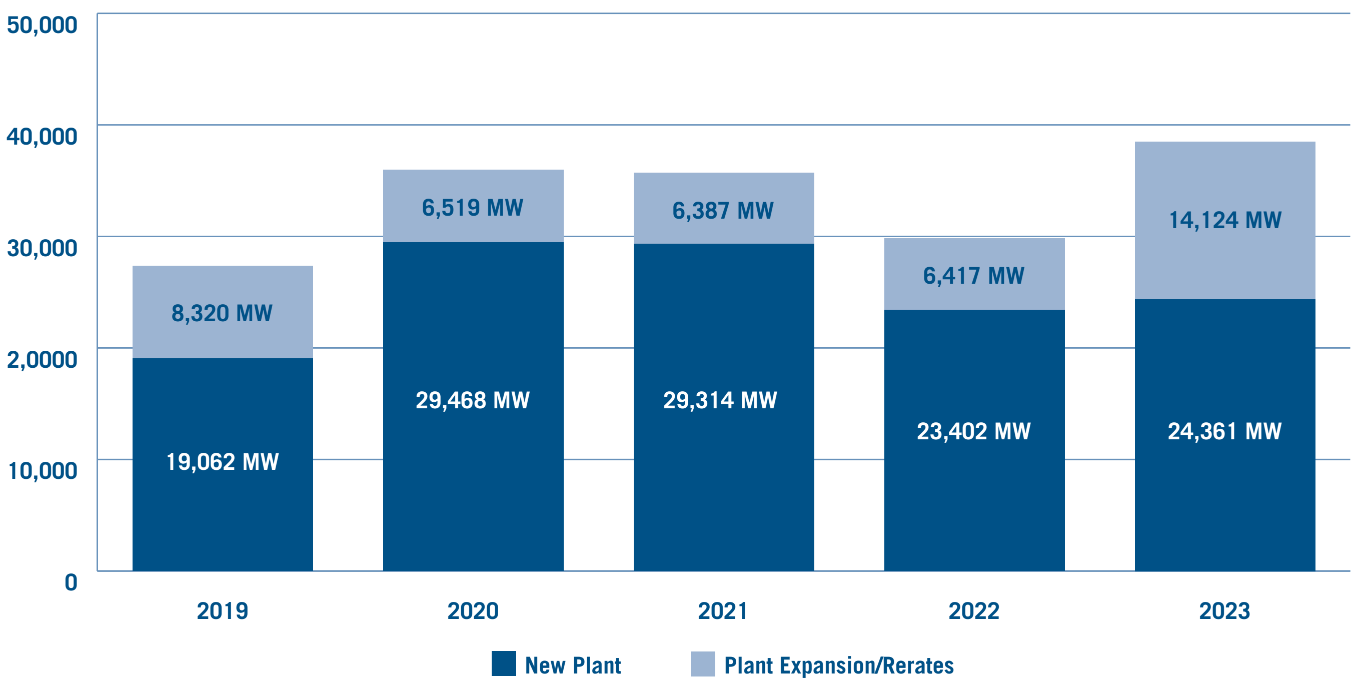
The industry brought 46,003 MW (38,484 MW generation and 7,518 MW storage) of new capacity online in 2023, 35% more than the 34,148 MW in 2022. The increase from 2022 to 2023 was primarily driven by expansions in solar, natural gas, and storage capacity.

Solar installations increased 58%, from 12,279 MW in 2022 to 19,438 MW in 2023. New natural gas capacity brought online increased from 6,978 MW in 2022 to 11,109 MW in 2023. New wind capacity was the only fuel type that declined, from 10,148 MW in 2022 to 6,340 MW in 2023. Wind as a generation source may be maturing after decades of rapid growth. Energy storage installations increased 74%, from 4,329 MW in 2022 to 7,518 MW in 2023.

New power plants comprised 63% of 2023's total new generation capacity (excluding energy storage), lower than 2022's 78% share. Expansions and rerates in 2023 ac-

New Capacity Online (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY



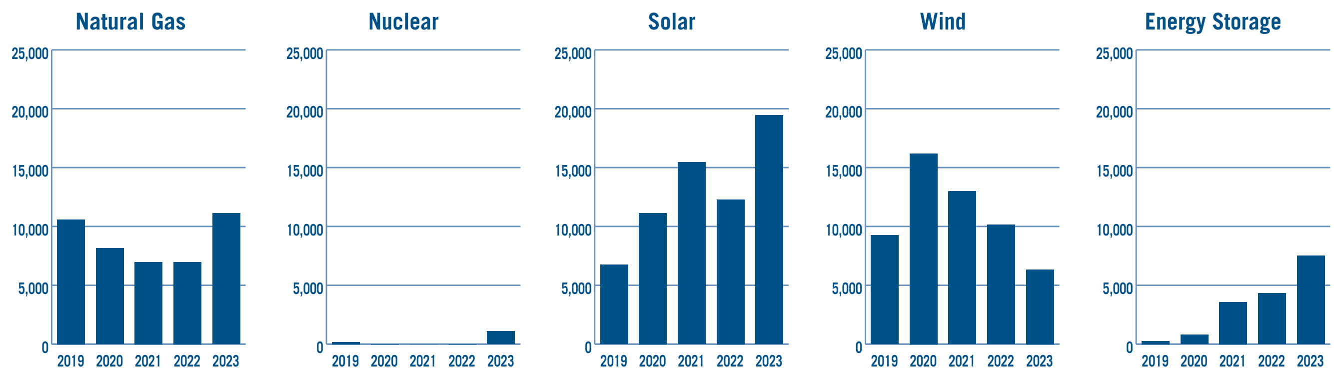
	2019	2020	2021	2022	2023
New Plant	19,062	29,468	29,314	23,402	24,361
Plant Expansion/Rerates	8,320	6,519	6,387	6,417	14,124
Total	**27,382**	**35,987**	**35,701**	**29,819**	**38,484**
Energy Storage	274	790	3,572	4,329	7,518

Notes: Includes all new capacity placed on the grid by U.S. investor-owned utilities, independent power producers, municipals, co-ops, government authorities and corporations. Totals may reflect rounding.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

New Capacity Online by Fuel Type (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY



Fuel Type	2019	2020	2021	2022	2023
Coal	–	–	–	–	–
Natural Gas	10,597	8,146	6,976	6,978	11,109
Nuclear	175	20	-	17	1,100
Solar	6,741	11,144	15,463	12,279	19,438
Wind	9,242	16,194	12,988	10,148	6,340
Other	627	483	274	396	498
Total	**27,382**	**35,987**	**35,701**	**29,819**	**38,484**
Energy Storage	274	790	3,572	4,329	7,518

Note: Includes all new capacity placed on the grid by U.S. investor-owned utilities, independent power producers, municipals, co-ops, government authorities and corporations. Other includes biomass, diesel/fuel oil, fuel cells, geothermal, landfill gas, pet coke, waste heat, water, and wood. All Other includes Coal, Nuclear, and Other. Totals may reflect rounding.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

counted for the remaining 37%, an increase from 22% in 2022.

Renewables accounted for 67% of new generation capacity in 2023 versus 75% in 2022. Supported by continually declining costs, wind and solar have powered more than half of the new capacity added in each of the last five years. Investor-owned utilities that brought the most new renewable capacity online were NextEra Energy (1,687 MW of wind, 3,128 MW of solar), AES (238 MW of wind, 525 MW of solar), Alliant Energy (639 MW of solar), WEC Energy Group (351 MW of wind), Duke Energy (316 MW of solar), National Grid (274 MW of solar), TECO Energy (230 MW of solar), and Berkshire Hathaway (202 MW of wind).

Natural gas accounted for 29% of generation capacity added in 2023. Combined cycle technology accounted for 71% of this new natural gas capacity compared with 51% in 2022. New plants represented 15% of the natural gas total, expansions accounted for 79%, and the remaining 6% were rerates. Tennessee Valley Authority led natural gas additions with 1,500 MW. Southern Company was second with 846

New Capacity Online by Region (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY

Region	New Plant and Expansion/Rerates 2019	2020	2021	2022	2023	Energy Storage 2019	2020	2021	2022	2023
ASCC	33	11	9	8	15	1	–	–	47	–
ERCOT	5,317	5,869	8,912	6,706	6,134	14	139	642	1,364	1,745
HCC	187	60	17	42	66	34	–	46	39	156
MRO	3,321	4,870	2,918	2,386	1,934	–	–	6	12	4
NPCC	2,206	1,665	1,477	1,129	1,566	98	121	165	150	124
RFC	4,023	2,794	6,153	5,576	7,096	31	11	21	6	62
SERC	7,308	8,964	7,422	5,474	12,439	16	22	562	91	128
SPP	1,119	3,367	2,745	2,708	1,757	24	–	–	–	–
WECC	3,869	8,388	6,047	5,789	7,478	57	497	2,129	2,621	5,299
Total	**27,382**	**35,987**	**35,701**	**29,819**	**38,484**	**274**	**790**	**3,572**	**4,329**	**7,518**

Notes: Data includes new plants, rerates, and expansions of existing plants, including nuclear uprates. Totals may reflect rounding.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

Announced New Capacity by Region and Fuel Type in 2023 (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY

Fuel Type	Alaska Systems Coordinating Council	Electric Reliability Council of Texas	Hawaiian Coordinating Council	Midwest Reliability Organization	Northeast Power Coordinating Council	Reliability First	SERC Reliability Corp	Southwest Power Pool Inc.	Western Electricity Coordinating Council
Coal	–	–	–	–	–	–	–	–	–
Natural Gas	–	2,215	–	588	–	120	4,628	454	627
Nuclear	–	-	–	–	–	135	–	–	–
Solar	8	691	3	715	3,391	4,890	9,927	477	7,301
Wind	–	258	–	56	4,009	937	–	–	4,426
Hydro	–	–	–	–	–	–	–	–	–
Other	–	–	–	4	–	17	728	4	466
Total	**8**	**3,164**	**3**	**1,363**	**7,401**	**6,099**	**15,283**	**936**	**12,820**
Energy Storage	0	2,592	0	179	15,556	1,352	1,162	0	9,090

Notes: Data includes new plants and expansions of existing plants announced, including nuclear uprates. Other includes biomass, diesel/fuel oil, fuel cells, geothermal, landfill gas, pet coke, waste heat, and wood. Totals may reflect rounding.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

MW. TECO Energy was third with 494 MW of gas turbine expansions.

A total of 7,518 MW of energy storage was brought online in 2023, a 74% increase from 2022. Investor-owned utilities that brought the most energy storage capacity online included NextEra Energy (1,535 MW), Consolidated Edison (258 MW), Berkshire Hathaway (200 MW), Hawaiian Electric (120 MW), and AES Corporation (100 MW).

New Capacity Online by Region

The SERC Reliability Corporation brought the most new generation capacity online of any region in 2023; the 12,439 MW total (excluding energy storage) was more than double 2022's 5,474 MW. An increase in new solar generation, from 3,819 MW to 5,061 MW, and in natural gas generation, from 1,509 MW to 5,359 MW, were the primary contributors to the increase. The Western Electricity Coordinating Council (WECC) also increased new capacity, rising from 5,789 MW in 2022 to 7,478 MW in 2023; this was primarily driven by an increase in solar generation, from 3,327 MW to 5,946 MW. The Reliability First Corporation (RFC) had an increase of 1,520 MW, from 5,576 MW in 2022 to 7,096 MW in 2023, with new solar generation rising from 1,196 MW to 2,465 MW. The Southwest Power Pool (SPP) had the largest absolute decrease in new generation added, from 2,708 MW in 2022 to 1,757 MW in 2023; the decline resulted from reduced additions of wind (2,672 MW to 1,452 MW).

WECC brought the most energy storage capacity online of any region at 5,299 MW in 2023 compared to 2,621 MW in 2022. ERCOT was second with 1,745 MW in 2023 compared to 1,364 MW in 2022. Together, both regions accounted for 94% of energy storage capacity additions in 2023; this was primarily due to the high penetration of wind and solar generation in each region.

Announcements by Region and Fuel Type

New generation capacity (excluding energy storage) announced in 2023 totaled 47,077 MW. Renewable capacity accounted for 79% of the total, with solar at 58% and wind at 21%. Natural gas accounted for 18%. The remaining 3% was nuclear and other. No new coal capacity was announced in 2023.

New solar announcements declined 26%, from 37,089 MW in 2022 to 27,404 MW in 2023. New wind generation capacity announcements fell 16%, from 11,484 MW in 2022 to 9,687 MW in 2023. Higher interest rates and interconnection queue challenges may have contributed to lower renewable capacity announcements.

Announced new natural gas capacity rose for the first time since 2020, increasing from 1,337 MW in 2022 to 8,632 MW in 2023. SERC Reliability Corporation (SERC) and Electric Reliability Council of Texas (ERCOT) together accounted for 79%, or 6,844 MW, of the total new natural gas generation capacity announcements.

SERC Reliability Corporation (SERC) saw the most announced new generation of any region in 2023, at 15,283 MW, with 65% solar, 30% natural gas, and 5% other. The Western Electricity Coordinating Council (WECC) region had the second-highest amount of any region, at 12,820 MW, with 57% solar, 35% wind, 5% natural gas, and 4% other.

Energy storage produced the strongest year-to-year growth in announced new capacity, with 29,931 MW in 2023 compared to 22,522 MW announced in 2022. Northeast Power Coordinating Council (NPCC), Western Electricity Coordinating Council (WECC), and Electric Reliability Council of Texas (ERCOT) together accounted for 91%, or 27,238 MW, of the total new energy storage capacity announcements in 2023.

Projected Capacity Additions

As of April 2024, new generation capacity (excluding energy storage) expected to come online from 2024 through 2028 totaled 370,041 MW. Renewable capacity accounted for most of the total, with solar representing 63% and wind 26%. The third-largest category was natural gas, at 9%, followed by nuclear at 1% and other at 1%. Of the 370,041 MW total, 50% was in the proposal stage, with only 15% under construction and 4% in the testing stage.

Separately, new energy storage capacity expected to come online from 2024 through 2028 totaled 130,188 MW. Approximately 49% was in the proposal state, with 10% under construction and 2% in the testing stage.

Retirements

From 2024 through 2028, 111,997 MW of capacity is scheduled to be retired. Coal continues to

Stage of Announced Capacity Additions (MW) 2024-2028

U.S. ELECTRIC UTILITY AND NON-UTILITY

Fuel Type	Testing	Under Construction	Site Prep	Permitted	Application Pending	Feasibility	Proposed	Total
Natural Gas	665	5,349	–	6,871	7,916	171	13,705	34,677
Nuclear	1,100	–	–	–	–	–	1,693	2,793
Solar	9,414	36,259	–	43,339	34,268	–	109,378	232,658
Wind	2,178	12,019	–	10,887	10,359	3,270	57,070	95,782
Other	7	1,287	–	316	71	1,343	1,107	4,131
Total	**13,364**	**54,913**	**–**	**61,412**	**52,614**	**4,784**	**182,953**	**370,041**
Energy Storage	2,925	12,556	–	15,400	31,473	4,526	63,308	130,188

Notes: Other includes biomass, diesel/fuel oil, fuel cells, geothermal, landfill gas, pet coke, waste heat, hydroelectric turbines, wood. Totals may reflect rounding. Data includes new plants and expansions of existing plants, including nuclear uprates. Data includes projects with an expected online date up to 2028.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

lead projected retirements, accounting for 52% of the total. Natural gas ranked second and fuel oil third in terms of projected retirements over the full five-year period.

Natural gas retirements are expected to peak in 2025 at 17,786 MW. Wind and solar retirements remain minimal, together accounting for only a combined 0.13% of total projected retirements from 2024 through 2028. Nuclear retirements peaked in 2020, at 2,031 MW, with the shutdowns of the Duane Arnold Energy Center in Iowa (660 MW) and Indian Point Unit 2 in New York (1,371 MW). There were no nuclear retirements in 2023 and no nuclear capacity is expected to retire over the next five years due to the cancelled shutdown of the 2,323 MW Diablo Canyon Power Plant in California.

Energy Storage

Energy storage continues to be a fast-growing area for the industry. At year-end 2023, utilities owned or operated 40,215 MW of storage capacity, or about 93% of all energy storage in the United States. Since 2018, total installed energy storage capacity nationwide owned or operated by utilities has increased by 71%.

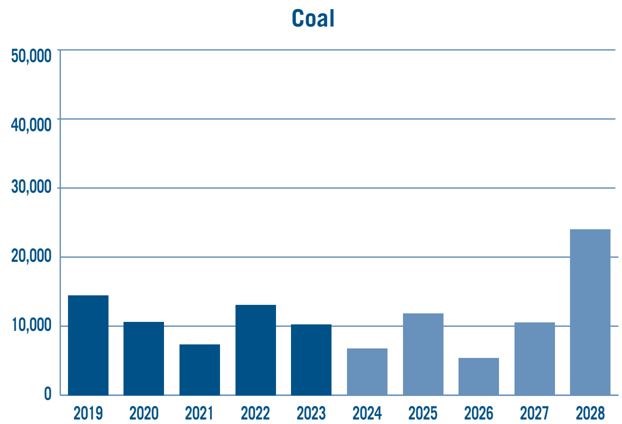
Pumped hydro accounted for 51%, or 21,992 MW, of the total energy storage capacity owned by both U.S. investor-owned utilities and non-utilities. Battery storage is the fastest-growing storage technology in terms of capacity, with the total deployed up more than ten times from 2,118 MW in 2019 to 20,623 MW in 2023. Between 2019 and 2023, battery storage grew from 8.6% of total energy storage capacity to 47.5%.

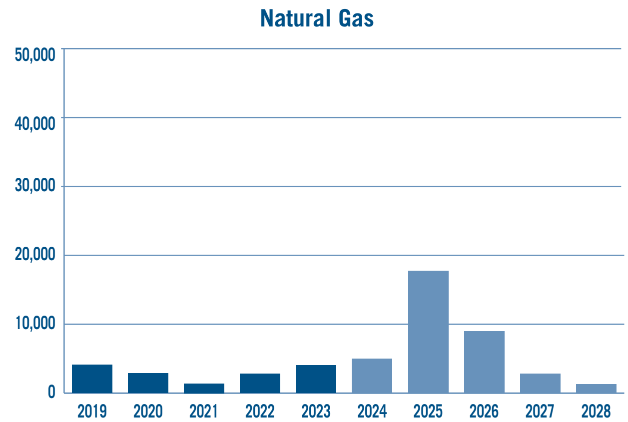
The fast-paced growth of battery storage is likely to continue; 72,788 MW of battery capacity is expected to come online from 2024 through 2028. Utilities will continue to lead battery storage deployment, accounting for 59,472 MW or 82% of this expected increase in battery storage capacity.

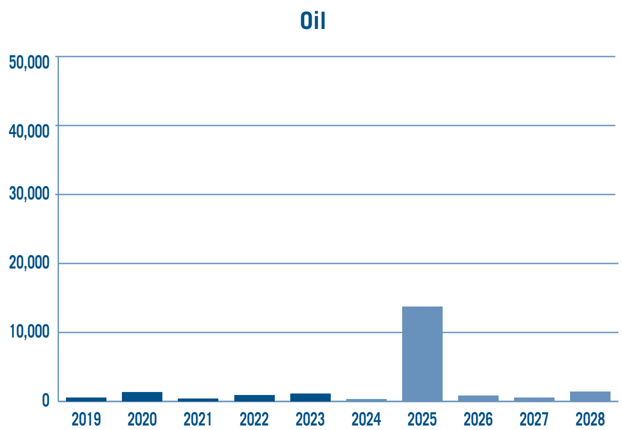
Energy storage capacity driven by other technology is also expected to increase during this time period, including 14,705 MW of additional pumped hydro. Three rerate projects will drive 865 MW of new hydro capacity: Salina by Grand River Dam Authority in Oklahoma (197 MW), Lewiston Niagara by the New York Power Authority (20 MW), and Bad Creek by Duke Energy in South Carolina (648 MW). One expansion project accounts for 1,000 MW of new hydro capacity, the Swan Lake North Hydro Pumped Storage Project in Oregon. A large compressed air energy storage project is also expected to enter operation. The Rosamond CASE project (500 MW) in California is expected to come online in 2024.

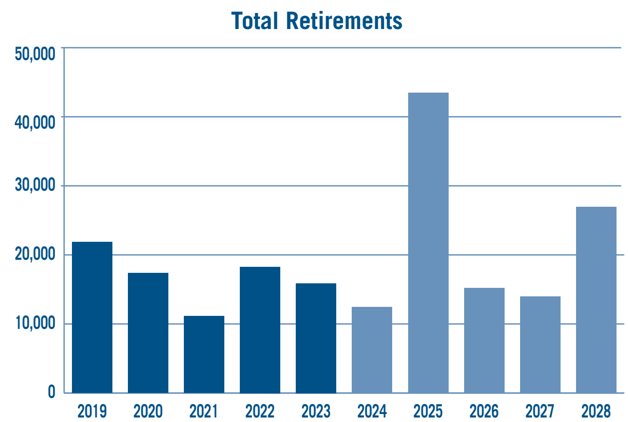
Actual 2019-2023 and Planned 2024-2028 Retirements (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY









Actual Planned

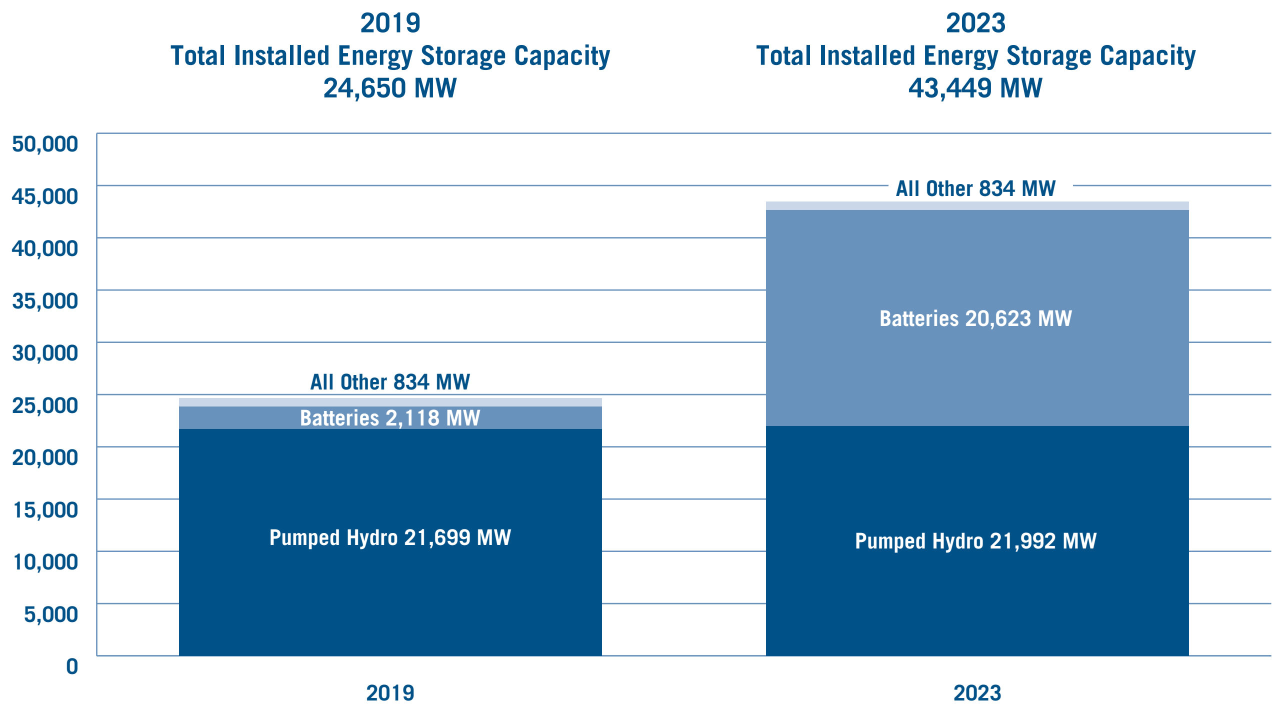
	Actual					Planned				
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coal	14,460	10,648	7,361	13,097	10,250	6,800	11,834	5,396	10,546	24,015
Natural Gas	4,111	2,858	1,381	2,821	4,055	4,988	17,786	8,949	2,815	1,294
Nuclear	1,641	2,031	1,074	823	-	-	-	-	-	-
Oil	546	1,366	397	903	1,137	345	13,757	849	522	1,421
Solar	8	-	275	4	3	-	-	2	4	7
Wind	210	259	303	294	99	139	1	-	-	-
Hydro	170	15	6	12	35	2	17	3	24	-
Other	740	211	345	326	303	173	43	-	52	213
Total	**21,887**	**17,388**	**11,141**	**18,278**	**15,882**	**12,449**	**43,437**	**15,199**	**13,963**	**26,950**

Notes: 2019-2023 is actual plants retired. 2024-2028 is projected based on announced or expected retirements. Other includes biomass, diesel/fuel oil, fuel cells, geothermal, landfill gas, pet coke, waste heat, wood, and energy storage. All Other includes Coal, Nuclear, and Other.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

Total Installed Energy Storage Capacity by Technology (MW)

U.S. ELECTRIC UTILITY AND NON-UTILITY



Notes: All other includes Thermal, CAES, and Flywheel
Sources: The Velocity Suite, Hitachi Energy; Wood Mackenzie Energy Storage Database; U.S. Department of Energy Sandia Energy Storage Dataset, EEI Energy Supply and Finance Department, March 2024

Fuel Sources

Net Generation and Electricity Sales

Electric power industry net generation in 2023 totaled 4,251,790 gigawatt hours (GWh), a decrease of 0.9% versus 2022. Nationwide retail electricity sales declined 1.7%, with lower totals across 38 states and the District of Columbia, after rising 2.7% in 2022. The states with the largest year-to-year percentage increases in retail electricity sales in 2023 were North Dakota (+12.8%), New Mexico (+5.7%), Texas (+2.4%) and Wyoming (+2.0). Kentucky (-7.2%), California (-5.4%), Maine (-5.4%) and New Jersey (-5.4%) had the largest percentage declines.

Total electricity sales to commercial customers decreased 1.1% in 2023 after two consecutive annual increases. Commercial sales rose 3.4% in 2022 and 2.9% in 2021 as business activity recovered from 2020's pandemic-related shutdowns. Most states experienced a decrease in commercial sales in 2023, with Kentucky (-4.8%), New Jersey (-4.6%) and Pennsylvania (-4.5%) experiencing the largest declines. However, commercial sales rose in a few states with North Dakota (+14.6%), South Carolina (+4.9%) and Mississippi (+4.8%) producing the largest percentage gains.

Total electricity sales to industrial customers increased 0.4% compared to 2022, showing year-to-year gains in 14 states. The nationwide gain was lower than 2022's 0.7% and 2021's 2.9% , which were likely driven by the resumption and expansion of industrial activity after states relaxed COVID-19 protocols. North Dakota (+18.7%) and Texas (+15.3%) had the highest percentage increases. Texas showed the highest increase in absolute terms, at 22,049 GWh. Most states experienced a decrease in industrial sales in 2023, with Oregon (-13.3%), Maine (-12.4%), California (-11.6%) and New Jersey (-10.0%) showing the largest percentage declines.

Total electricity sales to residential customers decreased 3.6% after rising 3.5% in 2022. Louisiana (+1.5%), Arizona (+1.2%) and New Mexico (+1.0%) were among the few states with growth. Louisiana also experienced the highest growth in absolute terms, at 481 GWh. On the other hand, 44 states and the District of Columbia saw residential electricity sales decrease in 2023. West Virginia (-8.1%), California (-7.3%) and Pennsylvania (-7.0%) had the largest percentage declines.

The significant reduction in year-to-year residential sales across states may indicate that fewer people worked from home in 2023 compared to 2022. Increases in each of the two previous years resulted in part from progressive easing of the protocols put in place during the Covid-19 pandemic.

Fuel Sources for Net Electric Generation

U.S. ELECTRIC UTILITY AND NON-UTILITY

	2022r	2023
Coal	19.4%	15.9%
Natural Gas	39.3%	42.4%
Nuclear	18.0%	18.2%
Hydro	5.9%	5.6%
Renewables	16.5%	17.1%
Biomass	1.2%	1.1%
Geothermal	0.4%	0.4%
Solar	4.8%	5.6%
Wind	10.1%	10.0%
Other Fuels	0.9%	0.8%
Total	100.0%	100.0%

Notes: r = revised. Other fuels include: Pumped hydro, other gases, and diesel/fuel oil. Totals may reflect rounding.

U.S. Electric Utility: Owns and/or operates facilities within the U.S., its territories, or Puerto Rico for the generation, transmission, distribution, or sale of electric energy primarily for use by the public. This includes investor-owned utilities, public power, and cooperatives.

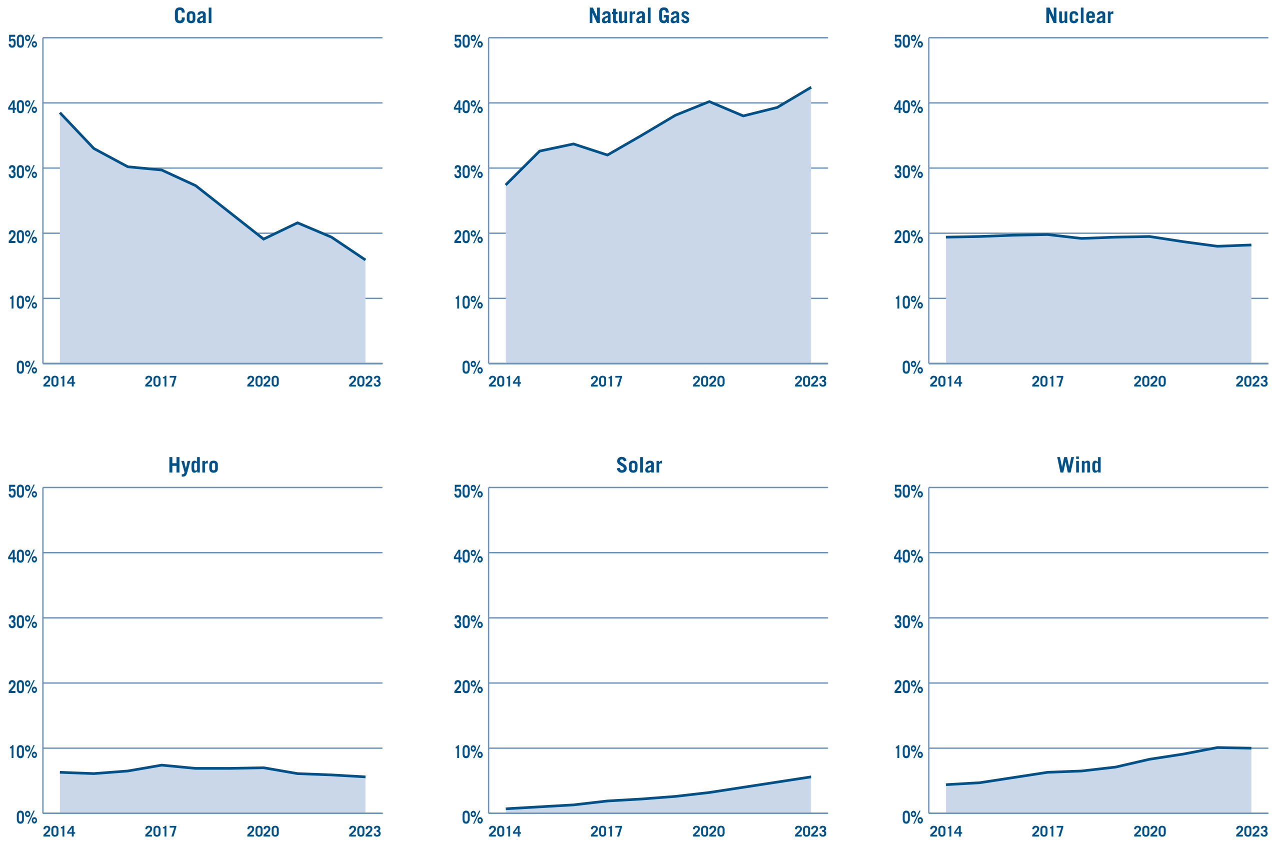
Non-Utility Power Producer: Includes qualifying cogenerators, qualifying small power producers, and other non-utility generators (including independent power producers) withouta designated franchised service area.

Source: U.S. Department of Energy, Energy Information Administration (EIA), EEI Energy Supply and Finance Dept, April 2024

Fuel Sources for Net Electric Generation

U.S. ELECTRIC UTILITY AND NON-UTILITY

Percent of Total U.S. Electric Generation



	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023
Coal	38.5%	33.0%	30.2%	29.7%	27.3%	23.2%	19.1%	21.6%	19.4%	15.9%
Natural Gas	27.4%	32.6%	33.7%	32.0%	35.0%	38.1%	40.2%	38.0%	39.3%	42.4%
Nuclear	19.4%	19.5%	19.7%	19.8%	19.2%	19.4%	19.5%	18.7%	18.0%	18.2%
Hydro	6.3%	6.1%	6.5%	7.4%	6.9%	6.9%	7.0%	6.1%	5.9%	5.6%
Solar	0.7%	1.0%	1.3%	1.9%	2.2%	2.6%	3.2%	4.0%	4.8%	5.6%
Wind	4.4%	4.7%	5.5%	6.3%	6.5%	7.1%	8.3%	9.1%	10.1%	10.0%
Other Fuels	3.2%	3.2%	3.0%	2.9%	2.9%	2.7%	2.6%	2.6%	2.5%	2.3%

Notes: r = revised.

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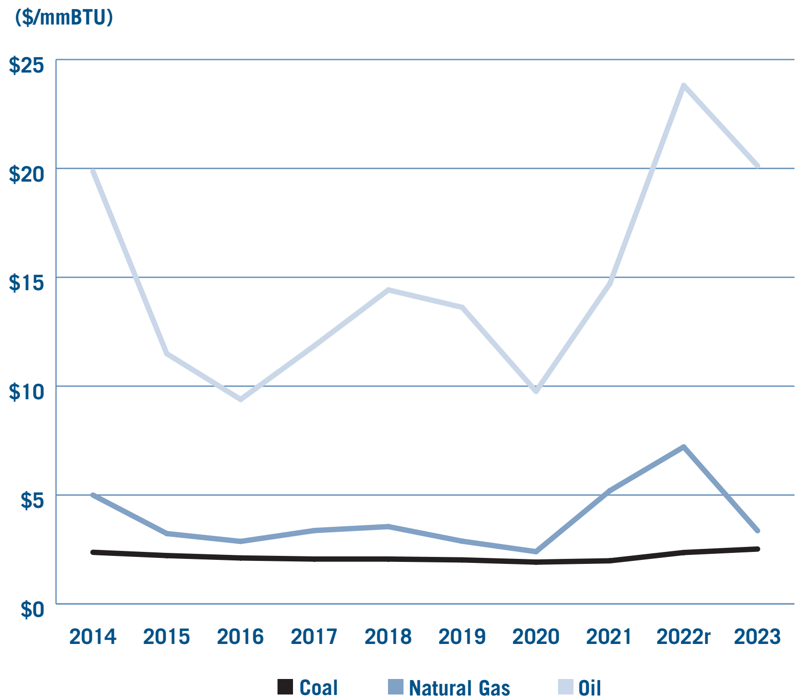
Source: Energy Information Administration (EIA), U.S. Department of Energy; EEI Energy Supply and Finance Department, April 2024

Average Cost of Fossil Fuels

U.S. ELECTRIC UTILITY AND NON-UTILITY



Notes: r = revised.

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Source: Energy Information Administration (EIA), U.S. Department of Energy; EEI Energy Supply and Finance Department, April 2024

Coal

Generation from coal-fired plants decreased in 2023, with coal accounting for 15.9% of total electricity generation nationwide. Coal's 675,264 GWh of generation placed it third, behind natural gas and nuclear, among the fuels that contributed to total nationwide generation. The coal fleet's capacity factor decreased from 48% in 2022 to 42% in 2023.

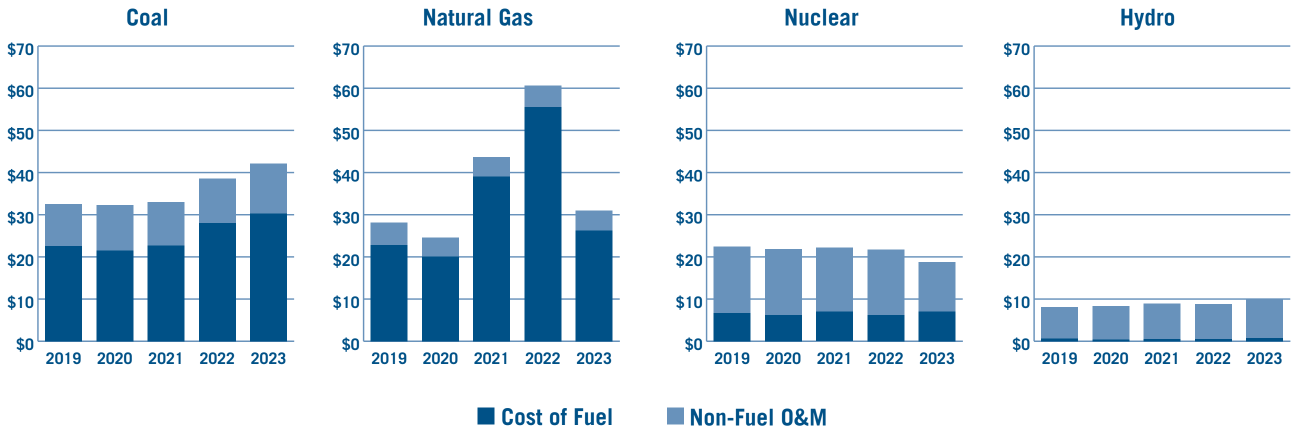
The price of coal combined with operations and maintenance costs for coal plants increased 9.1%, from \$38.56/MWh in 2022 to \$42.08/MWh in 2023. The average price of coal for electricity generation increased by 6.8%, from \$2.36 per million British Thermal Units (MMBtu) in 2022 to \$2.52 MMBtu in 2023. At the same time, average total operations and maintenance expense for coal increased by 11.2%, from \$10.56/MWh in 2022 to \$11.74/MWh in 2023. Given the small increase in overall generation cost for coal in 2023, along with a substantial decrease in natural gas fuel prices, coal was the most expensive fuel for electricity generation for the first time since 2020.

Natural Gas

Natural gas accounted for 42.4% of total generation from utility-scale

Average Cost to Produce Electricity ($/MWh)

U.S. ELECTRIC UTILITY AND NON-UTILITY



	Cost of Fuel					Non-Fuel O&M				
	2019	2020	2021	2022r	2023	2019	2020	2021	2022r	2023
Coal	$22.53	$21.52	$22.64	$28.00	$30.34	$10.00	$10.72	$10.30	$10.56	$11.74
Natural Gas	$22.72	$20.05	$39.04	$55.58	$26.21	$5.37	$4.51	$4.70	$5.07	$4.78
Nuclear	$6.69	$6.26	$6.98	$6.23	$7.04	$15.72	$15.55	$15.24	$15.42	$11.66
Hydro	$0.66	$0.45	$0.48	$0.48	$0.76	$7.44	$7.91	$8.53	$8.29	$9.36

Notes: r = revised. 2023 results are preliminary.

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Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2024

facilities in 2023, more than any other fuel type. Its share increased 3.1 percentage points from the 2022 level to a historical high. The average cost of natural gas for electricity generation fell dramatically, decreasing 53% from $7.21/MMBtu in 2022 to $3.36/MMBtu in 2023. As a result, the overall average cost to produce electricity from natural gas declined by 49% in 2023 versus 2022, and was 26% lower than the average cost to produce electricity from coal.

Renewables

The industry continues to add record amounts of renewable capacity. As a result, electric generation from carbon-free sources increased to 1,742,483 MWh in 2023, representing 41% of the electric power industry's total generation. Generation from all renewable sources was 967,136 MWh, or 22.7% of the total in 2023 compared with 962,100 MWh, or 22.4%, in 2022.

Generation from wind power decreased 2.1%, from 434,297 MWh in 2022 to 425,235 MWh in 2023 and accounted for 10% of total electricity generation. Solar generation increased 16.1%, from 205,079 MWh in 2022 to 238,121 MWh in 2023, reaching 5.6% of total electricity generation. Conventional hydroelectric generation declined to 239,855 MWh, a 5.9% reduction from 254,789 MWh in 2022. It accounted for 5.6% of electricity generation.

Nuclear

Nuclear generation increased 0.5% in 2023 and accounted for 18.2% of total electric power generation, up from 18% in 2022. The increase occurred despite recent nuclear plant retirements. From 2019 through 2023, 5,570 MW of nuclear capacity was retired. The most recent retirement was 823 MW at Palisades nuclear power plant in Michigan. Nuclear generators had an average capacity factor of 93% in 2023 compared to average capacity factors of 42% for coal and 39% for natural gas.

Nuclear fuel costs increased 13%, from $6.23/MWh in 2022 to $7.04/MWh in 2023. However, non-fuel operations and maintenance costs decreased 24%, from $15.42/MWh in 2022 to $11.66/MWh in 2023.

Industry Financial Performance

Income Statement

- Energy Operating Revenues declined 0.4% versus last year. U.S. electric output fell 1.6% as mild weather reduced the need for both winter heating and summer cooling. Total nationwide heating degree days were 9% lower than last year and total cooling degree days fell 11%. Eight of the nine U.S. power regions saw output declines, which ranged from -0.8% to -4.1%. The South Central region's 2.8% gain was the only year-to-year increase. Energy operating revenue was also constrained by a sharp decline in the cost of natural gas. These forces were partially offset by a 2.9% increase in the average retail price of electricity nationwide.

- While fuel price inflation drove Total Energy Operating Expenses sharply higher in 2021 and in 2022, the trend reversed in 2023. This line item decreased 14.0% as its two constituents each showed large year-to-year declines. Total Electrical Generation Cost fell 11.6% as the average cost of natural gas for electricity generation declined 53% year-to-year. A 6.3% rise in the average cost of coal for electricity generation only partially offset the impact of lower natural gas prices. Higher output from renewable generation (where fuel cost is zero) also constrained industry aggregate fuel costs. Gas Cost—which tracks fuel cost for the industry's natural gas distribution business segment—declined 24.5%.

- Operations and Maintenance (O&M) costs rose 2.2% over the 2022 total, a pace well below last year's 7.9% gain and 2021's 4.6% rise. O&M cost inflation was only 1.0% to 1.5% annually from 2018 through 2020. Utilities' O&M spending is benefitting from productivity gains resulting from smart-grid investment, and the industry worked hard to constrain O&M expenses during the pandemic to address revenue declines. Yet O&M spending is also driven by essential reliability needs. O&M costs rose, or were equal to last year, at 29 of the 43 utilities that report this line item. These costs declined at only 14 utilities.

- Depreciation & Amortization (D&A) expenses rose 5.8%. This metric increased for 38 of the 44 constituent companies, reflecting the industry's ongoing widespread and diverse investments in new clean generation, transmission, distribution, reliability, and grid modernization.

- Operating Income rose $14.4 billion, or 19.7%, versus 2022. Slightly lower energy operating revenues were offset by even lower electrical generation and gas costs, overcoming rising O&M and depreciation expenses. While most utilities are focused on state-regulated operations, enough variety remains in individual corporate structures and business models to make broad generalizations difficult. So does the variety of costs that can affect operating income. Despite the industry's aggregate increase, operating income was flat to lower at 15 utilities and rose at 29.

- Total Other Recurring Revenue rose $5.0 billion, or 66.9%, due almost entirely to a $5.8 billion jump in Other Revenue. This in turn resulted from accounting treatment for energy operations at just a few of the 44 underlying utilities and does not reflect a broad industry trend. In fact, one company contributed half the industry's aggregate gain.

- Interest Expense rose by 34.4%, reflecting the sharp rise in interest rates during 2022 and 2023 and widespread debt issuance to fund the clean energy capex programs seen across the industry. In a rare display of consistency between aggregate industry figures and individual company reports, this line item increased for all but one of the industry's 44 constituent companies.

- Net Income Before Taxes increased $9.8 billion or 20.8%. Net Income rose $8.9 billion or 20.4%. These figures are driven by the industry's largest companies and mask a wide variation in company-specific results. Pre-tax income rose at 25 companies and was unchanged or lower at 19. Net income rose at 26 and was unchanged or declined at 18. The year-to-year change in both metrics showed considerable variation across companies.
- The industry's aggregate Common Dividends payments rose 6.3% versus 2022, to $33.0 billion from $31.0 billion, although the average percentage dividend increase was 5.1%. Nearly all utilities raised their dividend in 2023. Income-oriented and risk-averse investors continue to benefit from the industry's reliable and growing stock dividends.

Consolidated Income Statement

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

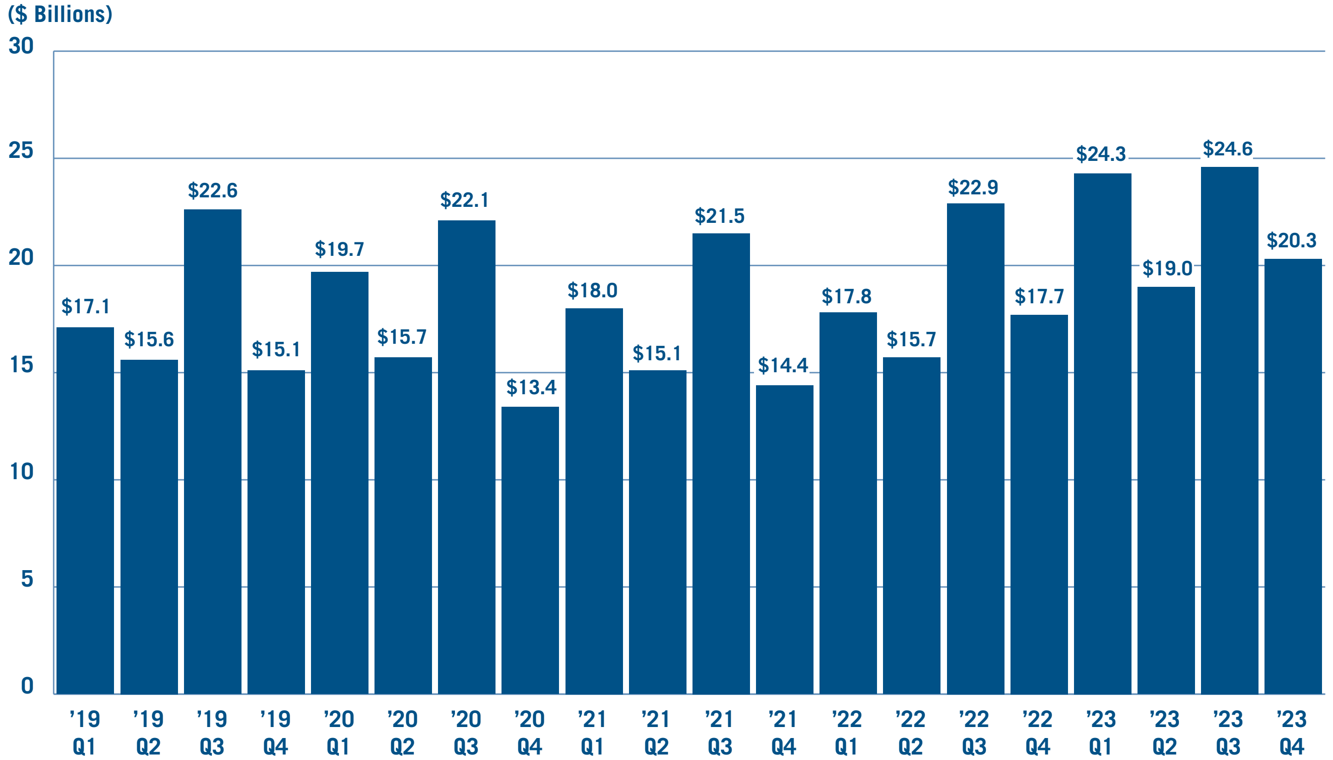
	12 Months Ended		
($ Millions)	**12/31/2023**	**12/31/2022r**	**% Change**
Energy Operating Revenues	$411,173	$412,757	(0.4%)
Energy Operating Expenses			
Total Electrical Generation Cost	106,348	120,305	(11.6%)
Gas Cost	20,653	27,341	(24.5%)
Total Energy Operating Expenses	**127,002**	**147,645**	**(14.0%)**
Revenues less energy operating expenses	**284,171**	**265,112**	**7.2%**
Other Operating Expenses			
Operations & maintenance	100,349	98,185	2.2%
Depreciation & Amortization	64,404	60,882	5.8%
Taxes (not income) - Total	23,518	22,986	2.3%
Other Operating Expenses	12,536	15,060	(16.8%)
Total Operating Expenses	**327,809**	**344,759**	**(4.9%)**
Operating Income	**87,686**	**73,267**	**19.7%**
Other Recurring Revenue			
Partnership Income	1,388	2,666	(47.9%)
Allowance for Equity Funds Used for Construction	2,761	2,279	21.1%
Other Revenue	8,319	2,523	229.7%
Total Other Recurring Revenue	**12,467**	**7,468**	**66.9%**
Non-Recurring Revenue			
Gain on Sale of Assets	1,501	441	240.8%
Other Non-Recurring Revenue	123	319	(61.5%)
Total Non-Recurring Revenue	**1,624**	**760**	**113.8%**
Interest expense	36,253	26,978	34.4%
Other expenses	187	822	(77.2%)
Asset Writedowns	2,905	2,489	16.7%
Other Non-Recurring Expenses	5,456	4,050	34.7%
Total Non-Recurring Expenses	8,361	6,540	27.8%
Net Income Before Taxes	**56,977**	**47,155**	**20.8%**
Provision for Taxes	2,448	3,064	(20.1%)
Dividends on Preferred Stock of Subsidiary	-	-	NM
Other Minority Interest Expense	-	-	NM
Minority Interest Expense	-	-	NM
Trust Preferred Security Payments	-	-	NM
Other After-tax Items	-	-	NM
Total Minority Interest and Other After-tax Items	-	-	NM
Net Income Before Extraordinary Items	**54,529**	**44,091**	**23.7%**
Discontinued Operations	(1,689)	(194)	772.4%
Change in Accounting Principles	-	-	NM
Early Retirement of Debt	-	-	NM
Other Extraordinary Items	-	-	NM
Total Extraordinary Items	(1,689)	(194)	772.4%
Net Income	**52,840**	**43,897**	**20.4%**
Preferred Dividends Declared	455	508	(10.5%)
Other Preferred Dividends after Net Income	2	2	0.0%
Other Changes to Net Income	2	(6)	(133.3%)
Net Income Attributable to Noncontrolling Interests	(266)	(513)	(48.1%)
Net Income Available to Common	**52,641**	**43,894**	**19.9%**
Common Dividends	**32,980**	**31,016**	**6.3%**

r = revised NM = not meaningful

Source: S&P Global Market Intelligence and EEI Finance Department.

Quarterly Net Operating Income

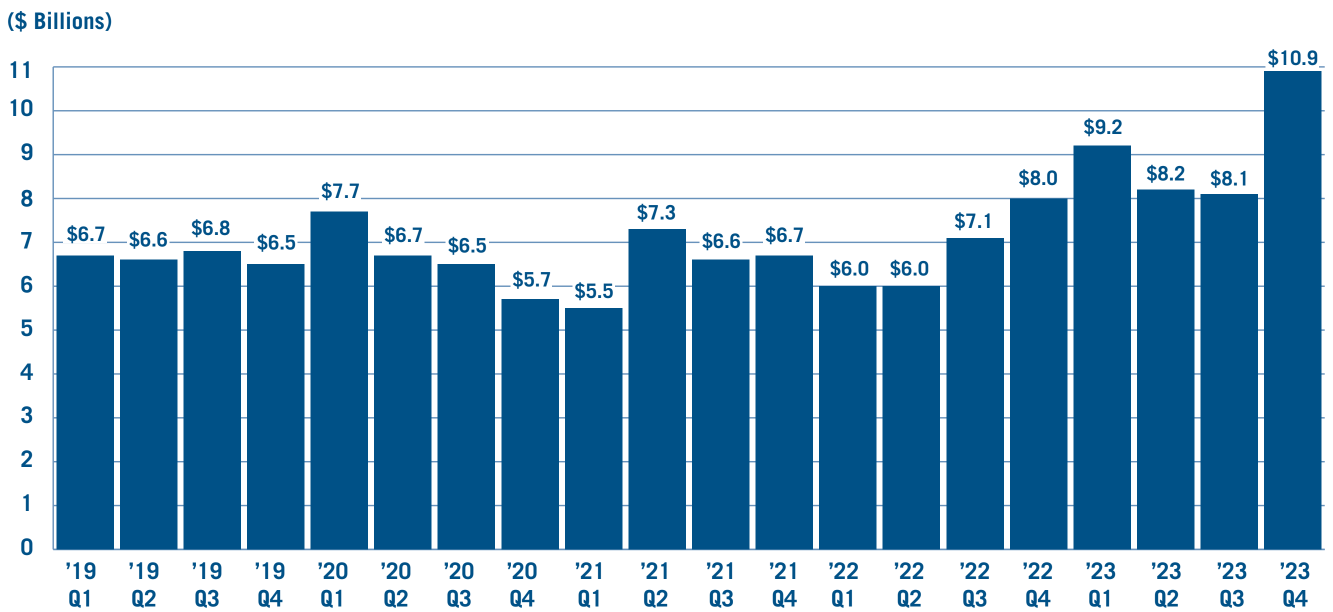
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: S&P Global Market Intelligence and EEI Finance Department.

Quarterly Interest Expense

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: S&P Global Market Intelligence and EEI Finance Department.

Individual Non-Recurring and Extraordinary Items

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

($ Millions)	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023
Net Gain (Loss) on Sale of Assets	996	789	767	1,012	5,272	3,049	(398)	(1,902)	441	1,501
Other Non-Recurring Revenue	296	(4)	888	493	131	117	–	471	319	123
Total Non-Recurring Revenue	**1,292**	**785**	**1,655**	**1,505**	**5,403**	**3,167**	**(398)**	**(1,430)**	**760**	**1,624**
Asset Writedowns	(8,762)	(5,189)	(17,487)	(4,166)	(4,121)	(3,470)	6,704	1,199	2,489	2,905
Other Non-Recurring Charges	(2,675)	(1,764)	(3,109)	(5,630)	(17,841)	(13,034)	8,504	7,221	4,050	5,456
Total Non-Recurring Charges	**(11,437)**	**(6,953)**	**(20,596)**	**(9,796)**	**(21,962)**	**(16,504)**	**15,208**	**8,421**	**6,540**	**8,361**
Discontinued Operations	295	(1,148)	(732)	(1,554)	602	1,243	17	793	(194)	(1,689)
Change in Accounting Principles	–	–	–	–	–	–	–	–	–	–
Early Retirement of Debt	–	–	–	–	–	–	–	–	–	–
Other Extraordinary Items	–	–	–	–	–	–	–	–	–	–
Total Extraordinary Items	**295**	**(1,148)**	**(732)**	**(1,554)**	**602**	**1,243**	**17**	**793**	**(194)**	**(1,689)**
Total Non-Recurring and Extraordinary Items	**(9,850)**	**(7,316)**	**(19,674)**	**(9,844)**	**(15,957)**	**(12,094)**	**(15,589)**	**(9,058)**	**(5,974)**	**(8,425)**

r = revised Note: Figures represent net industry totals. Totals may reflect rounding.

Source: S&P Global Market Intelligence and EEI Finance Department.

Top Net Non-Recurring and Extraordinary Gains (Losses) 2023

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

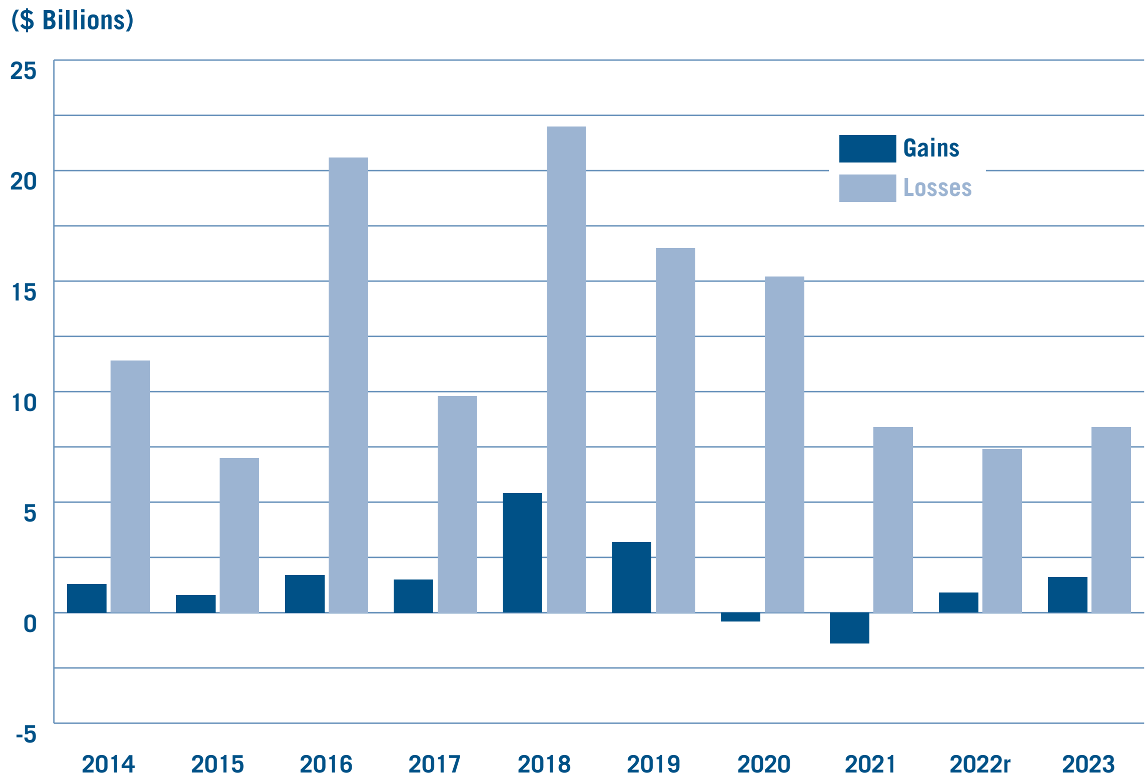
($ Millions)

Company	Gains	Losses	Net Total
Eversource Energy	–	2,174	2,174
PG&E Corp	–	1,898	1,898
Berkshire Hathaway Energy	–	1,677	1,677
Edison International	–	898	898
Consolidated Edison	865	–	865
PPL Corp	(12)	547	559
NextEra Energy	530	–	530
Dominion Energy	27	307	280
American Electric Power	–	197	197
WEC Energy Group	–	179	179

Source: S&P Global Market Intelligence and EEI Finance Department.

Aggregate Non-Recurring and Extraordinary Items

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



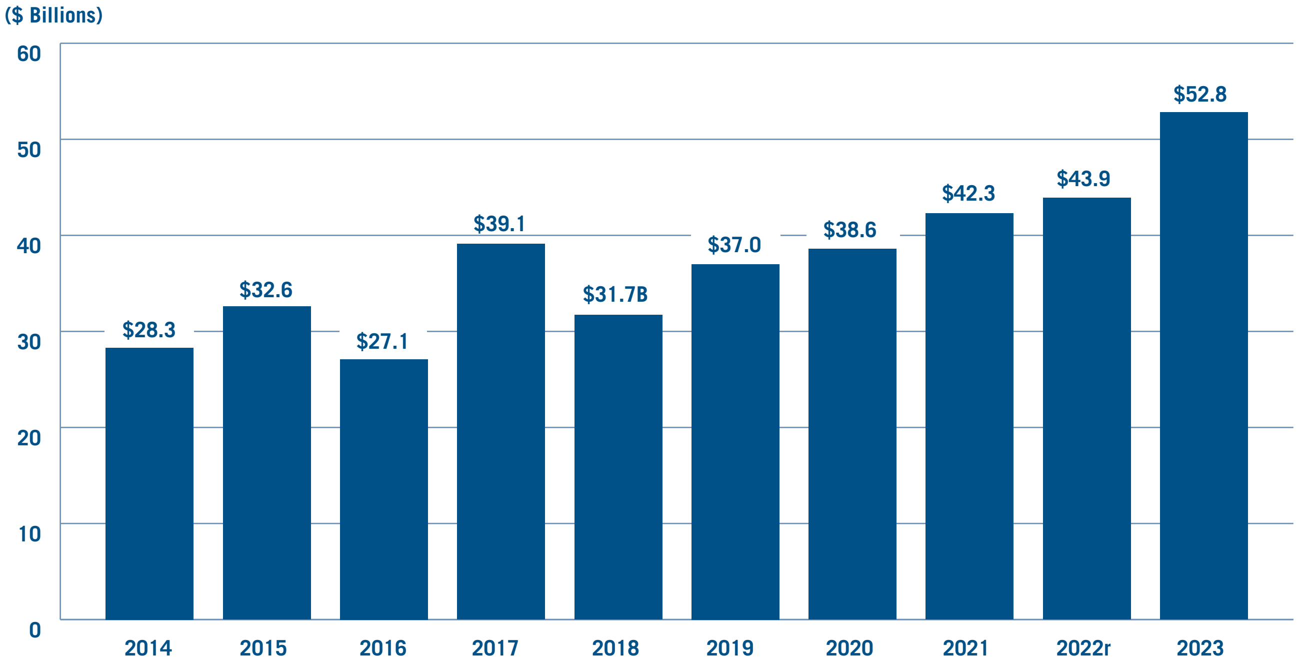
	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023
Gains	1.3	0.8	1.7	1.5	5.4	3.2	(0.4)	(1.4)	0.8	1.6
Losses	11.4	7.0	20.6	9.8	22.0	16.5	15.2	8.4	6.5	8.4

r = revised   Note: Totals may reflect rounding.

Source: S&P Global Market Intelligence and EEI Finance Department.

Net Income

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

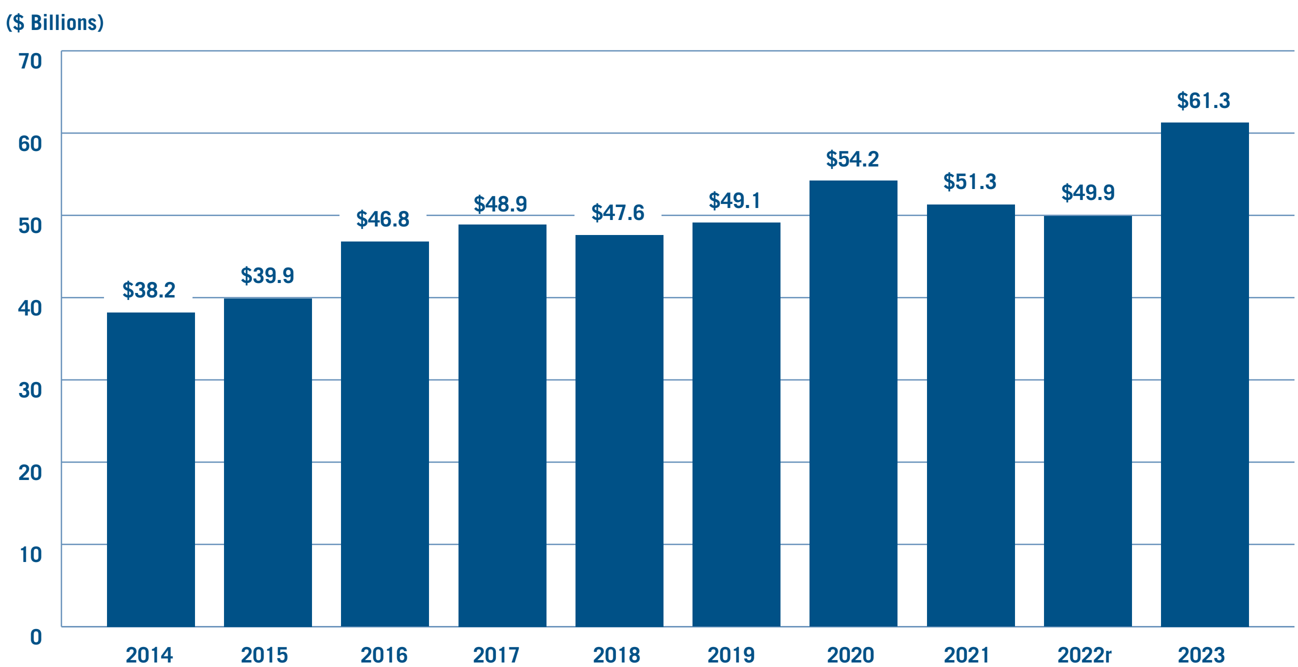


r = revised

Source: S&P Global Market Intelligence and EEI Finance Department.

Net Income Before Non-Recurring and Extraordinary Items

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



r = revised

Source: S&P Global Market Intelligence and EEI Finance Department.

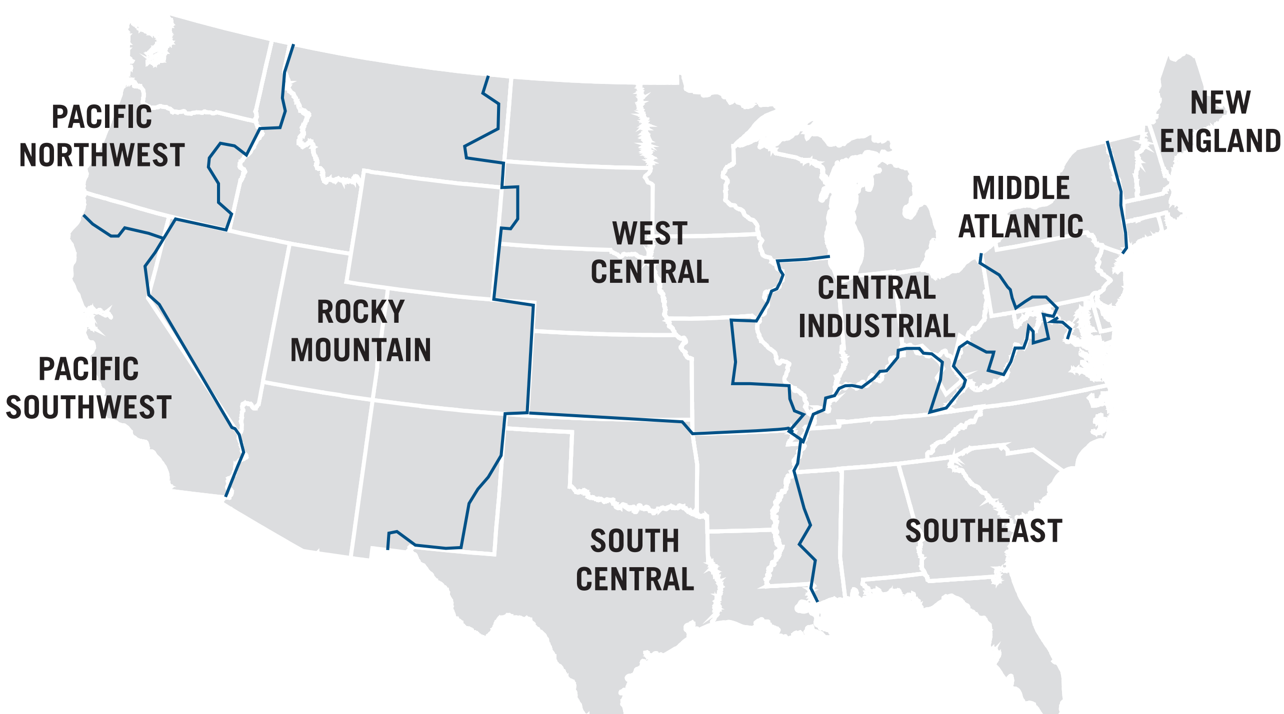
U.S. Electric Output (GWh)
Periods Ending December 31

Region	2022	2021	% Change
Central Industrial	635,658	657,622	(3.3%)
Mid-Atlantic	402,544	419,466	(4.0%)
New England	111,002	115,781	(4.1%)
Pacific Northwest	158,794	161,364	(1.6%)
Pacific Southwest	267,566	273,602	(2.2%)
Rocky Mountain	293,697	296,141	(0.8%)
South Central	864,046	840,535	2.8%
Southeast	1,005,533	1,036,554	(3.0%)
West Central	337,306	341,836	(1.3%)
Total United States	**4,076,145**	**4,142,901**	**(1.6%)**

Note: Represents all power placed on grid for distribution to end customers; does not include Alaska or Hawaii.

Source: EEI Business Analytics.

EEI U.S. Electric Output – Regions



Source: EEI Business Analytics.

U.S. Weather
January – December 2023

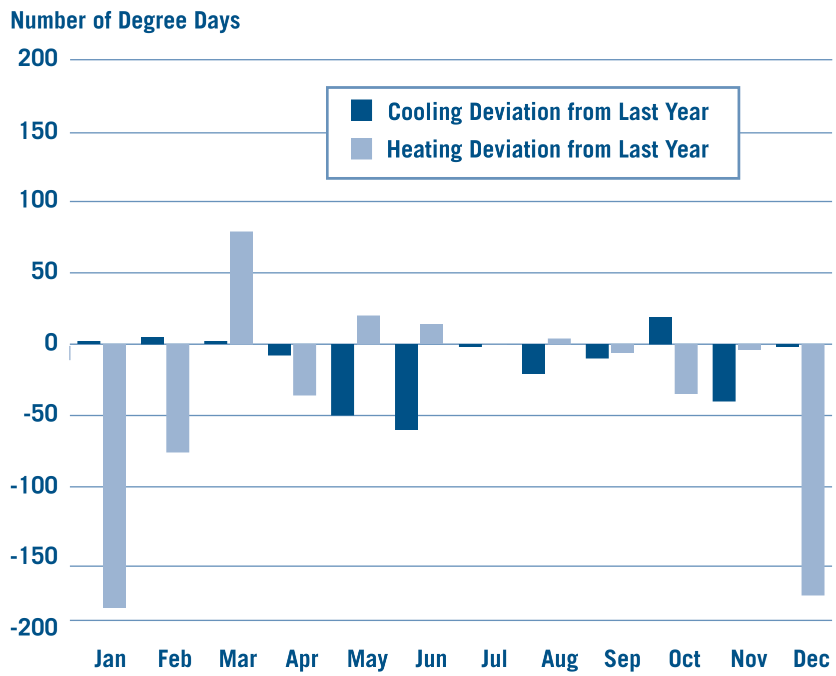
	Total	Dev from Norm	% Change	Dev from Last Year	% Change
Cooling Degree Days					
New England	550	133	32%	(136)	(20%)
Mid-Atlantic	698	42	6%	(281)	(29%)
East North Central	663	(45)	(6%)	(184)	(22%)
West North Central	1,057	129	14%	(34)	(3%)
South Atlantic	2,052	88	4%	(153)	(7%)
East South Central	1,632	84	5%	(94)	(5%)
West South Central	2,942	493	20%	16	1%
Mountain	1,253	10	1%	(154)	(11%)
Pacific	695	(9)	(1%)	(281)	(29%)
United States	**1,305**	**89**	**7%**	**(165)**	**(11%)**
Heating Degree Days					
New England	5,723	(888)	(13%)	(397)	(6%)
Mid-Atlantic	5,004	(907)	(15%)	(609)	(11%)
East North Central	5,561	(936)	(14%)	(795)	(13%)
West North Central	6,038	(712)	(11%)	(911)	(13%)
South Atlantic	2,318	(535)	(19%)	(388)	(14%)
East South Central	2,897	(707)	(20%)	(591)	(17%)
West South Central	1,970	(317)	(14%)	(399)	(17%)
Mountain	5,221	12	0%	22	0%
Pacific	3,412	184	6%	300	10%
United States	**4,001**	**(523)**	**(12%)**	**(401)**	**(9%)**

A mean daily temperature (average of the daily maximum and minimum temperatures) of 65 degrees Fahrenheit is the base for both heating and cooling degree day computations. National averages are population weighted.

Source: National Oceanic and Atmospheric Administration, National Weather Service, Climate Prediction Center.

2023 Weather Compared to 2022

AS MEASURED BY DEVIATIONS BETWEEN THE TWO YEARS



Source: National Oceanic and Atmospheric Administration and National Weather Service.

	Cooling Deviation From Last Year	Heating Deviation From Last Year
Jan	2	(185)
Feb	5	(76)
Mar	2	79
Apr	(8)	(36)
May	(50)	20
Jun	(60)	14
Jul	(2)	0
Aug	(21)	4
Sep	(10)	(6)
Oct	19	(35)
Nov	(40)	(4)
Dec	(2)	(176)
Total	**(165)**	**(401)**

Heating and Cooling Degree Days and Percent Changes
January—December 2023

	COOLING DEGREE DAYS			HEATING DEGREE DAYS			PERCENTAGE CHANGE			
	Total	Deviation From Norm	Deviation From Last Yr	Total	Deviation From Norm	Deviation From Last Yr	Cooling Degree Change From Norm	Cooling Degree Change From Last Yr	Heating Degree Change From Norm	Heating Degree Change From Last Yr
Jan	8	(1)	2	742	(175)	(185)	(11.1%)	33.3%	(19.1%)	(20.0%)
Feb	13	5	5	649	(83)	(76)	62.5%	62.5%	(11.3%)	(10.5%)
Mar	21	3	2	617	24	79	16.7%	10.5%	4.0%	14.7%
First Quarter	**42**	**7**	**9**	**2,008**	**(234)**	**(182)**	**20.0%**	**27.3%**	**(10.4%)**	**(8.3%)**
Apr	35	5	(8)	320	(25)	(36)	16.7%	(18.6%)	(7.2%)	(10.1%)
May	90	(7)	(50)	146	(13)	20	(7.2%)	(35.7%)	(8.2%)	15.9%
Jun	189	(24)	(60)	41	2	14	(11.3%)	(24.1%)	5.1%	51.9%
Second Quarter	**314**	**(26)**	**(118)**	**507**	**(36)**	**(2)**	**(7.6%)**	**(27.3%)**	**(6.6%)**	**(0.4%)**
Jul	371	50	(2)	3	(6)	0	15.6%	(0.5%)	(66.7%)	0.0%
Aug	319	29	(21)	8	(7)	4	10.0%	(6.2%)	(46.7%)	100.0%
Sep	179	24	(10)	53	(24)	(6)	15.5%	(5.3%)	(31.2%)	(10.2%)
Third Quarter	**869**	**103**	**(33)**	**64**	**(37)**	**(2)**	**13.4%**	**(3.7%)**	**(36.6%)**	**(3.0%)**
Oct	62	9	19	237	(45)	(35)	17.0%	44.2%	(16.0%)	(12.9%)
Nov	13	(2)	(40)	524	(15)	(4)	(13.3%)	(75.5%)	(2.8%)	(0.8%)
Dec	5	(2)	(2)	661	(156)	(176)	(28.6%)	(28.6%)	(19.1%)	(21.0%)
Fourth Quarter	**80**	**5**	**(23)**	**1,422**	**(216)**	**(215)**	**6.7%**	**(22.3%)**	**(13.2%)**	**(13.1%)**
Full Year	**1,305**	**89**	**(165)**	**4,001**	**(523)**	**(401)**	**7.3%**	**(11.2%)**	**(11.6%)**	**(9.1%)**

A mean daily temperature (average of the daily maximum and minimum temperatures) of 65°F is the base for both heating and cooling degree day computations. National averages are population weighted.

Source: National Oceanic and Atmospheric Administration and National Weather Service.

Balance Sheet

- The U.S. economy in 2023 defied recession fears and rebounded steadily from late 2022's weakness. Real gross domestic product (GDP) grew 1.7% year-over-year in Q1 and 2.4% in Q2. Then growth strengthened to 2.9% in Q3 and 3.1% in Q4. Full-year 2023 real GDP growth was 2.5%.

- The Federal Reserve hiked short-term rates four times during the year's first half, raising the target Fed Funds rate to a range of 5.25% to 5.50%. Inflation eased from 2022's 7% to 9% monthly readings, falling from 6.4% in January to 3.1% in June. The Fed held rates steady in the year's second half, hoping the lag effects of its year-long tightening campaign would be enough to drive inflation lower. But inflation throughout 2023's second half remained above 3%, higher than the Fed's 2% policy goal.

- Inflation data and concerns over Washington's deficit spending lifted the 10-year Treasury yield from 3.5% in the year's first half to 5% by October before easing into year end. But economic confidence drove credit risk premia steadily lower throughout 2023. As a result, investment-grade corporates (Moody's Baa rating) could borrow long-term for less than 6% for most of the year.

- The industry's financial condition remained strong in 2023. Balance-sheet leverage appropriate for a lower risk profile has accompanied the multi-year trend toward increased state-regulated operations. Balance sheet leverage, in aggregate, increased slightly in 2023. However, aggregate figures convey only broad, long-term trends and emphasize large holding companies. Balance sheet structures vary widely across the industry. Leverage increased more than one percentage point at 21 utilities. Leverage was reduced by more than one percentage point or was largely unchanged at the remaining 23.

- The industry's consolidated total debt rose in 2023, a natural consequence of financing the aggressive build-out of clean-energy infrastructure. Rising interest rates since early 2022 have increased utilities' borrowing costs. Yet most have managed balance sheet ratios and cash flows to maintain investment-grade credit ratings. Most utilities increased long-term debt in 2023. Short-term debt rose at 24 companies and decreased or was largely unchanged at the remaining 20.

- Common equity issuance in 2023 declined from 2022's total, remaining well below its level from 2018 through 2020. This metric increased in 2023 at only 13 utilities. Many have sought to fund capex without significant equity dilution, in some cases with proceeds from asset sales. Equity issuance was strong in both 2020 and 2019 as companies augmented balance sheets and addressed the impact of tax reform. Equity issuance was also strong in 2018 as utilities took advantage of high price-earnings ratios and welcoming capital markets to fund capex and offset debt issuance.

- Property, plant and equipment in service (PPE in Service, net) rose 7.1% from its year-end 2022 level. This metric grew at nearly all 44 utilities which constitute EEI's consolidated data. Such broad growth shows the size and scope of the industry's build-out of new renewable generation, new transmission, reliability-related infrastructure and other capital projects that support the nation's clean energy transition. Construction work in progress (CWIP), a part of the PPE in Service total, jumped more than 18% from 2022's year-end total. CWIP accounts for capital investment in utility infrastructure still under construction and not yet in service. The growth in CWIP offers another view of the industry's rising clean energy capex.

- The debt-to-capitalization ratio by category data shows the dominance of state-regulated operations in the industry. EEI's "Regulated" group numbered 37 utility holding companies at year-end 2023. The remaining eight utilities constituted the "Mostly Regulated" group.

Consolidated Balance Sheet

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

($ Millions)	12/31/2023	12/31/2022r	% Change	$ Change
PP&E in service, gross	1,899,012	1,788,991	6.1%	110,021
Accumulated depreciation	541,724	512,896	5.6%	28,828
PP&E in service, net	1,357,288	1,276,095	6.4%	81,193
Construction work in progress	122,475	103,611	18.2%	18,864
Net nuclear fuel	13,189	12,933	2.0%	256
Other property	14,963	15,328	(2.4%)	(365)
PP&E, net	1,507,915	1,407,967	7.1%	99,948
Cash & cash equivalents	14,182	13,331	6.4%	852
Accounts receivable	55,013	55,591	(1.0%)	(578)
Inventories	32,115	29,025	10.6%	3,090
Other current assets	81,539	80,311	1.5%	1,229
Total current assets	182,850	178,257	2.6%	4,592
Total investments	103,073	99,385	3.7%	3,688
Other assets	320,674	333,697	(3.9%)	(13,022)
Total Assets	**2,114,512**	**2,019,305**	**4.7%**	**95,207**
Common equity	566,924	539,386	5.1%	27,537
Preferred equity	8,332	10,287	(19.0%)	(1,955)
Noncontrolling interests	29,659	28,036	5.8%	1,623
Total equity	604,915	577,709	4.7%	27,205
Short-term debt	54,446	49,464	10.1%	4,983
Current portion of long-term debt	51,390	50,895	1.0%	495
Short-term and current long-term debt	105,836	100,359	5.5%	5,477
Accounts payable	86,980	90,908	(4.3%)	(3,928)
Other current liabilities	62,052	60,128	3.2%	1,923
Current liabilities	254,867	251,396	1.4%	3,472
Deferred taxes	122,845	116,561	5.4%	6,284
Non-current portion of long-term debt	799,481	734,906	8.8%	64,575
Other liabilities	330,684	337,154	(1.9%)	(6,470)
Total liabilities	1,507,877	1,440,016	4.7%	67,861
Subsidiary preferred	421	421	(0.0%)	(0)
Other mezzanine	1,299	1,159	12.1%	140
Total mezzanine level	1,720	1,580	8.9%	140
Total Liabilities and Owner's Equity	**2,114,512**	**2,019,305**	**4.7%**	**95,207**

r = revised

Source: S&P Global Market Intelligence and EEI Finance Department.

Capitalization Structure

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

Capitalization Structure ($M)	12/31/2023	12/31/2022r	Change
Common Equity	566,924	539,386	27,537
Noncontrolling Interests & Preferred Equity	37,991	38,323	(332)
Long-term Debt (current & non-current)*	850,871	785,801	65,070
Total	**1,455,785**	**1,363,510**	**92,275**

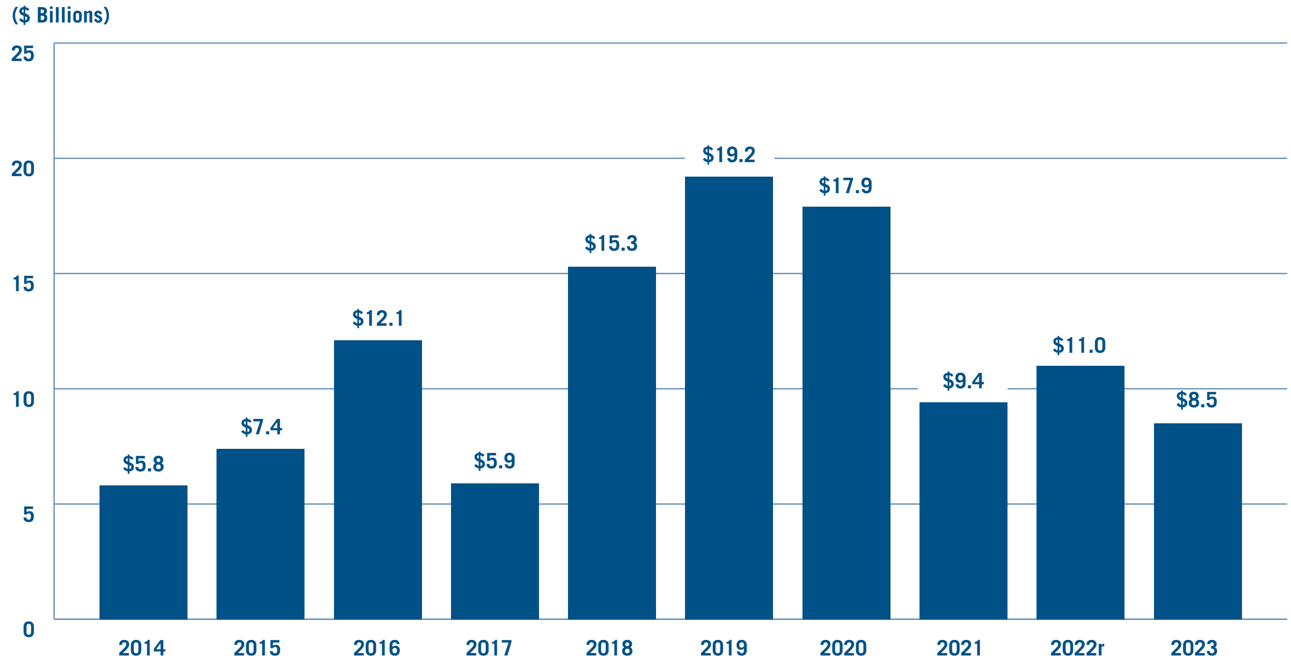
Common Equity %	38.9%	39.6%	-0.6%
Noncontrolling Interests & Preferred Equity %	2.6%	2.8%	-0.2%
Long-Term Debt (current & non-current)* %	58.4%	57.6%	0.8%
Total	**100.0%**	**100.0%**	**–**

r = revised
Long-term debt not adjusted for (i.e., includes) securitization bonds.
Source: S&P Global Market Intelligence and EEI Finance Department.

- The tendency toward slightly higher balance sheet leverage at the consolidated industry level is not so clear when measured by individual company totals. Only 18 of the 37 "Regulated" holding companies meaningfully increased leverage in 2023. Leverage increased at three of the six "Mostly Regulated" companies.
- The dispersion across companies in both categories—with some showing higher, some lower and others no change in leverage—shows why individual company strategies are just as meaningful as consolidated totals when assessing industry trends.
- Regulated companies as a group continued to report higher balance sheet leverage than their Mostly Regulated peers. This is to be expected given their lower business risk profile.

Proceeds from Issuance of Common Equity

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



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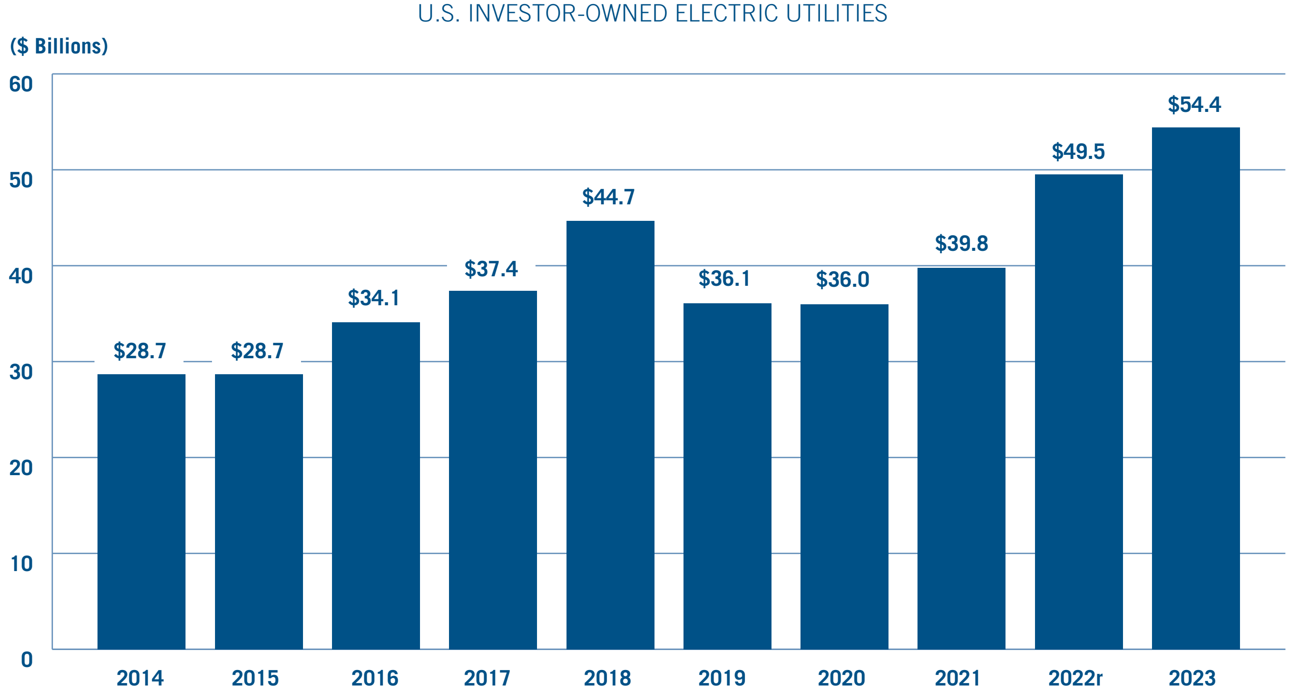
Source: S&P Global Market Intelligence and EEI Finance Department.

Short-term Debt

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



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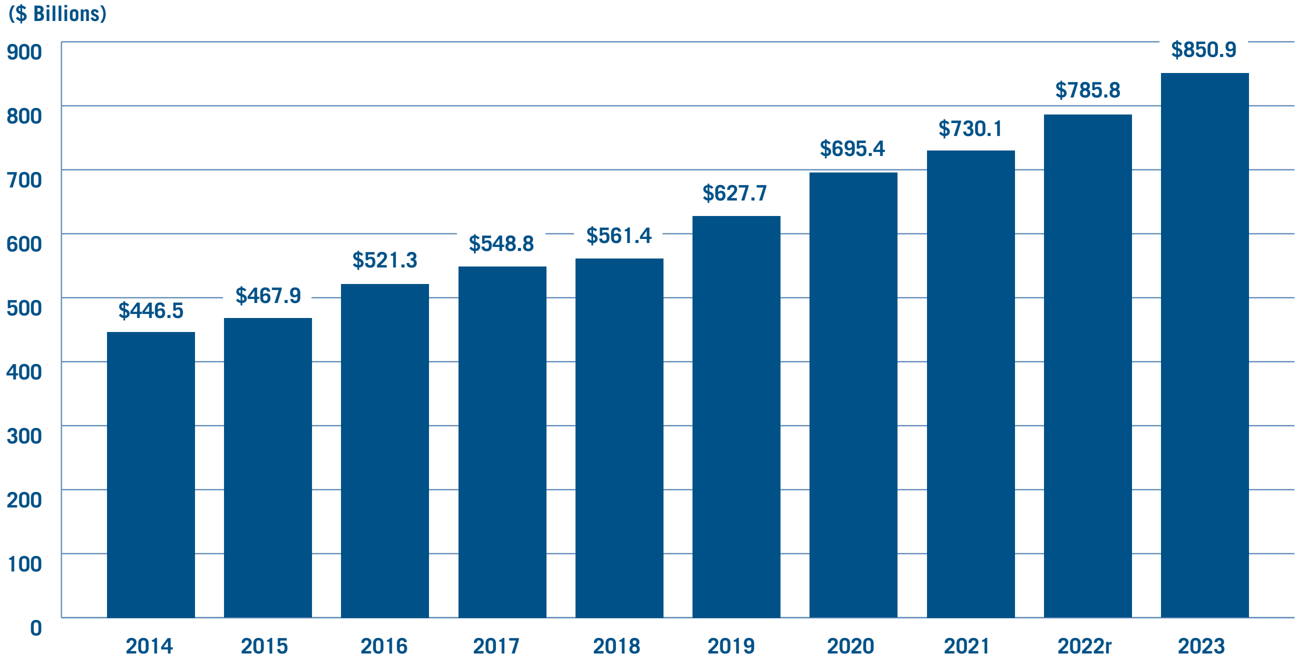
Source: S&P Global Market Intelligence and EEI Finance Department.

Long-term Debt

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



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Source: S&P Global Market Intelligence and EEI Finance Department.

Debt-to-Cap Ratio by Category

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

	Regulated		Mostly Regulated		Total Industry	
	Number	%	Number	%	Number	%
Lower	8	21.1%	2	33.3%	10	22.7%
No Change*	12	31.6%	1	16.7%	13	29.5%
Higher	18	47.4%	3	50.0%	21	47.7%
Total	**38**	**100.0%**	**6**	**100.0%**	**44**	**100.0%**

*No change defined as less than 1.0%

Note: December 31, 2023 vs. December 31, 2022. Refer to page v for category descriptions.

Source: S&P Global Market Intelligence and EEI Finance Department.

Capitalization Structure by Category

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

	Regulated			Mostly Regulated		
	2023	2022r	Change	2023	2022r	Change
Common Equity ($M)	443,314	426,314	17,000	123,610	113,073	10,537
Total Preferred Equity	24,760	22,950	1,809	13,231	15,372	(2,141)
Long-term Debt (current & non-current)*	710,215	654,636	55,579	140,656	131,165	9,491
Total Capitalization	1,178,289	1,103,900	74,389	277,497	259,610	17,886
Common Equity %	37.6%	38.6%	-1.0%	44.5%	43.6%	1.0%
Preferred Equity %	2.1%	2.1%	0.0%	4.8%	5.9%	-1.2%
Long-Term Debt %	60.3%	59.3%	1.0%	50.7%	50.5%	0.2%
Total	**100.0%**	**100.0%**	—	**100.0%**	**100.0%**	—

r = revised

Refer to page v for category descriptions.

Note: Long-term debt not adjusted for (i.e., includes) securitization bonds.

Source: S&P Global Market Intelligence and EEI Finance Department.

PP&E In Service, Net

Date	PP&E in Service, Net ($M)	% Change from 12/31/2019
12/31/2023	1,357,288	20.1%
12/31/2022r	1,276,095	12.9%
12/31/21	1,221,089	8.1%
12/31/20	1,196,315	5.9%
12/31/19	1,129,880	

Source: S&P Global Market Intelligence and EEI Finance Department.

Cash Flow Statement

- Net Cash Provided by Operating Activities increased by $24.8 billion, or 26.9%, to $117.2 billion. Cash provided by Depreciation and Amortization (D&A), a non-cash charge on the income statement, increased by $4.1 billion, or 6.5%, at the consolidated industry level. D&A increased at 38 of the 44 utility holding companies that comprise EEI's data set; widespread increases are to be expected given the industry's aggressive clean energy infrastructure buildout.

- Cash provided by Deferred Taxes & Investment Credits increased to $3.5 billion from $3.0 billion in 2022. This metric ranged from $9.3 billion to $16.5 billion annually from 2010 through 2017, which were historically high levels due to elevated capex and use of bonus depreciation. The Tax Cuts & Jobs Act (TCJA), passed in late 2017, significantly reduced deferred taxes due to the reduction in the corporate income tax rate from 35% to 21% and the elimination of bonus depreciation. Since then, the aggregate industry total has been much lower.

- Change in Working Capital utilized $11.4 billion less cash in 2023 than in 2022. The difference traced mostly to accounting at a few large utility holding companies. Other Operating Changes in Cash remained small and was little changed.

- Net Cash Used in Investing Activities increased by $13.4 billion, or 9.0%. The industry's capital spending—by far the largest component of this metric—increased 16.4% to $171.9 billion from $147.7 billion in 2022. Industry capex has reached a new record high in each of the past ten years. EEI member companies continue to invest in clean energy resources and the infrastructure necessary to make the power grid more modernized, resilient, and secure for all customers. Spending on transmission and distribution continues to increase relative to recent years, as EEI member companies expand their focus on adaptation, hardening, and resilience (AHR) initiatives. Investment in generation continues to be driven by the development of renewable energy and natural gas generation.

- Cash provided by Asset Sales increased $8.8 billion, or 37.7%, from $23.5 billion in 2022 to $32.3 billion in 2023. Utilities continue to utilize asset sales to exit non-regulated operations while raising equity to avoid dilutive stock offerings and fund clean energy capex. This metric is typically driven by activity at a few large utilities; 2023 was no exception as six companies accounted for more than 90% of the industry's 2023 total.

- Net Cash Provided by Financing Activities decreased by $9.6 billion, or 17.5%. The decline resulted primarily from a nearly equal reduction, at $8.2 billion, in the use of long-term debt financing. That metric fell in aggregate from $67.5 billion in 2022 to $59.3 billion in 2023 and was tied to divestiture activity and balance sheet management at just a few large utilities. Debt issuance is routine in the normal course of financing operations for such a capital-intensive industry, and just over half the 44 underlying utilities tracked by EEI increased their use of long-term debt in 2023.

- Dividends Paid to Common Shareholders rose 4.8% to $32.9 billion. Investors that supply equity capital are attracted to steady and growing dividends. The industry raised its aggregate dividend payout during the 2008/2009 financial crisis and the more recent Covid-19 pandemic.

Statement of Cash Flows

U.S. INVESTOR-OWNED ELECTRIC UTILITIES

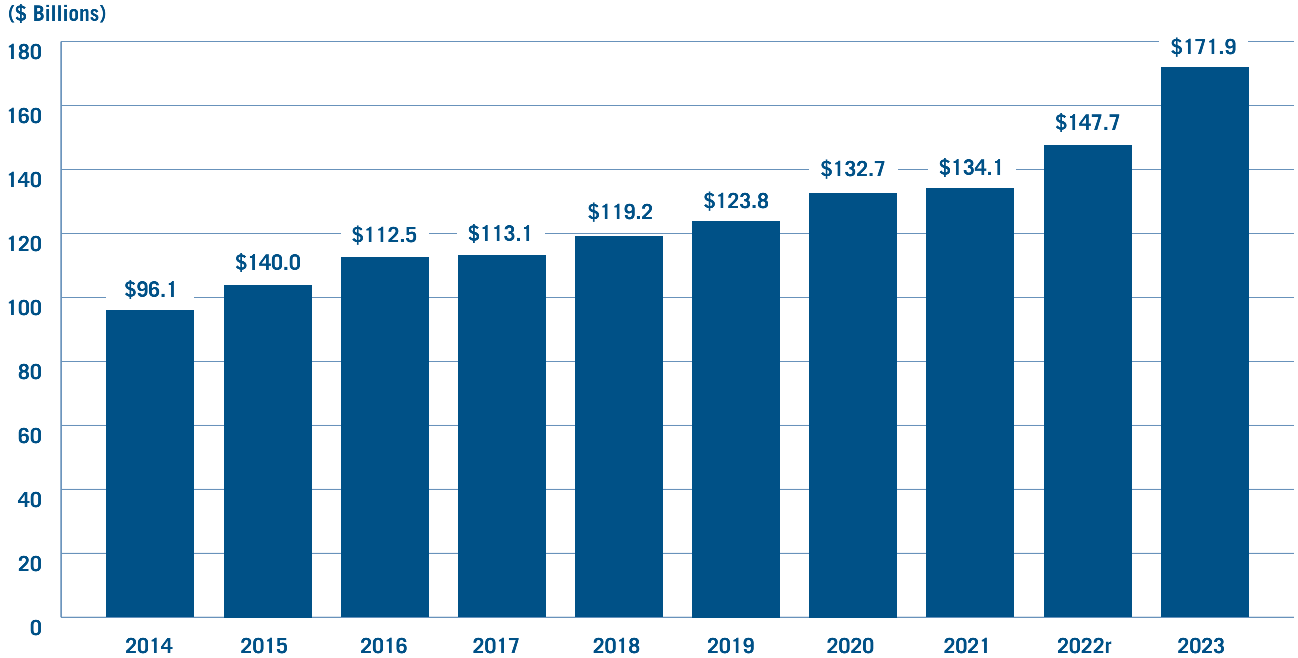
$ Millions	12 Months Ended		
	12/31/2023	12/31/2022r	% Change
Net Income	$52,840	$43,897	20.4%
Depreciation and Amortization	67,289	63,156	6.5%
Deferred Taxes and Investment Credits	3,548	2,894	22.6%
Operating Changes in AFUDC	(1,989)	(1,599)	24.4%
Change in Working Capital	(1,057)	(12,454)	(91.5%)
Other Operating Changes in Cash	(3,378)	(3,463)	(2.4%)
Net Cash Provided by Operating Activities	**117,252**	**92,431**	**26.9%**
Capital Expenditures	(171,918)	(147,662)	16.4%
Asset Sales	32,296	23,454	37.7%
Asset Purchases	(18,144)	(19,681)	(7.8%)
Net Non-Operating Asset Sales and Purchases	14,146	3,769	275.3%
Change in Nuclear Decommissioning Trust	(1,112)	(698)	59.3%
Investing Changes in AFUDC	55	45	22.6%
Other Investing Changes in Cash	(4,131)	(5,015)	(17.6%)
Net Cash Used in Investing Activities	**(162,954)**	**(149,557)**	**9.0%**
Net Change in Short-term Debt	11,203	8,013	39.8%
Net Change in Long-term Debt	59,269	67,472	(12.2%)
Proceeds from Issuance of Preferred Equity	542	–	NM
Preferred Share Repurchases	(2,339)	(2,768)	(15.5%)
Net Change in Prefered Issues	(1,797)	(2,768)	(35.1%)
Proceeds from Issuance of Common Equity	8,505	10,957	(22.4%)
Common Share Repurchases	(1,095)	(2,036)	(46.2%)
Net Change in Common Issues	7,410	8,921	(16.9%)
Dividends Paid to Common Shareholders	(32,925)	(31,409)	4.8%
Dividends Paid to Preferred Shareholders	(322)	(335)	(4.0%)
Other Dividends	–	–	NM
Dividends Paid to Shareholders	(33,247)	(31,744)	4.7%
Other Financing Changes in Cash	2,577	5,123	(49.7%)
Net Cash (Used in) Provided by Financing Activities	**45,414**	**55,016**	**(17.5%)**
Other Changes in Cash	13	(38)	NM
Net increase (decrease) in cash and cash equivalents	($275)	($2,148)	(87.2%)
Cash and cash equivalents at beginning of period	$14,457	$15,478	(6.6%)
Cash and cash equivalents at end of period	$14,182	$13,331	6.4%

r = revised NM = not meaningful

Source: S&P Global Market Intelligence and EEI Finance Department.

Capital Expenditures

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



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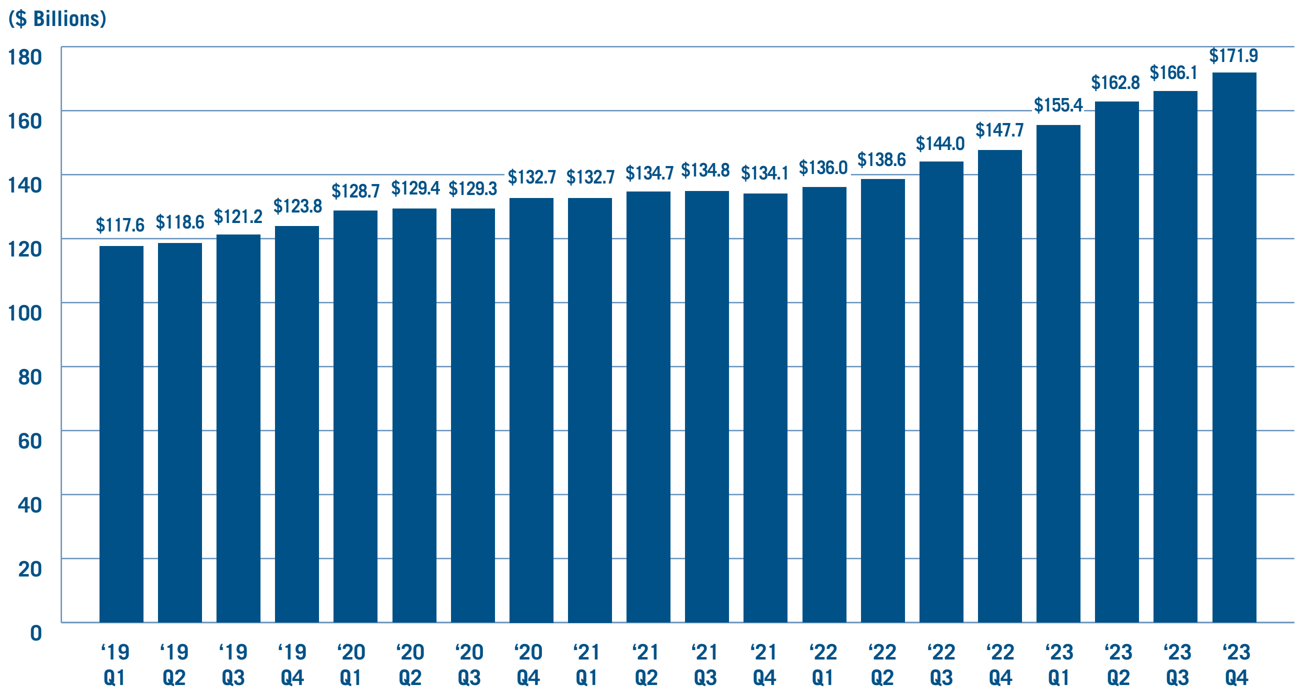
Source: S&P Global Market Intelligence, company reports, and EEI Finance Department.

Capital Expenditures—Trailing 12 Months

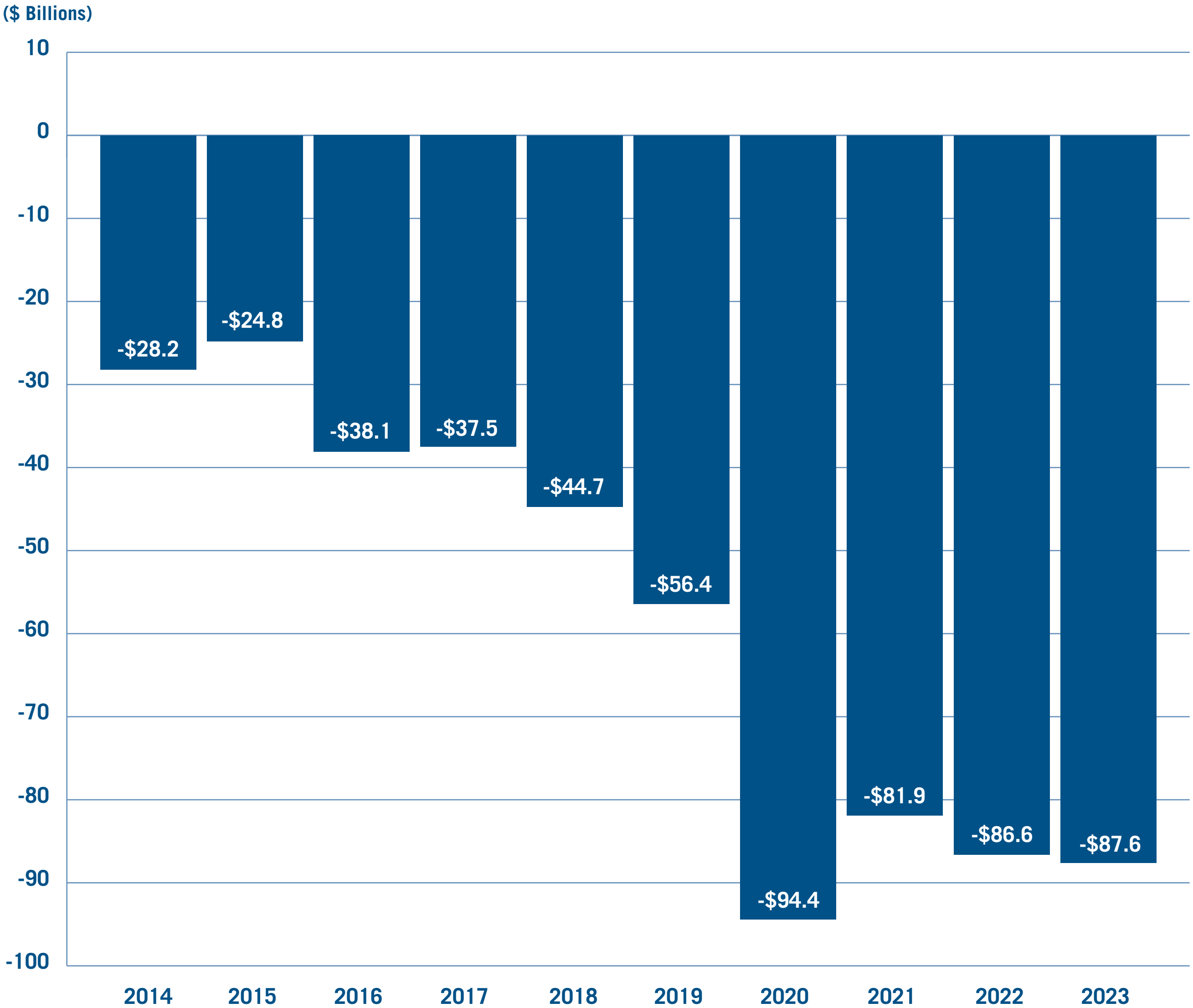
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: S&P Global Market Intelligence and EEI Finance Department.

Free Cash Flow (FCF)

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



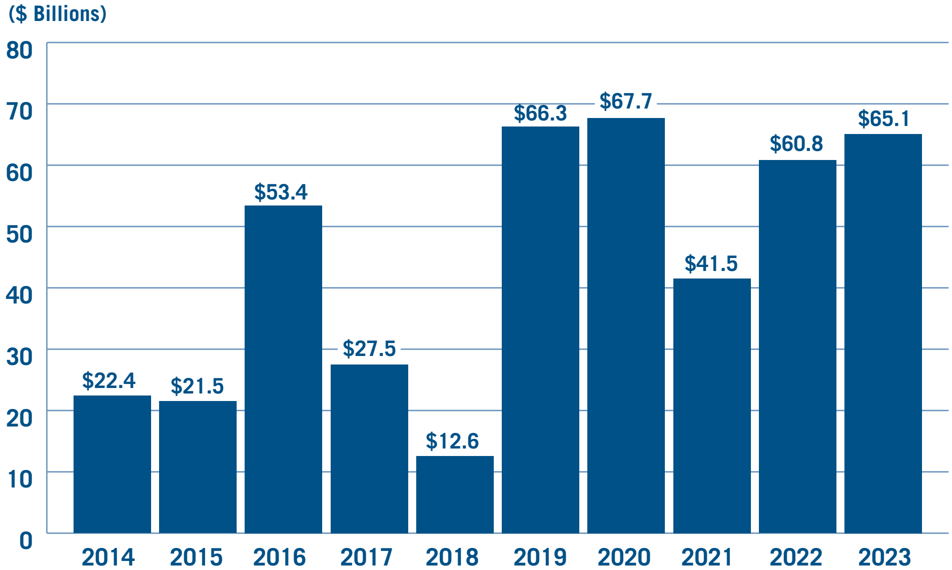
($ Billions)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Net Cash Provided by Operating Activities	89.0	101.6	98.3	101.2	100.1	95.3	67.7	82.4	92.4	117.3
Capital Expenditures	(96.1)	(104.0)	(112.5)	(113.1)	(119.2)	(123.8)	(132.7)	(134.1)	(147.7)	(171.9)
Dividends Paid to Common Shareholders	(21.1)	(22.5)	(23.8)	(25.5)	(25.6)	(27.9)	(29.3)	(30.3)	(31.4)	(32.9)
Free Cash Flow	**(28.2)**	**(24.8)**	**(38.1)**	**(37.5)**	**(44.7)**	**(56.4)**	**(94.4)**	**(81.9)**	**(86.6)**	**(87.6)**

r = revised

Note: Totals may not equal sum of components due to rounding.
Source: S&P Global Market Intelligence and EEI Finance Department.

Net Change in Long-term Debt

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



r = revised

Note: Based on data from industry's consolidated balance sheet.

Source: S&P Global Market Intelligence and EEI Finance Department.

Rate Review Summary

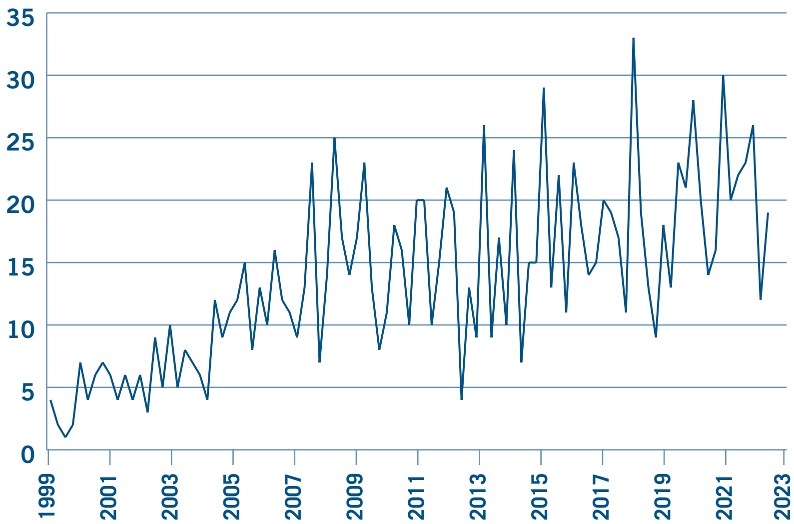
- There were 80 rate reviews filed in 2023, with 91 rate reviews decided. This is notably more than the 59 rate reviews filed and the 81 rate reviews decided in 2022.
- Of the decided filings, electric companies requested revenue increases of approximately $17 billion in 2023; with approximately $9.3 billion approved.
- The average awarded ROE was 9.58 percent, a slight rebound of 11 basis points from 2022 which had an average awarded ROE of 9.47 percent. The average awarded ROE for distribution-only companies was 9.24 percent compared to 9.80 percent for vertically integrated companies.
- Regulatory lag hovered around 8.51 months, which is longer than it has been in the last couple years at 8.01 months in 2022 and 8.41 months in 2021.

State Regulatory Highlights from 2023

- Infrastructure Investment & Jobs Act (IIJA) and Inflation Reduction Act (IRA) – More than two dozen states have opened proceedings for electric companies to provide information related to their efforts to obtain federal grants or other benefits under IIJA and IRA. Many of these proceedings also look to quantify the benefits to customers, explore potential challenges for electric companies in receiving the grants, and information gathering/reporting. As of year-end 2023, 22 member companies

Number of Rate Reviews Filed

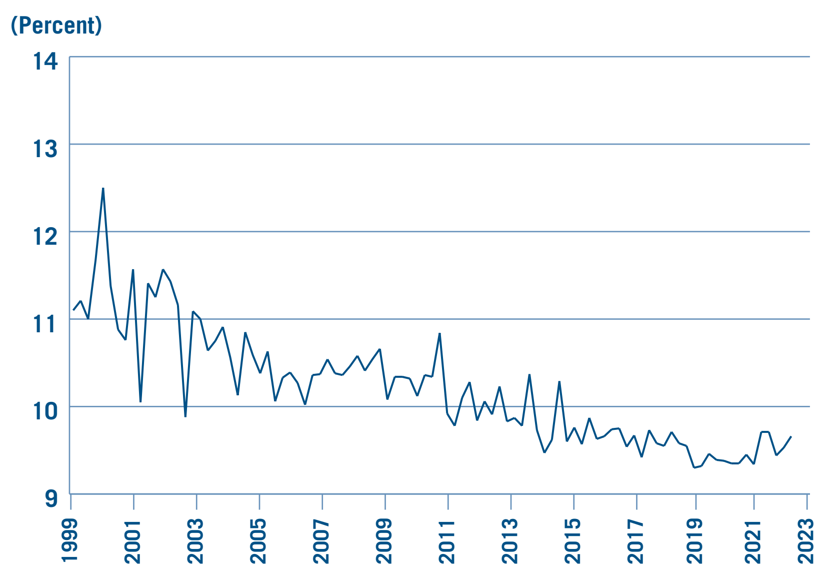
U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: S&P Global Market Intelligence/Regulatory Research Assoc. and EEI Finance Department.

Average Awarded ROE

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



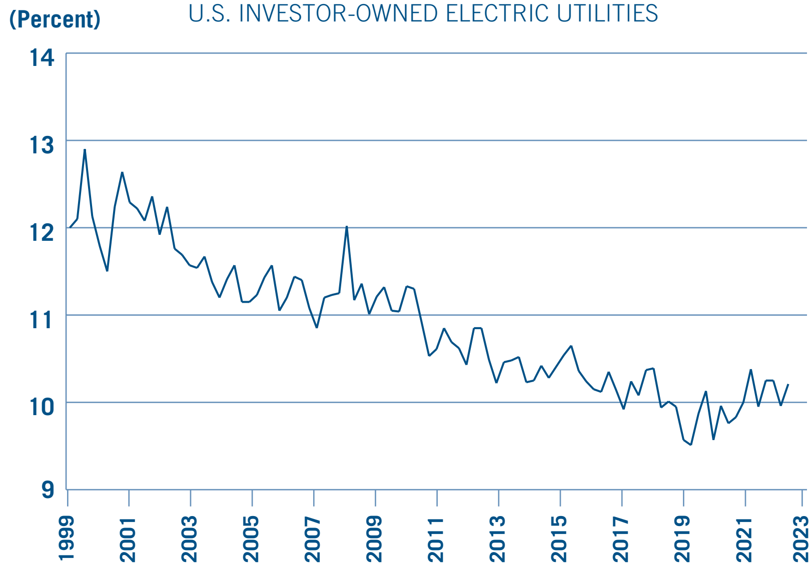
Source: S&P Global Market Intelligence/Regulatory Research Assoc. and EEI Finance Department.

have received over $1 billion in Grid Resilience and Innovation Partnerships (GRIP) awards.

- Rate Design – The convergence of numerous industry pressures including the clean energy transition, affordability, ambitious state policies, and unprecedented load growth have brought rate design to the forefront in several states. Rate design helps to determine who pays, how much they will pay, and how they will pay and is currently being examined by stakeholders as a potential tool to help address the pressures listed above. For example, in California, the commission opened a docket, as required by legislation passed in 2022, to implement an income-graduated fixed charge to protect low-income customers. Missouri was also the latest state to make time-of-use rates the default option for residential customers, while a similar proceeding is currently under consideration in Hawaii.

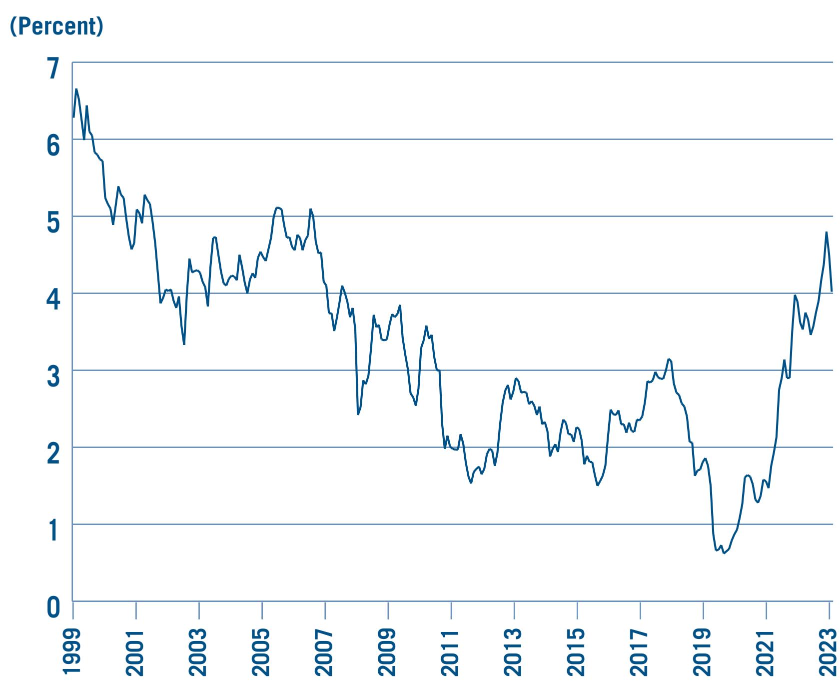
- Affordability – The topic of affordability continues to play a significant role in state regulatory activity and is a key consideration in many of the areas mentioned above. Several states are considering wide-ranging action to support low- to moderate-income (LMI) customers. This includes expanding electric company credits or bill discounts, including an LMI carveout for community solar programs like those in Maryland and New Jersey, and/or how to stack various state, electric company, and federal programs to ensure the customers most in need receive the biggest benefit.

Average Requested ROE



Source: S&P Global Market Intelligence/Regulatory Research Assoc. and EEI Finance Department.

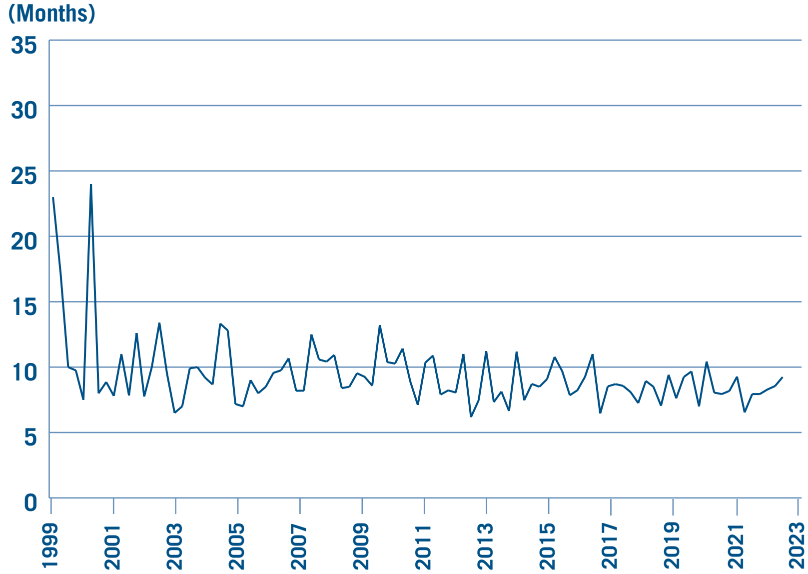
10-Year Treasury Yield



Source: U.S. Federal Reserve.

Average Regulatory Lag

U.S. INVESTOR-OWNED ELECTRIC UTILITIES



Source: S&P Global Market Intelligence/Regulatory Research Assoc. and EEI Finance Department.

Finance, Accounting, and Investor Relations

The Finance, Accounting, and Investor Relations teams are part of EEI's Business Operations Group. This division provides leadership and management for advocating industry policies, technical research, and enhancing the capabilities of individual members through education and information sharing. The division's leadership is used in areas that affect the financial health of the investor-owned electric utility industry, such as finance, accounting, taxation, internal auditing, investor relations, risk management, and budgeting and financial forecasting. If you need research information about these issue areas, please contact an EEI Finance, Accounting, or Investor Relations staff member. Under the direction of both the Finance and the Accounting Executive Advisory Committees, the division provides staff representatives to work with issue area committees. These committees give member company personnel a forum for information exchange and training and an opportunity to comment on legislative and regulatory proposals.

Publications

Quarterly Financial Updates

A series of financial reports on the investor-owned segment of the electric utility industry. Quarterly Financial Update (QFU) reports include stock performance, dividends, credit ratings, and rate review summary.

Financial Review

An annual report that provides a review of the financial performance of the investor-owned electric utility industry including the QFU topics mentioned above as well as the industry's consolidated financial statements. The report also includes an analysis in the areas of business segmentation, mergers & acquisitions, construction, and fuel use by electric utilities.

EEI Index

Quarterly stock performance of the U.S. investor-owned electric utilities. The EEI index, which measures total return and provides company rankings for year to date and trailing one-year periods, is widely used in company proxy statements and for overall industry benchmarking.

Executive Accounting News Flash

Published quarterly and distributed to members of accounting committees, this update provides current information about the impact on our companies of evolving accounting and financial reporting issues. The News Flash is prepared jointly with AGA by the Utility Industry Accounting Fellow in coordination with our accounting staff to keep members informed on proposed and newly effective requirements from key accounting standard-setters.

Introduction to Depreciation for Utilities and Other Industries

Updated in 2013, the latest edition of this book serves as a primer on the concepts of depreciation accounting including fundamental principles, life analysis techniques, salvage and cost of removal analysis methods and depreciation rate calculation formulas and examples.

Conference Highlights

Financial Conference

This three-day conference is the premier industry gathering of electric company c-suite officers, investors, and the financial community. This annual conference provides a unique opportunity for delegates to network and discuss issues impacting electric companies, investors, customers, and key stakeholders. This exclusive event fosters an engaging setting for delegates, speakers, and sponsors. The meeting features general session presentations, breakout company visit rooms, and entertaining receptions. Contact Jacob Moshel for more information.

Chief Financial Officers' Forum

This forum is held once a year in the fall in conjunction with the EEI Financial Conference. The forum provides an opportunity for chief financial officers to identify and discuss critical issues and challenges impacting the financial health of the electric utility industry. The forum is open to member company chief financial officers only. Contact Aaron Cope for more information.

Finance Committee Meeting

This day and a half meeting is held in the spring or summer. The meeting covers current and emerging industry issues critical to the electric power industry. It also provides an opportunity for utility financial officers to identify best practices and share management skills that contribute to financial performance. Contact Aaron Cope for more information.

Investor Relations Meeting

This one-day meeting is held in the spring. Executives gain insight on current and evolving industry issues, analysts' perspectives on the industry and have an opportunity to identify and share IR best practice concepts within and outside the electric utility industry. Contact Jacob Moshel for more information.

Treasury Group Meeting

Half day meetings are held in the spring and the fall annually. Discussion is focused on pension funding, capital markets and economic and regulatory impacts on debt and equity issuances. Members are provided an opportunity to share and identify best practices beneficial to the well-being of the industry. Contact Jacob Moshel for more information.

ESG/Sustainability Committee Forum

The committee forum convenes in-person biannually and virtually as needed to discuss existing and emerging ESG issues in the power sector. The two-day forum is open to the financial community, ESG stakeholders, and members on day one and is closed to members only on day two. Attendees hear industry and expert perspectives on key ESG trends that have implications on the power sector. The forum also allows attendees to discuss best practices and develop collaborative industry solutions to address various ESG issues and increasing disclosure mandates. Contact Aaron Cope for more information.

Accounting Leadership Conference

This annual meeting, held jointly with the Chief Audit Executives and their counterparts from AGA, covers current accounting, finance, business, and management issues for the Chief Accounting Officers and key accounting leadership of EEI member companies. Beginning in 2024, the EEI Accounting Standards Committee joined this conference. Contact Dave Dougher for more information.

Chief Audit Executives Conference

This annual conference provides a forum for EEI and AGA Chief Audit Executives to discuss issues and challenges and exchange ideas on utility-specific internal auditing topics. The conference is open to members of the Internal Auditing Committee and other employees of EEI/ AGA member companies designated by the CAE. Contact Dave Dougher for more information.

Spring Accounting Conference

Hosted by the EEI Accounting, Reporting, & Automation Committee, the Property Accounting & Valuation Committee, the Budgeting & Financial Forecasting Committee and the AGA Corporate Accounting and Property Accounting Committees, this conference provides a forum for members to discuss current issues and challenges and exchange ideas in the electric and natural gas utility industries. The meeting is open to members of the Committees and other employees of EEI/AGA member companies. Contact Dave Dougher for more information.

Taxation Committee Meeting

This three-day meeting is held every June and November, providing an opportunity for member company tax personnel to discuss technical information on utility tax issues. In addition to information exchange, members are briefed on current developments concerning major tax issues through presentations by committee members, outside tax specialists, and EEI staff. Contact Mark Agnew for more information.

Tax School

Hosted by the EEI Taxation Committee, this training is held every year as a virtual meeting done over 2-3 days. The program is designed for tax managers and tax staff with two-plus years of tax experience or for financial accounting supervisors with tax responsibilities. The school is taught by a faculty of outstanding speakers from the accounting and legal professions as well as others from within the industry. The EEI Tax School will rotate in alternate years between an intermediate-level focus and a beginner-level focus. The 2024 EEI Tax School will be held in September and have an intermediate-level focus. Contact Mark Agnew for more information.

Accounting Courses

Introduction to Public Utility Accounting

This 4-day program, offered jointly with AGA, concentrates on the fundamentals of public utility accounting. It focuses on providing basic knowledge and a forum for understanding the elements of the utility business. It is intended primarily for recently hired electric and gas utility staff in the areas of accounting, auditing, and finance. Contact Dave Dougher for more information.

Advanced Public Utility Accounting

This intensive, 4-day course, jointly sponsored with AGA, focuses on complex and specific advanced accounting and industry topics. It addresses current accounting issues including those related to deregulation and competition, as they affect EEI member companies. Contact Dave Dougher for more information.

Property Accounting & Depreciation Training Seminar

The content from this seminar has been incorporated into the public utility accounting training courses described above and is no longer offered as a separate seminar. Contact Dave Dougher for more information.

Utility Internal Auditor's Training

Provides utility staff auditors, managers, and directors with the fundamentals of public utility auditing and specific utility audit/accounting issues including advanced internal auditing topics and is presented jointly by EEI and AGA—convenes for two and one-half days. Contact Dave Dougher for more information.

Additional Training Opportunities

Provides additional training opportunities as appropriate, such as Accounting for Energy Derivatives and FERC Accounting. Contact Dave Dougher for more information.

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Schedule of Upcoming Meetings

To assist in planning your schedule, here are upcoming meetings related to finance and accounting that may be of interest.

July 22-23, 2024
EEI/AGA Accounting Liaison Committee Meeting with FERC Staff
Edison Electric Institute
Washington, DC

August 27-29, 2024
EEI/AGA Utility Internal Auditor's Training Courses
Loews Atlanta Hotel
Atlanta, Georgia

August 27-30, 2024
EEI-AGA Introduction to Public Utility Accounting and Advanced Public Utility Accounting Training Courses
Loews Atlanta Hotel
Atlanta, Georgia

September 9 and 11, 2024
EEI Tax School
Virtual Meeting

November 3-6, 2024
EEI/AGA Taxation Committee Meeting
Marco Island, Florida

November 10-12, 2024
EEI Financial Conference
Diplomat Beach Resort
Hollywood, Florida

November 10, 2024
EEI Treasury Group Meeting
(Closed meeting, admittance by invitation only)
Diplomat Beach Resort
Hollywood, Florida

November 10, 2024
Chief Financial Officers Forum
(Closed meeting, admittance by invitation only)
Diplomat Beach Resort
Hollywood, Florida

December 2024
Investor Relations Planning Group Meeting
(Closed meeting, admittance by invitation only)
New York, New York

December 2024
Wall Street Advisory Group Meeting
(Closed meeting, admittance by invitation only)
New York, New York

May 2025
EEI/AGA Spring Accounting Conference
TBD

June 2025
EEI/AGA Accounting Leadership and Chief Audit Executives Conferences
TBD

U.S. Investor-Owned Electric Utilities

(At 12/31/2023)

ALLETE, Inc.
Alliant Energy Corporation
Ameren Corporation
American Electric Power Company, Inc.
AVANGRID, Inc.
Avista Corporation
Berkshire Hathaway Energy
Black Hills Corporation
CenterPoint Energy, Inc.
Cleco Corporate Holdings LLC
CMS Energy Corporation
Consolidated Edison, Inc.
Dominion Energy, Inc.
DTE Energy Company
Duke Energy Corporation
Edison International
Entergy Corporation
Evergy, Inc.
Eversource Energy
Exelon Corporation
FirstEnergy Corp.
Hawaiian Electric Industries, Inc.
IDACORP, Inc.
MDU Resources Group, Inc.
MGE Energy, Inc.
NextEra Energy, Inc.
NiSource Inc.
NorthWestern Energy
OGE Energy Corp.
Otter Tail Corporation
PG&E Corporation
Pinnacle West Capital Corporation
PNM Resources, Inc.
Portland General Electric Company
PPL Corporation
Public Service Enterprise Group Inc.
Puget Energy, Inc.
Sempra Energy
Southern Company
The AES Corporation *
DPL Inc.
IPALCO Enterprises, Inc.
Unitil Corporation
WEC Energy Group, Inc.
Xcel Energy Inc.

Note: This list includes 39 publicly traded U.S. electric utility holding companies plus an additional five electric utilities (shown in italics) that are not listed on U.S. stock exchanges because they are owned by holding companies not primarily engaged in the business of providing retail electric distribution services in the United States.

* The AES Corporation is not included in the count of 39, but rather its two U.S. electric utility subsidiaries are included in the group of five italicized companies.

Other EEI Member Companies

American Transmission Company
Central Hudson Gas & Electric Corp.
Duquesne Light Company
El Paso Electric
Florida Public Utilities
Green Mountain Power
ITC Holdings Corp.
Liberty Utilities
Mt. Carmel Public Utility Company
National Grid
Ohio Valley Electric Corporation
Sharyland Utilities
Tampa Electric an Emera Company
UGI Corporation
UNS Energy Corporation
Upper Peninsula Power Company
Vermont Electric Power Company

Note: These companies are not included in the EEI Financial Review data sets for one of the following reasons: they do not provide retail electric distribution service (i.e., transmission-only), they are subsidiaries of foreign-owned companies, they are not traded on a major U.S. stock exchange, or they are owned by a non-utility holding company and the granularity of publicly available financial data is insufficient.

The **Edison Electric Institute** (EEI) is the association that represents all U.S. investor-owned electric companies. Our U.S. members provide electricity for 220 million Americans and operate in all 50 states and the District of Columbia. EEI also has dozens of international electric companies as International Members, and hundreds of industry suppliers and related organizations as Associate Members.

Safe, reliable, affordable, and increasingly clean energy enhances the lives of all Americans and powers the economy. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States and contributes 5 percent to the nation's GDP.

Organized in 1933, EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums.

For more information, visit our Web site at **www.eei.org**.

EEI

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CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2812

Major Energy Rate Case Decisions
January to June 2024
Regulatory Research Associates (RRA)
(Affiliate: Standard and Poor's Global Market Intelligence)
[July 29, 2024 Edition]

September 10, 2024

S&P Global

RRA Regulatory Focus

Major Energy Rate Case Decisions

July 29, 2024

Major energy rate case decisions in the US

January–June 2024

Quarterly update on decided rate cases

Lisa Fontanella, Research Director

Contributors: Brian Collins, Jim Davis, Russell Ernst, Lillian Federico, Monica Hlinka, Jason Lehmann, Dan Lowrey

Editor: Majda Shabbir

For detailed data

Access the RRA's electric and gas rate case decisions as of June 30, 2024, data tables.

An overview of state-level electric and gas rate case decisions in the US through the first half of 2024 and select historical data.

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Executive Summary

Introduction

The average electric and gas authorized returns on equity are trending modestly upward.

As per calculations from Regulatory Research Associates, the average return on equity (ROE) authorized electric utilities was 9.68% in rate cases decided in the first half of 2024, above the 9.60% average for full year 2023. There were 21 electric ROE authorizations in January–June 2024 versus 63 in full-year 2023.

The average ROE authorized gas utilities was 9.83% in rate cases decided in the first half of 2024, above the 9.64% average for full year 2023. There were 10 gas ROE authorizations in January–June 2024 versus 43 in full year 2023.

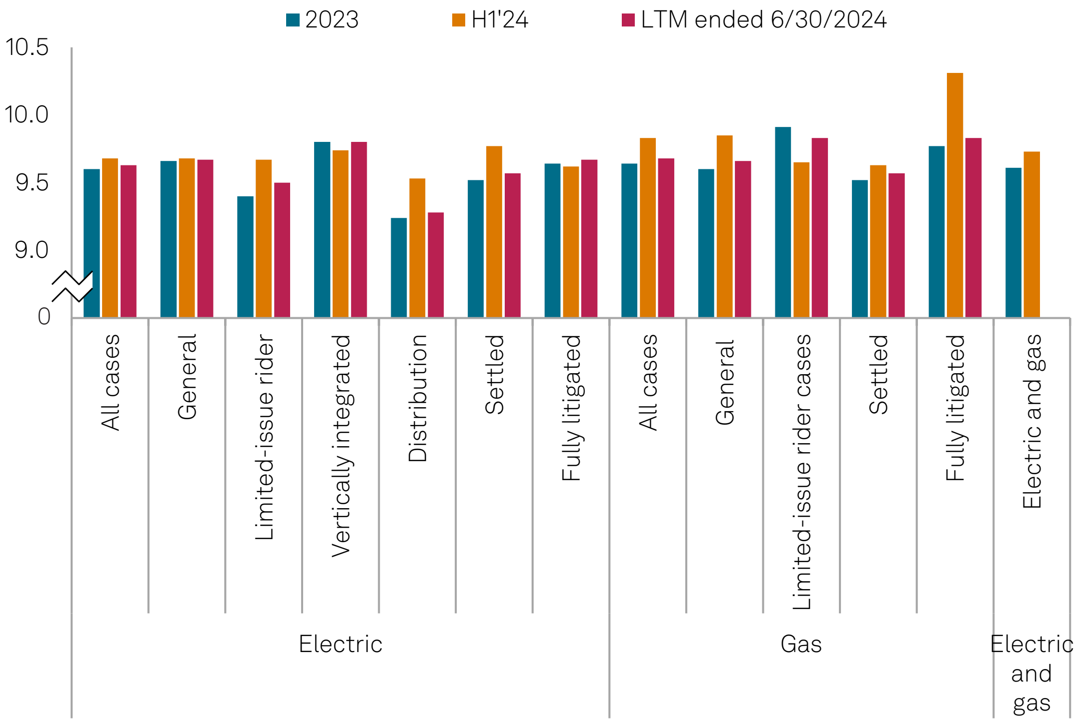
Rate case activity reached record-high levels in 2023, with nearly 165 decisions issued by state public utility commissions, including 106 electric or gas equity return determinations.

While the reasons for a rate case filing are numerous, the main driver continues to be the recovery of capital expenditures. Energy utilities are investing in infrastructure to modernize transmission and distribution systems; build new natural gas, solar and wind generation; and deploy new technologies to accommodate the expansion of electric vehicles, battery storage and advanced metering infrastructure that facilitate the transition toward decarbonization. Other reasons for rate filings include rising expenses, revised cost-of-capital parameters, the impact of broader economic and sectorwide forces on operations, recovery of storm and severe-weather-related costs , regulatory approval for alternative regulatory mechanisms, and the need to address rate treatment to be accorded generation facilities being retired prior to the end of their planned service lives due to the energy transition.

About this report

This quarterly report offers a detailed overview of electric and gas rate case decisions issued in the US during the first half of 2024 and select aggregated historical data. The information presented in this report utilizes the data compiled by Regulatory Research Associates for its rate case database, which is available on the S&P Capital IQ Pro platform. RRA endeavors to follow all “major” rate cases for investor-owned utilities nationwide, with “major” defined as a case in which the utility’s request would result in a rate change of at least $5 million or in which the commission approves a rate change of at least $3 million. In addition to base rate cases, the rate case history database includes details regarding certain limited-issue rider proceedings, primarily those involving significant rate base additions recognized outside of a general rate case. In some of these cases, the rate change coverage criteria may not apply. Historical data in this report may not match earlier data provided in previous reports due to differences in presentation, including the treatment of withdrawn or dismissed cases and the addition of cases not previously included in RRA’s coverage.

Average authorized ROE (%)



	2023	H1'24	LTM ended 6/30/2024
Electric averages			
All cases	9.60	9.68	9.63
General rate cases	9.66	9.68	9.67
Limited-issue rider cases	9.40	9.67	9.50
Vertically integrated cases	9.80	9.74	9.80
Distribution cases	9.24	9.53	9.28
Settled cases	9.52	9.77	9.57
Fully litigated cases	9.64	9.62	9.67
Gas averages			
All cases	9.64	9.83	9.68
General rate cases	9.60	9.85	9.66
Limited-issue rider cases	9.91	9.65	9.83
Settled cases	9.52	9.63	9.57
Fully litigated cases	9.77	10.31	9.83
Composite electric and gas averages			
Electric and gas	9.61	9.73	9.65
US Treasury			
30-year bond yield	4.09	4.46	4.44

Data compiled July 23, 2024.

ROE = return on equity; LTM = last 12 months.

Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The Take

Averages calculated for the first half of 2024 show that electric and gas authorized ROEs are trending modestly higher, as the high-interest-rate environment begins to impact authorized ROEs. The effect of interest rate increases on authorized returns is not proportional, however, as regulators are slower to adjust ROEs upward than downward, and affordability concerns persist as regulators contend with customer rate increases stemming from significant but necessary capital investment in the energy transition during a period of high inflation.

In recent years, rate case activity for investor-owned electric and gas utilities in the US has been elevated, with state public utility commissions issuing almost 165 decisions in 2023. With higher interest rates, elevated inflation and accelerating capital spending to address public policy goals, particularly the energy transition, RRA anticipates that the flurry of rate case activity will continue.

Overview of electric and gas authorizations

Both the electric and gas average authorized ROEs in the first half of 2024 inched gently higher than the averages for full year 2023.

The average ROE authorized for electric utilities was 9.68% for rate cases decided in the first half of 2024, above the 9.60% average observed in full year 2023. There were 21 electric ROE determinations reflected in the calculations for January–June 2024 versus 63 in full year 2023.

The average ROE authorized for gas utilities was 9.83% for cases decided in the first half of 2024, above the 9.64% average observed in full year 2023. There were 10 ROE determinations reflected in the calculations for January–June2024 versus 43 in full year 2023.

The electric data set includes several limited-issue rider cases. Historically, the ROEs authorized in limited-issue rider cases were meaningfully higher than those approved in general rate cases, driven primarily by incentives allowed in Virginia for certain types of generation investment. These premiums have largely expired. Excluding rider cases, the average authorized ROE for electric cases was 9.68% in the first half of 2024, versus 9.66% for full year 2023. There was only one limited-issue rider case with a gas authorized ROE in January–June2024 and a 9.65% ROE was authorized. Excluding the one rider rate case in the first half of 2024 and six rider cases in full year 2023, the average authorized ROE for gas cases was 9.85% in January–June2024 and 9.60% in full year 2023. For the most part, limited-issue riders have a limited impact on average ROEs in the gas sector, as most of the gas riders rely on ROEs approved in a previous base rate case.

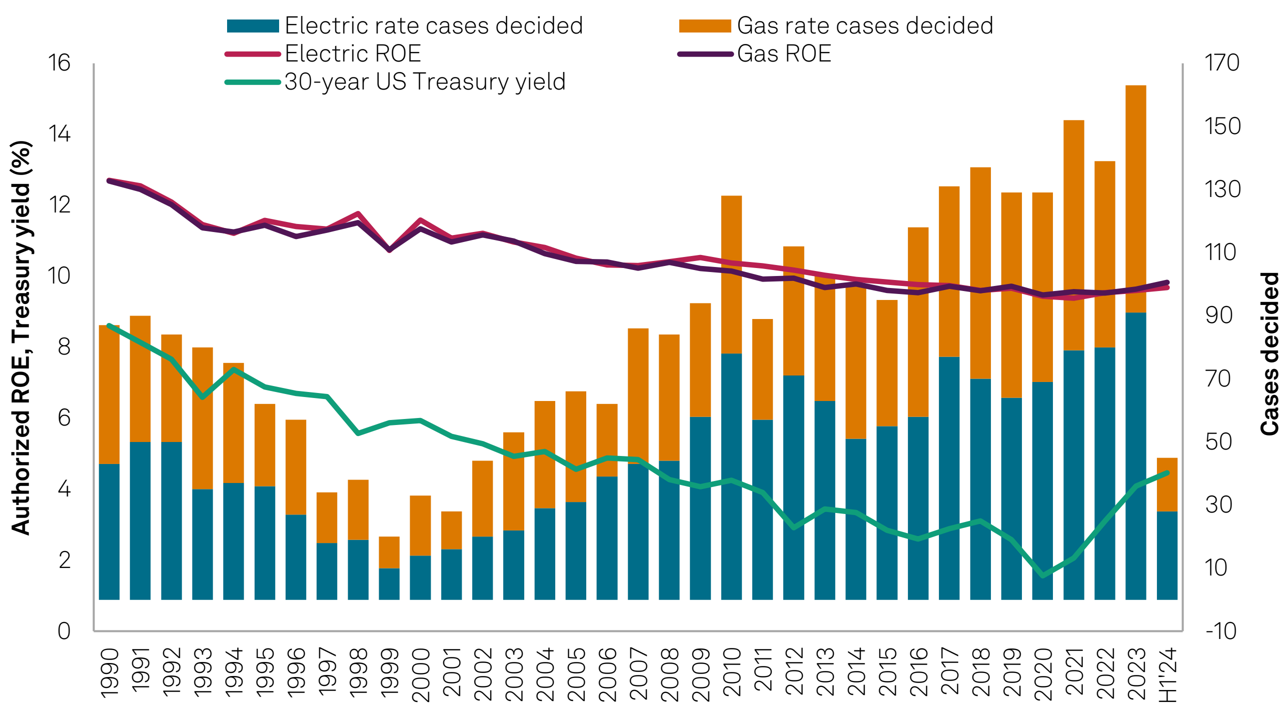
In the first half of 2024, the median ROE authorized in all electric utility rate cases was 9.70% versus 9.50% in full year 2023; for gas utilities, the metric was 9.68% in the first half of 2024 and 9.60% in full year 2023.

Looking at the last 12 months ended June 30, 2024, the average ROE authorized in all electric utility rate cases was 9.63% and the median was 9.60%. For gas utilities in the 12-month period ending June 30, 2024, the average was 9.68% and the median was 9.65%.

Historically, authorized returns have generally tracked the overall direction of interest rates, albeit with two important caveats to keep in mind — the magnitude of the change in authorized ROEs may not be as dramatic as that observed in interest rates, and changes in authorized ROEs may lag changes in interest rates, especially in the upward direction.

Interest rates — as measured by the 30-year US Treasury bond yield — fell almost steadily between 1990 and 2020, placing downward pressure on authorized ROEs. Between 1990 and 2020, Treasury yields fell more than 700 basis points, to 1.56% from 8.61%, while average authorized ROEs for electric and gas utilities combined fell less than 325 basis points, to 9.45% from 12.69%. The average authorized ROEs did not fall below 10% until 2011 for gas utilities and until 2014 for electric utilities. The calendar-year averages fell below 9.50% for the first time in 2020.

Average electric, gas authorized ROEs; number of rate cases decided



Data compiled July 23, 2024.
ROE = return on equity.
Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The decline in authorized ROEs has coincided with an upswing in rate case activity, with 100 or more cases adjudicated in 12 of the last 15 calendar years. This count includes electric and gas cases where no ROEs were specified but does not include withdrawn cases. At almost 165 cases decided, rate case activity in 2023 was the most robust observed in any year during the 1990–2023 period, with authorized increases totaling about $12 billion.

With interest rates and authorized ROEs declining at different rates between 1990 and 2020, the spread between authorized ROEs and the average yield on 30-year US Treasuries somewhat widened over this period — going from a little over 400 basis points in 1990 to a peak of just under 800 basis points in 2020.

The widening spread is attributable primarily to the regulators' often-unstated understanding that the drop in interest rates caused by the US Federal Reserve intervention was unusual. Consequently, regulators did not fully reflect the interest rate drop in newly authorized ROEs in some instances; in others, regulators acknowledged that the changing dynamics of the industry and instability in the overall economy presented increased risks for investors, justifying a higher premium over interest rates.

However, with the uptick in interest rates since 2020, the spread has begun to narrow, falling to around 550 basis points in 2023.

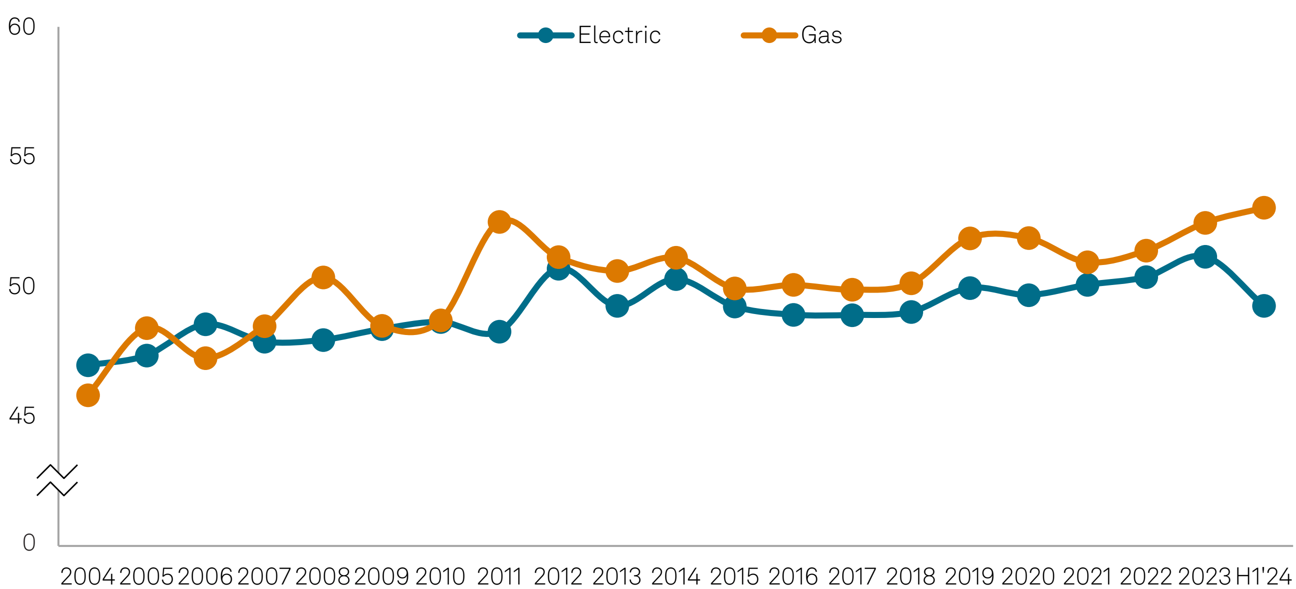
With the myriad factors putting upward pressure on customer bills, the spread may continue to narrow as regulators may become more reluctant to raise authorized returns.

Capital structure trends

The negative cash flow impact of federal tax changes that took effect in 2018 raised concerns regarding utility liquidity and credit metrics. In response, many utilities sought higher common equity ratios, and the average authorized equity ratios adopted by utility commissions in 2019 were modestly higher than those observed in 2018 and 2017.

For full years 2023, 2022, 2021, 2020 and 2019, the average equity ratios authorized in electric utility cases were 51.15%, 50.36%, 50.06%, 49.67% and 49.94%, respectively. The average equity ratios authorized gas utilities for these years were 52.45%, 51.38%, 50.94%, 51.87% and 51.86%, respectively.

Average authorized equity ratio (%)



Data compiled July 23, 2024.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

In the first half of 2024, the average authorized equity ratio for electric utility cases nationwide was 49.26%. For gas utilities, the average authorized equity ratio nationwide was 53.03%.

From a longer-term perspective, equity ratios have generally increased over the last several years — the average equity ratio approved in electric rate cases decided during 2004 was 46.96%, while the average for gas utilities was 45.81%. In the wake of the 2008 financial crisis, many commissions began approving capital structures that were more equity rich. Authorized equity ratios for gas utilities have been above those of electric utilities for the bulk of the period since 2004.

A more granular look at ROE trends

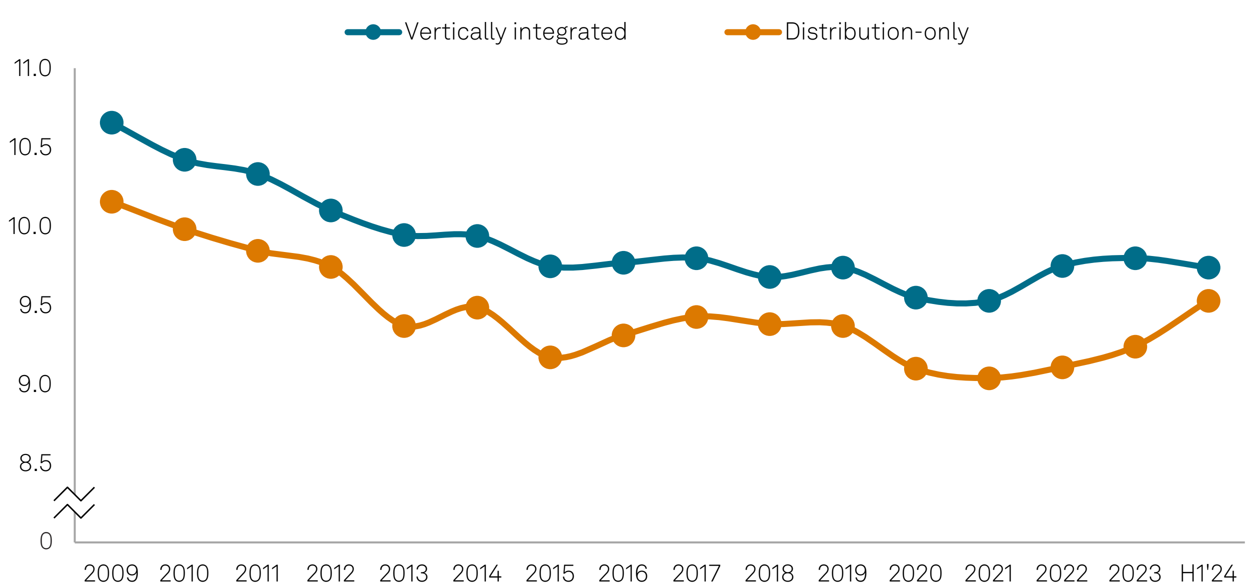
Thus far, the discussion has looked at broad trends in authorized ROEs; the following sections provide a more detailed view.

RRA has observed that there can be significant differences between average ROEs based on the types of proceedings/decisions in which these ROEs were established.

As a result of the electric industry restructuring, certain states unbundled electric rates and implemented retail competition for generation. Commissions in those states now have jurisdiction only over the revenue requirement and return parameters for distribution operations.

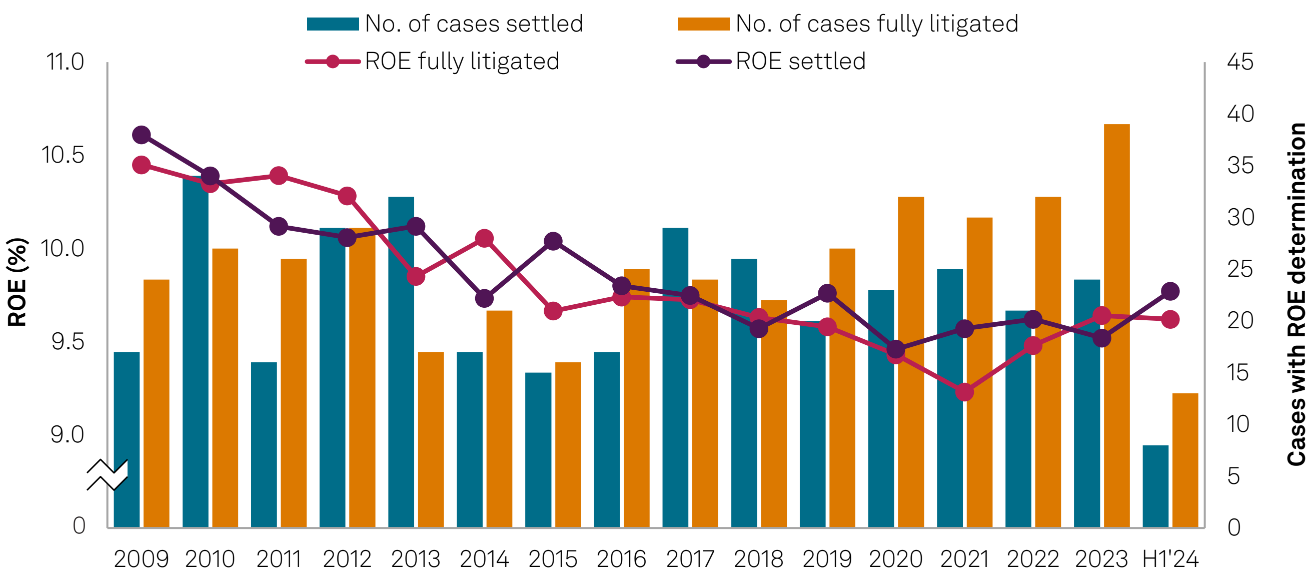
RRA finds that the annual average authorized ROEs in vertically integrated cases involving generation historically have been about 30-65 basis points higher than in distribution-only cases, arguably reflecting the increased risk associated with the ownership and operation of generation assets.

Average authorized electric ROEs (%)



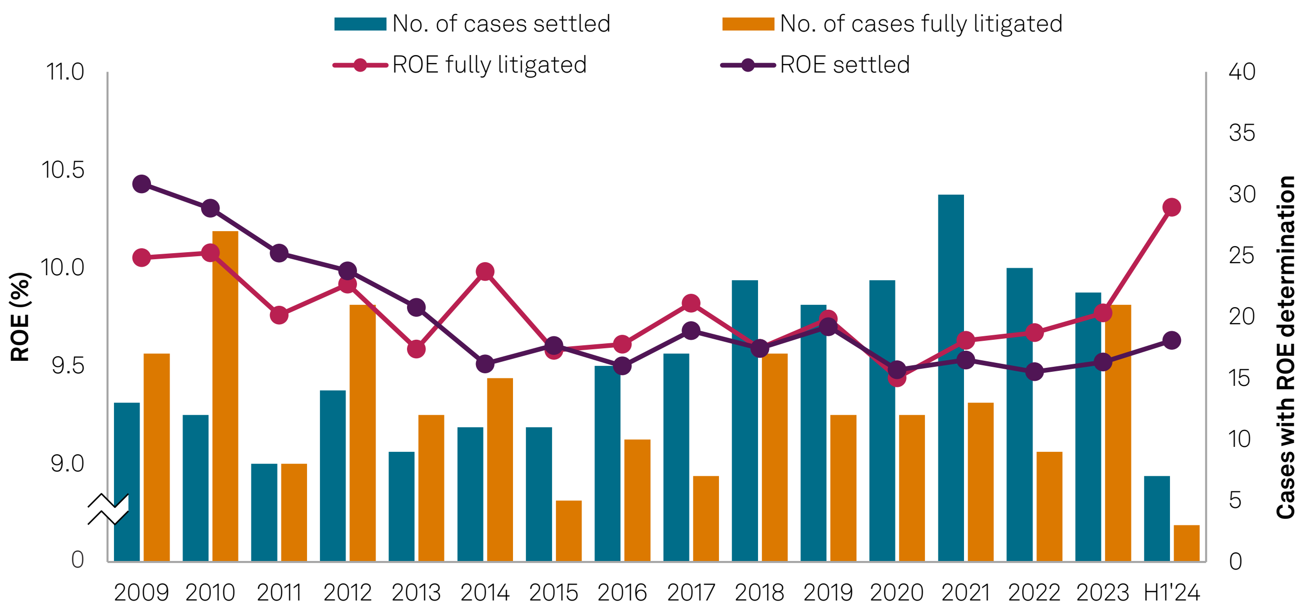
Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

Average authorized electric ROEs: settled vs. fully litigated cases



Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

Average authorized gas ROEs: settled vs. fully litigated cases



Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

The industry average ROE for vertically integrated electric utilities was 9.74% in cases decided in the first half of 2024 versus the 9.80% average in full year 2023. For electric distribution-only cases, the industry average ROE was 9.53% in January–June 2024 versus the 9.24% average in full year 2023.

Settlements have frequently been used to resolve rate cases over the last several years, and many are "black box" settlements that do not specify the ROE or other typical rate case parameters underlying the stipulated rate change. Some states, however, preclude this type of treatment, requiring settlements to specify these values, if not the specific adjustments from which these values were derived.

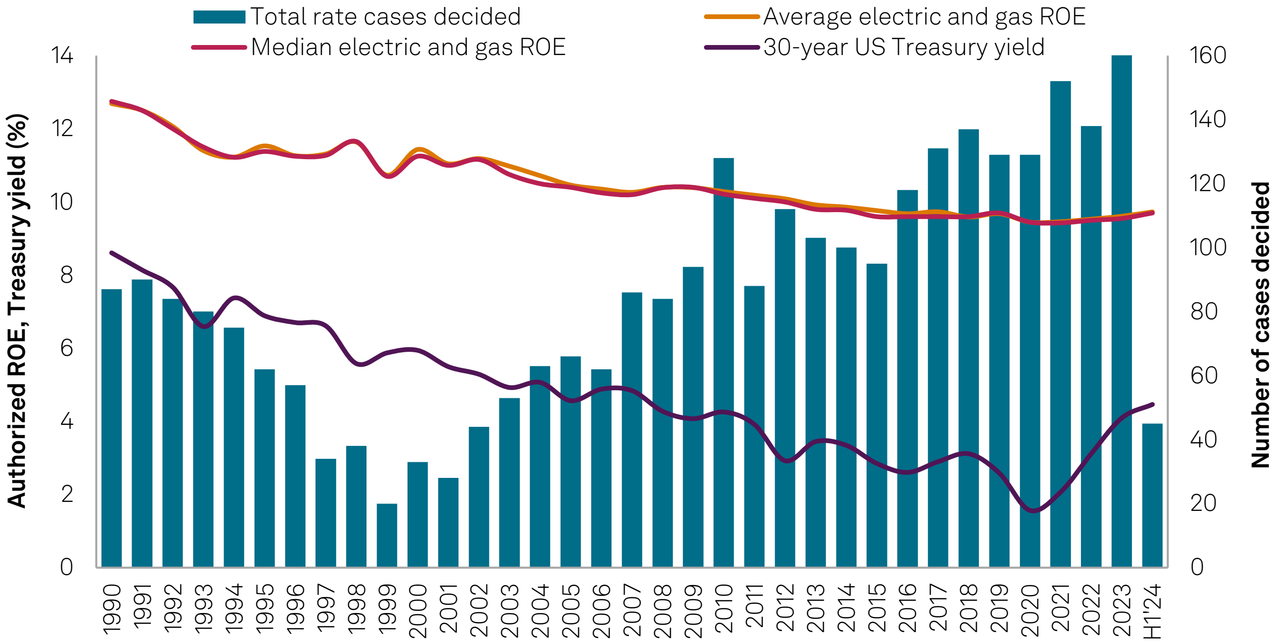
For both electric and gas cases, RRA has found no discernible pattern in the average authorized ROEs in cases that were settled versus those that were fully litigated. In some years, the average authorized ROE was higher for fully litigated cases, while in others, it was higher for settled cases.

The following discussion focuses on the corresponding tables available here.

Table 1 shows the average ROE authorized in major electric and gas rate decisions annually since 1990 and quarterly since 2019, followed by the number of observations in each period. **Table 2** indicates the composite electric and gas industry data for all major cases, summarized annually since 2004 and quarterly since 2021.

Tables 3 and 4 provide comparisons since 2009 of average authorized ROEs for settled versus fully litigated cases, general rate cases versus limited-issue rider proceedings and vertically integrated cases versus delivery-only cases for electric and gas utilities, respectively.

Composite electric, gas average authorized ROEs; total number of rate cases



Data compiled July 23, 2024.
ROE = return on equity.
Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The individual electric and gas cases decided in the first half of 2024 are listed in **Table 5**, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return, the ROE and the percentage of common equity in the adopted capital structure. Next, RRA indicates the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time the decisions were rendered. This study does not reflect fuel adjustment clause rate changes.

The simple mean is utilized for the return averages. In addition, the average equity returns indicated in this report reflect the ROEs approved in cases decided during the specified time periods and are not necessarily representative of the average currently authorized ROEs for utilities industrywide or the returns earned by the utilities.

Table 6 and the graph below track the average and median equity return authorized for all electric and gas rate cases combined since 1990. As the table indicates, authorized ROEs have generally trended downward since 1990, reflecting the significant decline in interest rates and capital costs over this time frame.

Further Reading

[The rate case process: A conduit to enlightenment]

[Rate base: It's more complicated than it sounds]

[Frequently Asked Questions]

[Intro to Water Utilities — Current Trends and Growth Drivers]

[An Overview of FERC Regulation]

[FERC Regulatory Review]

[State Regulatory Evaluations — Energy]

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About Regulatory Research Associates

Regulatory Research Associates, a group within S&P Global Commodity Insights, is the leading authority on utility securities and regulation. Understanding the financial and strategic impact of federal and state regulation is a key to success in the energy business. For over 40 years, Regulatory Research Associates has been the leading provider of independent research, expert analysis, proprietary data and consultation on utility securities and regulation. S&P Global Commodity Insights produces content for distribution on S&P Capital IQ Pro.

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OF
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STAFF EXHIBIT 2813

“Morningstar Mirage”
WSJ: Oct 25, 2017

September 10, 2024

The Morningstar Mirage

by Kirsten Grind, Tom McGinty and Sarah Krouse – WSJ – Oct 25, 2017

Investors everywhere think a 5-star rating from Morningstar means a mutual fund will be a top performer—it doesn't.

Millions of people trust Morningstar Inc. to help them decide where to put their money.

From pension funds to endowments to financial advisers to individuals, investors rely on **Morningstar's star ratings** to help divide $16 trillion among America's mutual funds, in much the way shoppers use Amazon's ratings to pick products. A lot of these investors, and the people paid to guide them, take for granted that the number of stars awarded to a mutual fund is a good guide to its future performance.

By and large, it isn't.

The Wall Street Journal tested Morningstar's ratings by examining the performance of thousands of funds dating back to 2003, shortly after the company began its current system. **Funds that earned high star ratings attracted the vast majority of investor dollars. Most of them failed to perform**.

Of funds awarded a coveted five-star overall rating, only 12% did well enough over the next five years to earn a top rating for that period; 10% performed so poorly they were branded with a rock-bottom one-star rating.

The falloff in performance was even more dramatic for domestic stock funds, the largest category of U.S. funds by assets.

Billions of investor dollars hang in the balance. Nearly every asset manager in the world pays Morningstar for data services. Some 250,000 financial advisers rely on Morningstar's data, services or ratings, according to the firm. That means Morningstar's analysis and ratings influence investment decisions for a vast landscape of retirement plans and brokerage accounts.

Morningstar's reach is so pervasive that the ecosystem for buying and selling mutual funds revolves around it. Fund companies heavily advertise their star ratings. Money typically pours into funds after they receive a five-star rating from Morningstar, the Journal found. It flows out if they lose stars.

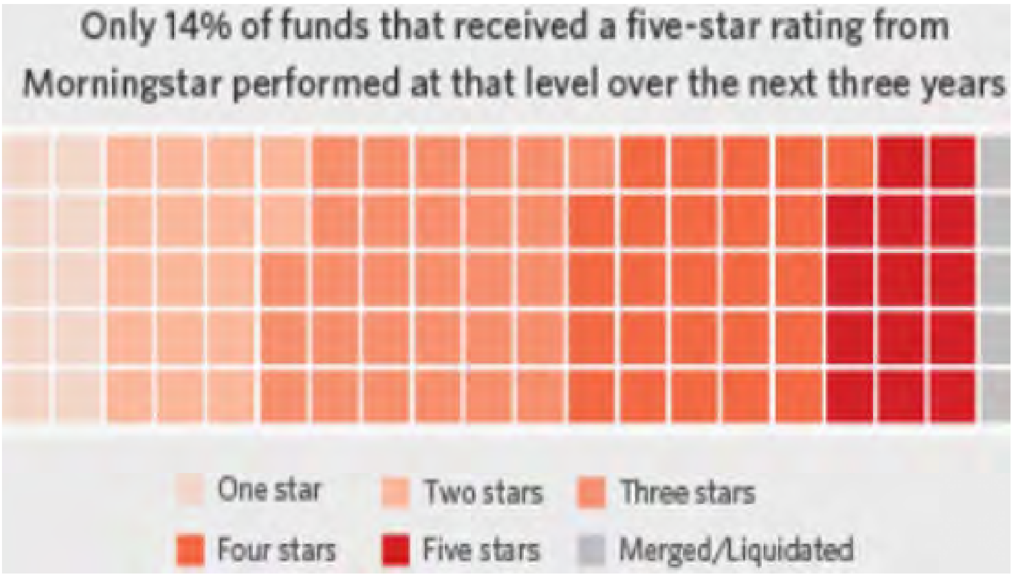
There is **no question** that **Morningstar has greatly improved** the **transparency and rigor of data on mutual funds' holdings and performance**, making it easier for individual investors to compare funds.

Morningstar says it has never claimed its star ratings suggest how funds will perform in the future. The **star system is strictly backward-looking**, assessing past performance, the firm says. "We have always been very clear that it's not intended to predict future performance," the company said in a written statement.

“The star rating works well when it’s used as intended: as a first-stage screen that helps identify lower-cost, lower-risk funds with good long-term performance,” Morningstar said. “It is not meant to be used in isolation or as a predictive measure. **Reversion to the mean is a powerful force** that can affect any investment vehicle.”

How Funds with Different Ratings Compare

Morningstar gives funds one to five stars for past performance, with five the best. Many investors treat the stars as a guide to future performance. But **over time, the performance of funds with different initial star ratings converges**.



How Funds with Different Ratings Compare

Morningstar gives funds one to five stars for past performance, with five the best. Many investors treat the stars as a guide to future performance. But over time, the performance of funds with different initial star ratings converges.

The **firm sends conflicting signals about the star ratings’ predictiveness**. A study published by Morningstar last month said the stars point investors to funds “likelier to outperform in the future.”

Morningstar founder Joe Mansueto said in an interview that the firm’s analysis of past ratings found “some modest predictive value.” Chief Executive Kunal Kapoor, in another interview, called the star system “a better predictor than it ever has been.”

In its written statement to the Journal, Morningstar said its analysis has found “the Star Rating is moderately predictive,” which “conforms to what we’d expect of a backward-looking, entirely quantitative measure.”

The Journal’s analysis found that most five-star funds perform somewhat better than lower-rated ones, yet on the average, **five-star funds eventually turn into merely ordinary performers**.

Inside Morningstar, some employees have expressed discomfort about how much investors rely on the ratings. Stephen Wendel, head of behavioral science at the

Chicago-based firm, wrote in the June/July issue of Morningstar magazine that part of his job was "examining whether we are contributing to abuses in the industry," and said: "Morningstar's star ratings for funds are clearly used in the industry to imply that funds that performed well in the past will do so in the future."

He added, "That needs to change."

Morningstar's Mr. Mansueto, 61 years old, said the star rating system "is a way to whittle down a big universe into something more manageable." The firm said it has worked to make investors understand the star ratings should be just a starting point for their research.

Since 2011, **Morningstar has had a second rating system**, lesser known and of limited scope, that **includes analysts' opinions**. Unlike the star ratings, it is designed to be **forward-looking**, Morningstar says. **In this system, too, the Journal found the performance of funds rated high, low and in between tended to converge after several years**. In addition, the Journal found **Morningstar only rarely gave funds the lowest analyst rating**, "**negative**."

Mr. Mansueto, growing up in suburban Chicago, sold lemonade by the roadside before moving up to Christmas trees. At the **University of Chicago**, he and a roommate sold chips and soda and advertised by hanging posters for the "Room 607 Soda Service." He also made his first mutual-fund investment, with $250 from a restaurant job.

After college, he and the ex-roommate, Kurt Hanson, started a business that provided market research for radio stations. It surveyed listeners and created a sheet of charts detailing their behavior. Mr. Mansueto then got a job as a financial analyst at Harris Associates LP, a Chicago money manager.

Mutual funds were proliferating, and a few fund managers were becoming stars, such as John Templeton and Peter Lynch. Funds didn't give much information about themselves, and what they provided was opaque to nonprofessionals. Mr. Mansueto told a colleague he wanted to start a **fund newsletter** in the mold of the radio-station fact sheets.

The **colleague, Ralph Wanger, cautioned that financial newsletters didn't have a record of success**. "That turned out to be the **dumbest...thing I ever said**," he recalls. "What I meant to say was, 'Joe, that's the best idea I've ever heard — how about I quit and we go 50-50?' "

"**It's a way to whittle down a big universe into something more manageable**"
Morningstar founder Joe Mansueto on the star ratings

Mr. Mansueto launched Morningstar from his one-bedroom apartment in 1984 with $80,000, taking the name from the ending of Thoreau's "Walden": "The sun is but a morning star."

He later spent $50,000 to hire Paul Rand, the noted designer of IBM's logo, who created a **signature red font** consisting of **tall letters** with an "**O**"

looking like a rising sun. With reports obtained from fund companies, Mr. Mansueto laid out data points so they were easy to read, and advertised his reports in Barron's.

When BusinessWeek later asked him to devise rankings for an issue devoted to mutual funds, Mr. Mansueto began work on what would become his five-star rating system. He toyed with using symbols suggesting little bags of gold before deciding on stars.

Since then, assets invested in U.S.-based mutual funds have multiplied more than forty-fold. Morningstar rode the wave and went public in 2005.

Today, investors descend on Chicago for Morningstar's annual conferences, a pilgrimage for money managers and financial advisers hoping to gather assets. At this year's event in April, shirtless male acrobats cartwheeled and stood on each other's shoulders while financiers sipped cocktails and mingled.

Morningstar groups funds into categories based on their investing style or area, more than 100 groups in all. It **compares funds** not to all other funds, nor to the overall market, but **to other funds with the same investment focus**. The **top 10% of funds in each group receive five stars**, the **bottom 10% get one**, and the rest get two, three or four stars.

The **ratings don't reflect raw performance, but performance adjusted for funds' degree of risk**. To make that calculation, Morningstar uses an algorithm Mr. Mansueto devised that reflects the variation in funds' month-to-month returns.

The firm **rates funds on how they did over three years — plus over five years and 10 years if they're old enough**—and assigns them an overall rating based on the others. **A fund thus could have as many as four ratings from Morningstar, though most investors see only the overall one**. **New** star **ratings come out each month**.

Most mutual funds have multiple "classes," each charging a different expense fee. Since varying expenses spell varying returns, Morningstar rates each class of each fund separately.

Its star ratings covered more than 10,800 mutual funds — and almost 39,000 share classes — during the 14 years studied by the Journal. The only qualification to be rated is being in business three years. The ratings include index funds, which try to mimic the performance of markets.

(The Journal's analysis didn't include exchange-traded funds, or ETFs, which trade throughout the day like a stock and usually mirror an index. Morningstar began rating ETFs alongside ordinary mutual funds late last year, after the period covered by the Journal's analysis.)

Going back to 2003, the Journal examined the rating of every investment class of every fund, in every month, and how these changed over time — some three million records in all.

The Journal also reviewed retirement-plan data, fund ads and regulatory filings, and interviewed dozens of current and former Morningstar employees, fund officials, financial advisers and investors.

For funds that had an overall five-star rating at any point, the Journal found that **their average Morningstar rating for the following five years was three stars**—in other words, halfway between the top and the bottom.

When funds picked up a fifth star for the first time during the period included in the Journal's analysis, half of them held on to it for just three months before their performance and rating weakened.

The findings were especially stark among U.S.-based domestic equity funds. Of those that merited the five-star badge, a mere 10% earned five stars for their performance over the following three years. Only 7% merited five stars for the following five years, and 6% did for 10 years.

For all of the measured periods—three, five and 10 years — five-star domestic equity funds were more likely to turn in a one-star performance than a top one.

That means a **five-star rating for the equity funds was no more an omen of success than it was one of failure**.

Morningstar's ratings of taxable-bond funds, which include corporate bonds and Treasurys, proved a little more indicative of future performance. Of five-star bond funds, about 16% turned in a five-star performance over the next five years.

Still, 8% of the five-star taxable-bond funds performed poorly enough to merit only one star.

Hickory Hills, Ill., not far from Morningstar's Chicago headquarters, has a small pension fund for about 50 active and retired police officers. In 2011, it moved about $2.1 million into the Nuveen Santa Barbara Dividend Growth Fund, which had a five-star Morningstar rating.

The pension board paid close heed to star ratings. "Our brokers thought it was one of the best measurements we had available to decide whether the fund is worth investing in," said board secretary Mary McDonald, referring to brokers from Morgan Stanley.

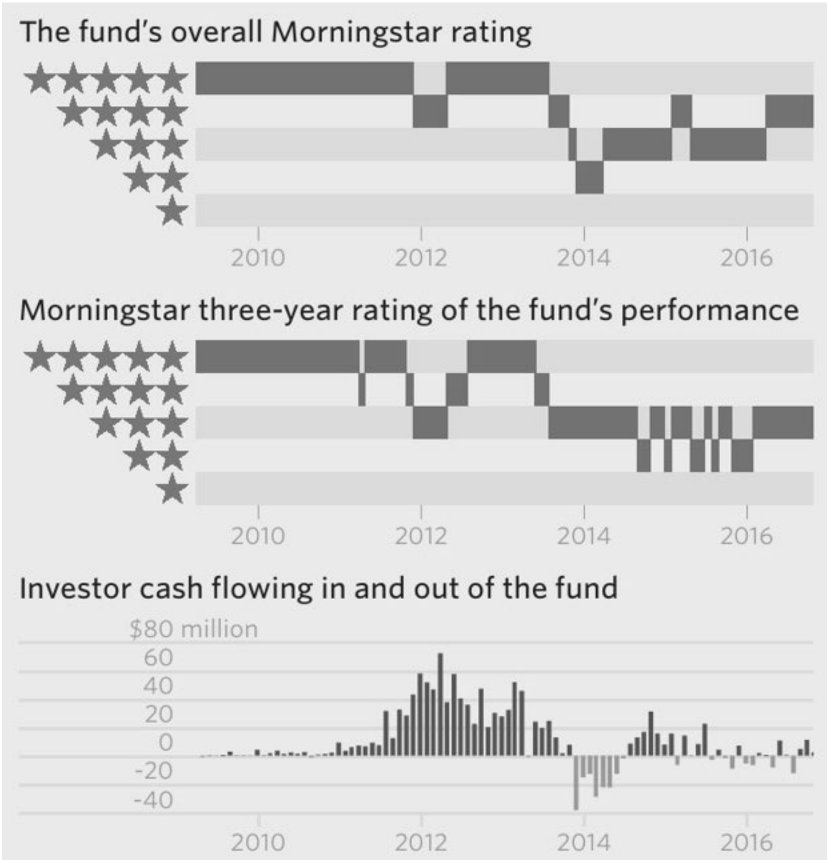
The fund had beaten 95% of others in Morningstar's "large blend" category — funds that buy large-company stocks using a blend of what investors call a "value" strategy and a "growth" strategy.

The following year, the fund beat only 26% of similar funds, and in 2013 just 11%.

Nuveen Santa Barbara – Dividend Growth Fund

A pension fund moved $2.1 million into the Nuveen Santa Barbara Dividend Growth Fund in November 2011, when the fund had a five-star rating.

Notes: Class I share class. Funds rated by Morningstar can have up to four ratings: a three-year rating, a five-year rating, a 10-year rating, and an overall rating that is based on a combination of the others.



The president of the Santa Barbara fund family, John Gomez, attributed the Dividend Growth fund's performance to its focus on stocks with growing dividends, not just the highest-yielding ones.

The Hickory Hills board pulled $1.2 million from the fund in 2014, and in early 2016 it took out $750,000 more. It has since switched to a local broker, in part because of **Morgan Stanley's reliance on Morningstar ratings**, said David Wetherald, a police officer who is also the pension board's president.

The experience was frustrating because "we rely a lot on the financial people. We're not completely blind and naive, but we're smart enough to know that this is what they do," Mr. Wetherald (left) said.

Morgan Stanley declined to comment.

Morningstar said its five-star rating of Nuveen Santa Barbara Dividend Growth in 2011 "was an accurate historical grade on the fund. It was not intended as or presented as a conclusion as to what they should do."

Morningstar also said this type of fund generally did poorly after 2011. The example "presents an underperforming fund in a badly underperforming category as if it's representative of the full rating set, which it's not," the firm said.

The Journal's analysis found that investors put new money into five-star-rated funds in 69% of the months they held that rating, compared with 29% for one-star funds. The Hickory Hills investment was part of $184 million investors put in the Santa Barbara fund in 2011 when it had five stars.

Morningstar acknowledged its ratings can influence demand, though Mr. Mansueto says he believes investors typically move money mainly based on a fund's performance, not its star rating.

Money in Motion

The Journal analyzed how much money flowed into or out of funds over three years based on the overall ratings investors saw and how well the funds actually performed.

Investors pour money into top-rated funds even if their performance declines.

Investors pull money from low-rated funds even if their performance improves

Net flows as a percentage of assets at start of three-year period

Note: Funds rated by Morningstar can have up to four ratings: a three-year rating, a five-year rating, a 10-year rating, and an overall rating that is based on a combination of the others.

The Journal found more than a dozen cases where well-performing funds attracted few investors until they won a fifth Morningstar star.

Tiny Buffalo Emerging Opportunities Fund saw little interest despite beating many similarly focused funds over three years, including gaining 24% in 2012. After it got a fifth star from Morningstar in spring 2013, hundreds of millions came in, quadrupling assets to above $400 million in five months.

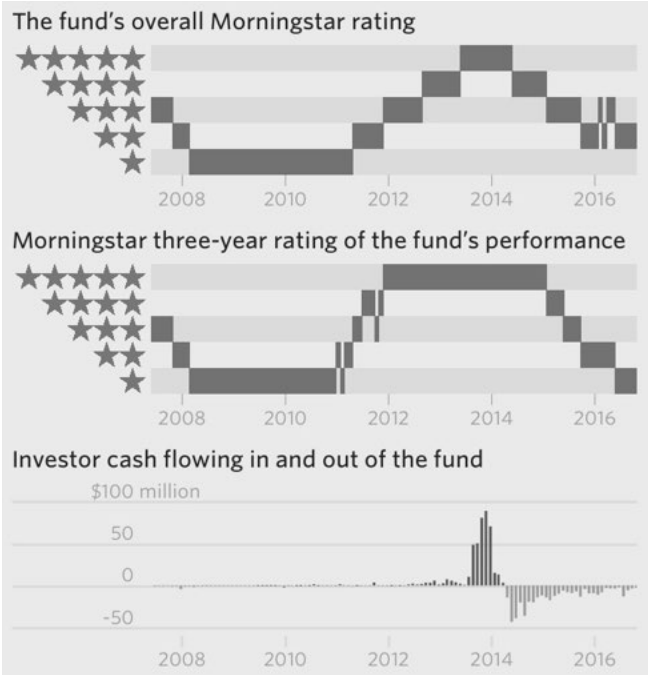
The small management team in Mission, Kan., closed the fund to new investors six months later, a step managers sometimes take when given more cash than they feel they can invest. The Journal found many instances of funds closing after an influx that followed a high star rating.

At Buffalo Emerging Opportunities Fund, fortunes soon reversed. In 2014 it lost more than 7% and trailed about 95% of other funds focused on growing small companies. Over the next two years its Morningstar rating fell to two stars and its assets plunged to less than $100 million.

Buffalo Funds declined to comment.

Buffalo Emerging Opportunities Fund

After Morningstar gave the tiny fund five stars in the spring of 2013, investors poured in hundreds of millions of dollars.



Over the next two years its ratings fell.

Inflows sparked by high star ratings are especially important for managers of actively managed funds now that more investors have migrated to passive ones that just try to match an index. On calls with securities analysts, fund-company chiefs often trumpet how much of their asset total is in four- and five-star funds, as a sign of the companies' ability to attract cash.

From his office park in Mechanicsburg, Pa., financial adviser Donald DeMuth starts each workday by logging onto Morningstar Office, which helps him organize client portfolios. He also uses Morningstar data to check on fund performance and details such as how rapidly a fund's portfolio turns over.

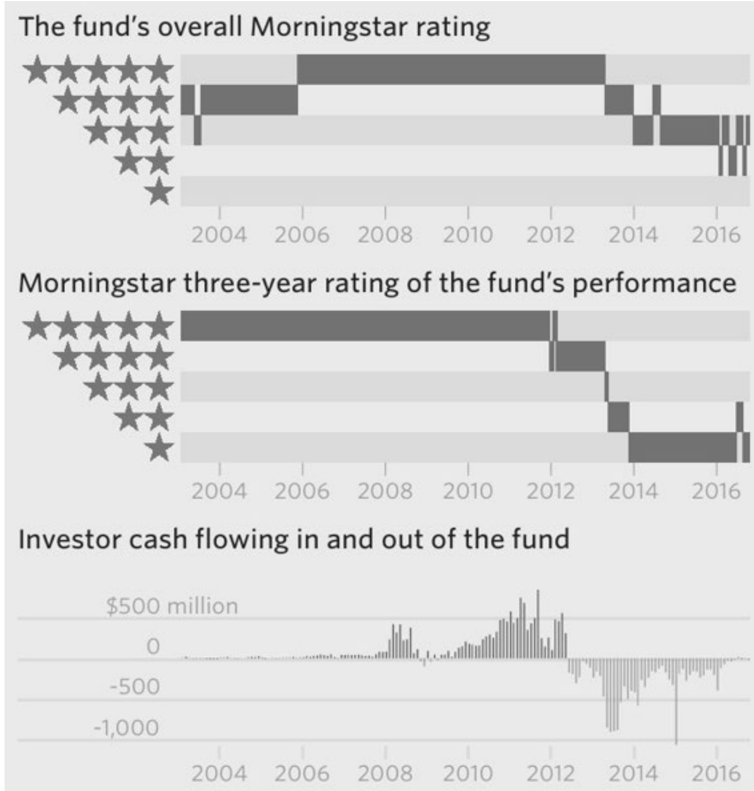
Mr. DeMuth, 66, has used Morningstar so long he can't remember when he started. "With rare exception, we would want a fund to have five stars," he said.

Left: Financial adviser **Donald DeMuth**

In early 2012 he put some of his clients' money in a fund called Permanent Portfolio when it had a five-star Morningstar rating. The fund invests across an array of assets, including gold and silver.

Its performance had already started to slip. By the end of 2012, it was 5 percentage points behind its Morningstar category benchmark, the "Morningstar Moderate Target Risk," which is a mix of global bonds and global stocks.

Mr. DeMuth moved his clients out in the fall of 2013, a year when the fund trailed that benchmark by 16 percentage points. At the end of 2013, Morningstar gave the fund a one-star rating for its performance over the prior three years.



Permanent Portfolio

A financial adviser invested clients in Permanent Portfolio in early 2012 when it had five stars, but it quickly started underperforming.

Client David Peterseim, a 55-year-old retired surgeon in Charleston, S.C., said he was relieved the financial adviser got out. He was **disappointed "Morningstar didn't have some semblance to reality**," Dr. Peterseim said.

Michael Cuggino, president of the San Francisco-based family of Permanent funds, said Permanent Portfolio's performance suffered as the price of gold and silver dropped.

Morningstar said Permanent Portfolio was an "outlier" that "was designed as an inflation hedge; when precious metals are in favor, it will score well, and when they're not, this fund won't do well." Major rallies in gold and silver ended in 2011, shortly before Mr. DeMuth invested.

Other industry practices show how much Wall Street's system for buying and selling mutual funds revolves around Morningstar ratings. Brokerage firms recommend high-stars funds to their networks of tens of thousands of financial advisers, and those brokers in turn put clients' money in the funds. Large fund firms such as Fidelity Investments and T. Rowe Price Group Inc. allow investors to filter out funds with low star ratings on their websites.

Current and former Morningstar employees said some advisers use the ratings as a crutch.

"**It's a cover-your-ass type of service**," says Samuel Lee, a former strategist at Morningstar. "**An adviser can say, 'I'm going to put you in this fund, it's a 5-star fund**,' …and if something goes wrong the adviser can shunt blame to Morningstar."

Left: Former Morgan Stanley financial adviser Scott Jennings, on advice he gave

Scott Jennings, a former Morgan Stanley financial adviser, recalled struggling last year to explain to a company's employees which funds they should choose in their retirement plans. He decided to keep it simple and told them,

You only have two funds rated by Morningstar — one's a two-star and one's a four-star. Go with the four-star.

At Morgan Stanley, "Advisers get in trouble when they go against the grain," Mr. Jennings said. "You isolate yourself more if you sell something else rather than just go with what research recommends."

Morningstar said if advisers use the ratings this way, "**this is a fault with the users of the ratings, not the ratings**.... If an advisor wants to do proper due diligence, we provide a robust set of information." The firm's marketing cautions that "a high rating alone is not a sufficient basis for investment decisions."

Morgan Stanley declined to comment.

Fund firms often cite Morningstar ratings in their advertising — at times even out-of-date ones. Alliance Bernstein ran an ad for nine of its funds in a spring edition of Private Wealth magazine, citing star ratings from September 2016. Two of the funds' ratings had fallen by the time the ad ran. Alliance Bernstein ran a similar ad with the September ratings in a Morningstar handout at the research firm's April conference.

A spokesman for Alliance Bernstein said it made a "human error" in two instances out of "hundreds of digital and print ads running that quarter."

Dallas-based Hodges Small Cap Fund's retail share class beat 95% of similar funds in 2010 but had less than $100 million in assets. Late in 2011 Morningstar gave it a fifth star, and everything changed, said Craig Hodges, who manages Hodges Capital Management. Charles Schwab put the fund on its "Schwab Select List." Mr. Hodges and his brother Clark decided to advertise the star rating on a billboard in Dallas/Fort Worth airport.

Hodges Capital paid more than $10,000 to Morningstar for the right to advertise the stars, Craig Hodges said. By the end of 2014, assets in that fund reached about $1.6 billion, according to Morningstar data.

Hodges Small Cap Fund

The Hodges Small Cap Fund had trouble attracting investors until Morningstar gave it five stars.

Investment giants Vanguard Group and Fidelity Investments pay upward of $1 million a year for licensing, data and other tools from Morningstar, said people familiar with the arrangements. It's unclear how much is just for advertising.

Michael Rawson, who was a Morningstar fund analyst for six years until spring 2016, said asset managers who pay to advertise their stars are misrepresenting their funds because the ratings are solely backward-looking.

"We know people misuse it. If we know people misuse it, why don't we do something about it?" Mr. Rawson said.

Morningstar said it publishes the ratings because it believes they have investment merit, not for financial gain. It said its intellectual-property licensing packages, which include the stars, contributed just 4% of revenue in 2016.

Mr. Mansueto said employees are encouraged to debate issues related to its products, but the efficacy of its star ratings no longer comes up internally. "This is not a hot topic or even a cold topic at Morningstar today," he said.

As for the Hodges Small Cap Fund, its performance has since turned down. Its rating has fallen to two stars from five, and assets that had soared after the top rating have dropped by more than half.

Aware of criticism of its star ratings, Morningstar in 2011 launched a second rating system, currently covering 26% of fund share classes, in which the firm's analysts do a more qualitative assessment. Unlike the star system, analysts' ratings often refer to likely future performance. The firm said analysts' ratings reflect its level of conviction that a fund will "outperform its peer group and/or relevant benchmark."

The **analysts** give funds one of three **medals** — **gold, silver or bronze** — or a "neutral" or "negative" rating.

The Journal examined how these funds performed in future years, as measured in their star ratings. It found that five years after having a gold-medal rating from

Morningstar's analysts, funds had an average rating of 3.4 stars for that five-year period.

Silver-medal funds were rated 3.3 stars for their performance over the following five years. Bronze-medal funds had an average rating of 3 stars. In other words, while funds rated highly by the Morningstar analysts did better, the **differences** among the funds **weren't large**.

A Morningstar spokeswoman said there was a mismatch in how the Journal evaluated the performance of analyst-rated funds because it relied on star ratings. She said unlike analysts, the star ratings take into account a "load" — a sales fee —t hat some funds have.

The Journal analysis also found **Morningstar analysts' ratings of funds were overwhelmingly positive**. From November 2011 through August 2017, the firm gave analyst ratings to about 9,200 fund share classes. Just 421, or 5%, received negative reviews. At the end of August, only 1% did.

Mr. Mansueto said analysts tend to choose better funds to examine, since they can't review them all. "Investors want to know what funds they should be investing in," Mr. Mansueto said. "They don't care so much about what the terrible funds are."

Morningstar recently started a third "quantitative ratings" system that it says applies analyst screening to a broader universe of funds. This one is likely to include more negative ratings, executives said.

J.P. Morgan Chase & Co. is among asset managers that regularly send portfolio managers to talk to Morningstar analysts about the merits of their funds. BlackRock Inc. has a team that works to persuade Morningstar analysts of the merits of various funds, according to people familiar with the matter.

They added that BlackRock CEO Laurence Fink met with Morningstar analysts early this year to discuss the firm's ratings. In May, Morningstar upgraded to positive BlackRock's "parent pillar" rating, an evaluation in which analysts are looking for factors including an alignment of interests between fund shareholders and those who manage the funds.

A BlackRock spokesman said its team that works with research providers "is focused on providing transparency, education and information about our products to facilitate informed decisions."

Morningstar said BlackRock had changed how portfolio managers were paid in a way that led to their having more of their own money invested in BlackRock funds. "We followed the same process in evaluating Blackrock's standing as a parent that we do with any other firm," said a Morningstar spokeswoman.

Mr. Kapoor, the Morningstar CEO, said analysts operate independently from fund companies and without influence from management despite frequent angry calls executives must field. "We prize our independence," he said.

Morningstar's application to the Securities and Exchange Commission for permission to launch nine mutual funds of its own has led some critics to cry conflict of interest. The Morningstar spokeswoman said the firm is in a quiet period related to the filing, restricting what it can say, but she said the firm's analysts sit "in a separate entity" from Morningstar Investment Management, which would oversee the company's funds.

The Journal spoke with more than three dozen executives at asset-management firms large and small about Morningstar. Few would go on the record.

Several years ago, some were unhappy when Morningstar changed the way it calculates its "stewardship grade," which is supposed to measure the corporate culture of each fund company. Executives from fund companies viewed the change as the latest example of Morningstar acting unilaterally and without explaining itself.

The money managers drafted a two-page letter to Morningstar that accused the company of "bullying" fund companies and running a monopoly, according to people familiar with the letter.

"The nature of what we do is going to end up alienating some portion of the industry," said Jeffrey Ptak, Morningstar's global director of manager research. "That's not something we relish but it's part of our job."

When the time came for the money-management firms to put their names to the letter, they balked. The letter was never sent.

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How The Wall Street Journal Did Its Analysis of Morningstar Ratings

by Tom McGinty – WSJ – Oct. 25, 2017

Morningstar provided the Wall Street Journal with a list of all U.S. open-end mutual funds that operated at any time from 2003 through October 2016. The list included more than 10,800 funds that together had almost 39,000 share classes that were rated by Morningstar during the period. Share classes within a given fund are all invested in the same securities and differ only in the fees they charge to investors. The funds had been classified into more than 100 investment categories by Morningstar and they invested in a wide range of securities, including domestic and international stock and municipal, government and corporate bonds.

Using complimentary access to Morningstar's data and investment-analysis platform, Morningstar Direct, the Journal pulled monthly performance metrics for each share class for the period spanning from January 2003 through October 2016 (166 months). The metrics the Journal used in its analysis included:

* Overall star rating

* 3-, 5- and 10-year star ratings

* Morningstar analyst ratings

* Monthly net assets

* Estimated monthly net flow (the net of the dollars investors put into and pulled from the share class during the prior month)

The Basics of Morningstar's Star Ratings

Morningstar's star ratings represent how well a given share class performed among all other share classes within its Morningstar-assigned category over a given period. The ratings do not take into account how the share class has performed against the general market in which it invests. To be rated, a share class must have a history of at least three years.

For each share class at the end of every month, Morningstar uses a proprietary algorithm to calculate the "**Morningstar Risk-Adjusted Return**" (**MRAR**) for the prior three years. The risk weighting is generally a measure of how radically the monthly returns moved up and down during the period being studied. For example, two share classes could have identical returns over a three-year period, but if one had large up-and-down swings in its monthly returns while the other saw only small month-to-month variations, the volatile share class would be penalized by the risk-weighting analysis and would earn a lower MRAR score for the three-year period.

Morningstar sorts the share classes within each category by their MRAR scores. The lowest 10% of share classes get a three-year rating of one star; the next 22.5% get two stars; the middle 35% get 3 stars; the next 22.5% get four stars; and the top 10% get five stars.

For share classes with five or more years of history, Morningstar calculates a five-year MRAR and assigns five-year star ratings based on the same percentile cutoffs as the three-year rating. For share classes with at least 10 years of data, the same process is followed to calculate the 10-year MRAR and star rating.

Morningstar's overall star rating — the one most frequently publicized by investment managers — is a weighted distillation of the three-, five- and 10-year ratings. The formula for calculating the overall rating varies depending on how long a share class has existed:

* For share classes with less than five years of history, the overall rating is equal to the three-star rating.
* For share classes with at least five years of history but less than 10 years, the overall rating is based 60% on the five-year rating and 40% on the three-year rating.
* For share classes with at least 10 years of history, the overall rating is based 50% on 10-year rating, 30% on the five-year rating and 20% on the three-year rating.

For example, this table shows the calculation of an overall rating for a share class with a 10-year rating of 4, a five-year rating of 3 and a three-year rating of 3:

Rating period	Stars	Weight	Weighted value (weight x stars)
Three years	3	20%	0.6
Five years	3	30%	0.9
10 years	4	50%	2
Sum of weighted values			3.5
Overall rating (rounded sum of weighted values)			4

With 50% of the overall Morningstar rating predicated on the 10-year performance of a share class, overall ratings tend to move more slowly than the three-year ratings. Put another way, the **overall rating puts more weight on the long-ago performance of a fund than what it has delivered in recent years**.

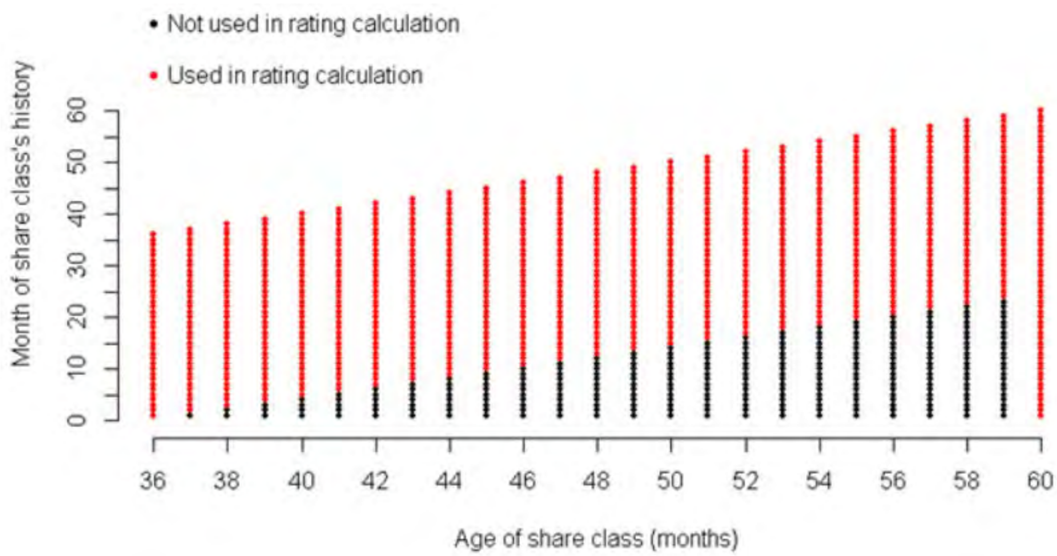
The effects of that weighting become evident when looking at how the overall and three-year ratings of a share class change over time. The Journal's analysis found that the average share class with a five-star overall rating on a given date had an overall rating of 3.7 stars three years later, a decline of 1.3 stars. But those same share classes averaged three-year ratings over the same period of just 3.1, a decline of 1.9 stars.

Note: During the period studied by the Journal, Morningstar's methodology included a provision for altering the weighting used for the overall score for funds that moved from one Morningstar category to another. The Journal found the adjustment affected less than 2% of the overall ratings in its data set. That **adjustment**, which was **meant to account for differences among categories, was discontinued in November 2016**.

A quirk of Morningstar's methodology for its overall rating:

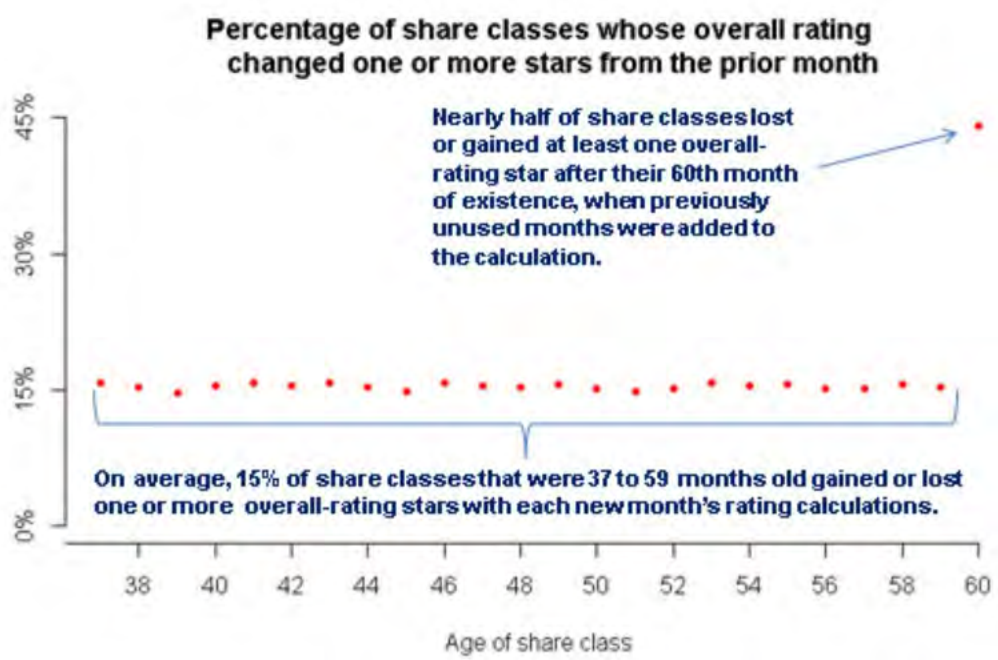
Because of the way the overall rating is calculated, there are many months during a share class's life when its ratings are calculated using only part of the share class's performance history. Later, when those months are added to the calculations, an unusual number of share classes are hit with sudden — sometimes large — changes in their overall ratings.

As noted above, a share class gets its first Morningstar rating after its 36th month of existence. From that point until its 60th month, its three-year rating is calculated using the most recent 36 months of data and its overall rating is equal to the three-year rating. As each new month is added to the three-year calculation, the 37th youngest month is dropped from the calculation. By the time a share class is 59 months old, the first 23 months of its history are left out of the ratings calculations.



After its 60th month, a share class gets a five-year rating for the first time. All 60 months of the share class's history are used to calculate the five-year rating and the most recent 36 months are used to calculate the three-year rating. The overall rating then is derived from those two ratings, with the five-year counting toward 60% of the overall rating and the three-year counting toward 40% of it.

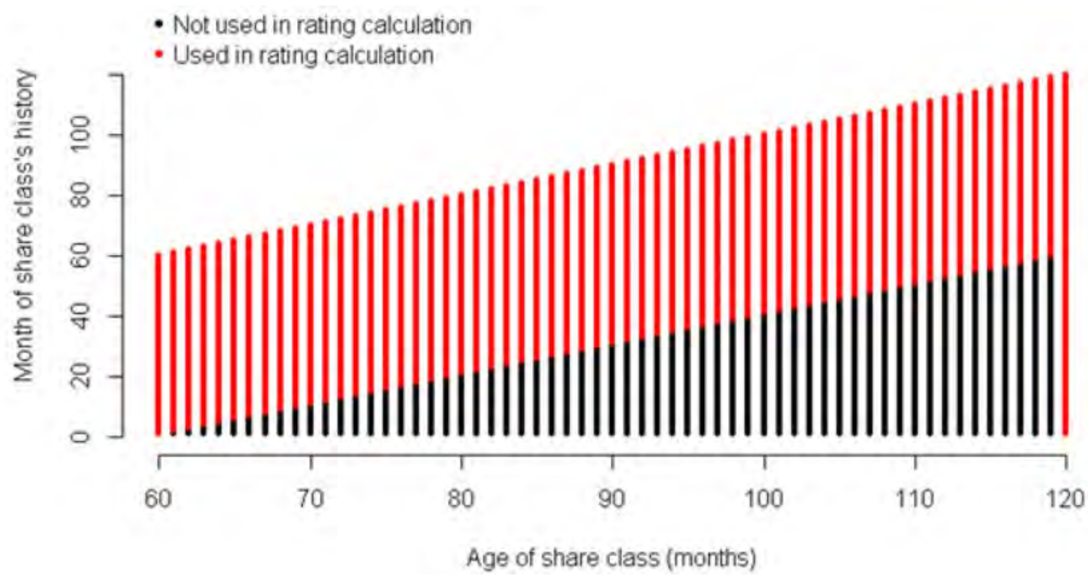
Suddenly adding 23 months of history that were disregarded just one month earlier causes an unusually large number of share classes to see their overall rating change by one star or more.



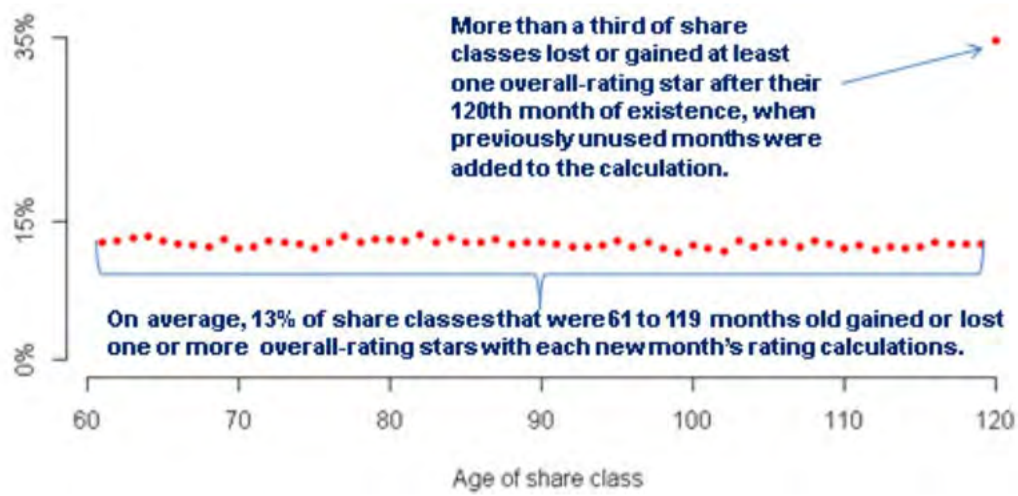
The sudden rating changes may have led to some unpleasant surprises for investors who relied on star ratings of share classes nearing 60 months of age when making investments. More than 800 share classes in the Journal's analysis that had a five-star rating after their 59th month saw a change in their overall rating of one or more stars after their 60th month. In 104 instances, share classes that had an overall rating of five stars after their 59th month fell all the way to three stars when the oldest 23 months of their history were added to the ratings calculations, the Journal's analysis found. In four instances, share classes hitting the 60-month milestone fell from a five-star overall rating to two stars.

More unused months

From the 60th month of a share class's existence through the 119th month, only the most recent 60 months are used in the ratings calculations, with the most recent 60 going into the five-year rating and the most recent 36 used for the three-year rating. Throughout this time, the overall rating is composed 60% of the five-year rating and 40% of the three year. By the time the share class hits the age of 119 months, its oldest 59 months do not factor into the ratings calculations.



After its 120th month, a share class gets a 10-year rating for the first time. All 120 months of the share class's history are used to calculate the 10-year rating; five- and three-year ratings continue to be calculated with the most recent 60 and 36 months, respectively. The newly minted 10-year rating now counts for 50% of the overall rating, while the five-year rating counts for 30% and the three-year 20%.



As happened at the 60-month threshold, the addition of previously excluded months had a pronounced effect on the overall ratings.

After their 120th month, 287 share classes that had five-star overall ratings were downgraded to four stars and 33 were downgraded from five stars to three.

Morningstar said, “We are **aware of this phenomenon** and have explored using unique or rolling periods, but it exponentially increased the complexity of the ratings. The disclosure on thousands of unique peer groups that it would require was a daunting obstacle. It also in general led to very small differences in outcomes. To undermine the simplicity of a starting point — which is all we claimed the stars to be — for minor or nonexistent benefits in outcomes struck us as a poor tradeoff. If we were promoting the stars as a conclusion, we would have pursued such options. As we and our readers knew the stars to be a first-stage screen in the research process, we didn’t incorporate this suggestion.”

Gauging the predictive powers of Morningstar ratings

Morningstar says its star ratings are backward-looking and not meant to be an indicator of future performance, **but** the company also has described the star ratings as “moderately predictive.”

To assess the predictive powers of Morningstar’s ratings, the Journal started with the overall rating of each share class on each rating date and looked forward three, five and 10 years to see what ratings it had earned over those periods.

For example, say share class x had an overall rating of 5 stars on Jan. 31, 2003. The performance of the share class over the following three years, relative to all other share classes in its category, could be determined by looking forward 36 months, to Jan. 31, 2006, and examining the 3-year star rating Morningstar assigned to the fund on that date.

How did ratings hold up over three years?

The table below shows the percentage of share classes that started out with a given overall rating and received a given three-year rating 36 months later. (The three-year rating ranks the performance of the fund over the prior three years.)

The overall rating that share classes started out with is labeled down the left side of the table; the 3-year rating they earned 36 months later is across the top of columns two through six. The last two columns contain the percentages of share classes that merged Into other funds or liquidated before the three-year period was completed and thus didn't receive a three-year rating for the period.

For example, the table shows that, among share classes that started out with an overall rating of five stars,14% delivered risk-weighted returns over the following three years that merited a five-star three-year rating, and 10% rated just one star. For funds that started out with a one-star overall rating, just 5% earned five stars after three years and 15% earned just one star.

Note: The Journal's data for its Morningstar analysis runs from January 2003 through October 2016, so the latest starting point for this table was October 2013 to allow for three years of future performance.

	Morningstar rating of next three years of performance						
Starting Overall Rating	1	2	3	4	5	Merged	Liquidated
1	15%	20%	17%	8%	5%	20%	14%
2	11%	24%	25%	12%	4%	15%	9%
3	7%	22%	33%	17%	6%	9%	6%
4	7%	18%	34%	24%	9%	5%	4%
5	10%	17%	29%	25%	14%	2%	3%

How did ratings hold up over five years?

The table below shows the percentage of share classes that started out with a given rating and received a given five-year rating five years later.

Note: The latest starting point for this table was October 2011 to allow for five years of future performance.

	Morningstar rating of next five years of performance						
Starting Overall Rating	1	2	3	4	5	Merged	Liquidated
1	11%	16%	14%	8%	4%	30%	18%
2	9%	20%	22%	10%	4%	24%	13%
3	7%	19%	30%	15%	5%	15%	10%
4	7%	18%	31%	21%	8%	9%	7%
5	10%	18%	28%	22%	12%	5%	5%

How did ratings hold up over 10 years?

The table below shows the percentage of share classes that started out with a given rating and received a given 10-year rating five years later.

Note: The latest starting point for this table had to be October 2006 to allow for 10 years of future performance.

	Morningstar rating of next 10 years of performance						
Starting overall rating	1	2	3	4	5	Merged	Liquidated
1	8%	9%	9%	3%	2%	48%	21%
2	7%	14%	14%	7%	2%	41%	16%
3	6%	14%	22%	11%	3%	30%	14%
4	6%	14%	25%	17%	6%	21%	11%
5	8%	13%	22%	21%	14%	13%	9%

Another way to look at how ratings hold up over time

In addition to determining the percentages of share classes that wound up at each rating level over different periods of time, the Journal calculated the average future ratings of all share classes over three, five and 10 years.

One problem in calculating the average of those future ratings is what experts refer to as "**survivor bias**." The **only share classes that will have ratings three years in the future are those that survived the entire period**. **Funds that merged into other funds or liquidated (shut down and returned money to investors) will not have ratings to include in the averages at the end of the period being studied**.

Morningstar records the dates when share classes disappear and notes whether the disappearance was due to a liquidation or a merger. **Funds that liquidate typically have performed poorly and suffered investor withdrawals**, so the Journal assumed that share classes that liquidated during the periods being studied performed at a one-star level.

Mergers are not as cut and dried. Some funds that merge into others are weak; others have good track records and large amounts of assets. For those reasons, the Journal decided to drop share classes that merged from the analysis rather attempting to classify their performance.

Morningstar's experts said they disagreed with that approach. They would prefer that both merged and liquidated share classes be treated as one-star performers during the time frames in which they drop out of the data. The Journal ran the analysis both ways.

To create the tables below, the Journal examined the starting overall rating of each share class on each rating date and looked forward three, five and 10 years to see what rating Morningstar gave the share class for those periods. For each time frame, the Journal also calculated the average overall rating that share classes received.

Share classes that liquidated during the period being studied were treated as if they had been given a one-star rating for the period. In cases where a share class disappeared before the end of the period due to a merger, the Journal dropped it from the analysis for the article and the tables on the left below. The tables on the right below follow Morningstar's preferred methodology, treating merged funds as if they had been given a one-star rating for the period.

Merged classes dropped from analysis				Merged classes given one star			
Starting overall rating	Three-year rating three years later	Overall rating three years later	Records	Starting overall rating	Three-year rating three years later	Overall rating three years later	Records
1	2.3	1.8	160,795	1	2.0	1.6	201,485
2	2.5	2.3	475,492	2	2.3	2.1	561,277
3	2.8	2.8	743,819	3	2.6	2.6	814,864
4	3.0	3.4	455,493	4	2.9	3.2	479,149
5	3.1	3.7	159,487	5	3.1	3.7	163,635
*Limited to rating dates of 2013-10-31 or earlier				*Limited to rating dates of 2013-10-31 or earlier			

Merged classes dropped from analysis				Merged classes given one star			
Starting overall rating	Five-year rating five years later	Overall rating five years later	Records	Starting overall rating	Five-year rating five years later	Overall rating five years later	Records
1	2.2	2.0	113,495	1	1.8	1.7	161,267
2	2.4	2.3	334,388	2	2.1	2.0	438,502
3	2.7	2.7	534,029	3	2.4	2.5	628,498
4	2.9	3.1	333,491	4	2.7	2.9	368,284
5	3.0	3.4	123,066	5	2.9	3.3	129,931
*Limited to rating dates of 2011-10-31 or earlier				*Limited to rating dates of 2011-10-31 or earlier			

Merged classes dropped from analysis				Merged classes given one star			
Starting overall rating	10-year rating 10 years later	Overall rating 10 years later	Records	Starting overall rating	10-year rating 10 years later	Overall rating 10 years later	Records
1	1.9	1.9	28,846	1	1.4	1.5	55,757
2	2.2	2.3	92,367	2	1.7	1.7	156,853
3	2.5	2.6	154,477	3	2.0	2.1	221,211
4	2.8	2.9	103,065	4	2.4	2.5	130,482
5	3.0	3.1	39,802	5	2.8	2.9	45,704
*Limited to rating dates of 2006-10-31 or earlier				*Limited to rating dates of 2006-10-31 or earlier			

How do analyst ratings hold up in the future?

In **2011**, **Morningstar** introduced a **new rating system**, analyst ratings, in which the firm's analysts provide a more qualitative analysis of funds. That system doesn't have as long a track record to evaluate as the star ratings, but the Journal did look at how the analyst rating on a given date held up over the small number of three- and five-year time frames available, using the same methodology as when the overall star rating was used as the starting point for the tables above. The analysis includes analyst and star ratings from November 2011 through August 2017.

Morningstar's experts object to the way the Journal conducted this analysis. They said they would prefer that the analysis be weighted by the assets of each share class or limited to a single representative share class, such as the oldest share class in a fund, because analysts give funds a single analyst rating rather than rating share classes separately, as star ratings do. Morningstar also said there's a mismatch in how the Journal evaluated analyst ratings because star ratings take into account up-front fees known as loads while analysts' evaluations do not.

The Journal decided to count all share classes equally in the analysis because investors looking at any share class in a given fund would see the same analyst rating and perhaps weigh that rating when deciding where to invest.

These tables show a breakdown of the three- and five-year ratings that analyst-rated share classes received. For example, three years after they had a Gold analyst rating, 14% of share classes received a five-star rating from Morningstar for the three-year period. Just 6%received a one-star rating.

	Three-year rating three years later						
Starting analyst rating	1	2	3	4	5	Merged	Liquidated
Gold	6%	20%	29%	28%	14%	3%	1%
Silver	8%	20%	28%	23%	16%	3%	2%
Bronze	10%	23%	34%	19%	7%	3%	3%
Neutral	8%	24%	37%	17%	6%	4%	3%
Under Review	12%	19%	25%	22%	14%	8%	0%
Negative	7%	23%	21%	15%	5%	2%	28%

	Five-year rating five years later						
analystRating	1	2	3	4	5	Merged	Liquidated
Gold	5%	17%	28%	28%	17%	3%	1%
Silver	8%	16%	27%	27%	18%	2%	2%
Bronze	8%	22%	33%	19%	11%	4%	3%
Neutral	4%	22%	37%	18%	9%	8%	3%
Under Review	16%	16%	22%	23%	14%	8%	2%
Negative	4%	10%	17%	18%	11%	5%	35%

How do the ratings affect decisions of investors and their investment advisers?

Investors and advisers interviewed by the Journal said they used Morningstar's star ratings when deciding which funds to invest in and that they tended to favor funds rated with at least four stars. Morningstar researchers recently noted that "the rating has been used to identify funds that fund selectors expect to perform well in the future." Investors also clearly pay attention to the past returns of funds when making their selections.

The Journal set out to examine the interplay between ratings and returns of funds as investors decided which funds to invest in or pull their money from. For each of the 130 months from January 2003 through October 2013, the Journal started out with all share classes that existed in the given month and survived for the ensuing three years. For each of those share classes, the Journal compiled the following metrics for the three-year period:

- ❖ The net of investor dollars put into or pulled from the share class ("net flow").
- ❖ The net flow over three years divided by the assets of the share class at the beginning of the period (net flow percentage).
- ❖ The three-year rating Morningstar gave the share class at the end of the three years.
- ❖ The average overall rating of the share class during the three years, rounded to a whole number.

Average overall rating	Rounded rating value
1.0 - 1.49	1
1.5 - 2.49	2
2.5 - 3.49	3
3.5 - 4.49	4
4.5 - 5.0	5

The Journal then calculated the averages of those metrics across all 130 three-year periods for each combination of the average overall rating for the three years (rounded to the nearest whole number) and three-year rating share classes were given at the end of the three-year period.

This table shows the average net flow, as a percentage of starting assets, that each combination of average overall rating and three-year rating experienced over the three-year periods studied by the Journal.

For example, it shows that share classes that averaged an overall rating of five stars over the period and received a five-star rating from Morningstar at the end of the period saw average net flows of 107%. In other words, those funds had high overall ratings during the three years, delivered performance that ranked them at the top of the three-year ratings and, on average, they saw their assets more than double over the three years.

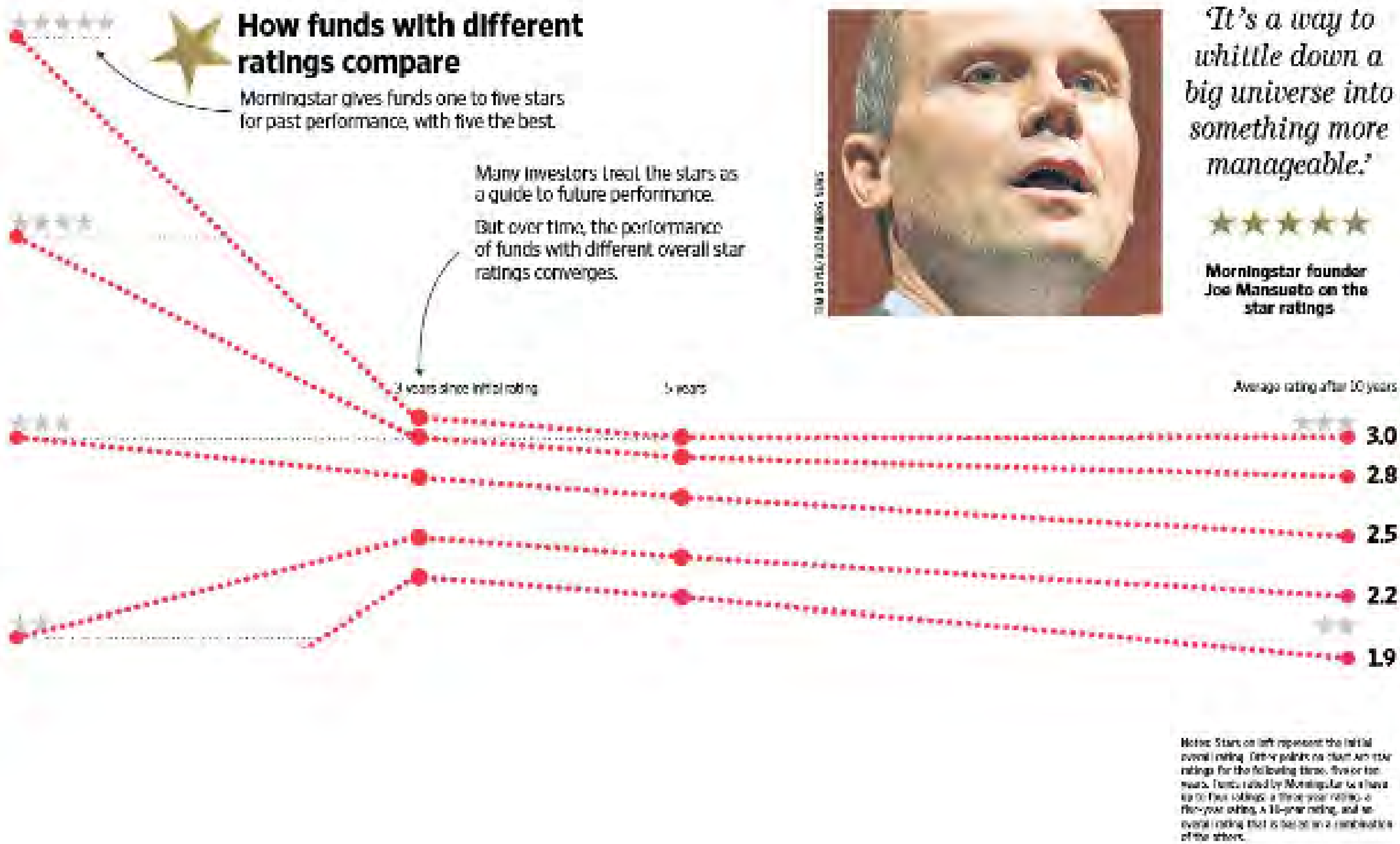
The table also shows that share classes that had an average overall rating of one star during the three years and were given a five-star three-year rating from Morningstar at the end of the three-year period saw their assets decline by about an average of 24% during the three-year periods studied by the Journal.

	Three-year star ratingat end of three years				
Average overall rating over three years	1	2	3	4	5
1	-46%	-43%	-42%	-40%	-24%
2	-42%	-37%	-32%	-29%	-16%
3	-34%	-26%	-16%	-10%	5%
4	-16%	-6%	5%	14%	42%
5	26%	39%	50%	58%	107%

This table shows the average percentage of share classes in each grouping that saw net outflows of investor dollars during the three-year periods studied by the Journal. For example, an average of just 20% of share classes that had an average overall rating of five stars during the three-year periods and earned an overall rating of five stars three years later saw investors pull more money from the fund than they put into it during the three year periods studied by Journal.

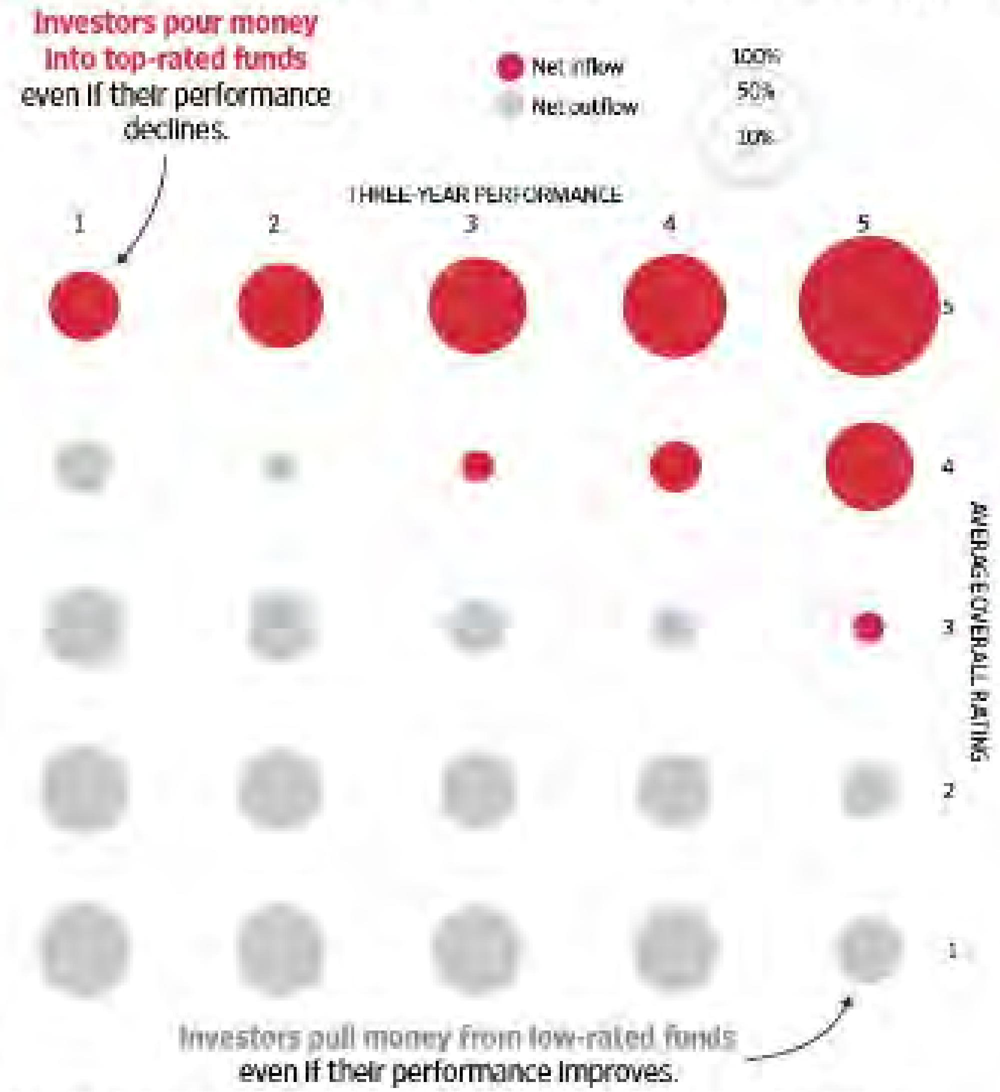
The table also shows that, on average, 77% of share classes that averaged an overall one-star rating during the three years saw net outflows of investor dollars even though they had performed at a five-star level over the three-year periods.

	Three-year star rating at end of three years				
Average overall rating over three years	1	2	3	4	5
1	85%	81%	78%	78%	77%
2	83%	79%	73%	69%	60%
3	76%	71%	62%	56%	48%
4	61%	54%	47%	41%	34%
5	45%	38%	31%	27%	20%


How funds with different ratings compare
Morningstar gives funds one to five stars for past performance, with five the best.
Many investors treat the stars as a guide to future performance.
But over time, the performance of funds with different overall star ratings converges.
3 years since initial rating
5 years
Average rating after 10 years
3.0
2.8
2.5
2.2
1.9
'It's a way to whittle down a big universe into something more manageable.'
Morningstar founder Joe Mansueto on the star ratings

Money In Motion

The Journal analyzed how much money flowed into or out of funds over three yea
based on the overall ratings investors saw and how well the funds actually perforr



Note: Funds rated by Morningstar can have up to four ratings: a three-year rating, a five-year rating, a 10-year rating, and an overall rating that is based on a combination of the others.

Case Studies

Nuveen Santa Barbara Dividend Growth Fund*

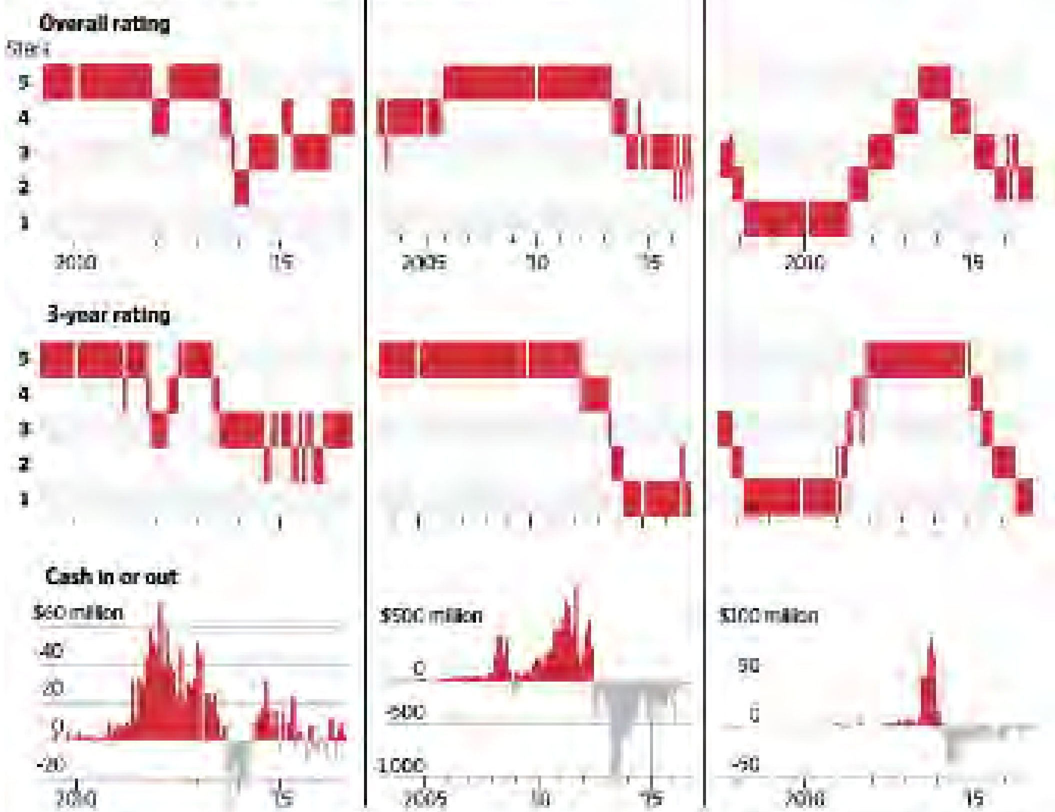
A pension fund moved $2.1 million into the Nuveen Santa Barbara Dividend Growth Fund in November 2011, when the fund had a five-star rating.

Permanent Portfolio*

A financial adviser invested clients in Permanent Portfolio in early 2012 when it had five stars, but it quickly started underperforming.

Buffalo Emerging Opportunities Fund

After Morningstar gave the tiny fund five stars in the spring of 2013, investors poured in hundreds of millions of dollars.



*Share class I

Source: WSJ analysis of Morningstar data

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2814

U.S. SEC 8K 400M Shares Common Stock
POR – Portland General Electric Company
At the Market

September 10, 2024

Section 1: 8-K (8-K)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 26, 2024

PORTLAND GENERAL ELECTRIC COMPANY

(Exact name of registrant as specified in its charter)

Oregon	001-5532-99	93-0256820
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

121 SW Salmon Street, Portland, Oregon 97204
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (503) 464-8000

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

(Title of class)	(Trading Symbol)	(Name of exchange on which registered)
Common Stock, no par value	POR	New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. [ ]

Item 2.02 Results of Operations and Financial Condition.

The following information is furnished pursuant to Item 2.02.

On July 26, 2024, Portland General Electric Company (the Company) issued a press release announcing its financial results for the three and six months ended June 30, 2024. The press release is furnished herewith as Exhibit 99.1 to this Report.

Item 7.01 Regulation FD Disclosure.

The following information is furnished pursuant to Item 7.01.

At 11:00 a.m. ET on Friday, July 26, 2024, the Company will hold its quarterly earnings call and webcast, and will use a slide presentation in conjunction with the earnings call. A copy of the slide presentation is furnished herewith as Exhibit 99.2 to this Report.

Item 8.01 Other Events.

On July 26, 2024, the Company entered into an equity distribution agreement (the "equity distribution agreement") with Barclays Capital Inc., BofA Securities, Inc., J.P. Morgan Securities LLC, and Wells Fargo Securities, LLC (each, an "agent" and, collectively, the "agents"), and the forward purchasers (as defined below), providing for the offer and sale of shares of the Company's common stock, no par value per share (the "common stock"), having an aggregate gross sales price of up to $400.0 million through the agents, as its sales agents or, if applicable, as forward sellers (as defined below), or directly to the agents acting as principals.

Sales of shares of its common stock, if any, made through the agents, as the Company's sales agents or, if applicable, as forward sellers pursuant to the equity distribution agreement, may be made in sales deemed to be "at-the-market offerings" as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"), including (1) by means of ordinary brokers' transactions on the New York Stock Exchange at market prices prevailing at the time of sale, in negotiated transactions or as otherwise agreed by the Company, the applicable agent and the applicable investor, (2) to or through any market maker, or (3) on or through any other national securities exchange or facility thereof, trading facility of a securities association or national securities exchange, alternative trading system, electronic communication network or other similar market venue.

The agents are not required to sell any specific number or dollar amount of shares of the Company's common stock but will use their commercially reasonable efforts consistent with the Company's normal trading and sales practices as its sales agents or as forward sellers and subject to the terms of the equity distribution agreement and, in the case of shares offered through such agents as forward sellers, the relevant forward sale agreement to sell the shares of the Company's common stock, as instructed by the Company and, in the case of shares offered through such agents as forward sellers, the relevant forward purchaser. The shares of the Company's common stock offered and sold through the agents, as its sales agents or as forward sellers, pursuant to the equity distribution agreement will be offered and sold through only one agent at any given time.

Each agent will receive from the Company a commission that will not exceed, but may be lower than, 2% of the gross sales price of shares of the Company's common stock sold through it as its sales agent. Under the terms of the equity distribution agreement, the Company may also sell shares of its common stock to each of the agents, as principal, at a price agreed upon at the time of sale. If the Company sells shares of its common stock to any agent as principal, the Company will enter into a separate terms agreement with the applicable agent, setting forth the terms of such transaction, and the Company will describe the agreement in a separate prospectus supplement or pricing supplement. In connection with each forward sale agreement, the Company will pay the applicable agent, acting as forward seller, a commission, in the form of a reduction to the initial forward price under the related forward sale agreement, at a mutually agreed rate that will not (except as provided below) exceed, but may be lower than, 2% of the gross sales price per share of the borrowed shares of its common stock sold through such agent, as forward

seller, during the applicable forward selling period for such shares (subject to certain possible adjustments to such gross sales price for daily accruals and any quarterly dividends having an "ex-dividend" date during such forward selling period).

The equity distribution agreement contemplates that, in addition to the issuance and sale by the Company of shares of its common stock to or through the agents, the Company may enter into separate forward sale agreements under separate master forward sale confirmations and related supplemental confirmations, with each of Barclays Bank PLC, Bank of America, N.A., JPMorgan Chase Bank, National Association and Wells Fargo Bank, National Association or one of their respective affiliates (in such capacity, each, a "forward purchaser" and, collectively, the "forward purchasers"). If the Company enters into a forward sale agreement with any forward purchaser, the Company expects that such forward purchaser (or its affiliate) will attempt to borrow from third parties and sell, through the relevant agent, acting as sales agent for such forward purchaser, shares of its common stock to hedge such forward purchaser's exposure under such forward sale agreement. The Company will not initially receive any proceeds from any sale of shares of its common stock borrowed by a forward purchaser (or its affiliate) and sold through a forward seller.

The Company currently expects to fully physically settle each forward sale agreement, if any, with the relevant forward purchaser on one or more dates specified by the Company on or prior to the maturity date of such forward sale agreement, although the Company will generally have the right, subject to certain exceptions, to elect cash settlement or net share settlement instead of physical settlement for any of the shares the Company has agreed to sell under such forward sale agreement. If the Company elects or is deemed to have elected to physically settle any forward sale agreement by delivering shares of its common stock, the Company will receive an amount of cash from the relevant forward purchaser equal to the product of (1) the forward price per share under such forward sale agreement and (2) the number of shares of common stock as to which the Company has elected or is deemed to have elected physical settlement, subject to the price adjustment and other provisions of such forward sale agreement. Each forward sale agreement will provide that the forward price will be subject to adjustment on a daily basis based on a floating interest rate factor equal to a specified daily rate less a spread. In addition, the forward price will be subject to decrease on certain dates specified in the relevant forward sale agreement by the amount per share of quarterly dividends the Company expects to declare on its common stock during the term of such forward sale agreement. If the specified daily rate is less than the applicable spread on any day, the interest rate factor will result in a daily reduction of the forward price.

The Company intends to use any net proceeds it receives from the issuance and sale by the Company of any shares of its common stock to or through the agents and any net proceeds it receives pursuant to any forward sale agreements with the relevant forward purchasers for general corporate purposes and investments in renewable energy and non-emitting dispatchable capacity.

Any shares of common stock that may be offered and sold pursuant to the equity distribution agreement will be offered and sold pursuant to an effective shelf registration statement filed with the Securities and Exchange Commission (File No. 333-266454) and a prospectus supplement dated July 26, 2024.

This Current Report shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

The equity distribution agreement and the forward sale agreements are filed as exhibits to this Current Report. The description of certain provisions of the equity distribution agreement and the forward sale agreement appearing in this Current Report is not complete and is subject to, and qualified in its entirety by reference to, the equity distribution agreement and the forward sale agreements filed herewith as exhibits to this Current Report and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d)	Exhibits.
1.1*	Equity Distribution Agreement, dated as of July 26, 2024, by and among Portland General Electric Company and Barclays Capital Inc., BofA Securities, Inc., J.P. Morgan Securities LLC and Wells Fargo Securities, LLC, a sales agents, principals and/or forward sellers, and Barclays Bank PLC, Bank of America, N.A., JPMorgan Chase Bank, National Association and Wells Fargo Bank, National Association , as forward purchasers.
1.2**	Confirmation of Registered Forward Transaction, dated April 28,2023, by and between Portland General Electric Company and Wells Fargo Bank, National Association.
1.3**	Confirmation of Registered Forward Transaction, dated April 28,2023, by and between Portland General Electric Company and Barclays Bank PLC.
1.4**	Confirmation of Registered Forward Transaction, dated April 28,2023, by and between Portland General Electric Company and Bank of America, N.A..
1.5*	Confirmation of Registered Forward Transaction, dated July 26, 2024, by and between Portland General Electric Company and JPMorgan Chase Bank, National Association.
5.1*	Opinion of Angelica Espinosa, Senior Vice President, Chief Legal and Compliance Officer, regarding the legality of the common stock being registered.
23.1	Consent of Angelica Espinosa, Senior Vice President, Chief Legal and Compliance Officer (included in Exhibit 5.1 hereto).
99.1	Second Quarter Financial Results Press Release Issued by Portland General Electric Company dated July 26, 2024.
99.2	Portland General Electric Company Second Quarter 2024 Slides dated July 26, 2024.
99.3	Form of forward sale agreement, between the Company and a forward purchaser (included in Exhibit 1.1 hereto).
104	Cover page information from Portland General Electric Company's Current Report on Form 8-K filed July 26, 2024, formatted in iXBRL (Inline Extensible Business Reporting Language).

* Filed herewith
** Previously filed

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PORTLAND GENERAL ELECTRIC COMPANY
(Registrant)

Date: July 26, 2024 By: /s/ Joseph R. Trpik
Joseph R. Trpik
Senior Vice President, Finance
and Chief Financial Officer

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Section 2: EX-1.1 (EX-1.1)

Exhibit 1.1

PORTLAND GENERAL ELECTRIC COMPANY

Up to $400,000,000 of shares of common stock, no par value

EQUITY DISTRIBUTION AGREEMENT

July 26, 2024

Barclays Capital Inc.
745 Seventh Avenue
New York, New York 10019

BofA Securities, Inc.
One Bryant Park
New York, New York 10036

J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

Wells Fargo Securities, LLC
500 West 33rd Street, 14th Floor
New York, New York 10001

In their separate capacities as Agents and Forward Sellers

Barclays Bank PLC
745 Seventh Avenue
New York, New York 10019

Bank of America, N.A.
One Bryant Park, 8th Floor
New York, New York 10036

JPMorgan Chase Bank, National Association
383 Madison Avenue
New York, New York 10179

Wells Fargo Bank, National Association
500 West 33rd Street, 14th Floor
New York, New York 10001

In their capacities as Forward Purchasers

Ladies and Gentlemen:

Portland General Electric Company, an Oregon corporation (the "Company"), confirms its agreement with each of Barclays Bank PLC, Bank of America, N.A., JPMorgan Chase Bank, National Association and Wells Fargo Bank, National Association, (each, a "Forward Purchaser" and collectively, the "Forward Purchasers") and Barclays Capital Inc., BofA Securities, Inc., J.P. Morgan Securities LLC and Wells Fargo Securities, LLC, each in its capacity as sales agent and/or principal in connection with the offering and sale of Issuance Securities (as defined below) (each, an "Agent" and collectively, the "Agents") and each in its capacity as agent for its affiliated Forward Purchaser in connection with the offering and sale of any Forward Hedge Securities (as defined below) (each, a "Forward Seller" and together, the "Forward Sellers"), with respect to the offering and sale or offering, as the case may be, from time to time by the Company, in the manner and subject to the terms and conditions described in this Equity Distribution Sales Agreement (this "Agreement"), of Issuance Securities or Forward Hedge Securities (together, as applicable, the "Securities") of common stock, no par value (the "Common Stock"), of the Company having an aggregate gross sales price of up to $400,000,000 (the "Authorized Aggregate Gross Sales Price"). The Authorized Aggregate Gross Sales Price may be increased from time to time by the Company pursuant to Section 7(cc) hereof. Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth herein regarding the number and aggregate sale price of the Securities offered and sold under this Agreement shall be the sole responsibility of the Company, and the Agents, the Forward Purchasers and the Forward Sellers shall have no obligation in connection with such compliance.

Section 1. Description of Securities.

The offer and sale of the Securities will be effected pursuant to the Registration Statement (as defined below) filed by the Company and declared effective by the Securities and Exchange Commission (the "Commission"), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement to offer and sell the Securities. The Company agrees that whenever it determines to offer and sell Issuance Securities directly to an Agent as principal it will enter into a separate written agreement containing the terms and conditions of such sale.

The Company has filed, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "Securities Act"), with the Commission a registration statement on Form S-3 (File No. 333-266454), including a base prospectus, relating to certain securities, including the Securities to be offered from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the "Exchange Act"). The Company has prepared a prospectus supplement specifically relating to the Securities (the "Prospectus Supplement") to the base prospectus included as part of such registration statement. The Company will furnish to the Agents and the Forward Sellers, for use by the Agents and the Forward Sellers, copies of the base prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement, relating to the Securities. The "Registration Statement", as of any time, means such registration statement as amended by any post-effective amendments thereto at such time, including the exhibits and any schedules thereto at such time, the documents incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the Securities Act and the documents and information otherwise deemed to be a part thereof as of such time pursuant to Rule 430B of the Securities Act ("Rule 430B"); *provided*, *however*, that the "Registration Statement" without reference to a time means such registration statements as amended by any post-effective amendments thereto as of the time of the first contract of sale for the Securities, which time shall be considered the "new effective date" of the Registration Statement with respect to the Securities within the meaning of paragraph (f)(2) of Rule 430B, including the exhibits and schedules thereto at such time, the documents and information incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the Securities Act and the documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B. The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by the Prospectus Supplement, in the form in which such prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act is herein called the "Prospectus." Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant to EDGAR.

Section 2. Placements.

Each time that the Company wishes to offer and, if applicable, sell the Securities hereunder (each, a "Placement"), it will notify the applicable Agent or Forward Seller, as applicable (the "Designated Party") by email notice (or other method mutually agreed to in writing by the parties) containing the parameters in accordance with which it desires the Securities to be offered and, if applicable, sold, which shall at a minimum include the number of Securities to be offered (the "Placement Securities"), the time period during which sales are requested to be made, any limitation on the number of Securities that may be offered and sold in any one day and any minimum price below which sales may not be made (a "Placement Notice"), a form of which containing such minimum sales parameters necessary is attached hereto as Exhibit A. The Placement Notice shall originate from any of the individuals from the Company set forth on Exhibit B (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from the Designated Party set forth on Exhibit B, as such Exhibit B may be amended from time to time. If the Designated Party wishes to accept such proposed terms included in the Placement Notice (which it may decline to do so for any reason in its sole discretion) or, following discussion with the Company, wishes to accept amended terms, the Designated Party will, prior to 4:30 p.m. (New York City time) on the business day following the business day on which such Placement Notice is delivered to the Designated Party, issue to the Company a notice by email (or other method mutually agreed to in writing by the parties) addressed to all of the individuals from the Company and the Designated Party set forth on Exhibit B setting forth the terms that the Designated Party is willing to accept. Where the terms provided in the Placement Notice are amended as provided for in the immediately preceding sentence, such terms will not be binding on the Company or the Designated Party until the Company delivers to the Designated Party an acceptance by email (or other method mutually agreed to in writing by the parties) of all of the terms of such Placement Notice, as amended (the "Acceptance"), which email shall be addressed to all of the individuals from the Company and the Designated Party set forth on Exhibit B. The Placement Notice (as amended by the corresponding Acceptance, if applicable) shall be effective upon receipt by the Company of the Designated Party's acceptance of the terms of the Placement Notice or upon receipt by the Designated Party of the Company's Acceptance, as the case may be, unless and until (i) the entire amount of the Placement Securities has been sold, (ii) in accordance with the notice requirements set forth in the second sentence of this paragraph, the Company suspends sales under or terminates the Placement Notice for any reason in its sole discretion, (iii) the Company issues a subsequent Placement Notice with parameters superseding those on the earlier dated Placement Notice, (iv) this Agreement has been terminated under the provisions of Section 13 or (v) either party shall have suspended the sale of the Placement Securities in accordance with Section 4 below. The amount of any discount, commission or other compensation to be paid by the Company to the Designated Party in connection with the sale of the Issuance Securities shall be calculated in accordance with the terms set forth in Exhibit C, except in the case of a sale of Securities directly to an Agent as principal(s), in which case the Company and such Agent will enter into a separate written agreement relating to the terms and conditions of such sale including in respect of fees. The Forward Hedge Selling Commission Rate applicable to the sale of any Forward Hedge Securities shall be set forth in the relevant Placement Notice (as amended by the corresponding Acceptance, if applicable). It is expressly acknowledged and agreed that none of the Company nor an applicable Agent nor Forward Seller will have any obligation whatsoever with respect to a Placement or any Placement Securities unless and until the Company delivers a Placement Notice to such Agent or such Forward Seller, as the case may be, and either (i) such Agent or such Forward Seller, as the case may be, accepts the terms of such Placement Notice or (ii) where the terms of such Placement Notice are amended, the Company accepts such amended terms by means of an Acceptance pursuant to the terms set forth above, and then only upon the terms specified in the Placement Notice (as amended by the corresponding Acceptance, if applicable) and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice (as amended by the corresponding Acceptance, if applicable), the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable) will control.

Section 3. Sale of Placement Securities by the Designated Party.

(a) Subject to the provisions of Section 6, with respect to any Placement that provides for the offer and sale of Issuance Securities, the applicable Agent, for the period specified in the relevant Placement Notice (as amended by the corresponding Acceptance, if applicable), and unless and until such time as the sale of the Placement Shares described therein has been declined, suspended or otherwise terminated in accordance with the terms of this Agreement, will use commercially reasonable efforts consistent with its normal trading and sales practices to sell the Issuance Securities up to the amount specified, and otherwise in accordance with the terms of such Placement Notice (as amended by the corresponding Acceptance, if applicable). The Designated Party will provide written confirmation to the Company no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Issuance Securities hereunder setting forth the number of Issuance Securities sold on such day, the compensation payable by the Company to the Designated Party pursuant to Section 2 with respect to such sales, and the Net Proceeds (as defined below) payable to the Company, with an itemization of the deductions made by the Designated Party (as set forth in Section 6) from the gross proceeds that it receives from such sales. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), the Designated Party may sell Issuance Securities by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, including without limitation sales made directly on the NYSE, on any other existing trading market for the Common Stock or to or through a market maker. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), the Designated Party may also sell Issuance Securities by any other method permitted by law, including but not limited to in privately negotiated transactions. The Company acknowledges and agrees that (i) there can be no assurance that the Designated Party will be successful in selling Issuance Securities, and (ii) the Designated Party will incur no liability or obligation to the Company or any other person or entity if it does not sell Issuance Securities for any reason other than a failure by the Designated Party to use commercially reasonable efforts consistent with its normal trading and sales practices to sell such Issuance Securities as required under this Section 3.

(b) Subject to the provisions of Section 6, with respect to any Placement that relates to a Forward, the Forward Purchaser affiliated with the Designated Party (the "Designated Forward Purchaser"), for the period specified in the relevant Placement Notice (as amended by the corresponding Acceptance, if applicable), will use commercially reasonable efforts to borrow the Forward Hedge Securities, and the applicable Forward Seller will use commercially reasonable efforts consistent with its normal trading and sales practices to sell the Forward Hedge Securities, in each case, up to the amount specified and otherwise in accordance with the terms of such Placement Notice (as amended by the corresponding Acceptance, if applicable). The Company acknowledges and agrees that if the Stock Loan Fee (as such term is defined in the applicable Master Forward Confirmation) for borrowing any Forward Hedge Securities exceeds 200 basis points per annum, the Designated Forward Purchaser shall not be required to borrow such Forward Hedge Securities in order to comply with its obligation to use commercially reasonable efforts to borrow the Forward Hedge Securities as described in the

immediately preceding sentence. The Designated Party will provide written confirmation to the Company no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Forward Hedge Securities hereunder setting forth the number of Forward Hedge Securities sold on such day, the corresponding Forward Hedge Selling Commission Rate, and the Net Proceeds (as defined below) payable to the Designated Forward Purchaser, with an itemization of the deductions made by the Designated Party (as set forth in Section 6) from the gross proceeds that it receives from such sales. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), the Designated Party may sell Forward Hedge Securities by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, including without limitation sales made directly on the NYSE, on any other existing trading market for the Common Stock or to or through a market maker. Subject to the terms of the Placement Notice (as amended by the corresponding Acceptance, if applicable), the Designated Party may also sell Forward Hedge Securities by any other method permitted by law, including but not limited to in privately negotiated transactions. The Company acknowledges and agrees that (i) there can be no assurance that a Forward Purchaser or a Forward Seller, as the case may be, will be successful in borrowing or selling, as applicable, the Forward Hedge Securities, and (ii) the Designated Party will incur no liability or obligation to the Company or any other person or entity if it does not sell Forward Hedge Securities for any reason other than a failure by a Forward Purchaser to use commercially reasonable efforts to borrow, or failure by its affiliated Forward Seller to use commercially reasonable efforts consistent with its normal trading and sales practices to sell, such Forward Hedge Securities as required under this Section 3. No Placement Notice relating to a Forward may be delivered if an ex-dividend date or ex-date, as applicable for any dividend or distribution payable by the Company on the Common Stock, is scheduled to occur during the period from, and including, the first scheduled Trading Day of the related Forward Hedge Selling Period to, and including, the last scheduled Trading Day of such Forward Hedge Selling Period. No Selling Period hereunder may overlap in whole or in part with any "Unwind Period" under any Confirmation (as defined in such Confirmation). No Placement Notice relating to a Forward may be delivered if such Placement Notice, together with all prior Placement Notices (as amended by the corresponding Acceptance, if applicable) delivered by the Company relating to a Forward hereunder, would result in the aggregate Capped Number under all Confirmations entered into or to be entered into between the Company and the Forward Purchaser exceeding 19.99% of the number of shares of Common Stock outstanding as of the date of this Agreement.

(c) No later than the opening of the Trading Day next following the last Trading Day of each Forward Hedge Selling Period (or, if earlier, the date on which any Forward Hedge Selling Period is terminated in accordance with the terms of this Agreement or the Master Forward Confirmation), the Designated Forward Purchaser shall execute and deliver to the Company, and the Company shall execute and return to the Designated Forward Purchaser, a "Supplemental Confirmation" (in the form set forth on Schedule A to the applicable Master Forward Confirmation) (each, a "Supplemental Confirmation") in respect of the Forward for such Forward Hedge Selling Period, which Supplemental Confirmation shall set forth the "Trade Date" for such Forward (which shall, subject to the terms of the applicable Master Forward Confirmation, be the last Trading Day of such Forward Hedge Selling Period), the

"Effective Date" for such Forward (which shall, subject to the terms of the applicable Master Forward Confirmation, be the date one Settlement Cycle (as such term is defined in the applicable Master Forward Confirmation) immediately following the last Trading Day of such Forward Hedge Selling Period), the initial "Base Amount" for such Forward (which shall, subject to the terms of the applicable Master Forward Confirmation, be the Actual Sold Forward Amount for such Forward Hedge Selling Period), the "Maturity Date" for such Forward (which shall, subject to the terms of the applicable Master Forward Confirmation, be the date that follows the last Trading Day of such Forward Hedge Selling Period by the number of days, months or years set forth opposite the caption "Term" in the Placement Notice for such Forward, which number of days, months or years shall in no event be less than two (2) months nor more than eighteen (18) months), the "Forward Price Reduction Dates" for such Forward (which shall be each of the dates set forth below the caption "Forward Price Reduction Dates" in the Placement Notice for such Forward), the "Forward Price Reduction Amount" corresponding to such Forward Price Reduction Dates (which shall be each amount set forth opposite each "Forward Price Reduction Date" and below the caption "Forward Price Reduction Amounts" in the Placement Notice for such Forward), the "Spread" for such Forward (which shall be the amount set forth opposite the term "Spread" in the Placement Notice), the "Initial Forward Price" for such Forward (which shall be determined as provided in the applicable Master Forward Confirmation), the "Adjusted Volume-Weighted Hedge Price," the "Initial Stock Loan Rate" (which shall be the rate set forth opposite the term "Initial Stock Loan Rate" in the Placement Notice), the "Maximum Stock Loan Rate" (which shall be the rate set forth opposite the term "Maximum Stock Loan Rate" in the Placement Notice), the "Number of Shares" and the "Threshold Number of Shares."

(d) For each Forward, the Company shall be obligated to enter into a Confirmation with the Designated Forward Purchaser, and upon execution and delivery by all parties thereto of a related Master Forward Confirmation (if applicable), the Designated Forward Purchaser shall be obligated to use commercially reasonable efforts to borrow, and its affiliated Forward Seller shall use commercially reasonable efforts consistent with its normal trading and sales practices to sell, the Forward Hedge Securities pursuant to such Forward only if and when a Placement Notice has been delivered in respect of such Forward and there has been an Acceptance, in each case, pursuant to and in compliance with the provisions in Section 2. The Company acknowledges and agrees that if the Stock Loan Fee (as such term is defined in the applicable Master Forward Confirmation) for borrowing any Forward Hedge Securities exceeds 200 basis points per annum, the Designated Forward Purchaser shall not be required to borrow such Forward Hedge Securities in order to comply with its obligation to use commercially reasonable efforts to borrow the Forward Hedge Securities as described in the immediately preceding sentence.

(e) Each of the Company, the Forward Sellers and the Forward Purchasers acknowledge and agree that: (i) there can be no assurance that a Forward Purchaser will be successful in borrowing, or that a Forward Seller will be successful in selling, the Forward Hedge Securities; (ii) a Forward Seller will incur no liability or obligation to the Company, a Forward Purchaser or any other person if it does not sell Forward Hedge Securities borrowed by a Forward Purchaser for any reason other than a failure by a Forward Seller to use commercially reasonable efforts consistent with its normal trading and sales practices to sell such Forward Hedge Securities as required under this Section 3; and (iii) a Forward Purchaser will incur no liability or obligation to the Company, a Forward Seller or any other person if it does not borrow Forward Hedge Securities for any reason other than a failure by a Forward Purchaser to use commercially reasonable efforts to borrow such Forward Hedge Securities as required under this Section 3. The Company acknowledges and agrees that if the Stock Loan Fee (as such term is defined in the Master Forward Confirmation) for borrowing any Forward Hedge Securities exceeds 200 basis points per annum, a Forward Purchaser shall not be required to borrow such Forward Hedge Securities in order to comply with its obligation to use commercially reasonable efforts to borrow the Forward Hedge Securities as described in the immediately preceding sentence. Notwithstanding anything herein to the contrary, a Forward Purchaser's obligation to use commercially reasonable efforts to borrow all or any portion of the Forward Hedge Securities (and a Forward Seller's obligation to use commercially reasonable efforts consistent with its normal trading and sales practices to sell such portion of the Forward Hedge Securities) for any Forward hereunder shall be subject in all respects to the provisions under the caption "Conditions to Effectiveness" in the related Master Forward Confirmation. In acting hereunder, any Forward Seller will be acting as agent for the applicable Forward Purchaser and not as principal.

Section 4. Suspension of Sales.

The Company, the Agents or the Forward Sellers, as applicable, may, upon notice to the other parties in writing (including by email correspondence to each of the individuals of the other party set forth on Exhibit B, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable facsimile transmission or email correspondence to each of the individuals of the other party set forth on Exhibit B), suspend any sale of Placement Securities and the applicable Selling Period shall automatically be terminated; *provided*, *however*, that such suspension shall not affect or impair any party's obligations with respect to any Placement Securities sold hereunder prior to the receipt of such notice. While a suspension pursuant to this Section 4 is in effect, any obligation under Sections 7(o), 7(p), 7(q), and 7(r) with respect to the delivery of certificates, opinions, or comfort letters to the Agents or Forward Sellers, shall be suspended, provided that the Company must comply with such obligations prior to the suspension being lifted. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other unless it is made to one of the individuals of the other party named on Exhibit B hereto, as such Exhibit may be amended from time to time.

Section 5. Representations and Warranties.

(a) *Representations and Warranties by the Company*. The Company represents and warrants to the Agents, the Forward Sellers and the Forward Purchasers as of the date hereof and as of each Representation Date (as defined below) on which a certificate is required to be delivered pursuant to Section 7(o) of this Agreement, as of each Applicable Time and as of each Settlement Date (as defined below), and agrees with the Agents, the Forward Sellers and the Forward Purchasers, as follows:

(1) Compliance with Registration Requirements. The Securities have been duly registered under the Securities Act pursuant to the Registration Statement. The Registration Statement became effective upon filing under Rule 462(e) under the Securities Act, or, with respect to any registration statement to be filed to register the offer and sale of the Securities pursuant to Rule 462(b) under the Securities Act (a "Rule 462(b) Registration Statement"), will be filed with the Commission and become effective under the Securities Act no later than 10:00 p.m. (New York City time), on the date of determination of the public offering price for the Securities, and no stop order preventing or suspending the use of any base prospectus, the Prospectus Supplement, the Prospectus or any Permitted Free Writing Prospectus (as defined below), or the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated by the Commission, and any request on the part of the Commission for additional information has been complied with.

At the respective times each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments thereto became or becomes effective and as of the date hereof, the Registration Statement, any Rule 462(b) Registration Statement and any amendments and supplements thereto complied and will comply in all material respects with the requirements of the Securities Act. The conditions for the use of Form S-3, as set forth in the General Instructions thereto, and the Registration Statement meets, and the offering and sale of the Securities as contemplated hereby complies with, the requirements of Rule 415 under the Securities Act (including, without limitation, Rule 415(a)(5)). The Registration Statement, as of the date hereof and each effective date with respect thereto, did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. Neither the Prospectus nor any amendments or supplements thereto, as of their respective dates, and at each Applicable Time and Settlement Date, as the case may be, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The representations and warranties set forth in the immediately preceding paragraph shall not apply to statements in or omissions from the Registration Statement or the Prospectus, as amended or supplemented, made in reliance upon and in conformity with information furnished to the Company in writing by any Agent, any Forward Seller or any Forward Purchaser expressly for use therein. For purposes of this Agreement, the only information so furnished shall be the name of any such Agent, Forward Seller or Forward Purchaser (the "Agent, Forward Seller and Forward Purchaser Information").

The copies of the Registration Statement and any Rule 462(b) Registration Statement and any amendments thereto, any other preliminary prospectus, each Issuer Free Writing Prospectus that is required to be filed with the Commission pursuant to Rule 433 and the Prospectus and any amendments or supplements thereto delivered and to be delivered to the Agents, the Forward Sellers and the Forward Purchasers (electronically or otherwise) in connection with the offering of the Securities were and will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

Each Issuer Free Writing Prospectus relating to the Securities, as of its issue date and as of each Applicable Time and Settlement Date, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any incorporated document deemed to be a part thereof that has not been superseded or modified, or included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in light of the circumstances, prevailing at that subsequent time, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Agents, the Forward Purchasers or the Forward Sellers specifically for use therein.

At the time of the initial filing of the Registration Statement, at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or form of prospectus), at the time the Company or another offering participant made a bona fide offer (within the meaning, for this paragraph only, of Rule 164(h)(2) of the Securities Act) was and is a "well-known seasoned issuer" as defined in Rule 405 of the Securities Act, including not having been and not being an "ineligible issuer," as defined in Rule 405 of the Securities Act; and, without limitation to the foregoing, the Company has at all relevant times met, meets and will at all relevant times meet the requirements of Rule 164 for the use of a free writing prospectus (as defined in Rule 405) in connection with the offering contemplated hereby.

(2) Prior Written Communications. Any offer that is a written communication relating to the Securities made prior to the initial filing of the Registration Statement by the Company or any person acting on its behalf (within the meaning, for this paragraph only, of Rule 163(c) of the Securities Act) has been filed with the Commission in accordance with the exemption provided by Rule 163 of the Securities Act and otherwise complied with the requirements of Rule 163 of the Securities Act, including without limitation the legending requirement.

(3) Incorporated Documents. The documents incorporated by reference in the Registration Statement and the Prospectus, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act, and none of such documents contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and

incorporated by reference in the Registration Statement or the Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(4) Financial Statements. The financial statements (including the related notes thereto) of the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement and the Prospectus comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act, as applicable, and present fairly in all material respects the financial condition of the Company and its consolidated subsidiaries as of the dates indicated and the results of their operations and the changes in their cash flows for the periods specified; such financial statements have been prepared in conformity with GAAP in the United States applied on a consistent basis throughout the periods covered thereby, except as disclosed therein, and any supporting schedules included or incorporated by reference in the Registration Statement present fairly in all material respects the information required to be stated therein; and the other financial information relating to the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby. The financial statements of the businesses or properties acquired or proposed to be acquired, if any, included in the Registration Statement and the Prospectus present fairly the information set forth therein, have been prepared in conformity with GAAP applied on a consistent basis and otherwise have been prepared in accordance with, in the case of businesses acquired or to be acquired, the applicable financial statement requirements of Rule 3-05 or, in the case of real estate operations acquired or to be acquired, Rule 3-14 of Regulation S-X. The pro forma financial statements and the related notes and the pro forma and pro forma as adjusted financial information and related notes included in the Registration Statement and the Prospectus, if any, present fairly the information shown therein, have been prepared in accordance with the Commission's rules and guidelines with respect to pro forma financial statements and have been properly compiled on the bases described therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein.

(5) No Material Adverse Change. Since the date of the most recent financial statements of the Company included or incorporated by reference in the Registration Statement and the Prospectus, except as otherwise stated therein, (i) there has not been any change in the capital stock (other than the issuance of shares of Common Stock under any existing stock incentive plan or employee stock purchase plan described in the Registration Statement and the Prospectus), any material change in the short term debt of the Company or any of its subsidiaries (which change has had or would reasonably be expected to have a material adverse effect on the Company's ability to meet its current obligations as they become due) or any material change in the long-term debt of the Company or any of its subsidiaries, or any dividend or distribution of any kind declared, set aside for payment, paid or made by the Company on any class of capital stock, or any development that has had, or would reasonably be expected to have, a material adverse effect on the business, properties, management, financial condition or results of operations of the Company and its subsidiaries, taken as a whole; (ii) other than in the ordinary course of business, neither the Company nor any of its subsidiaries has entered into any transaction or agreement that is material to the Company and its subsidiaries, taken as a whole, or incurred any liability or obligation, direct or contingent, that is material to the Company and its subsidiaries, taken as a whole; and (iii) neither the Company nor any of its subsidiaries has sustained any loss or interference with its business that is material to the Company and its subsidiaries, taken as a whole, and that is either from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority, except in each case of clause (i), (ii) and (iii) above as is otherwise disclosed in the Registration Statement and the Prospectus.

(6) Organization, Active Status and Good Standing. The Company has been duly organized and is validly existing in active status as a corporation under the laws of the State of Oregon, is duly qualified to do business and is in good standing in each jurisdiction in which its ownership or lease of property or the conduct of its business requires such qualification, and has all power and authority necessary to own or hold its properties and to conduct the business in which it is engaged as described in the Registration Statement and the Prospectus, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the business, properties, management, financial condition or results of operations of the Company and its subsidiaries taken as a whole or on the performance by the Company of its obligations under this Agreement (a "Material Adverse Effect"). The Company has no significant subsidiaries.

(7) Capitalization. The Company has an authorized capitalization as set forth in the Prospectus; all the outstanding shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and are not subject to any pre-emptive or similar rights; except (i) as described in or expressly contemplated by the Registration Statement and the Prospectus, or (ii) for any shares or awards, including the settlement of dividend equivalent rights, issued pursuant to any stock incentive plan or employee stock purchase plan or dividend reinvestment plan of the Company disclosed in the Registration Statement and the Prospectus, there are no outstanding rights (including, without limitation, pre-emptive rights), warrants or options to acquire, or instruments convertible into or exchangeable for, any shares of capital stock or other equity interest in the Company or any of its subsidiaries, or any contract, commitment, agreement, understanding or arrangement of any kind relating to the issuance of any capital stock of the Company or any such subsidiary, any such convertible or exchangeable securities or any such rights, warrants or options; the capital stock of the Company conforms in all material respects to the description thereof contained in the Registration Statement and the Prospectus; and all the outstanding shares of capital stock or other equity interests of each subsidiary owned, directly or indirectly, by the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of any lien, charge, encumbrance, security interest, restriction on voting or transfer or any other claim of any third party.

(8) Stock Options. The Company has not granted any stock options.

(9) Due Authorization. This Agreement has been duly authorized, executed and delivered by the Company. Each Confirmation, if any, has been duly authorized by the Company and, when duly executed and delivered by each party thereto, will be duly executed and delivered by the Company and will constitute a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

(10) The Securities. The Issuance Securities to be issued and sold by the Company hereunder, when issued and delivered to an Agent and paid for in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable and such issuance will not be subject to any preemptive or similar rights. The shares of Common Stock issuable upon the settlement of each Confirmation, if any, have been duly authorized and, when issued and delivered to the Designated Forward Purchaser pursuant to the terms of such Confirmation, will be validly issued, fully paid and non-assessable and such issuance will not be subject to any preemptive or similar rights. The Securities to be offered and sold hereunder will conform to the descriptions thereof in the Registration Statement and the Prospectus.

(11) Descriptions of the Agreements. The descriptions of this Agreement and any Confirmation contained in the Registration Statement and the Prospectus, insofar as they purport to constitute summaries of certain terms of such documents, constitute accurate summaries of such terms of such documents in all material respects.

(12) No Violation or Default. Neither the Company nor any of its subsidiaries is (i) in violation of its charter or bylaws or similar organizational documents; (ii) except as described in the Registration Statement and the Prospectus, in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject; or (iii) except as described in the Registration Statement and the Prospectus, in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(13) No Conflicts. The execution, delivery and performance by the Company of this Agreement and any Confirmation will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the charter or bylaws or similar organizational documents of the Company or any of its subsidiaries or (iii) result in the violation by the Company of any law or statute or any judgment, order, rule or regulation applicable to the Company of any court or arbitrator or governmental or regulatory authority having jurisdiction over the Company or any of its subsidiaries, except (x) in the case of clauses (i) and (iii) above, for any such conflict, breach, violation or default that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect and (y) in the case of clause (iii) above, for any such violation that may arise (A) under applicable state securities laws or rules and regulations of the Financial Industry Regulatory Authority ("FINRA") or any foreign laws or statutes in connection with the purchase, sale and distribution of the Securities by the Agents and Forward Sellers or (B) as a result of the legal or regulatory status of any person (other than the Company) or because of any other facts specifically pertaining to such person.

(14) No Consents Required. No consent, approval, authorization, order, license, registration or qualification of or with any court or arbitrator or governmental or regulatory authority is required to permit the issuance and sale of the Common Stock pursuant to this Agreement or any Confirmation and no further approval, authorization, consent or other order of any governmental body is legally required to permit the performance by the Company of its obligations under this Agreement or any Confirmation (except, in each case, for such consents, approvals, authorizations, orders and registrations or qualifications (1) as may be required under applicable state securities laws or rules and regulations of the FINRA or any foreign laws or statutes, (2) as described in the Prospectus or (3) as may be applicable as a result of the legal or regulatory status of any person (other than the Company) or because of any other facts specifically pertaining to such person.

(15) Legal Proceedings. Except as described in the Registration Statement and the Prospectus, there are no legal, governmental or regulatory actions, suits or proceedings or, to the knowledge of the Company, investigations pending to which the Company or any of its subsidiaries is or, to the knowledge of the Company, may reasonably be expected to be a party or to which any property of the Company or any of its subsidiaries is or, to the knowledge of the Company, may reasonably be expected to be the subject that, individually or in the aggregate, if determined adversely to the Company or any of its subsidiaries, could reasonably be expected to have a Material Adverse Effect; and to the knowledge of the Company, no such investigations, actions, suits or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others.

(16) Independent Accountants. Deloitte & Touche LLP, which has certified certain financial statements of the Company and its subsidiaries, is an independent registered public accounting firm with respect to the Company and its subsidiaries within

the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

17 Title to Real and Personal Property. The Company and its subsidiaries have good and marketable title to, or have valid and marketable rights to lease or otherwise use, all items of real and personal property and assets that are material to the respective businesses of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances, claims and defects and imperfections of title except those that (i) are described in the Registration Statement and the Prospectus, (ii) do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries or (iii) could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(18) Intellectual Property. (i) The Company and its subsidiaries own or have the right to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, domain names and other source indicators, copyrights and copyrightable works, know-how, trade secrets, systems, procedures, proprietary or confidential information and all other worldwide intellectual property, industrial property and proprietary rights (collectively, "Intellectual Property") used in the conduct of their respective businesses as described in the Registration Statement and Prospectus; (ii) the Company's and its subsidiaries' conduct of their respective businesses as described in the Registration Statement and Prospectus does not infringe, misappropriate or otherwise violate any Intellectual Property of any person except as described in the Registration Statement and Prospectus; (iii) the Company and its subsidiaries have not received any written notice of any claim relating to Intellectual Property, except as described in the Registration Statement and Prospectus; and (iv) to the knowledge of the Company, except as described in the Registration Statement and Prospectus, the Intellectual Property of the Company and its subsidiaries is not being infringed, misappropriated or otherwise violated by any person.

(19) Cyber Security; Data Protection Compliance. The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are adequate for, and operate and perform in all material respects as required to conduct the business of the Company and its subsidiaries as described in the Registration Statement and Prospectus, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all personal, personally identifiable, sensitive, confidential or regulated data ("Personal Data")) used in connection with their businesses, and there have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and its subsidiaries are

presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification.

(20) Investment Company Act. The Company is not and, after giving effect to the offering and sale of any Securities and the application of the proceeds thereof (including any proceeds received upon settlement of any Confirmation) and the transactions contemplated by any Confirmation executed in connection therewith, as described in the Registration Statement and the Prospectus, will not be required to register as an "investment company" or an entity "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder (collectively, the "Investment Company Act").

(21) Public Utility Holding Company Act. The Company is not a "holding company" under the Public Utility Holding Company Act of 2005. The Company is a (i) "public utility" subject to the jurisdiction of the Federal Energy Regulatory Commission under the Federal Power Act, as amended ("FPA"), and (ii) a "natural gas company" subject to the jurisdiction of the Federal Energy Regulatory Commission under the Natural Gas Act, as amended ("NGA") and the Natural Gas Policy Act, as amended ("NGPA"). The Company is in compliance with the FPA, the NGA and the NGPA and with all applicable rules, regulations, requirements, orders, certificates and tariffs of the Federal Energy Regulatory Commission, except to the extent that any noncompliance, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

(22) Taxes. The Company and its subsidiaries have filed, directly or indirectly as part of a consolidated or unitary group, all federal, state, local and foreign tax returns that have been required to be filed through the date hereof and have paid all taxes indicated by such returns and all assessments received by them to the extent that such taxes have become due, except in each case where the failure to pay or file would not reasonably be expected to have a Material Adverse Effect. All tax liabilities have been adequately provided for in the financial statements of the Company, except as would not reasonably be expected to have a Material Adverse Effect, and, except as described in the Registration Statement and the Prospectus, the Company does not know or have reason to know of any actual or proposed additional tax assessments which would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(23) Licenses and Permits. Except as described in the Registration Statement and the Prospectus, the Company and its subsidiaries possess all licenses, certificates, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as described in the Registration Statement and the Prospectus, except where the failure to possess or make the same would not, individually or in the aggregate,

reasonably be expected to have a Material Adverse Effect; and except as described in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any such license, certificate, permit or authorization that would not reasonably be expected to have a Material Adverse Effect.

(24) No Labor Disputes. Except as described in the Registration Statement and Prospectus, (i) No labor disturbance by or dispute with employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is contemplated or threatened, and (ii) the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, except with respect to clauses (i) and (ii) above as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(25) Compliance with and Liability under Environmental Laws. Except as described in the Registration Statement and the Prospectus, (i) the Company and its subsidiaries (A) are, and to the knowledge of the Company at all prior times were, in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, requirements, decisions, judgments, decrees, orders and the common law relating to pollution or the protection of the environment, natural resources or human health or safety, including those relating to the generation, storage, treatment, use, handling, transportation, Release (as defined below) or threat of Release of Hazardous Materials (as defined below) (collectively, "Environmental Laws"), (B) have received and are in compliance with all permits, licenses, certificates or other authorizations or approvals required of them under applicable Environmental Laws to conduct their respective businesses, (C) have not received notice of any actual or potential liability under or relating to, or actual or potential violation of, any Environmental Laws, including for the investigation or remediation of any Release or threat of Release of Hazardous Materials, other than with respect to such notices as have been fully resolved and for which no costs, obligations or damages remain, (D) are not conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any Environmental Law at any location, and (E) are not a party to any order, decree or agreement that imposes any obligation or liability under any Environmental Law; and (ii) there are no costs or liabilities associated with Environmental Laws of or relating to the Company or its subsidiaries, except in the case of each of (i) and (ii) above, for any such matter, as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(26) Hazardous Materials. Except as described in the Registration Statement and the Prospectus, there has been no storage, generation, transportation, use, handling, treatment, Release or threat of Release of Hazardous Materials by, relating to or caused by the Company or any of its subsidiaries (or, to the knowledge of the Company, any other entity (including any predecessor) for whose acts or omissions the Company or any of its subsidiaries is or could reasonably be expected to be liable) at, on, under or from any property or facility now or previously owned, operated or leased by the Company or any of its subsidiaries, or at, on, under or from any other property or facility, in violation of any Environmental Laws or in a manner or amount or to a location that could reasonably be

expected to result in any liability under any Environmental Law, except for any violation or liability which would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. "Hazardous Materials" means any material, chemical, substance, waste, pollutant, contaminant, compound, mixture, or constituent thereof, in any form or amount, including petroleum (including crude oil or any fraction thereof) and petroleum products, natural gas liquids, asbestos and asbestos containing materials, naturally occurring radioactive materials, brine, and drilling mud, regulated or which can give rise to liability under any Environmental Law. "Release" means any spilling, leaking, seepage, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, disposing, depositing, dispersing, or migrating in, into or through the environment, or in, into from or through any building or structure.

(27) Compliance with ERISA. Except as would not reasonably be expected to have a Material Adverse Effect or as disclosed in the Registration Statement and the Prospectus, (i) each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), that is sponsored by the Company or any member of its "Controlled Group" (as defined in Section 414 of the Internal Revenue Code of 1986, as amended (the "Code")) (each, a "Plan") is in compliance with all presently applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no Plan has engaged in a non-exempt and uncorrected prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, the minimum funding standard applicable to such Plan for the most recent year has been satisfied (without taking into account any waiver thereof or extension of any amortization period) and is expected by the Company to be satisfied in the future (without taking into account any waiver thereof or extension of any amortization period); (iv) the fair market value of the assets of each Plan exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (v) no Plan subject to Title IV of ERISA has experienced or is reasonably expected to experience a "reportable event" (within the meaning of Section 4043(c) of ERISA and the regulations thereunder) for which the 30- day notice requirement has not been waived that either has resulted, or could reasonably be expected to result, in liability to the Company or its subsidiaries under Title IV of ERISA; (vi) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation, in the ordinary course and without default) with respect to a Plan (or a "multiemployer plan," within the meaning of Section 4001(a)(3) of ERISA); and (vii) to the knowledge of the Company, there is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, or the Pension Benefit Guaranty Corporation with respect to any Plan. Except as would not reasonably be expected to have a Material Adverse Effect or as disclosed in the Registration Statement and the Prospectus, none of the following events has occurred or is reasonably likely to occur: (x) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its subsidiaries in the current fiscal year of the Company and its subsidiaries compared to the amount of such contributions made in the Company and its subsidiaries'

most recently completed fiscal year; or (y) a material increase in the Company and its subsidiaries' "accumulated post-retirement benefit obligations" (within the meaning of Statement of Financial Accounting Standards 106) in the current fiscal year compared to the amount of such obligations in the Company and its subsidiaries' most recently completed fiscal year.

(28) Disclosure Controls. The Company and its subsidiaries maintain an effective system of "disclosure controls and procedures" (as defined in Rule 13a-15(e) of the Exchange Act) that complies with the requirements of the Exchange Act and that has been designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company's management as appropriate to allow timely decisions regarding required disclosure. The Company and its subsidiaries have carried out evaluations of the effectiveness of their disclosure controls and procedures as required by Rule 13a-15 of the Exchange Act.

(29) Accounting Controls. The Company and its subsidiaries maintain systems of "internal control over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as disclosed in the Registration Statement and the Prospectus, to the Company's knowledge there are no material weaknesses in the Company's internal controls. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

(30) eXtensible Business Reporting Language. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(31) Insurance. Except as would not reasonably be expected to have a Material Adverse Effect or as disclosed in the Registration Statement and the Prospectus, (a) the Company and its subsidiaries currently maintain insurance covering their respective properties, operations, personnel and businesses, which insurance is in amounts and insures against such losses and risks as are adequate to protect the Company and its subsidiaries and their respective businesses; and (b) neither the Company nor any of its subsidiaries believes that it will not be able to renew its existing insurance coverage in amounts and against such losses and risks as are adequate to protect the Company and its subsidiaries and their respective businesses as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business.

(32) No Unlawful Payments. Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or other person associated with or acting on behalf of the Company or any of its subsidiaries has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have instituted, maintain and enforce, and will continue to maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

(33) Compliance with Anti-Money Laundering Laws. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the

Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(34) No Conflicts with Sanctions Laws. Neither the Company nor any of its subsidiaries, nor to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries is currently the subject or the target of any sanctions administered or enforced by the U.S. government, (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a "specially designated national" or "blocked person"), the United Nations Security Council, the European Union, His Majesty's Treasury or other relevant sanctions authority (collectively, "Sanctions"), nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or target of Sanctions, including, without limitation, Cuba, Iran, North Korea, Syria, Crimea and the so-called Donetsk People's Republic, the so-called Luhansk People's Republic, the non-government controlled areas of Zaporizhzhia and Kherson or any other covered region of Ukraine identified pursuant to Executive Order 14065 (each, a "Sanctioned Country"); and the Company will not, directly or indirectly, use the proceeds of the offering of the Issuance Securities, if any, or the proceeds, if any, due upon settlement of any Confirmation, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or target of Sanctions, (ii) to fund or facilitate any activities of or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. For the past ten years, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(35) No Registration Rights. No person has the right to require the Company or any of its subsidiaries to register any securities for sale under the Securities Act by reason of the filing of the Registration Statement with the Commission or included in the offering contemplated by this Agreement.

(36) No Stabilization. The Company has not taken, directly or indirectly, any action designed to or that could reasonably be expected to cause or result in any stabilization or manipulation of the price of the Securities.

(37) Sarbanes-Oxley Act. The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith (the "Sarbanes-Oxley Act").

(38) NYSE. The outstanding shares of Common Stock and the Securities to be sold hereunder, including the maximum number of shares of Common Stock deliverable upon settlement of all Forwards, have been approved for listing, subject only to official notice of issuance, on the NYSE, and are registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Securities under the Exchange Act or delisting any such securities from the NYSE, nor has the Company received any notification that the Commission or the NYSE is contemplating terminating such registration or listing.

(39) Permitted Free Writing Prospectus. The Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Securities to be sold hereunder, other than the Prospectus and any Permitted Free Writing Prospectus reviewed and consented to by the applicable Agent or Forward Seller.

(40) Actively Traded Security. The Common Stock is an "actively traded security" excepted from the requirements of Rule 101 of Regulation M under the Exchange Act by subsection (c)(1) of such rule.

(41) Absence of Manipulation. Other than excepted activity pursuant to Regulation M under the Exchange Act, the Company has not taken and will not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security to facilitate the sale or resale of the Securities.

(42) Proprietary Trading by the Agents. The Company acknowledges and agrees that each Agent has informed the Company that such Agent may, to the extent permitted under the Securities Act and the Exchange Act, purchase and sell shares of Common Stock for their own accounts while this Agreement is in effect, and shall be under no obligation to purchase Securities on a principal basis pursuant to this Agreement, except as otherwise agreed by such Agent in the Placement Notice (as amended by the corresponding Acceptance, if applicable).

(b) *Certificates*. Any certificate signed by any officer of the Company or any of its subsidiaries and delivered to the Agents, the Forward Purchasers, the Forward Sellers or to counsel for the Agents, the Forward Purchasers and the Forward Sellers shall be deemed a representation and warranty by the Company to the Agents, the Forward Purchasers and the Forward Sellers as to the matters covered thereby.

Section 6. Sale and Delivery of the Securities; Settlement.

(a) *Sale of Placement Securities*. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, upon an Agent's or a Forward Seller's, as the case may be, acceptance of the terms of a Placement Notice or upon receipt by the applicable Agent or Forward Seller, as the case may be, of an Acceptance, as applicable, and unless the sale of the Placement Securities described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, for the period specified in the Placement Notice (as amended by the corresponding Acceptance, if applicable), in the case of a Forward, the Designated Forward Purchaser will use commercially reasonable efforts to borrow, and the applicable Agent or Forward Seller, as the case may be, will use commercially reasonable efforts consistent with its normal trading and sales practices to sell, such Placement Securities up to the amount specified, and otherwise in accordance with the terms of such Placement Notice (as amended by the corresponding Acceptance, if applicable). The Company acknowledges and agrees that if the Stock Loan Fee (as such term is defined in the applicable Master Forward Confirmation) for borrowing any Forward Hedge Securities exceeds 200 basis points per annum, the Designated Forward Purchaser shall not be required to borrow such Forward Hedge Securities in order to comply with its obligation to use commercially reasonable efforts to borrow the Forward Hedge Securities as described in the immediately preceding sentence. The Company further acknowledges and agrees that (i) in the case of a Forward, there can be no assurance that the Designated Forward Purchaser will be successful in borrowing the Placement Securities, (ii) there can be no assurance that the applicable Agent or Forward Seller, as the case may be, will be successful in selling Placement Securities, (iii) no Forward Purchaser, Agent or Forward Seller, as the case may be, will incur any liability or obligation to the Company or any other person or entity if it does not borrow or sell, as the case may be, Placement Securities for any reason other than a failure by the Designated Forward Purchaser to use commercially reasonable efforts to borrow the Placement Securities or a failure by the applicable Agent or a Forward Seller, as the case may be, to use commercially reasonable efforts consistent with its normal trading and sales practices to sell such Placement Securities as required under this Section 6 and (iii) the Designated Party shall be under no obligation to purchase Securities on a principal basis pursuant to this Agreement, except as otherwise agreed by the Designated Party in the Placement Notice (as amended by the corresponding Acceptance, if applicable).

(b) *Settlement of Placement Securities*. Unless otherwise specified in the applicable Placement Notice (as amended by the corresponding Acceptance, if applicable), settlement for sales of Issuance Securities will occur on the first (1^{st}) Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, an "Issuance Settlement Date"). The amount of proceeds to be delivered to the Company by an Agent on an Issuance Settlement Date for the sale of any Issuance Securities against receipt of the Placement Securities sold (in respect of any Issuance Securities, the "Net Proceeds" for such Issuance Securities) will be equal to the aggregate sales price received by such Agent for the sale of the Issuance Securities, after deduction for (i) the Designated Party's commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, (ii) any other amounts due and payable by the Company to the Designated Party hereunder pursuant to Section 8(a) hereof, and (iii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales. Unless otherwise specified in the applicable Placement Notice (as amended by the corresponding Acceptance, if applicable), settlement for sales of Forward Hedge Securities will occur on the first (1^{st}) Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, a "Forward Hedge Settlement Date"). The amount of proceeds to be delivered to a Forward Purchaser by its affiliated Forward Seller on a Forward Hedge Settlement Date for the sale of any Forward Hedge Securities against receipt of the Placement Securities sold (in respect of any Forward Hedge Securities, the "Net Proceeds" for such Forward Hedge Securities) will be equal to the aggregate sales price received by such Forward Seller for the sale of the Forward Hedge Securities, after deduction for (i) the Forward Hedge Selling Commission Rate, (ii) any other amounts due and payable by the Company to such Forward Seller hereunder pursuant to Section 8(a) hereof, and (iii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(c) *Delivery of Placement Securities*. On or before each Issuance Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Issuance Securities being sold by crediting the applicable Agent's or its designee's account (provided such Agent shall have given the Company written notice of such designee prior to the Issuance Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradable, transferable, registered shares in good deliverable form. On each Settlement Date, the applicable Agent or Forward Seller, as the case may be, will deliver the related Net Proceeds in same day funds to an account designated by the Company or the Designated Forward Purchaser, as the case may be, on, or prior to, the Settlement Date. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver Issuance Securities on an Issuance Settlement Date, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 10(a) hereto, it will (i) hold such Agent harmless against any loss, liability, claim, damage, or expense whatsoever (including reasonable documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company or its transfer agent and (ii) pay to such Agent any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

(d) *Denominations; Registration*. The Company shall deliver the Securities through the facilities of the Depository Trust Company unless the Designated Party shall otherwise instruct. If the Designated Party instructs the Company that any Securities are to be issued in certificated form, certificates for such Securities shall be in such denominations and registered in such names as the Designated Party may request in writing at least one full business day before the Settlement Date. Any such certificates for the Securities will be made available for examination and packaging by the Designated Party in The City of New York not later than noon (New York time) on the business day prior to the Settlement Date.

(e) *Limitations on Offering Size*. Under no circumstances shall the Company cause or request the offer or sale of any Securities, if after giving effect to the sale of such Securities, the aggregate offering price of the Securities sold pursuant to this Agreement would exceed the lesser of (A) the Authorized Aggregate Gross Sales Price, (B) the amount available for offer and sale under the currently effective Registration Statement, and (C) the amount authorized from time to time to be issued and sold under this Agreement by the Company and notified to the Agents and the Forward Sellers in writing. Under no circumstances shall the Company cause or request the offer or sale of any Securities pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company and notified to the Agents and the Forward Sellers in writing. Further, under no circumstances shall the aggregate offering price of Securities sold pursuant to this Agreement, including any separate underwriting or similar agreement covering principal transactions described in Section 1 of this Agreement, exceed the Authorized Aggregate Gross Sales Price.

(f) *Black-out Limitations*. Notwithstanding any other provision of this Agreement, the Company shall not offer or sell, or instruct each Agent or Forward Seller to offer or sell, any Securities through such Agent or Forward Seller (and, by notice to such Agent or Forward Seller, as the case may be, given by telephone (confirmed promptly by telecopy or email), shall cancel any instructions for any such offer or sale of any Securities prior to the commencement of the periods referenced below), and such Agent or Forward Seller shall not be obligated to make any such offer or sale of Securities, (i) during any period in which the Company is, or could be deemed to be, in possession of material non-public information or (ii) except as provided in Section 6(f)(1) hereof, at any time during the period commencing on the 10th business day prior to the time the Company issues a press release containing, or shall otherwise publicly announce, its earnings, revenues or other operating results for a fiscal period or periods (each, an "Earnings Announcement") through and including the time that is 24 hours after the time that the Company files a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K (a "Filing Time") that includes consolidated financial statements as of and for the same fiscal period or periods, as the case may be, covered by such Earnings Announcement.

If the Company wishes to offer or sell Securities through an Agent or a Forward Seller at any time during the period from and including an Earnings Announcement through and including the time that is 24 hours after the corresponding Filing Time, the Company shall first (i) prepare and deliver to such Agent or Forward Seller, as the case may be (with a copy to counsel to the Agents or Forward Sellers) a Current Report on Form 8-K that includes substantially the same financial and related information (together with management's discussion and analysis thereof) that was included in such Earnings Announcement (other than any earnings projections and similar forward-looking data and officers' quotations) (each, an "Earnings 8-K"), in form and substance reasonably satisfactory to such Agent and Forward Seller, and, prior to its filing, obtain the written consent of such Agent and Forward Seller to such filing (which consent shall not be unreasonably withheld), (ii) provide such Agent and Forward Seller with the officers' certificate, opinions and letters of counsel and accountants' letter specified in Section 7(o), (p) and (q), respectively, hereof, (iii) afford such Agent and Forward Seller the opportunity to conduct a due diligence review in accordance with Section 7(m) hereof prior to filing such Earnings 8-K and (iv) file such Earnings 8-K with the Commission, then the provision of clause (ii) of Section 6(f) shall not be applicable for the period from and after the time at which the foregoing conditions shall have been satisfied (or, if later, the time that is 24 hours after the time that the relevant Earnings Announcement was first publicly released) through and including the time that is 24 hours after the Filing Time of the relevant Quarterly Report on Form 10-Q or Annual Report on Form 10-K, as the case may be. For purposes of clarity, the parties hereto agree that (A) the delivery of any officers' certificate, opinion or letter of counsel or accountants' letter pursuant to this Section 6(f) shall not relieve the Company from any of its obligations under this Agreement with respect to any Quarterly Report on Form 10-Q or Annual Report on Form 10-K, as the case may be, including, without limitation, the obligation to deliver officers' certificates, opinions and letters of counsel and accountants' letters as provided in Section 7(o), (p) and (q), respectively, hereof, and (B) this Section 2(j) shall in no way affect or limit the operation of clause (i) of Section 6(f) hereof, which shall have independent application.

Section 7. Covenants of the Company. The Company covenants with the Agents, the Forward Sellers and the Forward Purchasers, as follows:

(a) *Registration Statement Amendments; Payment of Fees*. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Securities is required to be delivered by the Agents, the Forward Sellers or the Forward Purchasers under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify the Agents, the Forward Purchasers and the Forward Sellers promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any comment letter from the Commission or any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information; *provided, however*, if any such amendment to the Registration Statement or supplement to the Prospectus does not relate to the Placement Securities and no Placement is pending, the Company may satisfy this Section 7(a)(i) by notifying the Sales Agents of such amendment to the Registration Statement or supplement to the Prospectus no later than the close of business on the date of filing such amendment or first use of such supplement; (ii) the Company will prepare and file with the Commission, promptly upon the Agents', Forward Purchasers' or Forward Sellers' request, any amendments or supplements to the Registration Statement or Prospectus that, in the Agents', Forward Purchasers' or Forward Sellers' reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Securities by the Agents, the Forward Purchasers and the Forward Sellers (*provided, however*, that the failure of the Agents, the Forward Purchasers or the Forward Sellers to make such request shall not relieve the Company of any obligation or liability hereunder, or affect the Agents', the Forward Purchasers' or the Forward Sellers' right to rely on the representations and warranties made by the Company in this Agreement); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Placement Securities or a security convertible into the Placement Securities unless a copy thereof has been submitted to the Agents, the Forward Purchasers and the Forward Sellers within a reasonable period of time before the filing and the Agents, the Forward Purchasers or the Forward Sellers have not reasonably objected thereto (*provided, however*, that the failure of the Agents, the Forward Purchasers or the Forward Sellers to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agents', the Forward Purchasers' or the Forward Sellers' right to rely on the representations and warranties made by the Company in this Agreement); (iv) the Company will furnish to the Agents, the Forward Purchasers and the Forward Sellers at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (v) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act (without reliance on Rule 424(b)(8) of the Securities Act) (the determination to file or not file any amendment or supplement with the Commission under this Section 7(a), based on the Company's reasonable opinion or reasonable objections, shall

be made exclusively by the Company). Notwithstanding the foregoing, the Company shall not be required to file such amendment or supplement if there is no pending Placement and the Company believes that it is in its best interest not to file such amendment or supplement.

(b) *Notice of Commission Stop Orders*. The Company will advise the Agents, the Forward Purchasers and the Forward Sellers promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any other order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus, or of the suspension of the qualification of the Placement Securities for offering or sale in any jurisdiction or of the loss or suspension of any exemption from any such qualification, or of the initiation or threatening of any proceedings for any of such purposes, or of any examination pursuant to Section 8(e) of the Securities Act concerning the Registration Statement or if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the offering of the Securities. The Company will use commercially reasonable efforts to prevent the issuance of any stop order, the suspension of any qualification of the Securities for offering or sale and any loss or suspension of any exemption from any such qualification, and if any such stop order is issued or any such suspension or loss occurs, to promptly obtain the lifting thereof. Upon written notice from the Company that it is in compliance with Section 2 hereof and until such notice from the Company confirming that each stop order is lifted, the Agents, the Forward Purchasers and the Forward Sellers shall cease making offers and sales under this Agreement.

(c) *Delivery of Registration Statement and Prospectus*. The Company will furnish to the Agents, the Forward Purchasers, the Forward Sellers, their respective agents and their counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus, and any Issuer Free Writing Prospectuses, that are filed with the Commission during any period in which a Prospectus relating to the Placement Securities is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities and at such locations as the Agents, the Forward Purchasers or the Forward Sellers may from time to time reasonably request; provided, however, that the Company shall not be required to furnish any document (other than the Prospectus) to the Agents, the Forward Purchasers or the Forward Sellers to the extent such document is available on EDGAR. The copies of the Registration Statement and the Prospectus and any supplements or amendments thereto furnished to the Agents, the Forward Purchasers and the Forward Sellers will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Continued Compliance with Securities Laws*. If at any time when a Prospectus is required by the Securities Act or the Exchange Act to be delivered in connection with a pending sale of the Placement Securities (including, without limitation, pursuant to Rule 172), any event shall occur or condition shall exist as a result of which it is necessary, in the opinion

of counsel for the Agents, the Forward Purchasers and the Forward Sellers or for the Company, to amend the Registration Statement or amend or supplement the Prospectus in order that the Prospectus will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser, or if it shall be necessary, in the opinion of such counsel, at any such time to amend the Registration Statement or amend or supplement the Prospectus in order to comply with the requirements of the Securities Act, the Company will promptly notify the Agents, the Forward Purchasers and the Forward Sellers to suspend the offering of Placement Securities during such period and the Company will promptly prepare and file with the Commission such amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement or the Prospectus comply with such requirements, and the Company will furnish to the Agents, the Forward Purchasers and the Forward Sellers such number of copies of such amendment or supplement as the Agents, the Forward Purchasers and the Forward Sellers may reasonably request. Notwithstanding the foregoing, in the alternative, the Company can suspend or terminate the offering of Placement Securities upon written notice to the Agents, the Forward Purchasers and the Forward Sellers pursuant to Section 2 hereof and delay the filing of any amendment or supplement, if in the judgment of the Company, it is in the best interest of the Company; *provided* that the Company must file such amendment or supplement in the event of a pending Placement, a pending sale of Placement Securities or if a prospectus is otherwise still required to be delivered in connection with a completed sale of Placement Securities. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted, conflicts or with the information contained in the Registration Statement or the Prospectus or included, includes an untrue statement of a material fact or omitted, omits to state a material fact necessary in order to make the statements therein, in the light of the circumstances, prevailing at that subsequent time, not misleading, the Company will promptly notify the Agents, the Forward Purchasers and the Forward Sellers to suspend the offering of Placement Securities during such period and the Company will, subject to Section 7(a) hereof, promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission; *provided, however*, that so long as no Placement is pending, the Company may delay the filing of any amendment or supplement, if in the judgment of the Company, it is in the best interest of the Company to do so.

(e) *Blue Sky and Other Qualifications*. The Company will use commercially reasonable efforts, in cooperation with the Agents, the Forward Purchasers and the Forward Sellers, to qualify the Placement Securities for offering and sale, or to obtain an exemption for the Securities to be offered and sold, under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Agents, the Forward Purchasers and the Forward Sellers may reasonably designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Securities (but in no event for less than one year from the date of this Agreement); *provided*, *however*, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not

otherwise so subject. In each jurisdiction in which the Placement Securities have been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Placement Securities (but in no event for less than one year from the date of this Agreement).

(f) *Rule 158*. The Company will timely file such reports pursuant to the Exchange Act as are necessary in order to make generally available to its securityholders as soon as practicable an earnings statement for the purposes of, and to provide to the Agents, the Forward Purchasers and the Forward Sellers the benefits contemplated by, the last paragraph of Section 11(a) of the Securities Act.

(g) *Use of Proceeds*. The Company will use the net proceeds received by it from the sale of the Issuance Securities and the net proceeds received by it from the settlement of any Forward in the manner specified in the Prospectus under "Use of Proceeds."

(h) *Listing*. During any period in which the Prospectus relating to the Placement Securities is required to be delivered by the Agents, the Forward Purchasers and the Forward Sellers under the Securities Act with respect to a pending sale of the Placement Securities (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use commercially reasonable efforts to cause the Issuance Securities and the maximum number of shares of Common Stock deliverable upon settlement of all Forwards to be listed on the NYSE.

(i) *Filings with the NYSE*. The Company will timely file with the NYSE all material documents and notices required by the NYSE of companies that have or will issue securities that are traded on the NYSE.

(j) *Reporting Requirements*. The Company, during any period when the Prospectus is required to be delivered under the Securities Act and the Exchange Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act.

(k) *Notice of Other Sales*. The Company will not, without (i) giving the Agents, the Forward Purchasers and the Forward Sellers at least five (5) business days' prior written notice specifying the nature of the proposed sale and the date of such proposed sale and (ii) the Agents, the Forward Purchasers and the Forward Sellers suspending activity under this program for such period of time as requested by the Company or as deemed appropriate by the Agents, the Forward Purchasers and the Forward Sellers in light of the proposed sale, (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, lend or otherwise transfer or dispose of, directly or indirectly, any Common Stock or securities convertible into or exchangeable or exercisable for or repayable with Common Stock, or file any registration statement under the Securities Act with respect to any of the foregoing (other than a shelf registration statement under Rule 415 under the Securities Act, a

registration statement on Form S-8 or post-effective amendment to the Registration Statement) or (B) enter into any swap or other agreement or any transaction that transfers in whole or in part, directly or indirectly, any of the economic consequence of ownership of the Common Stock, or any securities convertible into or exchangeable or exercisable for or repayable with Common Stock, whether any such swap or transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing sentence shall not apply to (a) the entry into, or settlement of, any Forward, (b) the Common Stock to be offered and sold through the Agents and the Forward Sellers pursuant to this Agreement; (c) any shares of Common Stock issued and delivered pursuant to any Forward Sale Agreement and any Additional Forward Sale Agreement (each as defined in that certain underwriting agreement October 25, 2022 entered into by and among the Company and Barclays Capital Inc. and J.P. Morgan Securities LLC, as representatives of the several underwriters named in Schedule I thereto, Barclays Bank PLC and JPMorgan Chase Bank, National Association, in their capacities as forward purchasers thereunder and Barclays Capital Inc. and J.P. Morgan Securities LLC, each as a seller of Borrowed Shares (as defined therein); (d) any grants of stock options, stock awards, restricted stock, RSUs, or other equity awards and the issuance of shares of Common Stock or securities convertible into or exercisable or exchangeable for shares of Common Stock pursuant to any stock incentive plan, employee stock purchase plan or 401(k) plan of the Company in effect at, or the dividend reinvestment plan approved by the Company's Board of Directors prior to, such Applicable Time; (e) shares of Common Stock the Company may issue upon the settlement of dividend equivalent rights outstanding at such Applicable Time or (f) the filing of any registration statement on Form S-8 relating to securities granted or to be granted pursuant to any plan in effect on the date of this Agreement and described in the Prospectus or any assumed benefit plan pursuant to an acquisition or similar strategic transaction.

(l) *Change of Circumstances*. The Company will, at any time during a fiscal quarter in which the Company intends to tender a Placement Notice or sell Placement Securities, advise the Agents, the Forward Purchasers and the Forward Sellers promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided to the Agents, the Forward Purchasers and the Forward Sellers pursuant to this Agreement.

(m) *Due Diligence Cooperation*. The Company will cooperate with any reasonable due diligence review conducted by the Agents, the Forward Purchasers, the Forward Sellers or their respective agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior officers, during regular business hours and at the Company's principal offices, as the Agents, the Forward Purchasers and the Forward Sellers may reasonably request.

(n) *Disclosure of Sales*. The Company will disclose in its quarterly reports on Form 10-Q and in its annual report on Form 10-K the number of Placement Securities sold through the Agents and the Forward Sellers, the Net Proceeds to the Company and the compensation payable by the Company to the Agents, the Forward Purchasers and the Forward Sellers with respect to such Placement Securities.

(o) *Representation Dates; Certificate*. On or prior to the date that the first Securities are sold pursuant to the terms of this Agreement and (1) each time the Company:

(i) files the Prospectus relating to the Placement Securities or amends or supplements the Registration Statement or the Prospectus relating to the Placement Securities by means of a post-effective amendment, sticker, or supplement (but not by means of incorporation of documents by reference into the Registration Statement or the Prospectus relating to the Placement Securities);

(ii) files an annual report on Form 10-K under the Exchange Act;

(iii) files a quarterly report on Form 10-Q under the Exchange Act; or

(iv) files a report on Form 8-K containing amended financial information (other than an earnings release, to "furnish" information pursuant to Items 2.02 or 7.01 of Form 8-K) under the Exchange Act; and

(2) at any other time reasonably requested by the Agents, the Forward Purchasers or the Forward Sellers (each such date of filing of one or more of the documents referred to in clauses (1)(i) through (iv) and any time of request pursuant to this Section 7(o) shall be a "Representation Date"), the Company shall furnish the Agents, the Forward Purchasers and the Forward Sellers with a certificate, (but in the case of clause (1)(iv) above only if the Agents, the Forward Purchasers and or Forward Sellers reasonably determines that the information contained in such Form 8-K is material) in the form attached hereto as Exhibit E within three (3) Trading Days of any Representation Date. The requirement to provide a certificate under this Section 7(o) shall be automatically waived for any Representation Date occurring during a suspension pursuant to Section 2 hereof or at a time at which no Placement Notice (as amended by the corresponding Acceptance, if applicable) is pending, which waiver shall continue until the earlier to occur of the date the Company lifts the suspension, the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Representation Date) and the next occurring Representation Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Securities following a Representation Date when the Company relied on such waiver and did not provide the Agents, the Forward Purchasers and the Forward Sellers with a certificate under this Section 7(o), then before the Company delivers the Placement Notice or the Agents or the Forward Sellers sell any Securities, the Company shall provide the Agents, the Forward Purchasers and the Forward Sellers with a certificate, in the form attached hereto as Exhibit E, dated the date of the Placement Notice.

(p) *Legal Opinions*. On or prior to the date that the first Securities are sold pursuant to the terms of this Agreement, and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit E for which no waiver is applicable, but not more than once per annual report on Form 10-K or a quarterly report on Form 10-Q (including any Form 10-K/A or Form 10-Q/

A containing amended financial information or a material amendment to the previously filed annual report on Form 10-K or quarterly report on Form 10-Q), the Company shall cause to be furnished to the Agents, the Forward Purchasers and the Forward Sellers (i) a written opinion of Latham & Watkins LLP ("Company Counsel") and (ii) the General Counsel of the Company (the "General Counsel") or other counsel reasonably satisfactory to Agents, the Forward Purchasers and the Forward Sellers, in form and substance satisfactory to the Agents, the Forward Purchasers and the Forward Sellers and their counsel, dated the date that the opinion is required to be delivered, substantially similar to the form attached hereto as Exhibit D-1 and D-2, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented; *provided*, *however*, that in lieu of such opinions for subsequent Representation Dates, counsel may furnish the Agents, the Forward Purchasers and the Forward Sellers with a letter (a "Reliance Letter") to the effect that the Agents, the Forward Purchasers and the Forward Sellers may rely on a prior opinion delivered under this Section 7(p) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(q) *Comfort Letter*. On or prior to the date that the first Securities are sold pursuant to the terms of this Agreement, within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit E for which no waiver is applicable, but not more than once per annual report on Form 10-K or a quarterly report on Form 10-Q (including any Form 10-K/A or Form 10-Q/A containing amended financial information or a material amendment to the previously filed annual report on Form 10-K or quarterly report on Form 10-Q), the Company shall cause its independent accountants (and any other independent accountants whose report is included in the Registration Statement or the Prospectus) to furnish the Agents, the Forward Purchasers and the Forward Sellers letters (the "Comfort Letters"), dated the date the Comfort Letter is delivered, in form and substance satisfactory to the Agents, the Forward Purchasers and the Forward Sellers, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act, the Exchange Act and the PCAOB, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings (the first such letter, the "Initial Comfort Letter") and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(r) *Opinion of Counsel for the Agents, the Forward Purchasers and the Forward Sellers*. On or prior to the date that the first Securities are sold pursuant to the terms of this Agreement, and within three (3) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit E for which no waiver is applicable, the Agents, the Forward Purchasers and the Forward Sellers shall have received the favorable written opinion or opinions of Davis Polk & Wardwell LLP, counsel for the Agents, the Forward Purchasers and the Forward Sellers, dated such date, with

respect to such matters as the Agents, the Forward Purchasers and the Forward Sellers may reasonably request.

(s) *Market Activities*. The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or (ii) sell, bid for, or purchase the Securities to be issued and sold pursuant to this Agreement, or pay anyone any compensation for soliciting purchases of the Securities to be issued and sold pursuant to this Agreement other than the Agents, the Forward Purchasers and the Forward Sellers; *provided*, *however*, that the Company may bid for and purchase its Common Stock in accordance with Rule 10b-18 under the Exchange Act; and provided further, that no such bids or purchases shall be made by the Company during the three (3) Trading Days before or after any sale of any Securities pursuant to this Agreement.

(t) *Securities Act and Exchange Act*. The Company will use commercially reasonable efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Securities as contemplated by the provisions hereof and the Prospectus.

(u) *No Offer to Sell*. Other than a free writing prospectus (as defined in Rule 405 under the Securities Act) approved in advance in writing by the Company and the Agents, the Forward Purchasers and the Forward Sellers, in their capacity as such, the Company (including its agents and representatives, other than the Agents, the Forward Purchasers and the Forward Sellers, in their capacity as such) will not, directly or indirectly, make, use, prepare, authorize, approve or refer to any free writing prospectus relating to the Securities to be sold by the Agents or the Forward Sellers hereunder.

(v) *Regulation M*. If the Company has reason to believe that the exemptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are not satisfied with respect to the Company or the Common Stock, it shall promptly notify the Agents, the Forward Purchasers and the Forward Sellers and sales of the Placement Securities under this Agreement shall be suspended until that or other exemptive provisions have been satisfied in the judgment of each party. Notwithstanding the foregoing, the Company is not responsible for the compliance by the Agents, the Forward Purchasers or the Forward Sellers with laws and regulations (including Regulation M) that apply to the Agents, the Forward Purchasers or the Forward Sellers with respect to any such trading.

(w) *Sales Through Agents*. With respect to the offering and sale of the Placement Securities pursuant to this Agreement, the Company agrees that any offer to sell Securities, any solicitation of an offer to buy Securities, and any sales of Securities shall only be effected by or through a single Agent or a single Forward Seller on any single given day, and the Company shall in no event request that more than one Agent or one Forward Seller offer or sell Placement Securities pursuant to this Agreement on the same day; *provided*, *however*, that if such Agent or Forward Seller making offers or sales on any single given day has delivered

written confirmation to the Company that it has completed such sales for the day, the Company may complete a block transaction under a separate written agreement or notice containing the terms and conditions of such transaction with another Agent or Forward Seller at such time, on a principal or agented basis, as contemplated by Section 1 and Section 2 above.

(x) *Reservation of Common Stock*. The Company shall reserve and keep available at all times, free of preemptive rights, shares of Common Stock for the purpose of enabling the Company to satisfy its obligations under this Agreement and any Confirmation (including with respect to each Supplemental Confirmation executed in connection with any Master Forward Confirmation).

(y) *Increase in Authorized Aggregate Gross Sales Price*. The Company shall provide at least two business days' notice to each Agent, Forward Seller and Forward Purchaser in writing of any increase in the Authorized Aggregate Gross Sales Price and shall prepare and file a supplement to the Prospectus to reflect such increased Authorized Aggregate Gross Sales Price (which filing shall constitute consummation of the increase in Authorized Aggregate Gross Sales Price under this Agreement).

Section 8. Payment of Expenses.

(a) *Expenses*. The Company will pay all expenses incident to the performance of its obligations under this Agreement and any Confirmations, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and of each amendment and supplement thereto, (ii) the word processing, printing and delivery to the Agents, the Forward Sellers and the Forward Purchasers of this Agreement and such other documents as may be required in connection with the offering, purchase, sale, issuance and/or delivery of the Placement Securities, (iii) the preparation, issuance and/or delivery of the certificates for the Issuance Securities to the Agents and any stock or other transfer taxes and any capital duties, stamp duties or other duties or taxes payable upon the sale, issuance and/or delivery of the Placement Securities to the Agents or the Forward Sellers, (iv) the fees and disbursements of the counsel, accountants and other advisors to the Company, (v) the qualification or exemption of the Placement Securities under securities laws in accordance with the provisions of Section 7(e) hereof, including filing fees and the reasonable documented fees and disbursements of counsel for the Agents, the Forward Sellers and the Forward Purchasers in connection therewith and in connection with the preparation of the Blue Sky Survey and any supplements thereto, (vi) the printing and delivery to the Agents, the Forward Sellers and the Forward Purchasers of copies of any permitted Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Agents, the Forward Sellers and the Forward Purchasers to investors, (vii) the preparation, printing and delivery to the Agents, the Forward Sellers and the Forward Purchasers of copies of the Blue Sky Survey and any Canadian "wrapper" and any supplements thereto, (viii) the fees and expenses of the Custodian and the transfer agent and registrar for the Securities, (ix) the filing fees incident to, and the reasonable documented fees and disbursements of counsel to the Agents, the Forward Sellers and the Forward Purchasers in connection with, the review by FINRA (in an amount

not to exceed $15,000) of the terms of the sale of the Securities, and (x) the fees and expenses incurred in connection with the listing of the Placement Securities on the NYSE.

Section 9. Conditions of the Agents', the Forward Sellers' and the Forward Purchasers' Obligations. The obligations of the Agents, the Forward Sellers and the Forward Purchasers hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties of the Company contained in this Agreement or in certificates of any officer of the Company or any subsidiary of the Company delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement*. The Registration Statement and any Rule 462(b) Registration Statement shall have become effective and shall be available for (i) all sales of Placement Securities issued pursuant to all prior Placement Notices (each as amended by a corresponding Acceptance, if applicable) and (ii) the sale of all Placement Securities contemplated to be issued by any Placement Notice (each as amended by a corresponding Acceptance, if applicable).

(b) *No Material Notices*. None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its subsidiaries of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus, or any Issuer Free Writing Prospectus, or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus, or any Issuer Free Writing Prospectus, or such documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus and any Issuer Free Writing Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) *No Misstatement or Material Omission*. The Agents, the Forward Sellers and the Forward Purchasers shall not have advised the Company that the Registration Statement or Prospectus, or any Issuer Free Writing Prospectus, or any amendment or supplement thereto,

contains an untrue statement of fact that in the Agents', Forward Sellers' or Forward Purchasers' reasonable opinion is material, or omits to state a fact that in the Agents', Forward Sellers' or Forward Purchasers' opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) *Material Changes*. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any material adverse change in the condition, financial or otherwise, or in the earnings or business affairs of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business.

(e) *Opinion of Counsel for Company*. The Agents, the Forward Sellers and the Forward Purchasers shall have received the favorable opinions of Company Counsel and the General Counsel, required to be delivered pursuant to Section 7(p) on or before the date on which such delivery of such opinion is required pursuant to Section 7(p).

(f) *Opinion of Counsel for Company*. The Agents, the Forward Sellers and the Forward Purchasers shall have received the favorable opinions of Davis Polk & Wardwell LLP, required to be delivered pursuant to Section 7(r) on or before the date on which such delivery of such opinion is required pursuant to Section 7(r).

(g) *Representation Certificate*. The Agents, the Forward Sellers and the Forward Purchasers shall have received the certificate required to be delivered pursuant to Section 7(o) on or before the date on which delivery of such certificate is required pursuant to Section 7(o).

(h) *Accountant's Comfort Letter*. The Agents, the Forward Sellers and the Forward Purchasers shall have received the Comfort Letter required to be delivered pursuant Section 7(q) on or before the date on which such delivery of such opinion is required pursuant to Section 7(q).

(i) *Approval for Listing*. The Issuance Securities and the maximum number of shares of Common Stock underlying all Forwards shall either have been (i) approved for listing on NYSE, subject only to notice of issuance, or (ii) the Company shall have filed an application for listing of the Issuance Securities and such Common Stock on NYSE at, or prior to, the issuance of any Placement Notice.

(j) *No Objection*. Prior to the issuance of any Placement Notice, FINRA shall have confirmed in writing that it has no objection with respect to the fairness and reasonableness of the underwriting terms and arrangements, if applicable.

(k) *No Suspension*. Trading in the Securities shall not have been suspended on the NYSE.

(l) *Additional Documents*. On each date on which the Company is required to deliver a certificate pursuant to Section 7(o), counsel for the Agents, the Forward Sellers and the Forward Purchasers shall have been furnished with such documents and opinions as they

may require for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, contained in this Agreement.

(m) *Securities Act Filings Made*. All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(n) *Termination of Agreement*. If any condition specified in this Section 9 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by Agents, the Forward Sellers or the Forward Purchasers by notice to the Company, and such termination shall be without liability of any party to any other party except as provided in Section 8 hereof and except that, in the case of any termination of this Agreement, Sections 5, 10, 11, 12, 15 and 22 hereof shall survive such termination and remain in full force and effect. For the avoidance of doubt, in the event of any such termination by an Agent, Forward Seller or Forward Purchaser, this Agreement will continue to remain in full force and effect with respect to the other parties to this Agreement, as the case may be.

Section 10. Indemnification.

(a) *Indemnification by the Company*. The Company agrees to indemnify and hold harmless each Agent, Forward Seller and Forward Purchaser and its respective affiliates (as such term is defined in Rule 501(b) of the Securities Act), and each person, if any, who controls such Agent, Forward Seller or Forward Purchaser within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included (A) in any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto) or (B) in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of any offering of Securities ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or the omission or alleged omission therefrom of a material fact necessary in order to make the

statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 10(d) below) any such settlement is effected with the written consent of the Company; and

(iii) against any and all out of pocket expense whatsoever, as incurred (including the reasonable documented fees and disbursements of counsel chosen by such Agent, Forward Seller and Forward Purchaser), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above,

provided, *however*, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with the Agent, Forward Seller and Forward Purchaser Information.

(b) *Indemnification by the Agents, the Forward Sellers and the Forward Purchasers*. Each Agent, Forward Seller and Forward Purchaser, severally but not jointly, agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section 10, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Agent, Forward Seller and Forward Purchaser Information.

(c) *Actions against Parties; Notification*. Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement.

Counsel to the indemnified parties shall be selected as follows: counsel to the Agents, the Forward Sellers and the Forward Purchasers and each person, if any, who controls such Agent, Forward Seller and Forward Purchaser within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall be selected by the Agents, the Forward Sellers and the Forward Purchasers; and counsel to the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; *provided*, *however*, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the indemnifying parties be liable for the fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for the Agents, the Forward Sellers and the Forward Purchasers and each person, if any, who controls such Agent, Forward Seller and Forward Purchaser within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, and the fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in each case in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 10 or Section 11 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement Without Consent if Failure to Reimburse*. If at any time an indemnified party shall have requested in writing an indemnifying party to reimburse the indemnified party for reasonable documented fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 10(a)(1)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

Section 11. Contribution. If the indemnification provided for in Section 10 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the applicable Agent, Forward Seller and Forward Purchaser on the other from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the applicable Agent, Forward Seller and Forward Purchaser on the other in connection with the statements or omissions.

The relative benefits received by the Company on the one hand and the applicable Agent, Forward Purchaser and Forward Seller on the other shall be deemed to be in the same respective proportions as the net proceeds (before deducting expenses) received by the Company (which proceeds shall include the proceeds to be received by the Company pursuant to any Forward assuming Physical Settlement (as such term is defined in the Confirmation) of the Forward on the Effective Date (as such term is defined in the Confirmation)), the total discounts and commissions received by the applicable Agent, the total Forward Hedge Seller Commission received by the applicable Forward Seller, and the aggregate Spread (as such term is defined in the Confirmation) received by the Designated Forward Purchaser, as applicable, under the relevant Forward, net of any costs associated therewith, as reasonably determined by the applicable Forward Seller, bear to the aggregate offering price of the Placement Securities plus the aggregate Spread (as such term is defined in the Confirmation) received by the Designated Forward Purchaser under the relevant Confirmation, net of any costs associated therewith, as reasonably determined by the applicable Forward Seller. The relative fault of each of the Company on the one hand and the Agents, the Forward Purchasers and the Forward Sellers on the other hand shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Agents, the Forward Purchasers or the Forward Sellers and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company, the Agents, the Forward Sellers and the Forward Purchasers agree that it would not be just and equitable if contribution pursuant to this Section 11 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 11. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 11 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 11, in no event shall (x) an Agent be required to contribute any amount in excess of the amount by which the total discounts and commissions received by such Agent with respect to the offering of the Issuance Securities exceeds the amount of any damages that such Agent has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission, (y) a Forward Seller be required to contribute any amount in excess of the amount by which the total Forward Hedge Selling Commission received by such Forward Seller with respect to the offering of the Forward Hedge Securities exceeds the amount of any damages that such Forward Seller has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission and (z) a Forward Purchaser be required to contribute any amount in excess of the amount by which the aggregate Spread (as such term is defined in the relevant Confirmation) received by such Forward Purchaser under the relevant Confirmation exceeds the amount of any damages that such Forward Purchaser has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

For purposes of this Section 11, each person, if any, who controls an Agent, Forward Purchaser or Forward Seller within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as such Agent, Forward Purchaser or Forward Seller and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as the Company.

Section 12. Representations, Warranties and Agreements to Survive Delivery. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect, regardless of any investigation made by or on behalf of an Agent, Forward Purchaser, Forward Seller or a controlling person, or by or on behalf of the Company, and shall survive delivery of the Securities to the respective Agent, Forward Purchaser or Forward Seller.

Section 13. Termination of Agreement.

(a) *Termination; General*. Each Agent, Forward Purchaser and Forward Seller may terminate this Agreement, solely with respect to its own rights and obligations hereunder, by notice to the Company, as hereinafter specified at any time if: (i) trading generally shall have been suspended or materially limited on or by any of the NYSE or the Nasdaq; (ii) trading of any securities issued or guaranteed by the Company shall have been suspended on any exchange or in any over-the-counter market; (iii) a general moratorium on commercial banking activities shall have been declared by federal or New York State authorities; (iv) there shall have occurred any outbreak or escalation of hostilities or any change in financial markets or any calamity or crisis, either within or outside the United States, and the effect of such outbreak, escalation, change, calamity or crisis on the financial markets of the United States, in the reasonable judgment of any Agent, Forward Purchaser or Forward Seller, is material and adverse and makes it impracticable or inadvisable to market the Securities or to enforce contracts for the sale of the Securities or (iv) minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required by NYSE or Nasdaq or by order of the Commission, FINRA or any other governmental authority.

(b) *Termination by the Company*. The Company shall have the right, by giving three (3) days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement.

(c) *Termination by the Agents, the Forward Purchasers and the Forward Sellers*. Each Agent, Forward Purchaser and Forward Seller may terminate this Agreement, solely with respect to its own rights and obligations hereunder, by giving three (3) days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. For the avoidance of doubt, in the event of any such termination by an Agent, Forward Seller or Forward Purchaser, this Agreement will continue to remain in full force and effect with respect to the other parties to this Agreement, as the case may be.

(d) *Automatic Termination*. Unless earlier terminated pursuant to this Section 13, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Securities on the terms and subject to the conditions set forth herein with an aggregate sale price equal to the Authorized Aggregate Gross Sale Price.

(e) *Continued Force and Effect*. This Agreement shall remain in full force and effect unless terminated pursuant to Sections 13(a), (b), (c) or (d) above or otherwise by mutual agreement of the parties.

(f) *Effectiveness of Termination*. Any termination of this Agreement shall be effective with respect to the applicable parties on the date specified in such notice of termination; *provided*, *however*, that such termination shall not be effective until the close of business on the date of receipt of such notice by the applicable Agent, Forward Seller, Forward Purchaser or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Securities, such Placement Securities shall settle in accordance with the provisions of this Agreement (and, in the case of a Forward, the Forward Hedge Securities previously sold shall be subject to a Forward evidenced by a Confirmation notwithstanding such termination).

(g) *Liabilities*. If this Agreement is terminated pursuant to this Section 13, such termination shall be without liability of any party to any other party except as provided in Section 8 hereof, and except that, in the case of any termination of this Agreement, Section 5, Section 10, Section 11, Section 12, Section 15 and Section 22 hereof shall survive such termination and remain in full force and effect.

Section 14. Notices. Except as otherwise provided in this Agreement, all notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication.

Notices to the Agents and Forward Sellers shall be directed to:

Barclays Capital Inc., 745 7th Avenue, New York, New York, 10019, Attention: Syndicate Registration, Fax number: 646-834-8133

BofA Securities, Inc., One Bryant Park, New York, New York 10036, Attention: ATM Execution, Email: dg.atm_execution@bofa.com, with a copy to ECM Legal, Fax number: 212-230-8730

J.P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179, Attention: Equity Syndicate Desk. Fax number: 212-622-8358

Wells Fargo Securities at Wells Fargo Securities, LLC, 500 West 33rd Street, New York, New York 10001, fax number: 212-214-5918, Attention: Equity Syndicate Department

Notices to the Forward Purchasers shall be directed to:

Barclays Bank PLC c/o Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019, to the attention of Kevin Cheng, Email: kevin.cheng@barclays.com

Bank of America, N.A., One Bryant Park, 8th Fl., New York, NY 10036, Attention: Strategic Equity Solutions Group, Telephone: 646-855-8900, Email: dg.issuer_derivatives_notices@bofa.com

JPMorgan Chase Bank, National Association, 383 Madison Avenue, New York, New York 10179, EDG Marketing Support, Email: edg_notices@jpmorgan.com, edg_ny_corporate_sales_support@jpmorgan.com

Wells Fargo Bank, National Association, 500 West 33rd Street, 14th Floor, New York, New York 10001, Attention: Equity Syndicate Department, Fax number: (212) 214-5918, Email: corporatederivativenotifications@wellsfargo.com

Notices to the Company shall be directed to: 121 SW Salmon Street, 1WTC 1711, Portland, Oregon 97204 (fax: (503) 464-2236); Attention: Assistant Treasurer.

Section 15. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that an Agent is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Agent of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that an Agent is a Covered Entity or a BHC Act Affiliate of such Agent becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Agent are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

Section 16. Parties. This Agreement shall inure to the benefit of and be binding upon the Agents, the Forward Purchasers, the Forward Sellers, the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Agents, the Forward Purchasers, the Forward Sellers, the Company and their respective successors and the controlling persons and officers and directors referred to in Sections 10 and 11 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Agents, the Forward Purchasers, the Forward Sellers, the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from the Agents, the Forward Purchasers or the Sellers shall be deemed to be a successor by reason merely of such purchase.

Section 17. Adjustments for Stock Splits. The parties acknowledge and agree that all stock-related numbers contained in this Agreement shall be adjusted to take into account any stock split, stock dividend or similar event effected with respect to the Securities.

Section 18. Governing Law and Time. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THE AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, EXCEPT

AS OTHERWISE EXPRESSLY SET FORTH HEREIN, SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME.

Section 19. Patriot Act. In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Agents, the Forward Sellers and the Forward Purchasers are required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of such clients, as well as other information that will allow the Agents, the Forward Sellers and the Forward Purchasers to properly identify their respective clients.

Section 20. Waiver of Jury Trial. The Company, the Agents, the Forward Sellers and the Forward Purchasers hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement of the Transactions contemplated hereby.

Section 21. Effect of Headings. The Section and Exhibit headings herein are for convenience only and shall not affect the construction hereof.

Section 22. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile or e-mail transmission. The words "execution," "signed," "signature," and words of like import in this Agreement or in any other certificate, agreement or document related to this Agreement, if any, shall include images of manually executed signatures transmitted by facsimile or other electronic format (including, without limitation, "pdf," "tif" or "jpg") and other electronic signatures (including, without limitation, DocuSign and AdobeSign). The use of electronic signatures and electronic records (including, without limitation, any contract or other record created, generated, sent, communicated, received, or stored by electronic means) shall be of the same legal effect, validity and enforceability as a manually executed signature or use of a paper-based record-keeping system to the fullest extent permitted by applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act and any other applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act or the Uniform Commercial Code.

Section 23. Definitions. As used in this Agreement, the following terms have the respective meanings set forth below:

"Actual Sold Forward Amount" means, for any Forward Hedge Selling Period for any Forward, the number of Forward Hedge Securities that the applicable Forward Seller has sold during such Forward Hedge Selling Period.

"Applicable Time" means the time of each sale of any Securities or any securities pursuant to this Agreement.

"BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k).

"Capital Stock" means any Common Stock, Preferred Stock or other capital stock of the Company.

"Capped Number" means, for any Confirmation, the meaning set forth in such Confirmation.

"Commission" means the Securities and Exchange Commission.

"Confirmation" means, for each Forward, the contract evidencing such Forward between the Company and the Designated Forward Purchaser, which shall be comprised of a Master Forward Confirmation and the related Supplemental Confirmation for such Forward, including all provisions incorporated by reference therein.

"Covered Entity" means any of (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b), (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b), or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"EDGAR" means the Commission's Electronic Data Gathering, Analysis and Retrieval system.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder.

"FINRA" means the Financial Industry Regulatory Authority, Inc.

"Forward" means the transaction resulting from each Placement Notice (as amended by the corresponding Acceptance, if applicable) specifying that it relates to a "Forward" and requiring a Forward Seller to use commercially reasonable efforts consistent with its normal trading and sales practices to sell, as specified in such Placement Notice and subject to the terms and conditions of this Agreement and the applicable Confirmation, the Forward Hedge Securities.

"Forward Hedge Amount" means, for any Forward, the amount specified as such in the Placement Notice for such Forward, which amount shall be the target aggregate sales price of the Forward Hedge Securities to be sold by the applicable Forward Seller, subject to the terms and conditions of this Agreement.

"Forward Hedge Securities" means all Common Stock borrowed by a designated Forward Purchaser or its affiliate and offered and sold by a Forward Seller in connection with any Forward that has occurred or may occur in accordance with the terms and conditions of this Agreement.

"Forward Hedge Selling Commission" means, for any Confirmation, the product of (x) the Forward Hedge Selling Commission Rate for such Confirmation and (y) the "Adjusted Volume-Weighted Hedge Price" (as defined in the relevant Master Forward Confirmation for such Confirmation).

"Forward Hedge Selling Commission Rate" means, for any Confirmation, the amount of any commission, discount or other compensation to be received by the applicable Forward Seller in connection with the sale of the Forward Hedge Securities.

"Forward Hedge Selling Period" means, for any Confirmation, the period (as determined by the Company in the Company's sole discretion and specified in the applicable Placement Notice specifying that it relates to a "Forward") beginning on the date specified in the applicable Placement Notice (as amended by the corresponding Acceptance, if applicable) or, if such date is not a Trading Day, the next Trading Day following such date; *provided* that if, prior to the scheduled end of any Forward Hedge Selling Period, (i) any event occurs that would permit the Designated Forward Purchaser to designate a "Scheduled Trading Day" as a "Termination Settlement Date" (each as defined in the applicable Master Forward Confirmation) under, and pursuant to, the provisions opposite the caption "Acceleration Events" in Section 3 of the applicable Master Forward Confirmation or (ii) an "Insolvency Filing" (as defined in the applicable Master Forward Confirmation) occurs, then the Forward Hedge Selling Period shall immediately terminate as of the first such occurrence. "GAAP" means generally accepted accounting principles.

"Investment Company Act" means the Investment Company Act of 1940, as amended.

"Issuance" means each occasion the Company elects to exercise its right to request the sale of Placement Securities pursuant to Section 3(a) hereof, subject to the terms and conditions of this Agreement.

"Issuance Securities" means all shares of Common Stock issued or issuable pursuant to an Issuance that has occurred or may occur in accordance with the terms and conditions of this Agreement.

"Issuance Selling Period" means the period of Trading Days (as determined by the Company in the Company's sole discretion and specified pursuant to Section 3(a) hereof).

"Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433, relating to the Securities that (i) is required to be filed with the Commission by the Company, (ii) is a "road show" that is a "written communication" within the meaning of Rule 433(d)(8)(i) whether or not required to be filed with the Commission, or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, and all free writing prospectuses that are listed in Exhibit F hereto, in each case in the form furnished (electronically or otherwise) to the Agents or the Forward Sellers for use in connection with the offering of the Securities.

"Lien" means any security interest, mortgage, pledge, lien, encumbrance, claim or equity.

"Master Forward Confirmation" means a Master Confirmation for Share Forward Transactions substantially in the form of Exhibit G attached hereto, including all provisions incorporated by reference therein.

"Nasdaq" means the Nasdaq Stock Market.

"NYSE" means the New York Stock Exchange.

"Preferred Stock" means the Company's preferred stock, no par value per share.

"Rule 163," "Rule 164," "Rule 172," "Rule 405," "Rule 415," "Rule 424(b)," "Rule 430B," "Rule 433" and "Rule 462(b)" refer to such rules under the Securities Act.

"Rule 462(b) Registration Statement" means a registration statement filed by the Company pursuant to Rule 462(b) for the purpose of registering any of the Securities under the Securities Act, including the documents incorporated by reference therein and the Rule 430A Information.

"Sarbanes-Oxley Act" means the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder or implementing the provisions thereof.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations of the Commission thereunder.

"Selling Period" means any Forward Hedge Selling Period or any Issuance Selling Period.

"Settlement Date" means, unless the Company and an Agent or a Forward Seller, as applicable, shall otherwise agree, any Forward Hedge Settlement Date or any Issuance Settlement Date, as applicable.

"Trading Day" means any day on which shares of Common Stock are purchased and sold on the principal market on which the Common Stock is listed or quoted.

"U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act of 1950, as amended, and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as amended, and the regulations promulgated thereunder.

All references in this Agreement to financial statements and schedules and other information that is "contained," "included" or "stated" in the Registration Statement or the Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in the Registration Statement or the Prospectus, as the case may be.

All references in this Agreement to the Registration Statement, any Rule 462(b) Registration Statement, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to EDGAR; all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433, are not required to be filed with the Commission) shall be deemed to include the copy thereof filed with the Commission pursuant to EDGAR; and all references in this Agreement to "supplements" to the Prospectus shall include, without limitation, any supplements, "wrappers" or similar materials prepared in connection with any offering, sale or private placement of any Placement Securities by the Agents and Forward Sellers outside of the United States.

Section 24. Permitted Free Writing Prospectuses. The Company represents, warrants and agrees that, unless it obtains the prior consent of the Agents and the Forward Sellers, and each Agent and Forward Seller represents, warrants and agrees that, unless it obtains the prior consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405, required to be filed with the Commission. Any such free writing prospectus consented to by the Agents and the Forward Sellers or by the Company, as the case may be, is hereinafter referred to as a "Permitted Free Writing Prospectus." The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit G hereto are Permitted Free Writing Prospectuses.

Section 25. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(c) Each Agent, Forward Seller and Forward Purchaser is acting solely as agent and/or principal in connection with the public offering of the Securities and in connection with each transaction contemplated by this Agreement and the process leading to such transactions, and no fiduciary or advisory relationship between the Company or any of its respective affiliates, stockholders (or other equity holders), creditors or employees or any other party, on the one hand, and each Agent, Forward Seller and Forward Purchaser on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether or not such Agent, Forward Purchaser or Forward Seller has advised or is advising the Company on other matters, and such Agent, Forward Purchaser and Forward Seller has no obligation to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(d) The public offering price of the Securities set forth in this Agreement was not established by the Agents, the Forward Purchasers or Forward Sellers;

(e) It is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(f) Each Agent, Forward Purchaser and Forward Seller has not provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated by this Agreement and it has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;

(g) It is aware that each Agent, Forward Purchaser and Forward Seller and their respective affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and such Agent, Forward Purchaser and Forward Seller has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(h) It waives, to the fullest extent permitted by law, any claims it may have against each Agent, Forward Purchaser and Forward Seller for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that such Agent, Forward Purchaser and Forward Seller shall not have any liability (whether direct or indirect, in contract, tort or otherwise) to it in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on its behalf or in right of it or the Company, employees or creditors of Company.

[*Signature Page Follows.*]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement between the Agents, the Forward Sellers, the Forward Purchasers and the Company in accordance with its terms.

Very truly yours,

PORTLAND GENERAL ELECTRIC COMPANY

By: /s/ Joseph Trpik
Name: Joseph Trpik
Title: Senior Vice President, Finance and Chief Financial Officer

CONFIRMED AND ACCEPTED, as of the date first above written:

BARCLAYS CAPITAL INC., as Agent and Forward Seller

By /s/ Robert Stowe
Authorized Signatory

BARCLAYS BANK PLC, as Forward Purchaser

By /s/ Kevin Cheng
Authorized Signatory

CONFIRMED AND ACCEPTED, as of the date first above written:

BOFA SECURITIES, INC., as Agent and Forward Seller

By /s/ John Lau
Authorized Signatory

BANK OF AMERICA, N.A., as Forward Purchaser

By /s/ Rohan Handa
Authorized Signatory

CONFIRMED AND ACCEPTED, as of the date first above written:

J.P. MORGAN SECURITIES LLC, as Agent and Forward Seller

By /s/ Sanjeet Dewal
Authorized Signatory

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION, as Forward Purchaser

By /s/ Sanjeet Dewal
Authorized Signatory

CONFIRMED AND ACCEPTED, as of the date first above written:

WELLS FARGO SECURITIES, LLC, as Agent and Forward Seller

By /s/ Michael Tiedemann
Authorized Signatory

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Forward Purchaser

By /s/ Craig McCracken
Authorized Signatory

EXHIBIT A

FORM OF PLACEMENT NOTICE

From: [ ]

Cc: [ ]

To: [ ]

Subject: Equity Distribution—Placement Notice

[Each Placement Notice may only be issued to one Designated Party]

Ladies and Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Equity Distribution Agreement among Portland General Electric Corporation (the "Company") and Barclays Bank PLC, Bank of America, N.A., JPMorgan Chase Bank, National Association and Wells Fargo Bank, National Association,(each, a "Forward Purchaser") and Barclays Capital Inc., BofA Securities, Inc., J.P. Morgan Securities LLC, and Wells Fargo Securities, LLC, each in its capacity as sales agent and/or principal in connection with the offering and sale of Securities and each in its capacity as agent for its affiliated Forward Purchaser in connection with the offering and sale of any Forward Hedge Securities (the "Forward") dated [●], 2024 (the "Agreement"), I hereby request on behalf of the Company that [insert applicable Agent] offer and sell up to [●] shares of the Company's common stock, no par value[, at a minimum market price of $[●] per share]. Capitalized terms used in this Placement Notice without definition shall have the respective definitions ascribed to them in the Agreement. [This Placement Notice relates to a Forward.]

The daily offer and sale of the Common Stock should not represent any more than []% of the average daily trading volume of the Common Stock on any given Trading Day, and should be offered and sold between [], 20[] and [], 20 [].

[ADDITIONAL SALES PARAMETERS MAY BE ADDED, SUCH AS SPECIFIC DATES ON WHICH THE SHARES MAY NOT BE OFFERED AND SOLD, THE MANNER IN WHICH SALES ARE TO BE MADE BY EACH AGENT AND/OR THE CAPACITY IN WHICH EACH AGENT MAY ACT IN SELLING SHARES (AS PRINCIPAL, AGENT OR BOTH)]

[{INCLUDE FOLLOWING LINE ITEMS TO THE EXTENT APPLICABLE}

1. Number of days in Forward Hedge Selling Period: {__________}
2. First day of Forward Hedge Selling Period: {__________}, 20{__}
3. Maximum number of Forward Hedge Securities to be sold: {__________}
4. Forward Hedge Amount: ${__________}
5. Forward Hedge Selling Commission Rate: {__________}%
6. Information relating to forward price reductions:

Forward Price Reduction Date	Forward Price Reduction Amount
{__________}, 20{__}	${__________}

7. Spread: {__________} basis points
8. Initial Stock Loan Rate: {__________} basis points
9. Maximum Stock Loan Rate: {__________} basis points
10. Term: {__________} {days}{months}]

EXHIBIT B

AUTHORIZED INDIVIDUALS FOR PLACEMENT NOTICES AND ACCEPTANCES

Barclays Capital Inc. and Barclays Bank PLC

- Kevin Cheng - kevin.cheng@barclays.com
- John Lembeck - john.lembeck@barclays.com

<u>BofA Securities, Inc. and Bank of America, N.A.</u>

- dg.atm_execution@bofa.com

<u>J.P. Morgan Securities LLC and JPMorgan Chase Bank, National Association</u>

- Sanjeet Dewal – sanjeet.s.dewal@jpmorgan.com
- Brett Chalmers – brett.chalmers@jpmorgan.com

<u>Wells Fargo Securities, LLC and Wells Fargo Bank, National Association</u>

- Jennifer Lynch - Jennifer.R.Lynch@wellsfargo.com
- Fernando Escano - Fernando.A.Escano@wellsfargo.com
- Michael Tiedemann – Michael.tiedemann@wellsfargo.com
- Nicholas Groomes - Nicholas.groomes@wellsfargo.com
- Corporate Equity Derivatives - corporatederivativenotifications@wellsfargo.com

<u>Company</u>

- Christopher Liddle - christopher.liddle@pgn.com
- Katie Trosen - katie.trosen@pgn.com

EXHIBIT C

AGENT COMPENSATION

An Agent shall be paid compensation equal to up to 2% of the gross proceeds from the sales of Securities by such Agent pursuant to the terms of this Agreement.

EXHIBIT D-1

FORM OF OPINION OF COMPANY COUNSEL

EXHIBIT D-2

FORM OF OPINION OF GENERAL COUNSEL

EXHIBIT E

OFFICER'S CERTIFICATE

I, [●], Senior Director and Treasurer, and I, [●], Vice President and Chief Financial Officer, of Portland General Electric Company, an Oregon corporation (the "**Company**"), on behalf of the Company and in my capacity as an officer of the same, and not in my individual capacity, hereby deliver this certificate pursuant to Section 7(o) of the Equity Distribution Agreement dated July [●], 2024 (the "<u>Agreement</u>") between the Company, the Agents, the Forward Purchasers and the Forward Sellers that to the knowledge of the undersigned:

a. The representations and warranties of the Company in Section 5 of the Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Effect (as defined therein), are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date; and

b. The Company has complied in all material respects with all agreements and satisfied all conditions on their part to be performed or satisfied pursuant to the Agreement at or prior to the date hereof (other than those conditions waived by the Agents, the Forward Purchasers or the Forward Sellers).

c. Latham & Watkins LLP and Davis Polk & Wardwell LLP are entitled to rely on this certificate in connection with the opinion that each such firm is rendering pursuant to Section 7(p) and Section 7(r), respectively, of the Agreement.

EXHIBIT F

ISSUER FREE WRITING PROSPECTUSES

None

EXHIBIT G

FORM OF MASTER FORWARD CONFIRMATION

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Section 3: EX-1.5 (EX-1.5)

Exhibit 1.5

J.P.Morgan

July 26, 2024

To: **Portland General Electric Company**
121 SW Salmon Street
Portland, Oregon 97204

From: **JPMorgan Chase Bank, National Association**
New York Branch
383 Madison Avenue
New York, NY 10179

Dear Sirs,

The purpose of this letter agreement (this "Master Confirmation") is to confirm the terms and conditions of certain transactions to be entered into from time to time between JPMorgan Chase Bank, National Association, New York Branch ("Dealer") and Portland General Electric Company ("Counterparty") in accordance with the terms of the Equity Distribution Agreement, dated as of July [__], 2024 (the "Equity Distribution Agreement"), among Dealer, J.P. Morgan Securities LLC and Counterparty, among others, on one or more Trade Dates specified herein (collectively, the "Transactions" and each, a "Transaction"). Each Transaction will be evidenced by a supplemental confirmation (each, a "Supplemental Confirmation," and each such Supplemental Confirmation, together with this Master Confirmation, a "Confirmation" for purposes of the Agreement specified below) substantially in the form of Exhibit A hereto.

1. The definitions and provisions contained in the 2006 ISDA Definitions (the "2006 Definitions") and the 2002 ISDA Equity Derivatives Definitions (the "2002 Definitions" and, together with the 2006 Definitions, the "Definitions"), each as published by the International Swaps and Derivatives Association, Inc., are incorporated into each Confirmation. In the event of any inconsistency among the Agreement, this Master Confirmation, any Supplemental Confirmation, the 2002 Definitions and the 2006 Definitions, the following will prevail in the order of precedence indicated: (i) such Supplemental Confirmation; (ii) this Master Confirmation; (iii) the 2002 Definitions; (iv) the 2006 Definitions; and (v) the Agreement.

Each party further agrees that each Confirmation together with the Agreement shall evidence a complete binding agreement between Dealer and Counterparty as to the subject matter and terms of the Transaction to which this Master Confirmation and the related Supplemental Confirmation relate, and shall supersede all prior or contemporaneous written or oral communications with respect thereto. Each Confirmation shall supplement, form a part of, and be subject to an agreement in the form of the 2002 ISDA Master Agreement (the "Agreement") as if Dealer and Counterparty had executed an agreement in such form on the date hereof (but without any Schedule except for (i) the election of the laws of the State of New York as the governing law and (ii) the election that the "Cross Default" provisions of Section 5(a)(vi) shall apply to Dealer with a "Threshold Amount" in respect of Dealer of 3% of the stockholders' equity of Dealer (including its equivalent in another currency); *provided* that (x) the words ", or becoming capable at such time of being declared," shall be deleted from clause (1) thereof, (y) "Specified Indebtedness" has the meaning specified in Section 14 of the Agreement, except that such term shall not include obligations in

respect of deposits received in the ordinary course of Dealer's banking business and (z) the following language shall be added to the end of such Section 5(a)(vi): "Notwithstanding the foregoing, a default under subsection (2) hereof shall not constitute an Event of Default if (X) the default was caused solely by error or omission of an administrative or operational nature; (Y) funds were available to enable the party to make the payment when due; and (Z) the payment is made within two Local Business Days of such party's receipt of written notice of its failure to pay;"). The parties hereby agree that no Transaction, other than the Transactions to which this Master Confirmation, together with each Supplemental Confirmation hereunder, relate, shall be governed by the Agreement. For purposes of the 2002 Definitions, each Transaction is a Share Forward Transaction.

Dealer and Counterparty each represents to the other with respect to each Transaction hereunder that it has entered into such Transaction in reliance upon such tax, accounting, regulatory, legal, and financial advice as it deems necessary and not upon any view expressed by the other.

2. The terms of each Transaction to which this Master Confirmation relates are as follows:

General Terms:

Trade Date: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be, subject to the provisions under the heading "Acceleration Events" in Section 3 of this Master Confirmation and the provisions under the heading "Placement Notices" in Section 4 of this Master Confirmation, the last Trading Day (as defined in the Equity Distribution Agreement) of the Forward Hedge Selling Period (as defined in the Equity Distribution Agreement) for such Transaction.

Effective Date: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be the date that is one Settlement Cycle following the Trade Date for such Transaction, or such later date on which the conditions set forth under "Conditions to Effectiveness" in Section 3 of this Master Confirmation shall have been satisfied, subject to the provisions under the heading "Acceleration Events" in Section 3 of this Master Confirmation and the provisions under the heading "Placement Notices" in Section 4 of this Master Confirmation.

Base Amount: For each Transaction, initially, as specified in the Supplemental Confirmation for such Transaction, to be the number of Shares equal to the Actual Sold Forward Amount (as defined in the Equity Distribution Agreement) for the Forward Hedge Selling Period for such Transaction. For each Transaction, on each Settlement Date for such Transaction, the Base Amount for such Transaction shall be reduced by the

relevant number of Settlement Shares for such Settlement Date.

Maturity Date: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be the date that follows the Trade Date for such Transaction by the number of days, months or years set forth as the "Term" in the Placement Notice (as defined in the Equity Distribution Agreement and amended by any corresponding Acceptance (as defined in the Equity Distribution Agreement), if applicable (the "Accepted Placement Notice")) for such Transaction (or, if such date is not a Scheduled Trading Day, the next following Scheduled Trading Day).

Forward Price: For each Transaction, on the Effective Date for such Transaction, the Initial Forward Price for such Transaction, and on any other day, the Forward Price for such Transaction as of the immediately preceding calendar day multiplied by the sum of (i) 1 *and* (ii) the Daily Rate for such Transaction for such day; *provided* that on each Forward Price Reduction Date for such Transaction, the Forward Price for such Transaction in effect on such date shall be the Forward Price for such Transaction otherwise in effect on such date, *minus* the Forward Price Reduction Amount for such Forward Price Reduction Date. Notwithstanding the foregoing, to the extent Counterparty delivers Shares hereunder on or after a Forward Price Reduction Date for any Transaction and at or before the record date for an ordinary cash dividend with an ex-dividend date corresponding to such Forward Price Reduction Date, the Calculation Agent shall adjust the Forward Price for such Transaction to the extent it determines that such an adjustment is appropriate and necessary to preserve the economic intent of the parties to offset the economic effect of the Dealer having received the benefit of both (i) the Forward Price Reduction Amount for such Transaction and (ii) the ordinary cash dividend with an ex-dividend date corresponding to such Forward Price Reduction Amount (taking into account Dealer's commercially reasonable hedge positions in respect of such Transaction).

Initial Forward Price: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be the product of (i) an amount equal to 1 *minus* the Forward Hedge Selling Commission Rate (as defined in the Equity Distribution Agreement) applicable to such Transaction *multiplied by* (ii) the Adjusted Volume-Weighted Hedge Price, subject to adjustment as set forth herein.

Adjusted Volume-Weighted

Hedge Price: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be the volume-weighted average of the gross sales price per share of Forward Hedge Securities (as defined in the Equity Distribution Agreement) sold on each Trading Day of the Forward Hedge Selling Period for such Transaction, as determined by the Calculation Agent; *provided* that, solely for the purposes of calculating the Initial Forward Price, each such sales price (other than the sales price for the last day of the relevant Forward Hedge Selling Period) shall be subject to adjustment by the Calculation Agent in the same manner as the Forward Price pursuant to the definition thereof during the period from, and including, the date one Settlement Cycle immediately following the first Trading Day of the relevant Forward Hedge Selling Period on which Forward Hedge Securities are sold to, and including, the Effective Date of such Transaction.

Daily Rate: For each Transaction and for any day, (i)(A) the Overnight Bank Rate for such day, *minus* (B) the Spread for such Transaction, *divided by* (ii) 365.

Overnight Bank Rate: For any day, the rate set forth for such day opposite the caption "Overnight bank funding rate", as such rate is displayed on Bloomberg Screen "OBFR01 <Index> <GO>", or any successor page; *provided* that, if no rate appears for a particular day on such page, the rate for the immediately preceding day for which a rate does so appear shall be used for such day.

Spread: For each Transaction, as specified in the Supplemental Confirmation for such Transaction, to be the "Spread" as specified in the Accepted Placement Notice for such Transaction.

Forward Price Reduction Dates: For each Transaction, as specified in Schedule I to the Supplemental Confirmation for such Transaction, to be each date set forth under the heading "Forward Price Reduction Dates" in the Accepted Placement Notice for such Transaction.

Forward Price Reduction
Amount: For each Transaction, for each Forward Price Reduction Date for such Transaction, the Forward Price Reduction Amount set forth opposite such Forward Price Reduction Date on Schedule I to the Supplemental Confirmation for such Transaction, to be the "Forward Price Reduction Amount" set forth opposite such Forward Price Reduction Date in the Accepted Placement Notice for such Transaction.

Shares: Common stock, no par value, of Counterparty (also referred to herein as the "Issuer") (Exchange identifier: "POR").

Exchange: The New York Stock Exchange.

Related Exchange(s): All Exchanges.

Clearance System: DTC.

Calculation Agent: Dealer whose judgments, determinations and calculations shall be made in good faith and in a commercially reasonable manner; provided that, following the occurrence and during the continuance of an Event of Default of the type described in Section 5(a)(vii) of the Agreement with respect to which Dealer is the sole Defaulting Party, if the Calculation Agent fails to timely make any calculation, adjustment or determination required to be made by the Calculation Agent hereunder or to perform any obligation of the Calculation Agent hereunder, Counterparty shall have the right to designate a nationally recognized third-party dealer in over-the-counter corporate equity derivatives to act as the Calculation Agent.

Following any determination or calculation by the Calculation Agent hereunder, upon a request by Counterparty, the Calculation Agent shall promptly (but in any event within three Exchange Business Days) provide to Counterparty by e-mail to the e-mail address provided by Counterparty in such request a report (in a commonly used file format for the storage and manipulation of financial data) displaying in reasonable detail the basis for such determination or calculation (including any assumptions used in making such determination or calculation), it being understood that the Calculation Agent shall not be obligated to disclose any proprietary or confidential models or other proprietary or confidential information used by it for such determination or calculation.

<u>Settlement Terms:</u>

Settlement Date: With respect to any Transaction, any Scheduled Trading Day following the Effective Date for such Transaction and up to and including the Maturity Date for such Transaction, as designated by (a) Dealer pursuant to "Termination Settlement"

below or (b) Counterparty in a written notice (a "Settlement Notice") that satisfies the Settlement Notice Requirements and is delivered to Dealer at least (i) two Scheduled Trading Days prior to such Settlement Date, which may be the Maturity Date for such Transaction, if Physical Settlement applies, and (ii) 50 Scheduled Trading Days prior to such Settlement Date, which may be the Maturity Date for such Transaction, if Cash Settlement or Net Share Settlement applies; *provided* that (i) the Maturity Date for such Transaction shall be a Settlement Date for such Transaction if on such date the Base Amount for such Transaction is greater than zero, (ii) if Physical Settlement or Net Share Settlement applies and such Settlement Date specified above (including a Settlement Date occurring on such Maturity Date) is not a Clearance System Business Day, such Settlement Date shall be the next following Clearance System Business Day and (iii) if Cash Settlement or Net Share Settlement applies and Dealer shall have fully unwound its commercially reasonable hedge with respect to the portion of such Transaction to be settled during an Unwind Period for such Transaction by a date that is more than two Scheduled Trading Days prior to such Settlement Date specified above, Dealer may, by written notice to Counterparty, specify any Scheduled Trading Day prior to such originally specified Settlement Date for such Transaction as the Settlement Date for such Transaction.

Settlement Shares: In respect of any Transaction and with respect to any Settlement Date for such Transaction, a number of Shares, not to exceed the Base Amount for such Transaction, designated as such by Counterparty in the related Settlement Notice or by Dealer pursuant to "Termination Settlement" below; *provided* that on the Maturity Date for such Transaction the number of Settlement Shares shall be equal to the Base Amount for such Transaction on such date.

Settlement: In respect of any Transaction, Physical Settlement, Cash Settlement or Net Share Settlement, at the election of Counterparty as set forth in a Settlement Notice for such Transaction delivered on or after the Effective Date for such Transaction that satisfies the Settlement Notice Requirements; *provided* that Physical Settlement shall apply (i) if no Settlement Method is validly selected, (ii) with respect to any Settlement Shares in respect of which Dealer is unable, in its judgment, to unwind its hedge in respect of such Transaction (or portion thereof, as applicable) by the end of the Unwind Period for such Transaction in a manner that, in the reasonable judgment of Dealer based on the advice of counsel, is consistent with the requirements for qualifying for the safe harbor provided by Rule 10b-18 under the Exchange Act or due to the lack of sufficient liquidity in the Shares on any Exchange Business Day during such Unwind Period or (iii) to any Termination Settlement Date (as defined below under "Termination Settlement") for such Transaction.

Settlement Notice Requirements: Notwithstanding any other provision hereof, a Settlement Notice delivered in respect of any Transaction by Counterparty that specifies Cash Settlement or Net Share Settlement will not be effective to establish a Settlement Date for such Transaction or require Cash Settlement or Net Share Settlement unless Counterparty delivers to Dealer with such Settlement Notice a representation signed by Counterparty substantially in the following form: "As of the date of this Settlement Notice, Counterparty is not aware of any material nonpublic information concerning itself or the Shares, and is designating the date contained herein as a Settlement Date and is electing Cash Settlement or Net Share Settlement, as the case may be, in good faith and not as part of a plan or scheme to evade compliance with the federal securities laws."

Unwind Period: For any Transaction, each Exchange Business Day that is not a Suspension Day during the period from and including the first Exchange Business Day following the date Counterparty validly elects Cash Settlement or Net Share Settlement in respect of a Settlement Date for such Transaction through the second Scheduled Trading Day preceding such Settlement Date (or the immediately preceding Exchange Business Day if such Scheduled Trading Day is not an Exchange Business Day); subject to "Termination Settlement" below. If any Exchange Business Day during an Unwind Period for any Transaction is a Disrupted Day, the Calculation Agent shall make commercially reasonable adjustments to the terms of such Transaction (including, without limitation, the Cash Settlement Amount, the number of Net Share Settlement Shares and the 10b-18 VWAP) to account for the occurrence of such Disrupted Day.

Suspension Day: Any Exchange Business Day on which Dealer determines based on the advice of counsel that Cash Settlement or Net Share Settlement may violate applicable securities laws. Dealer shall notify Counterparty if it receives such advice from its counsel.

Market Disruption Event: Section 6.3(a)(ii) of the 2002 Definitions is hereby amended by replacing clause (ii) in its entirety with "(ii) an Exchange Disruption, or" and inserting immediately following clause (iii) the phrase "; in each case that the Calculation Agent determines is material."

Exchange Act: The Securities Exchange Act of 1934, as amended from time to time.

Physical Settlement: In respect of any Transaction, on any Settlement Date for such Transaction in respect of which Physical Settlement applies, Counterparty shall deliver to Dealer through the Clearance System the Settlement Shares for such Settlement Date, and Dealer shall deliver to Counterparty, by wire transfer of immediately available funds to an account designated by Counterparty, an amount in cash equal to the Physical Settlement Amount for such Transaction for such Settlement Date, on a delivery versus payment basis. If, on any Settlement Date for such Transaction, the Shares to be delivered by Counterparty to Dealer hereunder are not so delivered (the "Deferred Shares"), and a Forward Price Reduction Date for such Transaction occurs during the period from, and including, such Settlement Date to, but excluding, the date such Shares are actually delivered to Dealer, then the portion of the Physical Settlement Amount for such Transaction payable by Dealer to Counterparty in respect of the Deferred Shares shall be reduced by an amount equal to the Forward Price Reduction Amount for such Forward Price Reduction Date, *multiplied by* the number of Deferred Shares.

Physical Settlement Amount: In respect of any Transaction and for any Settlement Date for such Transaction in respect of which Physical Settlement applies, an amount in cash equal to the product of (i) the Forward Price for such Transaction on such Settlement Date and (ii) the number of Settlement Shares for such Transaction for such Settlement Date.

Cash Settlement: In respect of any Transaction, on any Settlement Date for such Transaction in respect of which Cash Settlement applies, if the Cash Settlement Amount for such Transaction for such Settlement Date is a positive number, Dealer will pay such Cash Settlement Amount to Counterparty. If the Cash Settlement Amount for such Transaction is a negative number, Counterparty will pay the absolute value of such Cash Settlement Amount to Dealer. Such amounts shall be paid on the relevant Settlement Date.

Cash Settlement Amount: In respect of any Transaction and for any Settlement Date for such Transaction in respect of which Cash Settlement applies, an amount determined by the Calculation Agent equal to (a) the product of (i) (A) the average Forward Price for such Transaction over the period beginning on, and including, the date that is one Settlement Cycle following the first day of the applicable Unwind Period for such Transaction and ending on,

and including, such Settlement Date (calculated assuming no reduction to such Forward Price for any Forward Price Reduction Date for such Transaction that occurs during such Unwind Period, except as set forth in clause (b) below), *minus* USD 0.02, *minus* (B) the average of the 10b-18 VWAP prices per Share on each Exchange Business Day during such Unwind Period, *multiplied by* (ii) the number of Settlement Shares for such Transaction for such Settlement Date, *minus* (b) the product of (i) the Forward Price Reduction Amount for such Transaction for any Forward Price Reduction Date for such Transaction that occurs during such Unwind Period *and* (ii) the number of Settlement Shares for such Transaction for such Settlement Date with respect to which Dealer has not unwound its hedge (assuming Dealer has a commercially reasonable hedge position and unwinds its hedge position in a commercially reasonable manner), as of such Forward Price Reduction Date.

Net Share Settlement: In respect of any Transaction, on any Settlement Date for such Transaction in respect of which Net Share Settlement applies, if the number of Net Share Settlement Shares for such Transaction is a (i) negative number, Dealer shall deliver a number of Shares to Counterparty equal to the absolute value of such Net Share Settlement Shares, or (ii) positive number, Counterparty shall deliver to Dealer such Net Share Settlement Shares; *provided* that if Dealer determines in its good faith and reasonable judgment that it would be required to deliver Net Share Settlement Shares to Counterparty, Dealer may elect to deliver a portion of such Net Share Settlement Shares on one or more dates prior to the applicable Settlement Date.

Net Share Settlement Shares: In respect of any Transaction, for any Settlement Date for such Transaction in respect of which Net Share Settlement applies, a number of Shares equal to (a) the number of Settlement Shares for such Settlement Date, *minus* (b) the number of Shares Dealer actually purchases during the Unwind Period for such Transaction for a total purchase price equal to the difference between (1) the product of (i) the average Forward Price for such Transaction over the period beginning on, and including, the date that is one Settlement Cycle following the first day of the applicable Unwind Period for such Transaction and ending on, and including, such Settlement Date (calculated assuming no reduction to such Forward Price for any Forward Price Reduction Date for such Transaction that occurs during such Unwind Period, except as set forth in clause (2) below), *minus* USD 0.02, *multiplied by* (ii) the number of Settlement Shares for such Transaction for such Settlement Date, *minus* (2) the product of (i) the Forward Price Reduction Amount for such Transaction for any Forward Price

Reduction Date for such Transaction that occurs during such Unwind Period, *multiplied by* (ii) the number of Shares with respect to which Dealer has not unwound its hedge as of such Forward Price Reduction Date.

10b-18 VWAP: For any Transaction, for any Exchange Business Day during an Unwind Period for such Transaction which is not a Suspension Day, the volume-weighted average price at which the Shares trade as reported in the composite transactions for the Exchange on such Exchange Business Day, excluding (i) trades that do not settle regular way, (ii) opening (regular way) reported trades on the Exchange on such Exchange Business Day, (iii) trades that occur in the last ten minutes before the scheduled close of trading on the Exchange on such Exchange Business Day and ten minutes before the scheduled close of the primary trading session in the market where the trade is effected and (iv) trades on such Exchange Business Day that do not satisfy the requirements of Rule 10b-18(b)(3), as determined in good faith by the Calculation Agent. Counterparty acknowledges that Dealer may refer to the Bloomberg Page "POR <Equity> AQR SEC" (or any successor thereto), in its discretion, for such Exchange Business Day to determine the 10b-18 VWAP.

Settlement Currency: USD.

Failure to Deliver: Inapplicable.

<u>Adjustments</u>:

Method of Adjustment: Calculation Agent Adjustment; notwithstanding anything in the 2002 Definitions to the contrary, for any Transaction, the Calculation Agent may make an adjustment pursuant to Calculation Agent Adjustment to any one or more of the Base Amount for such Transaction, the Forward Price for such Transaction and any other variable relevant to the settlement or payment terms of such Transaction.

Additional Adjustment: If, at any time, with respect to any Transaction, in Dealer's commercially reasonable judgment, the stock loan fee to Dealer (or an affiliate thereof), excluding the interest rate component payable by the relevant stock lender to Dealer or such affiliate (the "Stock Loan Fee"), over any 10 consecutive Scheduled Trading Day period, of borrowing a number of Shares equal to the Base Amount for such Transaction to hedge in a commercially reasonable manner its exposure to such Transaction exceeds a rate equal to the Initial Stock Loan Rate for such Transaction, the Calculation Agent shall reduce the Forward Price for such Transaction in order to compensate

Dealer for the amount by which the Stock Loan Fee exceeded a rate equal to such Initial Stock Loan Rate for the period during which the Stock Loan Fee exceeded such rate. The Calculation Agent shall notify Counterparty prior to making any such adjustment to such Forward Price and, upon the request of Counterparty, Dealer shall provide an itemized list of the Stock Loan Fees for the applicable period. The "Initial Stock Loan Rate" for any Transaction shall be as specified in the Supplemental Confirmation for such Transaction, to be the "Initial Stock Loan Rate" as specified in the Accepted Placement Notice for such Transaction.

Account Details:

Payments to Dealer: To be advised under separate cover or telephone confirmed prior to each Settlement Date.

Payments to Counterparty: To be advised under separate cover or telephone confirmed prior to each Settlement Date.

Delivery of Shares to Dealer: To be advised.

Delivery of Shares to Counterparty: To be advised.

3. Other Provisions:

Conditions to Effectiveness:

The effectiveness of each Supplemental Confirmation and the related Transaction on the Effective Date for such Transaction shall be subject to (i) the condition that the representations and warranties of Counterparty contained in the Equity Distribution Agreement and any certificate delivered pursuant thereto by Counterparty are true and correct on such Effective Date as if made as of such Effective Date, (ii) the condition that Counterparty has performed all of the obligations required to be performed by it under the Equity Distribution Agreement on or prior to such Effective Date, (iii) the condition that Counterparty shall have delivered to Dealer an opinion of counsel dated as of the Trade Date for such Transaction with respect to matters set forth in Section 3(a) of the Agreement, (iv) the satisfaction of all of the conditions set forth in Section 9 of the Equity Distribution Agreement and (v) the condition that the Equity Distribution Agreement shall not have been terminated pursuant to Section 13 thereof.

Representations and Agreements of Counterparty:

Counterparty (i) has such knowledge and experience in financial and business affairs as to be capable of evaluating the merits and risks of entering into any Transaction hereunder; (ii) has consulted with its own legal, financial, accounting and tax advisors in connection with each Transaction hereunder; and (iii) is entering into each Transaction hereunder for a bona fide business purpose.

Counterparty is not and has not been the subject of any civil proceeding of a judicial or administrative body of competent jurisdiction that could reasonably be expected to impair materially Counterparty's ability to perform its obligations hereunder.

Counterparty will by the next succeeding New York Business Day notify Dealer upon obtaining knowledge of the occurrence of any event that would constitute an Event of Default, a Potential Event of Default or a Potential Adjustment Event.

Additional Representations, Warranties and Agreements of Counterparty: Counterparty hereby represents and warrants to, and agrees with, Dealer as of the date hereof, on each date a Placement Notice is effective, on each Trading Day in a Forward Hedge Selling Period, on each Forward Hedge Settlement Date (as defined in the Equity Distribution Agreement) and on the Trade Date for any Transaction hereunder that:

(a) Any Shares, when issued and delivered in accordance with the terms of any Transaction hereunder, will be duly authorized and validly issued, fully paid and nonassessable, and the issuance thereof will not be subject to any preemptive or similar rights.

(b) Counterparty has reserved and will keep available at all times, free from preemptive rights, out of its authorized but unissued Shares, solely for the purpose of issuance upon settlement of any Transaction hereunder as herein provided, the full number of Shares as shall be issuable at such time upon settlement of such Transaction. All Shares so issuable shall, upon such issuance, be accepted for listing or quotation on the Exchange.

(c) No filing with, or approval, authorization, consent, license registration, qualification, order or decree of, any court or governmental authority or agency, domestic or foreign, is necessary or required for the execution, delivery and performance by Counterparty of this Master Confirmation or any Supplemental Confirmation and the consummation of any Transaction (including, without limitation, the issuance and delivery of Shares on any Settlement Date for a Transaction hereunder) except (i) such as have been obtained under the Securities Act of 1933, as amended (the "Securities Act"), and (ii) as may be required to be obtained under state securities laws.

(d) Counterparty agrees not to repurchase, directly or indirectly, any Shares if, immediately following such Issuer Repurchase, the Base Amount Percentage for all Transactions hereunder would be equal to or greater than 8.0%. The "Base Amount Percentage" as of any day is the fraction (1) the numerator of which is the Base Amount and (2) the denominator of which is the number of Shares outstanding on such day.

(e) Counterparty is not insolvent, nor will Counterparty be rendered insolvent as a result of any Transaction hereunder.

(f) Neither Counterparty nor any of its affiliated purchasers (as defined in Rule 10b-18 under the Exchange Act) shall take or refrain from taking any action (including, without limitation, any direct purchases by Counterparty or any of its affiliates or any purchases by a party to a derivative transaction with Counterparty or any of its affiliates), either under this Master Confirmation, under any Supplemental Confirmation, under an agreement with another party or otherwise, that might be reasonably expected to cause any purchases of Shares by Dealer or any of its affiliates in connection with any Cash Settlement or Net Share Settlement of any Transaction hereunder not to meet the requirements of the safe harbor provided by Rule 10b-18 under the Exchange Act determined as if all such purchases were made by Counterparty.

(g) Counterparty will not engage in any "distribution" (as defined in Regulation M under the Exchange Act ("Regulation M")) that would cause a "restricted period" (as defined in Regulation M) to occur during any Unwind Period for any Transaction hereunder, other than a distribution meeting, in each case, the requirements of an exception set forth in Rule 101(b) and Rule 102(b) of Regulation M.

(h) Counterparty is an "eligible contract participant" (as such term is defined in Section 1a(18) of the Commodity Exchange Act, as amended) and the Agreement and all Transactions hereunder are subject to individual negotiation by the parties and have not been executed or traded on a "trading facility" as defined in Section 1a(51) of the Commodity Exchange Act, as amended.

(i) In addition to any other requirements set forth herein, Counterparty agrees not to elect Cash Settlement or Net Share Settlement in respect of any Transaction if, in the reasonable judgment of either Dealer or Counterparty, such settlement or Dealer's related market activity would result in a violation of the U.S. federal securities laws or any other federal or state law or regulation applicable to Counterparty.

(j) Counterparty (i) is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies involving a security or securities; (ii) will exercise independent judgment in evaluating the recommendations of any broker-dealer or its associated persons, unless it has otherwise notified the broker-dealer in writing; and (iii) has total assets of at least $50 million as of the date hereof.

(k) Counterparty acknowledges and agrees that, for any Transaction:

(i) during the term of such Transaction, Dealer and its Affiliates may buy or sell Shares or other securities or buy or sell options or futures contracts or enter into swaps or other derivative securities in order to establish, adjust or unwind its hedge position with respect to such Transaction;

(ii) Dealer and its Affiliates may also be active in the market for the Shares and Share-linked transactions other than in connection with hedging activities in relation to such Transaction;

(iii) Dealer shall make its own determination as to whether, when or in what manner any hedging or market activities in Counterparty's securities shall be conducted and shall do so in a manner that it deems appropriate to hedge its price and market risk with respect to the Forward Price for such Transaction and the 10b-18 VWAP for such Transaction;

(iv) any market activities of Dealer and its Affiliates with respect to the Shares may affect the market price and volatility of the Shares, as well as the Forward Price for such Transaction and the 10b-18 VWAP for such Transaction, each in a manner that may be adverse to Counterparty; and

(v) such Transaction is a derivatives transaction in which it has granted Dealer the right, under certain circumstances, to receive cash or Shares, as the case may be; Dealer may purchase Shares for its own account at an average price that may be greater than, or less than, the effective price paid by Counterparty under the terms of such Transaction.

(l) The assets of Counterparty do not constitute "plan assets" under the Employee Retirement Income Security Act of 1974, as amended, the Department of Labor Regulations promulgated thereunder or similar law.

(m) Counterparty is not aware of any material non-public information with respect to Counterparty or the Shares.

Covenants of Counterparty:

(a) The parties acknowledge and agree that any Shares delivered by Counterparty to Dealer on any Settlement Date for a Transaction hereunder will be newly issued Shares and when delivered by Dealer (or an affiliate of Dealer) to securities lenders from whom Dealer (or an affiliate of Dealer) borrowed Shares in connection with hedging its exposure to such Transaction will be freely saleable without further registration or other restrictions under the Securities Act, in the hands of those securities lenders, irrespective of whether such stock loan is effected by Dealer or an affiliate of Dealer. Accordingly, Counterparty agrees that, subject to the provisions set forth under "Private Placement Procedures", the Shares that it delivers to Dealer on each Settlement Date for a Transaction hereunder will not bear a restrictive legend and that such Shares will be deposited in, and the delivery thereof shall be effected through the facilities of, the Clearance System.

(b) Counterparty will promptly execute each properly completed Supplemental Confirmation delivered to Counterparty by Dealer following the delivery by Counterparty to Dealer of a Accepted Placement Notice relating to a Forward (as such term is defined in the Equity Distribution Agreement).

Covenants of Dealer:

(a) Unless the provisions set forth below under "Private Placement Procedures" shall be applicable, Dealer shall use any Shares delivered by Counterparty to Dealer on any Settlement Date for a Transaction hereunder to return to securities lenders to close out open Share loans created by Dealer or an affiliate of Dealer in the course of Dealer's or such affiliate's hedging activities related to Dealer's exposure under this Master Confirmation and the relevant Supplemental Confirmation.

(b) In connection with bids and purchases of Shares in connection with any Cash Settlement or Net Share Settlement of any Transaction, Dealer shall use its good faith and commercially reasonable efforts to conduct its activities, or cause its affiliates to conduct their activities, in a manner consistent with the requirements of the safe harbor provided by Rule 10b-18 under the Exchange Act, as if such provisions were applicable to such purchases.

Insolvency Filing:

Notwithstanding anything to the contrary herein, in any Supplemental Confirmation, in the Agreement or in the Definitions, upon any Insolvency Filing in respect of the Issuer, each

Transaction hereunder shall automatically terminate on the date thereof without further liability of either party to this Master Confirmation or any related Supplemental Confirmation to the other party (except for any liability in respect of any breach of representation or covenant by a party under this Master Confirmation or any Supplemental Confirmation prior to the date of such Insolvency Filing).

Extraordinary Dividends:

If an ex-dividend date for an Extraordinary Dividend occurs on or after the Trade Date for any Transaction and on or prior to the Maturity Date for such Transaction (or, if later, the last date on which Shares are delivered by Counterparty to Dealer in settlement of such Transaction), Counterparty shall pay an amount, as determined by the Calculation Agent, in cash equal to the product of such Extraordinary Dividend and the Base Amount for such Transaction to Dealer on the earlier of (i) the date on which such Extraordinary Dividend is paid by the Issuer to holders of record of the Shares or (ii) the Maturity Date for such Transaction. "Extraordinary Dividend" means the per Share amount of any cash dividend or distribution declared by the Issuer with respect to the Shares that is specified by the board of directors of the Issuer as an "extraordinary" dividend.

Acceleration Events:

The following events shall each constitute an "Acceleration Event" in respect of each Transaction:

(a) Stock Borrow Events. In the commercially reasonable judgment of Dealer (i) Dealer (or its affiliate) is unable to hedge in a commercially reasonable manner Dealer's exposure to such Transaction because of the lack of sufficient Shares being made available for Share borrowing by lenders, or (ii) the Stock Loan Fee of borrowing (or maintaining a borrow of) a number of Shares equal to the Base Amount for such Transaction to hedge in a commercially reasonable manner its exposure to the Transaction exceeds a rate equal to the Maximum Stock Loan Rate for such Transaction (each, a "Stock Borrow Event");

(b) Dividends and Other Distributions. On any day occurring after the Trade Date for such Transaction, Counterparty declares a distribution, issue or dividend to existing holders of the Shares of (i) any cash dividend (other than an Extraordinary Dividend) to the extent all cash dividends having an ex-dividend date during the period from and including any Forward Price Reduction Date for such Transaction (with the Trade Date for such Transaction being a Forward Price Reduction Date for purposes of this clause (b) only) to but excluding the next subsequent Forward Price Reduction Date for such Transaction exceeds, on a per Share basis, the Forward Price Reduction Amount set forth opposite the first date of any such period on Schedule I to the relevant Supplemental Confirmation or (ii) share capital or securities of another issuer acquired or owned (directly or indirectly) by Counterparty as a result of a spin-off or other similar transaction or (iii) any other type of securities (other than Shares), rights or warrants or other assets, for payment (cash or other consideration) at less than the prevailing market price as determined in a commercially reasonable manner by Dealer;

(c) ISDA Early Termination Date. Either Dealer or Counterparty has the right to designate an Early Termination Date pursuant to Section 6 of the Agreement;

(d) Other ISDA Events. The announcement of any event that if consummated, would result in a Merger Event, Tender Offer, Nationalization or Insolvency or the occurrence of any Hedging Disruption, any Change in Law or a Delisting; *provided* that in case of a Delisting, in addition to the provisions of Section 12.6(a)(iii) of the 2002 Definitions, it will also constitute a Delisting if the Exchange is located in the United States and the Shares are not immediately re-listed, re-traded or re-quoted on any of the New York Stock Exchange, the NASDAQ Global Select Market or the NASDAQ Global Market (or their respective successors); and *provided further* that the definition of "Change in Law" provided in Section 12.9(a)(ii) of the 2002 Definitions is hereby amended by (i) replacing the phrase "the interpretation" in the third line thereof with the phrase ", or public announcement of, the formal or informal interpretation", (ii) replacing the parenthetical beginning after the word "regulation" in the second line thereof the words "(including, for the avoidance of doubt and without limitation, (x) any tax law or (y) adoption, effectiveness or promulgation of new regulations authorized or mandated by existing statute)" and (iii) immediately following the word "Transaction" in clause (X) thereof, adding the phrase "in the manner contemplated by Dealer on the effective date of the Accepted Placement Notice for the relevant Transaction"; or

(e) Ownership Event. In the good faith judgment of Dealer, on any day, the Share Amount for such day exceeds the Post-Effective Limit for such day (if any applies).

The "Maximum Stock Loan Rate" for any Transaction shall be as specified in the Supplemental Confirmation for such Transaction, to be the "Maximum Stock Loan Rate" as specified in the Accepted Placement Notice for such Transaction.

For purposes of clause (e) above, the "Share Amount" as of any day is the number of Shares that Dealer and any of its affiliates and any person whose ownership position would be aggregated with that of Dealer, including any "group" (within the meaning of Section 13 of the Exchange Act) of which Dealer is or may be deemed to be a part (Dealer or any such person or group, a "Dealer Person") under any law, rule, regulation or regulatory order or any organizational document or contract of Counterparty that is applicable to ownership of Shares as of the date hereof or for any reason becomes applicable to ownership of Shares after the date hereof ("Applicable Laws"), owns, beneficially owns, constructively owns, controls, holds the power to vote or otherwise meets a relevant definition of ownership of under the Applicable Laws, as determined by Dealer in its reasonable discretion. The "Post-Effective Limit" means (x) the minimum number of Shares that would give rise to reporting or registration obligations (except for any filing requirements on Form 13F, Schedule 13D or Schedule 13G under the Exchange Act, in each case, as in effect on the date hereof) or other requirements (including obtaining prior approval from any person or entity) of a Dealer Person, or would result in an adverse effect on a Dealer Person, under the Applicable Laws, as determined by Dealer in its reasonable discretion, *minus* (y) 1% of the number of Shares outstanding.

Termination Settlement:

Upon the occurrence of any Acceleration Event in respect of any Transaction, Dealer shall have the right to designate, upon at least one Scheduled Trading Day's notice, any Scheduled Trading Day following such occurrence to be a Settlement Date under such Transaction (a "Termination Settlement Date" for such Transaction) to which Physical Settlement shall apply, and to select the number of Settlement Shares relating to such Termination Settlement Date; *provided* that (i) in the case of an Acceleration Event arising out of an Ownership Event, the number of Settlement Shares for the relevant Transaction so designated by Dealer shall not exceed the number of Shares necessary to reduce the Share Amount to the Post-Effective Limit and (ii) in the case of an Acceleration Event arising out of a Stock Borrow Event the number of Settlement Shares the relevant Transaction so designated by Dealer shall not exceed the number of Shares as to which such Stock Borrow Event exists. If, upon designation of a Termination Settlement Date by Dealer pursuant to the preceding sentence, Counterparty fails to deliver the Settlement Shares relating to such Termination Settlement Date when due or otherwise fails to perform obligations within its control in respect of the relevant Transaction, it shall be an Event of Default with respect to Counterparty and Section 6 of the Agreement shall apply. If an Acceleration Event occurs during an Unwind Period for any Transaction relating to a number of Settlement Shares for the relevant Transaction to which Cash Settlement or Net Share Settlement applies, then on the Termination Settlement Date for such Transaction relating to such Acceleration Event, notwithstanding any election to the contrary by Counterparty, Cash Settlement or Net Share Settlement shall apply to the portion of such Settlement Shares relating to such Unwind Period as to which Dealer has unwound its hedge (assuming that Dealer has a commercially reasonable hedge and unwinds its hedge in a commercially reasonable manner) and Physical Settlement shall apply in respect of (x) the remainder (if any) of such Settlement Shares and (y) the Settlement Shares designated by Dealer in respect of such Termination Settlement Date.

Private Placement Procedures

If Counterparty is unable to comply with the provisions of “Covenant of Counterparty” above because of a change in law or a change in the policy of the Securities and Exchange Commission or its staff, or Dealer otherwise determines that in its reasonable opinion and based on the advice of counsel any Settlement Shares to be delivered to Dealer by Counterparty may not be freely returned by Dealer or its affiliates to securities lenders as described under “Covenant of Counterparty” above, then delivery of any such Settlement Shares (the “Restricted Shares”) shall be effected pursuant to Annex A hereto, unless waived by Dealer.

Securities Law Acknowledgments:

Counterparty acknowledges that (i) during any Unwind Period, Counterparty does not have, and shall not attempt to exercise, any influence over how, when or whether to effect purchases of Shares by Dealer (or its agent or affiliate) in connection with this Master Confirmation or any Supplemental Confirmation and (ii) Counterparty is entering into the Agreement, this Master Confirmation and each Supplemental Confirmation in good faith and not as part of a plan or scheme to evade compliance with federal securities laws.

Counterparty hereby agrees with Dealer that during any Unwind Period, Counterparty shall not communicate, directly or indirectly, any Material Non-Public Information (as defined herein) to any EDG Personnel (as defined below). For purposes of each Transaction, “Material Non-Public Information” means information relating to Counterparty or the Shares that (a) has not been widely disseminated by wire service, in one or more newspapers of general circulation, by communication from Counterparty to its shareholders or in a press release, or contained in a public filing made by Counterparty with the Securities and Exchange Commission and (b) a reasonable investor might consider to be of importance in making an investment decision to buy, sell or hold Shares. For the avoidance of doubt and solely by way of illustration, information should be presumed “material” if it relates to such matters as dividend increases or decreases, earnings estimates, changes in previously released earnings estimates, significant expansion or curtailment

of operations, a significant increase or decline of orders, significant merger or acquisition proposals or agreements, significant new products or discoveries, extraordinary borrowing, major litigation, liquidity problems, extraordinary management developments, purchase or sale of substantial assets, or other similar information. For purposes of the Transaction, “EDG Personnel” means any employee on the trading side of the Equity Derivatives Group of J.P. Morgan Securities LLC and does not include Mr. David Aidelson, Mr. Elliot Chalom, Mr. Noah L. Wynkoop, Ms. Yana Chernobilsky, Mr. Ganaraj S. Hegde, Mr. Sanjeet S. Dewal, Mr. Preston T. Ryman and Ms. Martina Murphy (or any other person or persons designated from time to time by the Compliance Group of Dealer).

Maximum Share Delivery:

Notwithstanding any other provision of this Master Confirmation or any Supplemental Confirmation, for any Transaction, in no event shall Counterparty be required to deliver to Dealer, in the aggregate, in respect of all Settlement Dates for such Transaction and other dates on which Shares are delivered in respect of any amount owed under such Transaction, a number of Shares equal to 1.5 *multiplied by* the initial Base Amount for such Transaction.

Transfer and Assignment:

Dealer may assign or transfer any of its rights or delegate any of its duties hereunder and under each Supplemental Confirmation to (A) an affiliate of Dealer, whose obligations hereunder and under each Supplemental Confirmation are fully and unconditionally guaranteed by Dealer, or (B) any other affiliate of Dealer with a long-term issuer rating equal to or better than the credit rating of Dealer at the time of transfer without the prior written consent of Counterparty; *provided* that, (x) whether as a matter of law or by virtue of a gross-up and/or indemnity from the transferee, (i) Counterparty shall not be required to pay or deliver to the transferee or assignee under Section 2(d)(i)(4) of the Agreement any amount or number of Shares greater than the amount Counterparty would have been required to pay or deliver to Dealer in the absence of such transfer or assignment and (ii) Counterparty shall not receive from the transferee or assignee any amount or number of Shares less than it would have been entitled to receive in the absence of such transfer or assignment and (y) such transferee or assignee shall provide such documentation as may be reasonably requested by Counterparty to permit Counterparty to determine that the results described in clause (x) will not occur upon or after such assignment; *provided further* that, at all times, Dealer or any transferee or assignee shall be eligible to provide a U.S. Internal Revenue Service Form W-9 or W-8ECI, or any successor form thereto, with respect to any payments or deliveries under the Agreement. Notwithstanding any other provision in this Master Confirmation or any Supplemental Confirmation to the contrary requiring or allowing Dealer to purchase, sell, receive or deliver any Shares or other securities to or from Counterparty, Dealer may designate any of its affiliates to purchase, sell, receive or deliver such Shares or other securities and otherwise to perform Dealer’s obligations in respect of any Transaction and any such designee may assume such obligations. Dealer shall be discharged of its obligations to Counterparty to the extent of any such performance.

Indemnity

Counterparty agrees to indemnify Dealer and its affiliates and their respective directors, officers, agents and controlling parties (Dealer and each such affiliate or person being an “Indemnified Party”) from and against any and all losses, claims, damages and liabilities, joint and several,

incurred by or asserted against such Indemnified Party arising out of any breach of any covenant or representation made by Counterparty in this Master Confirmation, any Supplemental Confirmation or the Agreement and will reimburse any Indemnified Party for all reasonable expenses (including reasonable legal fees and expenses) as they are incurred in connection with the investigation of, preparation for, or defense of any pending or threatened claim or any action or proceeding arising therefrom, whether or not such Indemnified Party is a party thereto. Counterparty will not be liable under this Indemnity paragraph to the extent that any loss, claim, damage, liability or expense is found in a final and nonappealable judgment by a court of competent jurisdiction to have resulted from Dealer’s gross negligence, fraud, bad faith and/or willful misconduct or from a breach of any representation or covenant of Dealer contained in this Master Confirmation, any Supplemental Confirmation or the Agreement.

Notice

Non-Reliance: Applicable

Additional Acknowledgments: Applicable

Agreements and Acknowledgments
Regarding Hedging Activities: Applicable

4. The Agreement is further supplemented by the following provisions:

No Collateral or Setoff:

Notwithstanding Section 6(f) or any other provision of the Agreement or any other agreement between the parties to the contrary, the obligations of Counterparty under the Transactions are not secured by any collateral. Obligations in respect of the Transactions shall not be set off against any other obligations of the parties, whether arising under the Agreement, this Master Confirmation, any Supplemental Confirmation, under any other agreement between the parties hereto, by operation of law or otherwise, and no other obligations of the parties shall be set off against obligations in respect of any Transaction, whether arising under the Agreement, this Master Confirmation, any Supplemental Confirmation, under any other agreement between the parties hereto, by operation of law or otherwise, and each party hereby waives any such right of setoff. In calculating any amounts under Section 6(e) of the Agreement with respect to any Transaction, notwithstanding anything to the contrary in the Agreement, (a) separate amounts shall be calculated as set forth in such Section 6(e) with respect to (i) such Transaction and (ii) all other Transactions, and (b) such separate amounts shall be payable pursuant to Section 6(d)(ii) of the Agreement.

Status of Claims in Bankruptcy:

Dealer acknowledges and agrees that neither this Master Confirmation nor any Supplemental Confirmation is intended to convey to Dealer rights with respect to the Transactions contemplated hereby that are senior to the claims of Counterparty’s common stockholders in any U.S. bankruptcy proceedings of Counterparty; *provided, however,* that nothing herein shall limit or shall be deemed to limit Dealer’s right to pursue remedies in the event of a breach by Counterparty of its obligations and agreements with respect to this Master Confirmation, any Supplemental

Confirmation and the Agreement; and *provided further*, that nothing herein shall limit or shall be deemed to limit Dealer’s rights in respect of any transaction other than the Transactions.

Limit on Beneficial Ownership:

Notwithstanding any other provisions hereof, Dealer shall not have an "interest" in (within the meaning of NYSE Rule 312.04(e)) Shares hereunder and Dealer shall not be entitled to take delivery of any Shares deliverable hereunder in respect of any Transaction (in each case, whether in connection with the purchase of Shares on any Settlement Date or any Termination Settlement Date, any Private Placement Settlement or otherwise) to the extent (but only to the extent) that, after such receipt of any Shares hereunder, (i) the Share Amount would exceed the Post-Effective Limit, (ii) the Section 16 Percentage would exceed 7.5% or (iii) Dealer and each person subject to aggregation of Shares with Dealer under Section 13 or Section 16 of the Exchange Act and rules promulgated thereunder (the "Dealer Group") would directly or indirectly beneficially own (as such term is defined for purposes of Section 13 or Section 16 of the Exchange Act and rules promulgated thereunder) in excess of the Threshold Number of Shares for such Transaction. Any purported delivery hereunder in respect of any Transaction shall be void and have no effect to the extent (but only to the extent) that, after such delivery, (i) the Share Amount would exceed the Post-Effective Limit, (ii) the Section 16 Percentage would exceed 7.5% or (iii) Dealer Group would directly or indirectly so beneficially own in excess of the Threshold Number of Shares. If any delivery owed to Dealer hereunder in respect of any Transaction is not made, in whole or in part, as a result of this provision, Counterparty's obligation to make such delivery shall not be extinguished and Counterparty shall make such delivery as promptly as practicable after, but in no event later than one Exchange Business Day after, Dealer gives notice to Counterparty that, after such delivery, (i) the Share Amount would not exceed the Post-Effective Limit, (ii) the Section 16 Percentage would not exceed 7.5% and (iii) Dealer Group would not directly or indirectly so beneficially own in excess of the Threshold Number of Shares. The "Threshold Number of Shares" for any Transaction means a number of Shares equal to 4.9% of the outstanding Shares on the Trade Date for such Transaction. The "Section 16 Percentage" as of any day is the fraction, expressed as a percentage, (A) the numerator of which is the number of Shares that Dealer and any of its affiliates or any other person subject to aggregation with Dealer for purposes of the "beneficial ownership" test under Section 13 of the Exchange Act, or any "group" (within the meaning of Section 13 of the Exchange Act) of which Dealer is or may be deemed to be a part beneficially owns (within the meaning of Section 13 of the Exchange Act), without duplication, on such day (or, to the extent that for any reason the equivalent calculation under Section 16 of the Exchange Act and the rules and regulations thereunder results in a higher number, such higher number) and (B) the denominator of which is the number of Shares outstanding on such day.

In addition, notwithstanding anything herein to the contrary, if any delivery owed to Dealer hereunder is not made, in whole or in part, as a result of the immediately preceding paragraph, Dealer shall be permitted to make any payment due in respect of such Shares to Counterparty in two or more tranches that correspond in amount to the number of Shares delivered by Counterparty to Dealer pursuant to the immediately preceding paragraph.

New York General Obligations Law:

Counterparty and Dealer agree and acknowledge that: (A) the Transactions contemplated by this Master Confirmation will be entered into in reliance on the fact that this Master Confirmation and each Supplemental Confirmation hereto form a single agreement between Counterparty and

Dealer, and Dealer would not otherwise enter into such Transactions; (B) this Master Confirmation, together with each Supplemental Confirmation hereto, is a "qualified financial contract", as such term is defined in Section 5-701(b)(2) of the New York General Obligations Law; (C) each Supplemental Confirmation hereto, regardless of whether transmitted electronically or otherwise, constitutes a "confirmation in writing sufficient to indicate that a contract has been made between the parties" hereto, as set forth in Section 5-701(b)(3)(b) of the New York General Obligations Law; and (D) this Master Confirmation and each Supplemental Confirmation hereto constitute a prior "written contract", as set forth in Section 5-701(b)(1)(b) of the New York General Obligations Law, and each party hereto intends and agrees to be bound by this Master Confirmation and such Supplemental Confirmation.

Placement Notices

Counterparty and Dealer agree that, upon the effectiveness of any Accepted Placement Notice relating to a Forward, in respect of the Transaction to which such Accepted Placement Notice relates, each of the representations, warranties, covenants, agreements and other provisions of this Master Confirmation and the Supplemental Confirmation for such Transaction (including, without limitation, the provisions above in Section 3 of this Master Confirmation under the heading "Extraordinary Dividends," Dealer's right to designate a Termination Settlement Date in respect of such Transaction and the termination of such Transaction following an Insolvency Filing) shall govern, and be applicable to, such Transaction as of the first Trading Day of the Forward Hedge Selling Period for such Transaction as if the Trade Date for such Transaction were such first Trading Day. Notwithstanding anything to the contrary in this Master Confirmation, any Supplemental Confirmation, the Agreement, the 2002 Definitions or the 2006 Definitions, if Dealer designates a Termination Settlement Date with respect to a Transaction (1) following the occurrence of an Acceleration Event, and such Termination Settlement Date is to occur before the date that is one Settlement Cycle after the last day of the Forward Hedge Selling Period for such Transaction or (2) prior to Counterparty's execution of the Supplemental Confirmation relating to such Transaction, then, for purposes of such Termination Settlement Date, a Supplemental Confirmation relating to such Transaction reasonably completed by Dealer (as if the Trade Date for such Transaction were the last day of the Forward Hedge Selling Period on which the Forward Seller (as defined in the Equity Distribution Agreement) sold Forward Hedge Securities for such Transaction) shall, notwithstanding the provisions under "Conditions to Effectiveness" above, be deemed to be immediately effective.

Wall Street Transparency and Accountability Act:

In connection with Section 739 of the Wall Street Transparency and Accountability Act of 2010 (the "WSTAA"), the parties hereby agree that neither the enactment of the WSTAA or any regulation under the WSTAA, nor any requirement under the WSTAA or any amendment made by the WSTAA, shall limit or otherwise impair either party's otherwise applicable rights to terminate, renegotiate, modify, amend or supplement this Master Confirmation, any Supplemental Confirmation or the Agreement, as applicable, arising from a termination event, force majeure, illegality, increased costs, regulatory change or similar event under this Master Confirmation, any Supplemental Confirmation, the 2002 Definitions incorporated herein, or the Agreement (including, but not limited to, rights arising from any Acceleration Event or Illegality (as defined in the Agreement)).

Miscellaneous:

(a) Addresses for Notices. For the purpose of Section 12(a) of the Agreement:

Address for notices or communications to Dealer:

JPMorgan Chase Bank, National Association
EDG Marketing Support
Email: edg_notices@jpmorgan.com
edg_ny_corporate_sales_support@jpmorgan.com
Facsimile No: 866-886-4506

With a copy to:

Attention: Mr. Sanjeet S. Dewal
Title: Managing Director
Telephone No: 212-622-8783
Email: sanjeet.s.dewal@jpmorgan.com

Address for notices or communications to Counterparty:

Portland General Electric Company
121 SW Salmon Street
Portland, Oregon 97204
Attention: Sujata Pagedar
Telephone: (510) 913-2713
Email: sujata.pagedar@pgn.com

(b) **Waiver of Right to Trial by Jury. Each party waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in respect of any suit, action or proceeding relating to this Master Confirmation and/or any Supplemental Confirmation.** Each party (i) certifies that no representative, agent or attorney of the other party has represented, expressly or otherwise, that such other party would not, in the event of such a suit action or proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other party have been induced to enter into this Master Confirmation and each Supplemental Confirmation by, among other things, the mutual waivers and certifications herein.

(c) Communications with Employees of J.P. Morgan Securities LLC. If Counterparty interacts with any employee of J.P. Morgan Securities LLC with respect to the Transactions, Counterparty is hereby notified that such employee will act solely as an authorized representative of JPMorgan Chase Bank, N.A. (and not as a representative of J.P. Morgan Securities LLC) in connection with the Transactions.

Acknowledgements.

The parties hereto intend for:

(a) each Transaction to be a “securities contract” as defined in Section 741(7) of Title 11 of the United States Code (the “Bankruptcy Code”), qualifying for the protections under Section 555 of the Bankruptcy Code;

(b) a party’s right to liquidate each Transaction and to exercise any other remedies upon the occurrence of any Event of Default under the Agreement with respect to the other party to constitute a “contractual right” as defined in the Bankruptcy Code;

(c) Dealer to be a “financial institution” within the meaning of Section 101(22) of the Bankruptcy Code; and

(d) all payments for, under or in connection with each Transaction, all payments for the Shares and the transfer of such Shares to constitute “settlement payments” as defined in the Bankruptcy Code.

Amendment to Master Agreement.

Section 12(a) of the Agreement is hereby amended by (1) deleting the phrase “or email” in the third line thereof and (2) deleting the phrase “or that communication is delivered (or attempted) or received, as applicable, after the close of business on a Local Business Day” in the final clause thereof.

Other Forward Transactions:

Dealer acknowledges that Counterparty has entered or may enter in the future into one or more substantially similar forward transactions for its Shares (each, an “Other Forward” and collectively, the “Other Forwards”) with one or more dealers (each, an “Other Dealer” and collectively, the “Other Dealers”). Dealer and Counterparty agree that if Counterparty designates a “Settlement Date” with respect to one or more Other Forwards for which “Cash Settlement” or “Net Share Settlement” is applicable, and the resulting “Unwind Period” for any Other Forward coincides for any period of time with an Unwind Period for a Transaction (the “Overlap Unwind Period”), Counterparty shall notify Dealer prior to the commencement of such Overlap Unwind Period of the first Scheduled Trading Day and length of such Overlap Unwind Period, and Dealer shall only be permitted to purchase Shares to unwind its hedge in respect of such Transaction only on alternating Scheduled Trading Days during such Overlap Unwind Period, commencing on the first, second, third or later Scheduled Trading Day of such Overlap Unwind Period, as notified to Dealer by Counterparty at least one Scheduled Trading Day prior to such Overlap Unwind Period (which alternating Scheduled Trading Days, for the avoidance of doubt, shall be every other Scheduled Trading Day if there is only one Other Dealer, every third Scheduled Trading Day if there are two Other Dealers, etc.).

Severability.

If any term, provision, covenant or condition of this Master Confirmation or any Supplemental Confirmation or the application thereof to any party or circumstance, shall be held to be invalid or unenforceable in whole or in part for any reason, the remaining terms, provisions, covenants, and conditions hereof shall continue in full force and effect as if this Master Confirmation and the related Supplemental Confirmation had been executed with the invalid or unenforceable provision eliminated, so long as this Master Confirmation and such related Supplemental Confirmation as so modified continues to express, without material change, the original intentions of the parties as to the subject matter of this Master Confirmation and such Supplemental Confirmation and the deletion of such portion of this Master Confirmation and/or such Supplemental Confirmation will not substantially impair the respective benefits or expectations of parties to this Master Confirmation and such Supplemental Confirmation; *provided*, *however*, that this severability provision shall not be applicable if any provision of Section 2, 5, 6 or 13 of the Agreement (or any definition or provision in Section 14 to the extent that it relates to, or is used in or in connection with any such Section) shall be so held to be invalid or unenforceable.

U.S. Resolution Stay Protocol.

The parties acknowledge and agree that (i) to the extent that prior to the date hereof both parties have adhered to the 2018 ISDA U.S. Resolution Stay Protocol (the “Protocol”), the terms of the Protocol are incorporated into and form a part of the Agreement, and for such purposes the Agreement shall be deemed a Protocol Covered Agreement, the J.P. Morgan entity that is a party to the Agreement (“J.P. Morgan”) shall be deemed a Regulated Entity and the other entity that is a party to the Agreement (“Counterparty”) shall be deemed an Adhering Party; (ii) to the extent that prior to the date hereof the parties have executed a separate agreement the effect of which is to amend the qualified financial contracts between them to conform with the requirements of the QFC Stay Rules (the “Bilateral Agreement”), the terms of the Bilateral Agreement are incorporated into and form a part of the Agreement, and for such purposes the Agreement shall be deemed a Covered Agreement, J.P. Morgan shall be deemed a Covered Entity and Counterparty shall be deemed a Counterparty Entity; or (iii) if clause (i) and clause (ii) do not apply, the terms of Section 1 and Section 2 and the related defined terms (together, the “Bilateral Terms”) of the form of bilateral template entitled “Full-Length Omnibus (for use between U.S. G-SIBs and Corporate Groups)” published by ISDA on November 2, 2018 (currently available on the 2018 ISDA U.S. Resolution Stay Protocol page at www.isda.org and, a copy of which is available upon request), the effect of which is to amend the qualified financial contracts between the parties thereto to conform with the requirements of the QFC Stay Rules, are hereby incorporated into and form a part of the Agreement, and for such purposes the Agreement shall be deemed a “Covered Agreement,” J.P. Morgan shall be deemed a “Covered Entity” and Counterparty shall be deemed a “Counterparty Entity.” In the event that, after the date of the Agreement, both parties hereto become adhering parties to the Protocol, the terms of the Protocol will replace the terms of this paragraph. In the event of any inconsistencies between the Agreement and the terms of the Protocol, the Bilateral Agreement or the Bilateral Terms (each, the “QFC Stay Terms”), as applicable, the QFC Stay Terms will govern. Terms used in this paragraph without definition shall have the meanings assigned to them under the QFC Stay Rules. For purposes of this paragraph, references to “the Agreement” include any related credit enhancements entered into between the parties or provided by one to the other. In addition, the parties agree that the terms of this paragraph shall be incorporated into any related covered affiliate credit enhancements, with all references to J.P. Morgan replaced by references to the covered affiliate support provider.

“*QFC Stay Rules*” means the regulations codified at 12 C.F.R. 252.2, 252.81–8, 12 C.F.R. 382.1-7 and 12 C.F.R. 47.1-8, which, subject to limited exceptions, require an express recognition of the stay-and-transfer powers of the FDIC under the Federal Deposit Insurance Act and the Orderly Liquidation Authority under Title II of the Dodd Frank Wall Street Reform and Consumer Protection Act and the override of default rights related directly or indirectly to the entry of an affiliate into certain insolvency proceedings and any restrictions on the transfer of any covered affiliate credit enhancements.

Tax Matters.

(a) For the purpose of Section 3(e) of the Agreement, each of Dealer and Counterparty makes the following representation: It is not required by any applicable law, as modified by the practice of any relevant governmental revenue authority, of any Relevant Jurisdiction to make any deduction or withholding for or on account of any Tax from any payment (other than interest under Section 9(h) of this Agreement and any other payments of interest and penalty charges for late payment) to be made by it to the other party under this Agreement. In making this representation, it may rely on (i) the accuracy of any representations made by the other party pursuant to Section 3(f) of this Agreement; (ii) the satisfaction of the agreement contained in Section 4(a)(i) or 4(a)(iii) of this Agreement and the accuracy and effectiveness of any document provided by the other party pursuant to Section 4(a)(i) or 4(a)(iii) of this Agreement; and (iii) the satisfaction of the agreement of the other party contained in Section 4(d) of this Agreement; *provided* that it shall not be a breach of this representation where reliance is placed on clause (ii) above and the other party does not deliver a form or document under Section 4(a)(iii) by reason of material prejudice to its legal or commercial position.

(b) For the purpose of Section 3(f) of the Agreement:

(i) Dealer makes the following representation(s):

(A) It is a “U.S. person” (as that term is used in section 1.1441-4(a)(3)(ii) of United States Treasury Regulations) for U.S. federal income tax purposes.

(B) It is a national banking association organized and existing under the laws of the United States of America and is an exempt recipient under Treasury Regulation Section 1.6049-4(c)(1)(ii).

(ii) Counterparty makes the following representation(s):

(A) It is a “U.S. person” (as that term is used in section 1.1441-4(a)(3)(ii) of United States Treasury Regulations) for U.S. federal income tax purposes.

(B) It is a corporation for U.S. federal income tax purposes and is organized under the laws of the State of Oregon, and is an exempt recipient under Treasury Regulation Section 1.6049-4(c)(1)(ii)(A).

(c) Withholding Tax imposed on payments to non-US counterparties under the United States Foreign Account Tax Compliance Act. “Tax” and “Indemnifiable Tax”, each as defined in Section 14 of the Agreement, shall not include any U.S. federal withholding tax imposed or collected pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code (a “FATCA Withholding Tax”). For the avoidance of doubt, a FATCA Withholding Tax is a Tax the deduction or withholding of which is required by applicable law for the purposes of Section 2(d) of the Agreement.

(d) HIRE Act. “Tax” and “Indemnifiable Tax”, each as defined in Section 14 of the Agreement, shall not include any tax imposed on payments treated as dividends from sources within the United States under Section 871(m) of the Code or any regulations issued thereunder.

(e) Tax Documentation. For purposes of Section 4(a)(i) and Section 4(a)(ii) of the Agreement:

(i) Counterparty shall deliver to Dealer a valid and duly executed U.S. Internal Revenue Service Form W-9, or any successor form thereto, (A) on or before the date of execution of this Master Confirmation and each Supplemental Confirmation, (B) promptly upon demand by Dealer and (C) promptly upon learning that any such tax form previously provided by Counterparty has become inaccurate or incorrect.

(ii) Dealer shall provide to Counterparty a valid and duly executed U.S. Internal Revenue Service Form W-9, or any successor form thereto, (A) on or before the date of execution of this Master Confirmation, (B) promptly upon reasonable demand by Counterparty and (C) promptly upon learning that any such tax form previously provided by Dealer has become inaccurate or incorrect.

[*Remainder of page intentionally left blank*]

Counterparty hereby agrees (a) to check this Master Confirmation carefully and promptly upon receipt so that errors or discrepancies can be promptly identified and rectified and (b) to confirm that the foregoing (in the exact form provided by Dealer) correctly sets forth the terms of the agreement between Dealer and Counterparty hereunder, by manually signing this Master Confirmation or this page hereof as evidence of agreement to such terms and providing the other information requested herein and promptly returning an executed copy to us.

Yours faithfully,

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION

By: /s/ Sanjeet Dewal
Name: Sanjeet Dewal
Title: Managing Director

[*Signature Page to Master Forward Confirmation*]

Confirmed as of the date first written above:

PORTLAND GENERAL ELECTRIC COMPANY

By: /s/ Joseph Trpik
Name: Joseph Trpik
Title: Senior Vice President, Finance and Chief Financial Officer

[*Signature Page to Master Forward Confirmation*]

EXHIBIT A

FORM OF SUPPLEMENTAL CONFIRMATION

To:	**Portland General Electric Company** 121 SW Salmon Street Portland, Oregon 97204
From:	**JPMorgan Chase Bank, National Association** New York Branch 383 Madison Avenue New York, NY 10179
Date:	[_________], 20[__]

Dear Sir(s):

The purpose of this Supplemental Confirmation is to confirm the terms and conditions of the Transaction entered into between JPMorgan Chase Bank, National Association, New York Branch (“Dealer”) and Portland General Electric Company (“Counterparty”) (together, the “Contracting Parties”) on the Trade Date specified below. This Supplemental Confirmation is a binding contract between Dealer and Counterparty as of the relevant Trade Date for the Transaction referenced below.

1. This Supplemental Confirmation supplements, forms part of, and is subject to the Master Confirmation dated as of July 26, 2024 (the “Master Confirmation”) between the Contracting Parties, as amended and supplemented from time to time. All provisions contained in the Master Confirmation govern this Supplemental Confirmation except as expressly modified below.

2. The terms of the Transaction to which this Supplemental Confirmation relates are as follows:

Trade Date:	[_______], 20[__]
Effective Date:	[_______], 20[__]
Maturity Date:	[_______], 20[__]
Base Amount:	[________]
Initial Forward Price:	USD [____]
Spread:	[_.__]%
Adjusted Volume-Weighted Hedge Price:	USD [____]
Initial Stock Loan Rate:	[___] basis points per annum
Maximum Stock Loan Rate:	[___] basis points per annum

Counterparty hereby agrees (a) to check this Supplemental Confirmation carefully and promptly upon receipt so that errors or discrepancies can be promptly identified and rectified and (b) to confirm that the foregoing (in the exact form provided by Dealer) correctly sets forth the terms of the agreement between Dealer and Counterparty hereunder, by manually signing this Supplemental Confirmation or this page hereof as evidence of agreement to such terms and providing the other information requested herein and promptly returning an executed copy to us.

Very truly yours,

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION

By: _________
Name:
Title:

Accepted and confirmed as
of the Trade Date:

PORTLAND GENERAL ELECTRIC COMPANY

By:__________________________________
Name:
Title:

SCHEDULE I

FORWARD PRICE REDUCTION DATES AND AMOUNTS

Forward Price Reduction Date	**Forward Price Reduction Amount**
Trade Date	USD 0.00
[___________, ____]	USD [______]
[___________, ____]	USD [______]
[___________, ____]	USD [______]
[___________, ____]	USD [______]
[___________, ____]	USD [______][1]

[1] Include one Forward Price Reduction Date that falls after the Maturity Date.

ANNEX A

PRIVATE PLACEMENT PROCEDURES

(i) If Counterparty delivers the Restricted Shares pursuant to this clause (i) (a "Private Placement Settlement"), then delivery of Restricted Shares by Counterparty shall be effected in private placement procedures customary for private placements of equity securities of substantially similar size with respect to such Restricted Shares reasonably acceptable to Dealer; *provided* that if, on or before the date that a Private Placement Settlement would occur, Counterparty has taken, or caused to be taken, any action that would make unavailable either the exemption pursuant to Section 4(a)(2) of the Securities Act for the sale by Counterparty to Dealer (or any affiliate designated by Dealer) of the Restricted Shares or the exemption pursuant to Section 4(a)(1) or Section 4(a)(3) of the Securities Act for resales of the Restricted Shares by Dealer (or any such affiliate of Dealer) or Counterparty fails to deliver the Restricted Shares when due or otherwise fails to perform obligations within its control in respect of a Private Placement Settlement, it shall be an Event of Default with respect to Counterparty and Section 6 of the Agreement shall apply. The Private Placement Settlement of such Restricted Shares shall include customary representations, covenants, blue sky and other governmental filings and/or registrations, indemnities to Dealer, due diligence rights (for Dealer or any designated buyer of the Restricted Shares by Dealer), opinions and certificates, and such other documentation as is customary for private placement agreements of equity securities of a substantially similar size, all reasonably acceptable to Dealer. In the case of a Private Placement Settlement, Dealer shall, in its good faith discretion, adjust the number of Restricted Shares to be delivered to Dealer hereunder and/or the Forward Price for the relevant Transaction in a commercially reasonable manner to reflect the fact that such Restricted Shares may not be freely returned to securities lenders by Dealer and may only be saleable by Dealer at a discount to reflect the lack of liquidity in Restricted Shares. Notwithstanding the Agreement, this Master Confirmation or any Supplemental Confirmation, the date of delivery of such Restricted Shares shall be the Clearance System Business Day following notice by Dealer to Counterparty of the number of Restricted Shares to be delivered pursuant to this clause (i). For the avoidance of doubt, delivery of Restricted Shares shall be due as set forth in the previous sentence and not be due on the Settlement Date for the relevant Transaction or Termination Settlement Date for the relevant Transaction that would otherwise be applicable.

(ii) If Counterparty delivers any Restricted Shares in respect of any Transaction, Counterparty agrees that (i) such Shares may be transferred by and among Dealer and its affiliates and (ii) after the minimum "holding period" within the meaning of Rule 144(d) under the Securities Act has elapsed after the applicable Settlement Date, Counterparty shall promptly remove, or cause the transfer agent for the Shares to remove, any legends referring to any transfer restrictions from such Shares upon delivery by Dealer (or such affiliate of Dealer) to Counterparty or such transfer agent of any seller's and broker's representation letters customarily delivered by Dealer or its affiliates in connection with resales of restricted securities pursuant to Rule 144 under the Securities Act, each without any further requirement for the delivery of any certificate, consent, agreement, opinion of counsel, notice or any other document, any transfer tax stamps or payment of any other amount or any other action by Dealer (or such affiliate of Dealer).

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Section 4: EX-5.1 (EX-5.1)

Exhibit 5.1

Portland General Electric Company
121 SW Salmon Street • Portland, OR 97204
portlandgeneral.com

PGE

July 26, 2024

Portland General Electric Company 121 S.W. Salmon Street
Portland, Oregon 97204

Re: Portland General Electric Company Registration Statement on Form S-3

Ladies and Gentlemen:

I am General Counsel of Portland General Electric Company, an Oregon corporation (the "Company"), and in such capacity have acted as counsel to the Company in connection with the sale of shares (the "Shares") of common stock of the Company, without par value (the "Common Stock"), by (i) the Company through or to Barclays Capital Inc., BofA Securities, LLC, J.P. Morgan Securities LLC and Wells Fargo Securities, LLC as sales agents and/or principals, as applicable (in such capacity, each a "Sales Agent" and collectively, the "Sales Agents") and/or (ii) Barclays Bank PLC, Bank of America, N.A., JPMorgan Chase Bank, National Association and Wells Fargo Bank, National Association (in such capacity, each a "Forward Purchaser" and, collectively, the "Forward Purchasers"), through the Sales Agents as forward sellers from time to time, having an aggregate sales price of up to $400 million, pursuant to a registration statement on Form S-3 under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on August 2, 2022 (Registration No. 333-266454) (as so filed and as amended, the "Registration Statement"), a base prospectus dated August 2, 2022 (the "Base Prospectus"), and a prospectus supplement dated July 26, 2024 filed with the Commission pursuant to Rule 424(b) under the Act (the "Prospectus Supplement", and together with the Base Prospectus, the "Prospectus"), that certain Equity Distribution Agreement, dated July 26, 2024, by and among the Company , the Sales Agents, and the Forward Purchasers, as applicable, (the "Equity Distribution Agreement"), and concurrently one or more forward stock purchase transactions with any of the Forward Purchasers, as set forth in one or more separate letter agreements, each in substantially the form attached as Exhibit G to the Equity Distribution Agreement (each a "Forward Confirmation" and collectively, the "Forward Confirmations"). Any Shares to be delivered by the Company to the Forward Purchasers in settlement of all or any portion of the Company's obligations under the Forward Confirmations are hereinafter sometimes called the "Confirmation Shares".

I or attorneys under my supervision (with whom I have consulted) have examined the Registration Statement, the Prospectus and documents and records of the Company and other documents, matters of fact and questions of law that I have deemed necessary for the purposes of this opinion. In my examination, I or attorneys under my supervision (with whom I have consulted) have assumed the authenticity of original documents and the genuineness of all signatures, the conformity to the originals of all documents submitted to us as copies, and the truth, accuracy, and completeness of the information, representations, and warranties contained in the records, documents, instruments, and certificates I or others under my supervision (with whom I have consulted) have reviewed.

Based upon the foregoing, I am of the opinion that the Shares and the Confirmation Shares have been duly authorized by all necessary corporate action of the Company and, when issued in accordance with the terms of the Equity Distribution Agreement, the Forward Confirmations, the Registration Statement and the Prospectus, the Shares and the Confirmation Shares will be validly issued, fully paid and nonassessable.

I hereby consent to the filing of this opinion as Exhibit 5.1 to the Current Report on Form 8-K of even date herewith, incorporated by reference into the Registration Statement, and to the reference to this firm under the heading "Legal Matters" in the Prospectus. In giving this consent, I do not hereby admit that I am in the category of persons whose consent

is required under Section 7 of the Securities Act or related rules nor do I admit that I am an expert with respect to any part of the Registration Statement within the meaning of the term "expert" as used in the Securities Act or related rules. This opinion is expressed as of the date hereof unless otherwise expressly stated, and I disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws.

Very truly yours,

/s/ Angelica Espinosa

Angelica Espinosa

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Section 5: EX-99.1 (EX-99.1)

Portland General Electric

Exhibit 99.1

Portland General Electric
One World Trade Center
121 S.W. Salmon Street
Portland, Oregon 97204

News Release

July 26, 2024

Media Contact:
Sarah Hamaker
Corporate Communications
Phone: 435-513-0799

Investor Contact:
Nick White
Investor Relations
Phone: 503-464-8073

Portland General Electric Announces Second Quarter 2024 Results

- Second quarter results reflect continued focus on execution and cost management, semiconductor manufacturing and data center demand growth, and solid power cost performance
- Reaffirming 2024 adjusted earnings guidance of $2.98 to $3.18 per diluted share

PORTLAND, Ore. -- Portland General Electric Company (NYSE: POR) today reported net income based on generally accepted accounting principles (GAAP) of $72 million, or $0.69 per diluted share, for the second quarter of 2024. This compares with GAAP net income of $39 million, or $0.39 per diluted share, for the second quarter of 2023, which included the $0.05 per diluted share impact from the Boardman revenue requirement settlement charge. After adjusting for the impact of the Boardman revenue requirement charge, second quarter 2023 non-GAAP net income was $44 million, or $0.44 per diluted share.

"Our solid second quarter results underscore the strength of our strategy as we work to position Portland General Electric for long-term value creation in a service territory that's poised for continued economic growth," said Maria Pope, PGE President and CEO. "We were pleased to see our system demonstrate strong resilience against the record heat we recently experienced. We remain focused on customer affordability and making thoughtful, high impact investments to harden and modernize our grid as we provide clean and reliable energy to our fellow Oregonians."

Second Quarter 2024 Compared to Second Quarter 2023

Total revenues increased due to demand growth from semiconductor manufacturing and technology infrastructure customers and recovery of capital, operating and power costs. Total revenues were partially offset by lower residential and commercial usage primarily driven by weather. Purchased power and fuel expense increased due to higher system load, increased prices for purchased power and increased costs for generation. Operating and administrative expenses increased due to higher generation and network maintenance and vegetation management costs. Depreciation and amortization expense and interest expense increased due to ongoing capital investment.

Company Updates

At-the-market Offering Program

In 2023, PGE entered into an equity distribution agreement under which it could sell up to $300 million of its common stock through at-the-market offering programs. In March 2024, the Company issued shares pursuant to the agreements and received net proceeds of $78 million. In the second quarter of 2024, PGE entered into additional forward sale agreements with counterparties, exhausting the $300 million facility. As of June 30, 2024, these additional agreements were outstanding.

On July 26, 2024, PGE registered a new $400 million at-the-market offering program. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity.

Transmission Progress

PGE is implementing upgrades to existing transmission resources and working with partners to upgrade and expand transmission capacity in our service territory, adjacent areas and our broader region. In May 2024, PGE signed a non-binding memorandum of understanding with Grid United and ALLETE, Inc. in the development of the North Plains Connector, a transmission line to be constructed with endpoints near Bismarck, North Dakota and Colstrip, Montana. These transmission projects, among others, are intended to alleviate congestion, improve regional adequacy and reliability, enable decarbonization, and support growing customer demand.

PGE ranked No. 1 utility for customer experience

In June 2024, PGE received the top national spot for utilities in the 2024 Forrester Customer Experience Index. PGE continues to prioritize growing customer needs and improving system reliability and resilience in order to serve customers with safe, reliable and affordable energy.

Quarterly Dividend

As previously announced, on July 19, 2024, the board of directors of Portland General Electric Company approved a quarterly common stock dividend of $0.50 per share. The quarterly dividend is payable on or before October 15, 2024 to shareholders of record at the close of business on September 24, 2024.

2024 Earnings Guidance

PGE is reaffirming its estimate for full-year 2024 adjusted earnings guidance of $2.98 to $3.18 per diluted share based on the following assumptions:

- Exclusion of the impacts of the January 2024 winter storm, including non-deferrable Reliability Contingency Event (RCE) costs and non-deferred incremental storm restoration costs;
- An increase in energy deliveries of 2% to 3%, weather adjusted;
- Normal temperatures in its utility service territory;
- Hydro conditions for the year that reflect current estimates;
- Wind generation based on five years of historical levels or forecast studies when historical data is not available;
- Normal thermal plant operations;
- Operating and maintenance expense between $800 million and $825 million which includes approximately $150 million of wildfire, vegetation management, deferral amortization and other expenses that are offset in other income statement lines;
- Depreciation and amortization expense between $475 million and $525 million;
- Effective tax rate of 10% to 15%;
- Cash from operations of $700 to $800 million;
- Capital expenditures of $1,340 million; and
- Average construction work in progress balance of $740 million.

Second Quarter 2024 Earnings Call and Webcast — July 26, 2024

PGE will host a conference call with financial analysts and investors on Friday, July 26, 2024, at 11 a.m. ET. The conference call will be webcast live on the PGE website at investors.portlandgeneral.com. A webcast replay will also be available on PGE's investor website "Events & Presentations" page beginning at 2 p.m. ET on July 26, 2024.

Maria Pope, President and CEO; Joe Trpik, Senior Vice President of Finance and CFO; and Nick White, Manager of Investor Relations, will participate in the call. Management will respond to questions following formal comments.

The attached unaudited condensed consolidated statements of income and comprehensive income, balance sheets and statements of cash flows, as well as the supplemental operating statistics, are an integral part of this earnings release.

Non-GAAP Financial Measures

This press release contains certain non-GAAP measures, such as adjusted earnings, adjusted EPS and adjusted earnings guidance. These non-GAAP financial measures exclude significant items that are generally not related to our ongoing business activities, are infrequent in nature, or both. PGE believes that excluding the effects of these items provides a meaningful representation of the Company's comparative earnings per share and enables investors to evaluate the Company's ongoing operating financial performance. Management utilizes non-GAAP measures to assess the Company's current and forecasted performance, and for communications with shareholders, analysts and investors. Non-GAAP financial measures are supplementary information that should be considered in addition to, but not as a substitute for, the information prepared in accordance with GAAP.

Items in the periods presented, which PGE believes impact the comparability of comparative earnings and do not represent ongoing operating financial performance, include the following:

- Quarter ended June 30, 2023: Boardman revenue requirement settlement charge associated with the year ended 2020, resulting from the OPUC's 2022 GRC Final Order

Due to the forward-looking nature of PGE's non-GAAP adjusted earnings guidance, and the inherently unpredictable nature of items and events which could lead to the recognition of non-GAAP adjustments (such as, but not limited to, regulatory disallowances or extreme weather events), management is unable to estimate the occurrence or value of specific items requiring adjustment for future periods, which could potentially impact the Company's GAAP earnings. Therefore, management cannot provide a reconciliation of non-GAAP adjusted earnings per share guidance to the most comparable GAAP financial measure without unreasonable effort. For the same reasons, management is unable to address the probable significance of unavailable information.

PGE's reconciliation of non-GAAP earnings for the quarter ended June 30, 2023 are below.

Non-GAAP Earnings Reconciliation for the quarter ended June 30, 2023

(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the quarter ended June 30, 2023	$ 39	$ 0.39
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect (1)	(2)	(0.02)
Non-GAAP as reported for the quarter ended June 30, 2023	$ 44	$ 0.44

(1) Tax effects were determined based on the Company's full-year blended federal and state statutory rate.

# # #

About Portland General Electric Company

Portland General Electric (NYSE: POR) is an integrated energy company that generates, transmits and distributes electricity to over 930,000 customers with a service area population of approximately 1.9 million Oregonians. For more than 130 years, Portland General Electric (PGE) has been powering social progress, delivering safe, affordable, reliable and increasingly clean electricity while working to transform energy systems to meet evolving customer needs. PGE customers have set the standard for prioritizing clean energy with the No. 1 voluntary renewable energy program in the country. PGE is committed to reducing emissions from its retail power supply by 80% by 2030 and 100% by 2040. PGE is recognized by the Bloomberg Gender-Equality Index for the company's commitment to creating a more equal, inclusive workplace. In 2023, PGE employees, retirees and the PGE Foundation donated nearly $4.6 million and volunteered over 23,000 volunteer hours to more than 400 nonprofit organizations. For more information visit www.PortlandGeneral.com/news.

Safe Harbor Statement

Statements in this press release that relate to future plans, objectives, expectations, performance, events and the like may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements represent our estimates and assumptions as of the date of this report. The Company assumes no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

Forward-looking statements include statements regarding the Company's full-year earnings guidance (including assumptions and expectations regarding annual retail deliveries, average hydro conditions, wind generation, normal thermal plant operations, operating and maintenance expense and depreciation and amortization expense) as well as other statements containing words such as "anticipates," "assumptions," "based on," "believes," "conditioned upon," "considers," "could," "estimates," "expects," "forecast," "goals," "intends," "needs," "plans," "predicts," "projects," "promises," "seeks," "should," "subject to," "targets," "will continue," "will likely result," or similar expressions.

Investors are cautioned that any such forward-looking statements are subject to risks and uncertainties, including, without limitation: the timing or outcome of various legal and regulatory actions; changing customer expectations and choices that may reduce demand for electricity; the sale of excess energy during periods of low demand or low wholesale market prices; operational risks relating to the Company's generation and battery storage facilities, including hydro conditions, wind conditions, disruption of transmission and distribution, disruption of fuel supply, and unscheduled plant outages, which may result in unanticipated operating, maintenance and repair costs, as well as replacement power costs; delays in the supply chain and increased supply costs (including application of tariffs impacting solar module imports), failure to complete capital projects on schedule or within budget, failure of counterparties to perform under agreement, or the abandonment of capital projects, which could result in the Company's inability to recover project costs, or impact our competitive position, market share, revenues and project margins in material ways; default or nonperformance of counterparties from whom PGE purchases capacity or energy, which require the purchase of replacement power and renewable attributes at increased costs; complications arising from PGE's jointly-owned plant, including ownership changes, regulatory outcomes or operational failures; the costs of compliance with environmental laws and regulations, including those that govern emissions from thermal power plants; changes in weather, hydroelectric and energy market conditions, which could affect the availability, cost and required collateral for purchased power and fuel; changes in capital and credit market conditions, including volatility of equity markets as well as changes in PGE's credit ratings and outlook on such credit ratings, reductions in demand for investment-grade commercial paper or interest rates, which could affect the access to and availability or cost of capital and result in delay or cancellation of capital projects or execution of the Company's strategic plan as currently envisioned; general economic and financial market conditions, including inflation; the effects of climate change, whether global or local in nature; unseasonable or severe weather conditions, wildfires, and other natural phenomena and natural disasters that could result in operational disruptions, unanticipated restoration costs, third party liability or that may affect energy costs or consumption; the effectiveness of PGE's risk management policies and procedures; PGE's ability to effectively implement Public Safety Power Shutoffs (PSPS) and de-energize its system in the event of heightened wildfire risk; cyber security attacks, data security breaches, physical attacks and security breaches, or other malicious acts, which could disrupt operations, require significant expenditures, or result in claims against the Company; employee workforce factors, including potential strikes, work stoppages, transitions in senior management, and the ability to recruit and retain key employees and other talent and turnover due to macroeconomic trends; widespread health emergencies or outbreaks of infectious diseases such as COVID-19, which may affect our financial position, results of operations and cash flows; failure to achieve the Company's greenhouse gas emission goals or being perceived to have either failed to act responsibly with respect to the environment or effectively responded to legislative requirements concerning

greenhouse gas emission reductions; social attitudes regarding the electric utility and power industries; political and economic conditions; acts of war or terrorism; changes in financial or regulatory accounting principles or policies imposed by governing bodies; changes in effective tax rate; and risks and uncertainties related to generation and transmission projects, including, but not limited to, regulatory processes, transmission capabilities, system interconnections, permitting and construction delays, legislative uncertainty, inflationary impacts, supply costs and supply chain constraints. As a result, actual results may differ materially from those projected in the forward-looking statements.

Risks and uncertainties to which the Company are subject are further discussed in the reports that the Company has filed with the United States Securities and Exchange Commission (SEC). These reports are available through the EDGAR system free-of-charge on the SEC's website, www.sec.gov and on the Company's website, investors.portlandgeneral.com. Investors should not rely unduly on any forward-looking statements.

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
AND COMPREHENSIVE INCOME
(Dollars in millions, except per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Revenues:				
Revenues, net	$ 761	$ 646	$ 1,701	$ 1,391
Alternative revenue programs, net of amortization	(3)	2	(14)	5
Total revenues	758	648	1,687	1,396
Operating expenses:				
Purchased power and fuel	275	220	680	524
Generation, transmission and distribution	107	101	206	194
Administrative and other	97	93	192	173
Depreciation and amortization	122	113	243	224
Taxes other than income taxes	41	40	88	83
Total operating expenses	642	567	1,409	1,198
Income from operations	**116**	**81**	**278**	**198**
Interest expense, net	52	41	103	85
Other income:				
Allowance for equity funds used during construction	6	4	11	7
Miscellaneous income, net	9	5	15	17
Other income, net	15	9	26	24
Income before income tax expense	**79**	**49**	**201**	**137**
Income tax expense	7	10	20	24
Net income	**72**	**39**	**181**	**113**
Other comprehensive income	—	1	1	1
Net income and Comprehensive income	**$ 72**	**$ 40**	**$ 182**	**$ 114**
Weighted-average common shares outstanding (in thousands):				
Basic	103,034	97,087	102,167	94,478
Diluted	103,232	97,630	102,338	94,950
Earnings per share:				
Earnings per share—basic and diluted	$ 0.69	$ 0.39	$ 1.77	$ 1.19

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Dollars in millions)
(Unaudited)

	June 30, 2024	December 31, 2023
ASSETS		

Current assets:		
Cash and cash equivalents	$ 6	$ 5
Accounts receivable, net	385	414
Inventories	117	113
Regulatory assets—current	165	221
Other current assets	175	182
Total current assets	**848**	**935**
Electric utility plant, net	9,873	9,546
Regulatory assets—noncurrent	617	492
Nuclear decommissioning trust	33	31
Non-qualified benefit plan trust	36	35
Other noncurrent assets	175	169
Total assets	**$ 11,582**	**$ 11,208**

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS, continued
(Dollars in millions)
(Unaudited)

	June 30, 2024	December 31, 2023
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 259	$ 347
Liabilities from price risk management activities—current	142	164
Short-term debt	—	146
Current portion of long-term debt	80	80
Current portion of finance lease obligation	24	20
Accrued expenses and other current liabilities	345	355
Total current liabilities	**850**	**1,112**
Long-term debt, net of current portion	4,353	3,905
Regulatory liabilities—noncurrent	1,406	1,398
Deferred income taxes	540	488
Unfunded status of pension and postretirement plans	160	172
Liabilities from price risk management activities—noncurrent	58	75
Asset retirement obligations	274	272
Non-qualified benefit plan liabilities	76	79
Finance lease obligations, net of current portion	283	289
Other noncurrent liabilities	98	99
Total liabilities	**8,098**	**7,889**
Commitments and contingencies		
Shareholders' Equity:		
Preferred stock, no par value, 30,000,000 shares authorized; none issued and outstanding as of June 30, 2024 and December 31, 2023	—	—
Common stock, no par value, 160,000,000 shares authorized; 103,066,683 and 101,159,609 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectively	1,833	1,750
Accumulated other comprehensive loss	(4)	(5)
Retained earnings	1,655	1,574
Total shareholders' equity	**3,484**	**3,319**
Total liabilities and shareholders' equity	**$ 11,582**	**$ 11,208**

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Six Months Ended June 30,	
	2024	2023

Cash flows from operating activities:		
Net income	$ 181	$ 113
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	243	224
Deferred income taxes	27	6
Pension and other postretirement benefits	3	3
Allowance for equity funds used during construction	(11)	(7)
Decoupling mechanism deferrals, net of amortization	14	(5)
Regulatory assets	(118)	(10)
Regulatory liabilities	(10)	12
Tax credit sales	13	—
Other non-cash income and expenses, net	39	28
Changes in working capital:		
Accounts receivable, net	16	82
Inventories	(4)	(13)
Margin deposits	37	90
Accounts payable and accrued liabilities	(34)	(233)
Margin deposits from wholesale counterparties	—	(135)
Other working capital items, net	6	9
Other, net	(38)	(21)
Net cash provided by operating activities	**364**	**143**

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued
(In millions)
(Unaudited)

	Six Months Ended June 30,	
	2024	2023
Cash flows from investing activities:		
Capital expenditures	$ (623)	$ (573)
Purchases of Nuclear decommissioning trust securities	(4)	—
Proceeds from sale of properties	—	2
Other, net	(12)	(3)
Net cash used in investing activities	**(639)**	**(574)**
Cash flows from financing activities:		
Proceeds from issuance of common stock	78	392
Proceeds from issuance of long-term debt	450	100
Payments on long-term debt	—	(260)
Issuance (maturities) of commercial paper, net	(146)	140
Dividends paid	(96)	(84)
Other	(10)	(9)
Net cash provided by financing activities	**276**	**279**
Change in cash and cash equivalents	**1**	**(152)**
Cash and cash equivalents, beginning of period	**5**	**165**
Cash and cash equivalents, end of period	**$ 6**	**$ 13**
Supplemental cash flow information is as follows:		
Cash paid for interest, net of amounts capitalized	$ 81	$ 70
Cash paid (received) for income taxes, net	(10)	16

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
SUPPLEMENTAL OPERATING STATISTICS
(Unaudited)

	Six Months Ended June 30,			
	2024		2023	
Revenues (dollars in millions):				
Retail:				
Residential	$ 722	43 %	$ 641	46 %
Commercial	446	27	393	28
Industrial	206	12	169	12
Direct Access	15	1	13	1
Subtotal Retail	1,389	83	1,216	87
Alternative revenue programs, net of amortization	(14)	(1)	5	—
Other accrued revenues, net	5	—	(3)	—
Total retail revenues	1,380	82	1,218	87
Wholesale revenues	275	16	150	11
Other operating revenues	32	2	28	2
Total revenues	$ 1,687	100 %	$ 1,396	100 %
Energy deliveries (MWhs in thousands):				
Retail:				
Residential	3,851	26 %	4,057	30 %
Commercial	3,176	21	3,252	24
Industrial	2,390	16	2,211	17
Subtotal	9,417	63	9,520	71
Direct access:				
Commercial	247	2	283	2
Industrial	847	6	866	6
Subtotal	1,094	8	1,149	8
Total retail energy deliveries	10,511	71	10,669	79

Wholesale energy deliveries	4,283	29	2,849	21
Total energy deliveries	14,794	100 %	13,518	100 %
Average number of retail customers:				
Residential	826,297	88 %	814,187	88 %
Commercial	113,223	12	112,333	12
Industrial	206	—	195	—
Direct access	505	—	541	—
Total	940,231	100 %	927,256	100 %

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
SUPPLEMENTAL OPERATING STATISTICS, continued
(Unaudited)

	Six Months Ended June 30,			
	2024		2023	
Sources of energy (MWhs in thousands):				
Generation:				
Thermal:				
Natural gas	4,669	32 %	4,520	35 %
Coal	781	5	1,028	8
Total thermal	5,450	37	5,548	43
Hydro	738	5	669	5
Wind	1,538	11	1,083	8
Total generation	7,726	53	7,300	56
Purchased power:				
Hydro	3,415	24	2,492	19
Wind	721	5	476	4
Solar	497	3	539	4
Natural Gas	94	1	11	—
Waste, Wood, and Landfill Gas	85	1	81	1
Source not specified	1,846	13	2,023	16
Total purchased power	6,658	47	5,622	44
Total system load	14,384	100 %	12,922	100 %
Less: wholesale sales	(4,283)		(2,849)	
Retail load requirement	10,101		10,073	

The following table indicates the number of heating degree-days for the three and six months ended June 30, 2024 and 2023, along with 15-year averages based on weather data provided by the National Weather Service, as measured at Portland International Airport:

	Heating Degree-days			Cooling Degree-days		
	2024	2023	Avg.	2024	2023	Avg.
First Quarter	1,755	1,927	1,838	—	—	—
April	310	404	364	—	12	3
May	192	105	178	23	87	26
June	45	45	66	85	96	79
Second Quarter	547	554	608	108	195	108
Year-to-date	2,302	2,481	2,446	108	195	108
(Decrease) increase from the 15-year average	(6)%	1 %		— %	81 %	

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Section 6: EX-99.2 (EX-99.2)

Exhibit 99.2

PGE

Portland General Electric

EARNINGS CONFERENCE CALL
SECOND QUARTER 2024

Cautionary statement

Information Current as of July 26, 2024
Except as expressly noted, the information in this presentation is current as of July 26, 2024 – the date on which PGE filed its Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 - and should not be relied upon as being current as of any subsequent date. PGE undertakes no duty to update this presentation, except as may be required by law.

Forward-Looking Statement
Statements in this presentation that relate to future plans, objectives, expectations, performance, events and the like may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements represent our estimates and assumptions as of the date of this report. The Company assumes no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

Forward-looking statements include statements regarding the Company's full-year earnings guidance (including assumptions and expectations regarding annual retail deliveries, average hydro conditions, wind generation, normal thermal plant operations, operating and maintenance expense and depreciation and amortization expense) as well as other statements containing words such as "anticipates," "assumptions," "based on," "believes," "conditioned upon," "considers," "could," "estimates," "expects," "forecast," "goals," "intends," "needs," "plans," "predicts," "projects," "promises," "seeks," "should," "subject to," "targets," "will continue," "will likely result," or similar expressions.

Investors are cautioned that any such forward-looking statements are subject to risks and uncertainties, including, without limitation: the timing or outcome of various legal and regulatory actions; changing customer expectations and choices that may reduce demand for electricity; the sale of excess energy during periods of low demand or low wholesale market prices; operational risks relating to the Company's generation and battery storage facilities, including hydro conditions, wind conditions, disruption of transmission and distribution, disruption of fuel supply, and unscheduled plant outages, which may result in unanticipated operating, maintenance and repair costs, as well as replacement power costs; delays in the supply chain and increased supply costs (including application of tariffs impacting solar module imports), failure to complete capital projects on schedule or within budget, failure of counterparties to perform under agreement, or the abandonment of capital projects, which could result in the Company's inability to recover project costs, or impact our competitive position, market share, revenues and project margins in material ways; default or nonperformance of counterparties from whom PGE purchases capacity or energy, which require the purchase of replacement power and renewable attributes at increased costs; complications arising from PGE's jointly-owned plant, including ownership changes, regulatory outcomes or operational failures; the costs of compliance with environmental laws and regulations, including those that govern emissions from thermal power plants; changes in weather, hydroelectric and energy market conditions, which could affect the availability, cost and required collateral for purchased power and fuel; changes in capital and credit market conditions, including volatility of equity markets as well as changes in PGE's credit ratings and outlook on such credit ratings, reductions in demand for investment-grade commercial paper or interest rates, which could affect the access to and availability or cost of capital and result in delay or cancellation of capital projects or execution of the Company's strategic plan as currently envisioned; general economic and financial market conditions, including inflation; the effects of climate change, whether global or local in nature; unseasonable or severe weather conditions, wildfires, and other natural phenomena and natural disasters that could result in operational disruptions, unanticipated restoration costs, third party liability or that may affect energy costs or consumption; the effectiveness of PGE's risk management policies and procedures; PGE's ability to effectively implement Public Safety Power Shutoffs (PSPS) and de-energize its system in the event of heightened wildfire risk; cyber security attacks, data security breaches, physical attacks and security breaches, or other malicious acts, which could disrupt operations, require significant expenditures, or result in claims against the Company; employee workforce factors, including potential strikes, work stoppages, transitions in senior management, and the ability to recruit and retain key employees and other talent and turnover due to macroeconomic trends; widespread health emergencies or outbreaks of infectious diseases such as COVID-19, which may affect our financial position, results of operations and cash flows; failure to achieve the Company's greenhouse gas emission goals or being perceived to have either failed to act responsibly with respect to the environment or effectively responded to legislative requirements concerning greenhouse gas emission reductions; social attitudes regarding the electric utility and power industries; political and economic conditions; acts of war or terrorism; changes in financial or regulatory accounting principles or policies imposed by governing bodies; changes in effective tax rate; and risks and uncertainties related to generation and transmission projects, including, but not limited to, regulatory processes, transmission capabilities, system interconnections, permitting and construction delays, legislative uncertainty, inflationary impacts, supply costs and supply chain constraints. As a result, actual results may differ materially from those projected in the forward-looking statements.

Risks and uncertainties to which the Company are subject are further discussed in the reports that the Company has filed with the United States Securities and Exchange Commission (SEC). These reports are available through the EDGAR system free-of-charge on the SEC's website, www.sec.gov and on the Company's website, investors.portlandgeneral.com. Investors should not rely unduly on any forward-looking statements.

Topics for today's call

Business Update

Maria Pope, President and CEO

- Financial and operational results
- Second quarter highlights

Financial Update

Joe Trpik, Senior VP of Finance and CFO

- Load growth and economy
- Q2 2024 earnings drivers
- Capital investments and resource planning update
- Liquidity and financing
- 2025 General rate case update

Reaffirming

- 2024 adjusted earnings guidance of $2.98 to $3.18 per diluted share
- 2024 load growth of 2% to 3%, weather adjusted
- Long-term load growth of 2%, through 2027
- Long-term EPS growth of 5% to 7% off 2022 non-GAAP adjusted base year
- 5% to 7% long-term dividend growth [1]

Second quarter 2024 financial results

	Q2 2024	Q2 2023	2024 YTD	2023 YTD
GAAP net income (in millions)	$72	$39	$181	$113
GAAP diluted earnings per share (EPS)	$0.69	$0.39	$1.77	$1.19
Exclusion of January 2024 storm costs [2]	-	-	$0.18	-
Exclusion of 2020 Boardman revenue requirement refund charge[2]	-	$0.07	-	$0.07
Tax effect [3]	-	($0.02)	($0.05)	($0.02)
Non-GAAP adjusted diluted earnings per share	$0.69	$0.44	$1.90	$1.24

2024 Earnings Guidance
$2.98 - $3.18
2024E Accounting ROE[5][6]
8.6% - 9.2%

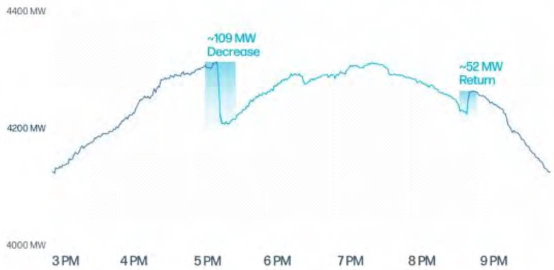
2023 GAAP Diluted EPS[4]
$2.33
2023 Non-GAAP Diluted EPS[4]
$2.38
2023 Accounting ROE[6]
7.5%

(1) The amount and timing of dividends payable and the dividend policy are at the sole discretion of the Portland General Electric Board of Directors and, if declared and paid, dividends may be in amounts that are less than projected
(2) PGE believes that excluding the effects of the previously disclosed January 2024 storm costs and Boardman revenue requirement refund deferral charge provides a meaningful representation of the Company's comparative earnings and reflects the present operating financial performance (see appendix for important information about non-GAAP measures)
(3) Tax effects were determined based on the Company's full-year blended federal and state statutory tax rate
(4) Quarterly values may not sum to 2023 totals due to rounding
(5) Q3-Q4 2024 EPS estimate and 2024 Accounting ROE range calculated based on 2024 earnings guidance of $2.98 to $3.18
(6) Return on average equity

Q2 highlights and 2024 outlook

PGE

During July heat event, customer actions reduced electricity demand by ~109 MW



Data above is for July 8, 2024

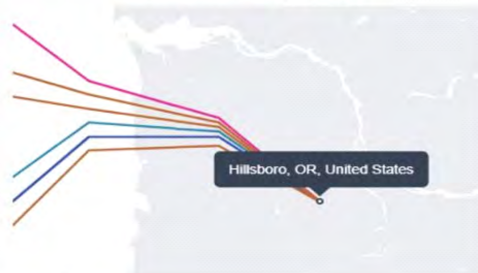
Advancing toward a clean energy future

NPC — Signed a non-binding memorandum of understanding in the development of the North Plains Connector, a transmission line with endpoints near Bismarck, ND and Colstrip, MT

Industrial load growth

6.2% — Q2'24 energy deliveries for the Industrial class increased 6.2% from Q2'23, on a weather adjusted basis, driven by data center growth

Pacific subsea cables land in Oregon, supporting data center expansion



Source: TeleGeography

PGE is increasingly well positioned to achieve our 5% to 7% long term earnings growth rate

We remained focused on **customer growth**, **capital investments** and **operational discipline**

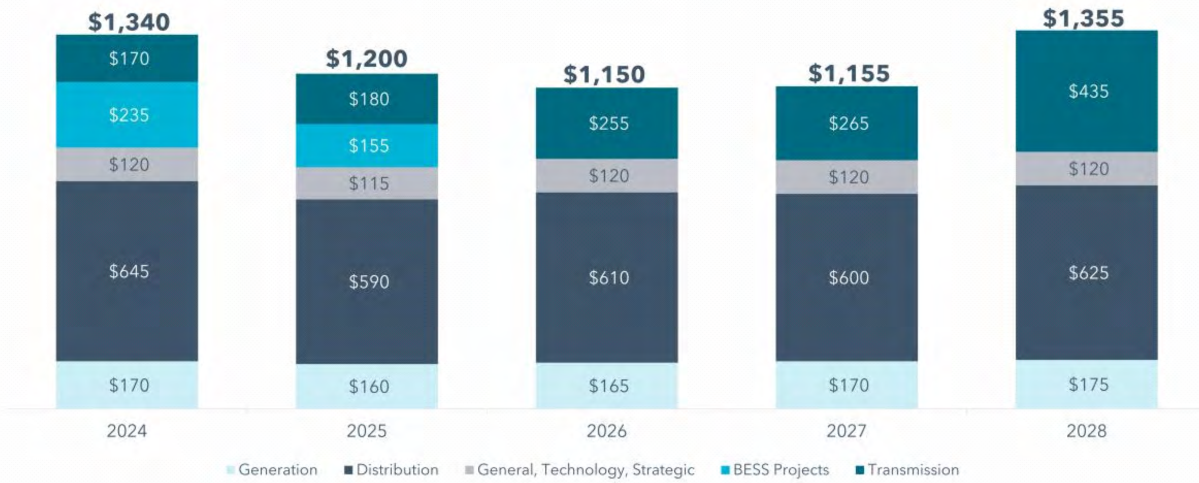
Q2 2024 earnings bridge

Note: Dollar values are earnings per diluted share

6

Reliability and resiliency investments

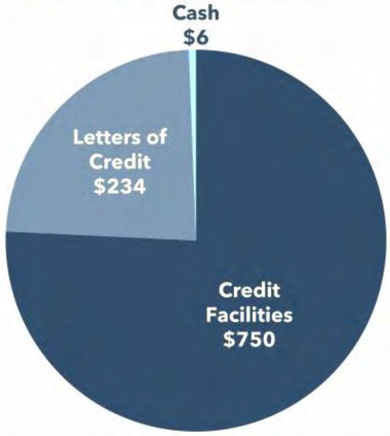
Capital expenditures forecast[1]



Note: Dollar values in millions. Capital expenditures exclude allowance for funds used during construction. These are projections based on assumptions of future investment. Actual amounts expended will depend on various factors and may differ materially from the amounts reflected in this capital expenditure forecast
(1) Values presented do not include incremental potential investments for future RFP cycles

Liquidity and financing

Total Liquidity: $990 million
as of June 30, 2024 (dollars in millions)



Ratings	S&P	Moody's
Senior Secured	A	A1
Senior Unsecured	BBB+	A3
Commercial Paper	A-2	P-2
Outlook	Stable	Negative

Actual and expected 2024 debt financings (dollars in millions)	Q1	Q2	Q3	Q4
Long-term debt	$450		$160	$140

Equity financings (dollars in millions)	Total facility	Settled to-date
At-The-Market Offering Program(1)	$300	$78
At-The-Market Offering Program(2)	$400	$0

(1) PGE entered into an at-the-market offering program in the second quarter of 2023. In March 2024, the Company issued 1,714,972 shares pursuant to the agreements and received net proceeds of $78 million. In 2024, PGE entered into additional forward sale agreements with forward counterparties, exhausting the $300 million facility. As of June 30, 2024, these additional agreements were outstanding. The Company could have physically settled the remaining amount by delivering 5,139,501 shares in exchange for cash of $218 million. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity

(2) On July 26, 2024, PGE registered a new $400 million at-the-market offering program. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity

Appendix

Non-GAAP financial measures

This presentation contains certain non-GAAP measures, such as adjusted earnings, adjusted EPS and adjusted earnings guidance. These non-GAAP financial measures exclude significant items that are generally not related to our ongoing business activities, are infrequent in nature, or both. PGE believes that excluding the effects of these items provides a meaningful representation of the Company's comparative earnings per share and enables investors to evaluate the Company's ongoing operating financial performance. Management utilizes non-GAAP measures to assess the Company's current and forecasted performance, and for communications with shareholders, analysts and investors. Non-GAAP financial measures are supplementary information that should be considered in addition to, but not as a substitute for, the information prepared in accordance with GAAP.

Items in the periods presented, which PGE believes impact the comparability of comparative earnings and do not represent ongoing operating financial performance, include the following:

- 2024: Non-deferrable Reliability Contingency Event (RCE) costs resulting from the January 2024 winter storm
- 2023: Boardman revenue requirement settlement charge associated with the year ended 2020, resulting from the OPUC's 2022 GRC Final Order

Due to the forward-looking nature of PGE's non-GAAP adjusted earnings guidance, and the inherently unpredictable nature of items and events which could lead to the recognition of non-GAAP adjustments (such as, but not limited to, regulatory disallowances or extreme weather events), management is unable to estimate the occurrence or value of specific items requiring adjustment for future periods, which could potentially impact the Company's GAAP earnings. Therefore, management cannot provide a reconciliation of non-GAAP adjusted earnings per share guidance to the most comparable GAAP financial measure without unreasonable effort. For the same reasons, management is unable to address the probable significance of unavailable information.

PGE's reconciliation of non-GAAP earnings for the three months ended March 31, 2024, the three months ended June 30, 2023 , and the year ended December 31, 2023 are on the following slide.

Non-GAAP financial measures

PGE

Non-GAAP Earnings Reconciliation for the three months ended March 31, 2024		
(Dollars in millions, except EPS)	Net Income	Diluted EPS
GAAP as reported for the three months ended March 31, 2024	$109	$1.08
Exclusion of January 2024 storm costs	19	0.18
Tax effect [1]	(5)	(0.05)
Non-GAAP as reported for the three months ended March 31, 2024	$123	$1.21

Non-GAAP Earnings Reconciliation for the three months ended June 30, 2023		
(Dollars in millions, except EPS)	Net Income	Diluted EPS
GAAP as reported for the three months ended June 30, 2023	$39	$0.39
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect [1]	(2)	(0.02)
Non-GAAP as reported for the three months ended June 30, 2023	$44	$0.44

Non-GAAP Earnings Reconciliation for the year ended December 31, 2023		
(Dollars in millions, except EPS)	Net Income	Diluted EPS
GAAP as reported for the year ended December 31, 2023	$228	$2.33
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect [1]	(2)	(0.02)
Non-GAAP as reported for the year ended December 31, 2023	$233	$2.38

(1) Tax effects were determined based on the Company's full-year blended federal and state statutory tax rate

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2815

U.S. SEC Quarterly Report
POR – Portland General Electric Company

September 10, 2024

Section 1: 10-Q (10-Q)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2024

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ____________________ to ____________________

Commission File Number: **001-5532-99**

PORTLAND GENERAL ELECTRIC COMPANY

(Exact name of registrant as specified in its charter)

Oregon	**93-0256820**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

121 SW Salmon Street
Portland, Oregon 97204
(503) 464-8000
(Address of principal executive offices, including zip code, and registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

(Title of class)	(Trading Symbol)	(Name of exchange on which registered)
Common Stock, no par value	POR	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. [x] Yes [ ] No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
[x] Yes [ ] No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standard provided pursuant to Section 13(a) of the Exchange Act. [ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes [x] No

Number of shares of common stock outstanding as of July 19, 2024 is 103,066,683 shares.

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PORTLAND GENERAL ELECTRIC COMPANY
FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2024

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DEFINITIONS

The following abbreviations and acronyms are used throughout this document:

Abbreviation or Acronym	Definition
AFUDC	Allowance for funds used during construction
AUT	Annual Power Cost Update Tariff
Clearwater	Clearwater Wind Development
Colstrip	Colstrip Units 3 and 4 coal-fired generating plant
EFSA	Equity Forward Sale Agreement
EPA	United States Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FMB	First Mortgage Bond
GAAP	Accounting principles generally accepted in the United States of America
GRC	General Rate Case
IRP	Integrated Resource Plan
Moody's	Moody's Investors Service
MW	Megawatts
MWa	Average megawatts
MWh	Megawatt hour
Nasdaq	National Association of Securities Dealers Automated Quotations
NVPC	Net Variable Power Costs
NYSE	New York Stock Exchange
OPUC	Public Utility Commission of Oregon
PCAM	Power Cost Adjustment Mechanism
ROE	Regulated return on equity
RPS	Renewable Portfolio Standard
S&P	S&P Global Ratings
SEC	United States Securities and Exchange Commission

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

(Dollars in millions, except per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Revenues:				
Revenues, net	$ 761	$ 646	$ 1,701	$ 1,391
Alternative revenue programs, net of amortization	(3)	2	(14)	5
Total revenues	758	648	1,687	1,396
Operating expenses:				
Purchased power and fuel	275	220	680	524

Generation, transmission and distribution	107	101	206	194
Administrative and other	97	93	192	173
Depreciation and amortization	122	113	243	224
Taxes other than income taxes	41	40	88	83
Total operating expenses	642	567	1,409	1,198
Income from operations	**116**	**81**	**278**	**198**
Interest expense, net	52	41	103	85
Other income:				
Allowance for equity funds used during construction	6	4	11	7
Miscellaneous income, net	9	5	15	17
Other income, net	15	9	26	24
Income before income tax expense	**79**	**49**	**201**	**137**
Income tax expense	7	10	20	24
Net income	**72**	**39**	**181**	**113**
Other comprehensive income	—	1	1	1
Net income and Comprehensive income	**$ 72**	**$ 40**	**$ 182**	**$ 114**
Weighted-average common shares outstanding (in thousands):				
Basic	103,034	97,087	102,167	94,478
Diluted	103,232	97,630	102,338	94,950
Earnings per share—basic and diluted	$ 0.69	$ 0.39	$ 1.77	$ 1.19

See accompanying notes to condensed consolidated financial statements.

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PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Dollars in millions)
(Unaudited)

	June 30, 2024	December 31, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 6	$ 5
Accounts receivable, net	385	414
Inventories	117	113
Regulatory assets—current	165	221
Other current assets	175	182
Total current assets	**848**	**935**
Electric utility plant, net	9,873	9,546
Regulatory assets—noncurrent	617	492
Nuclear decommissioning trust	33	31
Non-qualified benefit plan trust	36	35
Other noncurrent assets	175	169
Total assets	**$ 11,582**	**$ 11,208**

See accompanying notes to condensed consolidated financial statements.

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PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS, continued
(Dollars in millions)
(Unaudited)

	June 30, 2024	December 31, 2023
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 259	$ 347
Liabilities from price risk management activities—current	142	164
Short-term debt	—	146
Current portion of long-term debt	80	80
Current portion of finance lease obligation	24	20
Accrued expenses and other current liabilities	345	355
Total current liabilities	**850**	**1,112**
Long-term debt, net of current portion	4,353	3,905
Regulatory liabilities—noncurrent	1,406	1,398
Deferred income taxes	540	488
Unfunded status of pension and postretirement plans	160	172
Liabilities from price risk management activities—noncurrent	58	75
Asset retirement obligations	274	272
Non-qualified benefit plan liabilities	76	79
Finance lease obligations, net of current portion	283	289
Other noncurrent liabilities	98	99
Total liabilities	**8,098**	**7,889**
Commitments and contingencies (see notes)		
Shareholders' Equity:		
Preferred stock, no par value, 30,000,000 shares authorized; none issued and outstanding as of June 30, 2024 and December 31, 2023	—	—
Common stock, no par value, 160,000,000 shares authorized; 103,066,683 and 101,159,609 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectively	1,833	1,750
Accumulated other comprehensive loss	(4)	(5)
Retained earnings	1,655	1,574
Total shareholders' equity	**3,484**	**3,319**
Total liabilities and shareholders' equity	**$ 11,582**	**$ 11,208**

See accompanying notes to condensed consolidated financial statements.

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PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Six Months Ended June 30,	
	2024	**2023**
Cash flows from operating activities:		
Net income	$ 181	$ 113
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	243	224
Deferred income taxes	27	6
Pension and other postretirement benefits	3	3
Allowance for equity funds used during construction	(11)	(7)
Decoupling mechanism deferrals, net of amortization	14	(5)
Regulatory assets	(118)	(10)
Regulatory liabilities	(10)	12
Tax credit sales	13	—
Other non-cash income and expenses, net	39	28
Changes in working capital:		
Accounts receivable, net	16	82
Inventories	(4)	(13)
Margin deposits	37	90
Accounts payable and accrued liabilities	(34)	(233)
Margin deposits from wholesale counterparties	—	(135)
Other working capital items, net	6	9
Other, net	(38)	(21)
Net cash provided by operating activities	**364**	**143**

See accompanying notes to condensed consolidated financial statements.

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PORTLAND GENERAL ELECTRIC COMPANY AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, continued
(In millions)
(Unaudited)

	Six Months Ended June 30,	
	2024	**2023**
Cash flows from investing activities:		
Capital expenditures	$ (623)	$ (573)
Purchases of Nuclear decommissioning trust securities	(4)	—
Proceeds from sale of properties	—	2
Other, net	(12)	(3)
Net cash used in investing activities	**(639)**	**(574)**
Cash flows from financing activities:		
Proceeds from issuance of common stock	78	392
Proceeds from issuance of long-term debt	450	100
Payments on long-term debt	—	(260)
Issuance (maturities) of commercial paper, net	(146)	140
Dividends paid	(96)	(84)

Other	(10)	(9)
Net cash provided by financing activities	**276**	**279**
Change in cash and cash equivalents	**1**	**(152)**
Cash and cash equivalents, beginning of period	**5**	**165**
Cash and cash equivalents, end of period	**$ 6**	**$ 13**
Supplemental cash flow information is as follows:		
Cash paid for interest, net of amounts capitalized	$ 81	$ 70
Cash paid (received) for income taxes, net	(10)	16

See accompanying notes to condensed consolidated financial statements.

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PORTLAND GENERAL ELECTRIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1: BASIS OF PRESENTATION

Nature of Business

Portland General Electric Company (PGE or the Company) is a single, vertically-integrated electric utility engaged in the generation, purchase, transmission, distribution, and retail sale of electricity in the State of Oregon (State). The Company also participates in the wholesale market by purchasing and selling electricity and natural gas in an effort to meet the needs of, and obtain reasonably-priced power for, its retail customers, manage risk, and administer its long-term wholesale contracts. In addition, PGE performs portfolio management and wholesale market services for third parties in the region. The Company continues to develop products and service offerings for the benefit of retail and wholesale customers. PGE operates as a single segment, with revenues and costs related to its business activities recorded and analyzed on a total electric operations basis. The Company owns unregulated, non-utility real estate comprised primarily of PGE’s corporate headquarters. The Company’s corporate headquarters is located in Portland, Oregon and its approximately 4,000 square mile, State-approved service area, entirely within the State, encompasses 51 incorporated cities. As of June 30, 2024, PGE served 944,000 retail customers within a service area of 1.9 million residents.

PGE is subject to the jurisdiction of the Public Utility Commission of Oregon (OPUC) with respect to retail prices, utility services, accounting policies and practices, issuances of securities, and certain other matters. Retail prices are based on the Company’s cost to serve customers, including an opportunity to earn a reasonable rate of return, as determined by the OPUC. The Company is also subject to regulation by the Federal Energy Regulatory Commission (FERC) in matters related to wholesale energy transactions, transmission services, reliability standards, natural gas pipelines, hydroelectric project licensing, accounting policies and practices, short-term debt issuances, and certain other matters.

Condensed Consolidated Financial Statements

These condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the United States Securities and Exchange Commission (SEC). Certain information and note disclosures normally included in financial statements prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) have been condensed or omitted pursuant to such regulations, although PGE believes that the disclosures provided are adequate to make the interim information presented not misleading.

The financial information included herein as of and for the three and six months ended June 30, 2024 and 2023 is unaudited; however, in the opinion of management, such information reflects all adjustments necessary to fairly present the condensed consolidated financial position, condensed consolidated income and comprehensive income, and condensed consolidated cash flows of the Company for these interim periods. All such adjustments are of a normal recurring nature, unless otherwise noted. The financial information as of December 31, 2023 is derived from the Company’s audited consolidated financial statements and notes thereto for the year ended December 31, 2023, included in Item 8 of PGE’s Annual Report on Form 10-K, filed with the SEC on February 20, 2024, which should be read in conjunction with the interim unaudited Financial Statements.

Comprehensive Income

No material change occurred in Other comprehensive income in the three and six months ended June 30, 2024 and 2023.

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Miscellaneous Income, Net

Miscellaneous income, net includes $5 million and $3 million in interest income from regulatory assets for the three months ended June 30, 2024 and 2023, respectively, and $3 million and $1 million in other miscellaneous income. The remaining activity is comprised of $1 million in realized and unrealized gains on the non-qualified benefit plan trust assets in both 2024 and 2023.

For the six months ended June 30, 2024 and 2023, respectively, Miscellaneous income, net includes $9 million and $11 million in interest income from regulatory assets, $5 million and $4 million in other miscellaneous income, and $1 million and $2 million in realized and unrealized gains on the non-qualified benefit plan trust assets.

Use of Estimates

The preparation of condensed consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosures of gain or loss contingencies, as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results experienced by the Company could differ materially from those estimates.

Certain costs are estimated for the full year and allocated to interim periods based on estimates of operating time expired, benefit received, or activity associated with the interim period; accordingly, such costs may not be reflective of amounts to be recognized for a full year. Due to seasonal fluctuations in electricity sales, as well as the price of wholesale electricity and natural gas, interim financial results do not necessarily represent those to be expected for the year.

Recent Accounting Pronouncements

In November 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2023-07 *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. ASU 2023-07 amends Topic 280 to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. For calendar year-end entities, the update will be effective for annual periods beginning on January 1, 2024, and interim periods within fiscal years beginning on January 1, 2025. Early adoption is permitted. PGE does not expect the adoption to have a material impact on the consolidated financial statements and does not plan to early adopt the standard.

In December 2023, the FASB issued ASU 2023-09 *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. ASU 2023-09 amends Topic 740 to address requests to improve transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid information. For calendar year-end entities, the update will be effective for annual periods beginning on January 1, 2025. Early adoption is permitted. PGE does not expect the adoption to have a material impact on the consolidated financial statements and does not plan to early adopt the standard.

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NOTE 2: REVENUE RECOGNITION

Disaggregated Revenue

The following table presents PGE's revenue, disaggregated by customer type (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Retail:				
Residential	$ 307	$ 279	$ 722	$ 641
Commercial	219	196	446	393
Industrial	104	87	206	169
Direct access customers	9	7	15	13
Subtotal	639	569	1,389	1,216
Alternative revenue programs, net of amortization	(3)	2	(14)	5
Other accrued revenues, net	4	(4)	5	(3)
Total retail revenues	640	567	1,380	1,218
Wholesale revenues*	99	62	275	150
Other operating revenues	19	19	32	28
Total revenues	$ 758	$ 648	$ 1,687	$ 1,396

* Wholesale revenues include $32 million and $22 million related to electricity commodity contract derivative settlements for the three months ended June 30, 2024 and 2023, respectively, and $120 million and $56 million for the six months ended June 30, 2024 and 2023. Price risk management derivative activities are included within total revenues but do not represent revenues from contracts with customers as defined by GAAP. For further information, see Note 5, Risk Management.

Retail Revenues

The Company's primary revenue source is the sale of electricity to customers at regulated, tariff-based prices. Retail customers are classified as residential, commercial, or industrial. Residential customers include single-family housing, multiple-family housing (such as apartments, duplexes, and town homes), manufactured homes, and small farms. Residential demand is sensitive to the effects of weather, with demand highest during the winter heating and summer cooling seasons. Commercial customers consist of non-residential customers who accept energy deliveries at voltages equivalent to those delivered to residential customers and are also sensitive to the effects of weather, although to a lesser extent than residential customers. Commercial customers include most businesses, small industrial companies, and public street and highway lighting accounts. Industrial customers consist of non-residential customers who accept delivery at higher voltages than commercial customers. Demand from industrial customers is primarily driven by economic conditions, with weather having a less significant impact on energy use by this customer class.

In accordance with state regulations, PGE's retail customer prices are based on the Company's cost of service and determined through General Rate Case (GRC) proceedings and various tariff filings with the OPUC. Additionally, the Company offers pricing options that include a daily market price option, various time-of-use options, and several renewable energy options.

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Retail revenue is billed based on monthly meter readings taken at various cycle dates throughout the month. At the end of each month, PGE estimates and records the revenue earned from energy deliveries that have not yet been billed to customers. This amount, which is classified as unbilled revenues and included in Accounts receivable, net in the Company's condensed consolidated balance sheets, is calculated based on actual net retail system load each month, the number of days from the last meter read date through the last day of the month, and current customer prices.

PGE's obligation to sell electricity to retail customers generally represents a single performance obligation representing a series of distinct services that are substantially the same and have the same pattern of transfer to the customer that is satisfied over time as customers simultaneously receive and consume the benefits provided. PGE applies the invoice method to measure its progress towards satisfactorily completing its performance obligations.

Pursuant to regulation by the OPUC, PGE is mandated to maintain several tariff schedules to collect funds from customers for programs that benefit the general public, such as conservation, low-income housing, energy efficiency, renewable energy programs, and privilege taxes. For such programs, PGE generally collects the funds and remits the amounts to third party agencies that administer the programs. In these arrangements, PGE is considered to be an agent, as PGE's performance obligation is to facilitate a transaction between customers and the administrators of these programs. Therefore, such amounts are presented on a net basis and do not appear in Revenues, net within the condensed consolidated statements of income.

Alternative Revenues programs—Revenues related to PGE's decoupling mechanism and Renewable Adjustment Clause (RAC) are considered earned under alternative revenue programs, as these amounts represent contracts with the regulator and not with customers. Such revenues are presented separately from revenues from contracts with customers and classified as Alternative revenue programs, net of amortization on the condensed consolidated statements of income. The activity within this line item is comprised of current period deferral adjustments, which can either be a collection from or a refund to customers, and is net of any related amortization. When amounts related to alternative revenue programs are ultimately included in prices and customer bills, the amounts are included within Revenues, net, with an equal and offsetting amount of amortization recorded on the Alternative revenue programs, net of amortization line item. Under the RAC in 2024, the Company has deferred amounts related to the Clearwater Wind Development (Clearwater). For further information, see *"Clearwater RAC"* in the Regulatory Assets and Liabilities section of Note 3, Balance Sheet Components.

Wholesale Revenues

PGE participates in the wholesale electricity marketplace in order to balance its supply of power to meet the needs of, and secure reasonably-priced power for, its retail customers, manage risk, and administer its current long-term wholesale contracts. In addition, the Company performs portfolio management and wholesale market services for third parties in the region. Interconnected transmission systems in the western United States serve utilities with diverse load requirements and allow PGE to purchase and sell electricity within the region depending upon: i) the relative price and availability of power; ii) hydro, solar and wind conditions; and iii) daily and seasonal retail demand.

PGE's Wholesale revenues are primarily short-term electricity sales to utilities and power marketers that consist of single performance obligations that are satisfied as energy is transferred to the counterparty. The Company nets certain purchase and sale transactions in which it would simultaneously receive and deliver physical power with the same counterparty; in such cases, only the net amount of those purchases or sales required to meet retail and wholesale obligations will be physically settled and recorded in Wholesale revenues.

Other Operating Revenues

Other operating revenues consist primarily of gains and losses on the sale of natural gas volumes purchased that exceeded what was needed to fuel the Company's generating facilities, as well as revenues from transmission services, excess transmission capacity resales, excess fuel sales, utility pole attachment revenues, and other electric services provided to customers.

Arrangements with Multiple Performance Obligations

Certain contracts with customers, primarily wholesale, may include multiple performance obligations. For such arrangements, PGE allocates revenue to each performance obligation based on its relative standalone selling price. The Company generally determines standalone selling prices based on the prices charged to customers.

NOTE 3: BALANCE SHEET COMPONENTS

Inventories

PGE's inventories, which are recorded at average cost, consist primarily of materials and supplies for use in operations, maintenance, and capital activities, as well as fuel, which includes natural gas, coal, and oil, for use in the Company's generating plants. Periodically, PGE assesses whether inventories are recorded at the lower of average cost or net realizable value.

Accounts Receivable, Net

Accounts receivable, net includes $137 million and $138 million of unbilled revenues as of June 30, 2024 and December 31, 2023, respectively. Accounts receivable, net includes an allowance for uncollectible accounts of $11 million as of June 30, 2024 and $9 million as of December 31, 2023. The following summarizes activity during 2024 in the allowance for credit losses (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
Balance as of beginning of period	$	11	$	9
Increase in provision		2		5
Amounts written off		(4)		(6)
Recoveries		2		3
Balance as of end of period	$	11	$	11

Other Current Assets

Other current assets consist of the following (in millions):

	June 30, 2024		December 31, 2023	
Prepaid expenses	$	83	$	68
Assets from price risk management activities		37		22
Margin deposits		55		92
Other current assets	$	175	$	182

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Electric Utility Plant, Net

Electric utility plant, net consists of the following (in millions):

	June 30, 2024		December 31, 2023	
Electric utility plant in-service	$	14,126	$	13,329
Construction work-in-progress		690		974
Total cost		14,816		14,303
Less: accumulated depreciation and amortization		(4,943)		(4,757)
Electric utility plant, net	$	9,873	$	9,546

Accumulated depreciation and amortization in the table above includes accumulated amortization related to intangible assets of $595 million and $558 million as of June 30, 2024 and December 31, 2023, respectively. Amortization expense related to intangible assets was $18 million and $15 million for the three months ended June 30, 2024 and 2023, respectively, and $36 million and $29 million for the six months ended June 30, 2024 and 2023, respectively. The Company's intangible assets primarily consist of computer software development and hydro licensing costs.

Battery storage agreement—On April 26, 2023, PGE entered into a battery storage capacity agreement that will be accounted for as a lease upon commencement. The lease is expected to commence in December 2024 and has a term of 20 years. The total fixed contract consideration is expected to be $737 million over the lease term.

Regulatory Assets and Liabilities

Regulatory assets and liabilities consist of the following (in millions):

	June 30, 2024		December 31, 2023	
	Current	Noncurrent	Current	Noncurrent
Regulatory assets:				
Price risk management	$ 105	$ 48	$ 143	$ 63
Reliability contingency events	—	77	—	—
Pension and other postretirement plans	—	104	—	104
Trojan decommissioning activities	—	142	—	139
February 2021 ice storm and damage	13	50	12	55
January 2024 storm and damage	—	44	—	—
2020 Labor Day wildfire	5	21	5	23
Wildfire mitigation	19	21	19	10
Other	23	110	42	98
Total regulatory assets	$ 165	$ 617	$ 221	$ 492
Regulatory liabilities:				
Asset retirement removal costs	$ —	$ 1,188	$ —	$ 1,173
Deferred income taxes	—	167	—	177
Clearwater RAC	—	13	—	—
Other	55	38	48	48
Total regulatory liabilities	$ 55 *	$ 1,406	$ 48 *	$ 1,398

* Included in Accrued expenses and other current liabilities in the condensed consolidated balance sheets.

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January 2024 storm and damage—Beginning January 13, 2024, the Company's service territory encountered a severe winter weather event that included snow, ice, and high winds over several days that caused catastrophic damage to physical assets and resulted in widespread customer power outages. As a result of the historic winter storm, Oregon's Governor declared a state of emergency on January 18, 2024, which allows PGE to seek recovery of incremental storm expenses through the OPUC pre-authorized emergency deferral mechanism. On February 9, 2024, PGE filed a Notice of Deferral with the OPUC, under Docket UM 2190, related to the emergency restoration costs for the January storm, and as of June 30, 2024, PGE's deferred balance related to the January 2024 storm was $44 million, including interest. PGE believes amounts deferred as of June 30, 2024 are probable of recovery under the emergency deferral mechanism. The OPUC has significant discretion in making the final determination of recovery. The OPUC's conclusion of overall prudence, including an earnings test, could result in a portion, or all, of PGE's deferrals being disallowed for recovery. Such disallowance would be recognized as a charge to earnings.

Reliability contingency events—A portion of the January 2024 storm also qualified as a Reliability Contingency Event (RCE) as approved by the OPUC in PGE's 2024 GRC. Under the RCE mechanism, PGE is allowed to defer and recover 80% of prudent costs for RCEs above amounts forecasted in the Company's Annual Power Cost Update Tariff, without application of an earnings test, with the remaining 20% flowing through operating expenses and subject to the existing PCAM. As of June 30, 2024, PGE's deferred balance related to the 2024 RCE was $77 million, including interest. PGE files the results of the PCAM annually with the OPUC no later than July 1, initiating a regulatory review process that typically results in a final determination and order from the OPUC by the end of the year of filing, with any resulting refund or collection impacting customer prices effective January 1 of the following year. Costs related to the RCE in January 2024 will be included in the Company's PCAM for 2024, which the Company expects to file no later than July 1, 2025. The OPUC has significant discretion in making the final determination of recovery. The OPUC's conclusion of overall prudence could result in a portion, or all, of PGE's deferrals being disallowed for recovery. Such disallowance would be recognized as a charge to earnings.

Wildfire Mitigation represents incremental costs and investments made by PGE related to intensifying efforts on its system to mitigate the risk of wildfire and improve resiliency to wildfire damage under SB 762, enacted in July 2021. These efforts include enhanced tree and brush clearing, hardening equipment, and making emergency plans in close partnership with various land and emergency management agencies to further expand the use of a public safety power shutoff, if the need should arise. PGE submitted its 2024 risk-based Wildfire Mitigation Plan to the OPUC in December 2023, which was approved by the OPUC during the public meeting on July 9, 2024.

As of June 30, 2024 and December 31, 2023, PGE's deferred balance related to incremental wildfire mitigation operating expenses was $40 million and $29 million, respectively. The 2024 balance is comprised of:

- *Pre-AAC*—Prior to establishing the collections noted below, PGE had deferred incremental costs related to wildfire mitigation and as of June 30, 2024 this balance is $17 million. On July 1, 2022, PGE filed an application for reauthorization of OPUC Docket UM 2019 to defer incremental wildfire mitigation costs that exceed the amount granted in base rates. On May 10, 2023, in Order No. 23-173, the OPUC approved an automatic adjustment clause mechanism to recover wildfire mitigation costs (capital and expense). PGE and certain parties agreed to a stipulation, which was adopted by the OPUC on October 18, 2023, that allows PGE to begin amortizing $27 million comprised of $23 million related to the September 30, 2023 deferred operating expense balance of $31 million and $4 million for capital related revenue requirement.
- *2023 Base rates*—The outcome of PGE's 2022 GRC provided an annual amount of $24 million to be collected in base rates for recovery of operating expenses related to wildfire mitigation efforts beginning May 9, 2022, through December 31, 2023. As of June 30, 2024, there was $1 million in the balancing account.

- *2024 AAC*—Beginning January 1, 2024, and in conjunction with the Company's 2024 GRC proceeding, PGE removed the $24 million of wildfire mitigation operations and maintenance (O&M) expense recovery from base rates, with the intent of recovering the current year forecasted O&M expense within the automatic adjustment clause in a separate tariff. On February 16, 2024, PGE submitted an advice filing to the OPUC to update the tariff to reflect prospective wildfire mitigation costs for 2024, which included $45 million of O&M operations and maintenance expense and $4 million for the revenue requirement of capital placed in service. On July 23, 2024, the OPUC reached a decision that will allow PGE to begin collecting $24 million of O&M expense and $4 million for the revenue requirement of capital placed in service. Collection would begin August 1, 2024 over a nine-month period. Any differences between actual expense and customer collections will be recorded as regulatory assets or liabilities within the automatic adjustment clause balancing account, which will be subject to a prudence review, but will not be subject to an earnings test. As of June 30, 2024, there was $22 million deferred as a regulatory asset in the balancing account.

The OPUC has significant discretion in making the final determination of recovery. The OPUC's conclusion of overall prudence could result in a portion, or all, of PGE's deferrals being disallowed for recovery. Such disallowance would be recognized as a charge to earnings.

Clearwater RAC—The RAC allows PGE to recover prudently incurred costs of renewable resources through filings made each year, outside of a GRC. Under the RAC, during 2023, the Company submitted a filing for Clearwater, which estimated the annual revenue requirement, net of NVPC benefits to be a refund to customers of approximately $30 million that would be included in customers prices June 1, 2024. Pursuant to the filing, PGE would defer the revenue requirement, net of NVPC benefits, from the in-service date of January 2024 until Clearwater was reflected in customer prices. On April 4, 2024, the OPUC rejected PGE and parties' Stipulation regarding Clearwater and requested that PGE submit reply testimony responding to the arguments raised by the OPUC Staff by April 25, 2024. The OPUC issued an order on July 16, 2024 that further suspended the tariff effective date until November 1, 2024. As of June 30, 2024, the Company had recorded a net $13 million regulatory liability refund to customers. The OPUC has significant discretion on overall prudence and in making the final determination of recovery. Any cost disallowance or increased refunds would be recognized as a charge to earnings.

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following (in millions):

	June 30, 2024	December 31, 2023
Accrued employee compensation and benefits	$ 56	$ 74
Accrued taxes payable	28	30
Accrued interest payable	48	40
Accrued dividends payable	53	51
Regulatory liabilities—current	55	48
Other	105	112
Total accrued expenses and other current liabilities	$ 345	$ 355

Credit Facilities

On August 18, 2023, PGE entered into an amendment of its existing revolving credit facility. As of June 30, 2024, PGE had a $750 million revolving credit facility scheduled to expire in September 2028. The Company has the ability to expand the revolving credit facility to $850 million, if needed, subject to the requirements of the agreement. Pursuant to the terms of the agreement, the revolving credit facility may be used for general corporate purposes, including as backup for commercial paper borrowings and to permit the issuance of standby letters of credit. PGE may borrow for one, three, or six months at a fixed interest rate established at the time of the borrowing,

or at a variable interest rate for any period up to the then remaining term of the applicable credit facility. The revolving credit facility contains a provision that requires annual fees based on the Company's unsecured credit ratings, and contains customary covenants and default provisions, including a requirement that limits consolidated indebtedness, as defined in the agreement, to 65% of total capitalization. As of June 30, 2024, PGE was in compliance with this covenant with a 56.7% debt-to-total capital ratio and had no outstanding balance on the revolving credit facility. As a result of the policy to backup commercial paper borrowings, the aggregate unused available credit capacity under the credit facility was $750 million. In addition, the credit facility offers the potential for adjustments to interest rate margins and fees based on PGE's achievement of certain annual sustainability-linked metrics related to its non-emitting generation capacity and the percentage of management comprised of women and employees who identify as black, indigenous, and people of color. The Company believes these potential adjustments will not have a material impact on PGE's results of operations.

The Company has a commercial paper program under which it may issue commercial paper for terms of up to 270 days. The Company has elected to limit its borrowings under the revolving credit facility in order to allow for coverage of any potential need to repay commercial paper that may be outstanding at the time. As of June 30, 2024, PGE had no commercial paper outstanding.

PGE typically classifies borrowings under the revolving credit facility and outstanding commercial paper as Short-term debt on the condensed consolidated balance sheets.

In addition, PGE has four letter of credit facilities that provide a total capacity of $320 million under which the Company can request letters of credit for original terms not to exceed one year. The issuance of such letters of credit is subject to the approval of the issuing institution. Under these facilities, letters of credit for a total of $86 million were outstanding as of June 30, 2024. Letters of credit issued are not reflected on the Company's condensed consolidated balance sheets.

Pursuant to an order issued by the FERC, the Company is authorized to issue short-term debt in an aggregate amount of up to $900 million through February 6, 2026.

Long-term Debt

On February 22, 2024, PGE entered into a Bond Purchase Agreement related to the sale of $450 million in First Mortgage Bonds (FMBs). The Bonds were issued and funded in full on February 22, 2024 and consist of:

- a series, due in 2029, in the amount of $100 million that will bear interest from its issuance date at an annual rate of 5.15%;
- a series, due in 2034, in the amount of $100 million that will bear interest from its issuance date at an annual rate of 5.36%; and
- a series, due in 2054, in the amount of $250 million that will bear interest from its issuance date at an annual rate of 5.73%.

Defined Benefit Retirement Plan Costs

Components of net periodic benefit cost under the defined benefit pension plan are as follows (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Service cost	$ 3	$ 3	$ 5	$ 6
Interest cost*	8	9	17	18
Expected return on plan assets*	(10)	(11)	(20)	(22)
Net periodic benefit cost	$ 1	$ 1	$ 2	$ 2

* The net expense portion of non-service cost components are included in Miscellaneous income, net within Other income on the Company's condensed consolidated statements of income and comprehensive income.

NOTE 4: FAIR VALUE OF FINANCIAL INSTRUMENTS

PGE estimated the fair value of financial asset and liability instruments as of June 30, 2024 and December 31, 2023, and classified these financial instruments based on a fair value hierarchy that is applied to prioritize the inputs to the valuation techniques used to measure fair value. The three levels of the fair value hierarchy and application to the Company are:

Level 1 Quoted prices are available in active markets for identical assets or liabilities as of the measurement date;

Level 2 Pricing inputs include those that are directly or indirectly observable in the marketplace as of the measurement date; and

Level 3 Pricing inputs include significant inputs that are unobservable for the asset or liability.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of assets, liabilities, and their placement within the fair value hierarchy. Assets measured at fair value using net asset value (NAV) as a practical expedient are not categorized in the fair value hierarchy. These assets are listed in the totals of the fair value hierarchy to permit the reconciliation to amounts presented in the financial statements.

Changes to market liquidity conditions, the availability of observable inputs, or changes in the economic structure of a security marketplace may require transfer of the securities between levels.

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The Company's financial assets and liabilities whose values were recognized at fair value in the Company's condensed consolidated balance sheets are as follows by level within the fair value hierarchy (in millions):

	As of June 30, 2024				
	Level 1	Level 2	Level 3	Other [(2)]	Total
Assets:					
Cash equivalents	$ —	$ —	$ —	$ —	$ —
Nuclear decommissioning trust: [(1)]					
Debt securities:					
Domestic government	10	9	—	—	19
Corporate credit	—	7	—	—	7
Money market funds	—	—	—	7	7
Non-qualified benefit plan trust: [(3)]					
Debt securities—domestic government	3	—	—	—	3
Money market funds	1	—	—	—	1

Paid Leave Oregon Trust					
Money market funds	—	—	—	3	3
Price risk management activities: (1) (4)					
Electricity	—	22	10	—	32
Natural gas	—	15	—	—	15
	$ 14	$ 53	$ 10	$ 10	$ 87
Liabilities:					
Price risk management activities: (1) (4)					
Electricity	$ —	$ 36	$ 32	$ —	$ 68
Natural gas	—	109	23	—	132
	$ —	$ 145	$ 55	$ —	$ 200

(1) Activities are subject to regulation, with certain gains and losses deferred pursuant to regulatory accounting and included in Regulatory assets or Regulatory liabilities as appropriate.
(2) Assets are measured at NAV as a practical expedient and not subject to hierarchy level classification disclosure.
(3) Excludes insurance policies of $32 million, which are recorded at cash surrender value.
(4) For further information, see Note 5, Risk Management.

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	As of December 31, 2023				
	Level 1	Level 2	Level 3	Other (2)	Total
Assets:					
Cash equivalents	$ —	$ —	$ —	$ —	$ —
Nuclear decommissioning trust: (1)					
Debt securities:					
Domestic government	9	9	—	—	18
Corporate credit	—	7	—	—	7
Money market funds	—	—	—	6	6
Non-qualified benefit plan trust: (3)					
Debt securities—domestic government	3	—	—	—	3
Money market funds	2	—	—	—	2
Paid Leave Oregon Trust:					
Money market funds	—	—	—	3	3
Price risk management activities: (1) (4)					
Electricity	—	8	14	—	22
Natural gas	—	11	—	—	11
	$ 14	$ 35	$ 14	$ 9	$ 72
Liabilities:					
Price risk management activities: (1) (4)					
Electricity	$ —	$ 30	$ 43	$ —	$ 73
Natural gas	—	150	16	—	166
	$ —	$ 180	$ 59	$ —	$ 239

(1) Activities are subject to regulation, with certain gains and losses deferred pursuant to regulatory accounting and included in Regulatory assets or Regulatory liabilities as appropriate.
(2) Assets are measured at NAV as a practical expedient and not subject to hierarchy level classification disclosure.
(3) Excludes insurance policies of $30 million, which are recorded at cash surrender value.
(4) For further information, see Note 5, Risk Management.

Cash equivalents are highly liquid investments with maturities of three months or less at the date of acquisition and primarily consist of money market funds. Such funds seek to maintain a stable net asset value and are comprised of short-term, government funds. Policies of such funds require that the weighted average maturity of securities holdings of such funds not exceed 90 days and provide investors with the ability to redeem shares of the funds daily at their respective net asset value. Cash equivalents are classified as Level 1 in the fair value hierarchy due to the availability of quoted prices for identical assets in an active market as of the measurement date. Principal markets for money market fund prices include published exchanges such as the National Association of Securities Dealers Automated Quotations (Nasdaq) and the New York Stock Exchange (NYSE).

Assets held in the Nuclear decommissioning trust (NDT), Non-qualified benefit plan (NQBP), and Paid Leave Oregon trusts are recorded at fair value in PGE's condensed consolidated balance sheets and invested in securities that are exposed to interest rate, credit, and market volatility risks. These assets are classified within Level 1, 2, or 3 based on the following factors:

Debt securities—PGE invests in highly-liquid United States Treasury securities to support the investment objectives of the trusts. These domestic government securities are classified as Level 1 in the fair value hierarchy due to the availability of quoted prices for identical assets in an active market as of the measurement date.

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Assets classified as Level 2 in the fair value hierarchy include domestic government debt securities, such as municipal debt, and corporate credit securities. Prices are determined by evaluating pricing data such as broker quotes for similar securities and adjusted for observable differences. Significant inputs used in valuation models generally include benchmark yields and issuer spreads. The external credit rating, coupon rate, and maturity of each security are considered in the valuation, as applicable.

Money market funds—PGE invests in money market funds that seek to maintain a stable net asset value. These funds invest in high-quality, short-term, diversified money market instruments, short-term treasury bills, federal agency securities, certificates of deposits, and commercial paper. The Company believes the redemption value of these funds is likely to be the fair value, which is represented by the net asset value. Redemption is permitted daily without written notice.

The NQBP trust is invested in exchange-traded government money market funds and is classified as Level 1 in the fair value hierarchy due to the availability of quoted prices in published exchanges such as Nasdaq and the NYSE. The money market fund in the NDT is valued at NAV as a practical expedient and is not included in the fair value hierarchy.

Assets and liabilities from price risk management activities, recorded at fair value in PGE's condensed consolidated balance sheets, consist of derivative instruments entered into by the Company to manage its risk exposure to commodity price and foreign currency exchange rates and reduce volatility in net variable power costs (NVPC) for the Company's retail customers. For additional information regarding these assets and liabilities, see Note 5, Risk Management.

For those assets and liabilities from price risk management activities classified as Level 2, fair value is derived using present value formulas that utilize inputs such as forward commodity prices and interest rates. Substantially all of these inputs are observable in the marketplace throughout the full term of the instrument, can be derived from observable data, or are supported by observable levels at which transactions are executed in the marketplace. Instruments in this category include commodity forwards, futures, and swaps.

Assets and liabilities from price risk management activities classified as Level 3 consist of longer-term commodity forwards, futures, swaps, and options for which fair value is derived using one or more significant inputs that are not observable for the entire term of the instrument.

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(Unaudited)

Quantitative information regarding the significant, unobservable inputs used in the measurement of Level 3 assets and liabilities from price risk management activities is presented below:

Commodity Contracts	Fair Value: Assets	Fair Value: Liabilities	Valuation Technique	Significant Unobservable Input	Price per Unit: Low	Price per Unit: High	Price per Unit: Weighted Average
	(in millions)						
As of June 30, 2024							
Electricity physical forwards	$ 6	$ 32	Discounted cash flow	Electricity forward price (per MWh)	$ 24.00	$ 147.00	$ 80.71
Natural gas financial swaps	—	23	Discounted cash flow	Natural gas forward price (per Decatherm)	2.09	4.76	2.65
Electricity financial futures	4	—	Discounted cash flow	Electricity forward price (per MWh)	55.00	147.00	92.67
	$ 10	$ 55					
As of December 31, 2023							
Electricity physical forwards	$ 14	$ 43	Discounted cash flow	Electricity forward price (per MWh)	$ 37.53	$ 153.33	$ 84.58
Natural gas financial swaps	—	16	Discounted cash flow	Natural gas forward price (per Decatherm)	2.25	8.89	3.37
Electricity financial futures	—	—	Discounted cash flow	Electricity forward price (per MWh)	65.30	107.31	91.33
	$ 14	$ 59					

The significant unobservable inputs used in the Company's fair value measurement of price risk management assets and liabilities are long-term forward prices for commodity derivatives. For certain long-term contracts, observable, liquid market transactions are not available for the duration of the delivery period. In such instances, the Company uses internally-developed long-term price curves that utilize observable data when available. When not available, regression techniques are used to estimate unobservable future prices.

The Company's Level 3 assets and liabilities from price risk management activities are sensitive to market price changes in the respective underlying commodities. The significance of the impact is dependent upon the magnitude of the price change and PGE's position as either the buyer or seller under the contract. Sensitivity of the fair value measurements to changes in the significant unobservable inputs is as follows:

Significant Unobservable Input	Position	Change to Input	Impact on Fair Value
Market price	Buy	Increase (decrease)	Gain (loss)
Market price	Sell	Increase (decrease)	Loss (gain)

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(Unaudited)

Changes in the fair value of net liabilities from price risk management activities (net of assets from price risk management activities) classified as Level 3 in the fair value hierarchy were as follows (in millions):

	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Balance as of the beginning of the period	$ 43	$ 28	$ 45	$ 32
Net realized and unrealized losses/(gains)*	2	110	—	99
Transfers from Level 3 to Level 2	—	—	—	7
Balance as of the end of the period	$ 45	$ 138	$ 45	$ 138

* Both realized and unrealized losses/(gains), of which the unrealized portions are offset by the effects of regulatory accounting until settlement of the underlying transactions, are recorded in Revenues, net or Purchased power and fuel expense in the condensed consolidated statements of income and comprehensive income. Includes $2 million net realized gains for the three months ended June 30, 2024 and no net realized gains or losses for the three

months ended June 30, 2023. For the six-month periods ended June 30, 2024 and 2023, includes $1 million in net realized gains and $3 million in net realized losses, respectively.

Transfers out of Level 3 occur when the significant inputs become more observable, such as when the time between the valuation date and the delivery term of a transaction becomes shorter.

Long-term debt is recorded at amortized cost in PGE's condensed consolidated balance sheets. The value of the Company's FMBs and Pollution Control Revenue Bonds is classified as a Level 2 fair value measurement.

As of June 30, 2024, the carrying amount of PGE's long-term debt was $4,433 million, net of $15 million of unamortized debt expense, and its estimated aggregate fair value was $3,457 million. As of December 31, 2023, the carrying amount of PGE's long-term debt was $3,985 million, net of $14 million of unamortized debt expense, and its estimated aggregate fair value was $3,705 million.

NOTE 5: RISK MANAGEMENT

PGE participates in the wholesale marketplace to balance its supply of power, which consists of its own generation combined with wholesale market transactions, to meet the needs of its retail customers, manage risk, and administer the Company's long-term wholesale contracts. Wholesale market transactions include purchases and sales of both power and fuel resulting from economic dispatch decisions with respect to Company-owned generation resources. The Company also performs portfolio management and wholesale market services for third parties in the region. As a result of this ongoing business activity, PGE is exposed to commodity price risk and foreign currency exchange rate risk, from which changes in prices and/or rates may affect the Company's financial position, results of operations, or cash flows.

PGE utilizes derivative instruments to manage its exposure to commodity price risk and foreign exchange rate risk in order to reduce volatility in NVPC for its retail customers. Such derivative instruments, recorded at fair value on the condensed consolidated balance sheets, may include forwards, futures, swaps, and options contracts for electricity, natural gas, and foreign currency, with changes in fair value recorded in the condensed consolidated statements of income and comprehensive income. In accordance with ratemaking and cost recovery processes authorized by the OPUC, PGE recognizes a regulatory asset or liability to defer the gains and losses from derivative activity until settlement of the associated derivative instrument. The Company may designate certain derivative instruments as cash flow hedges or may use derivative instruments as economic hedges. PGE does not intend to engage in trading activities for non-retail purposes.

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PGE's Assets and Liabilities from price risk management activities consist of the following (in millions):

	June 30, 2024	December 31, 2023
Current assets:		
Commodity contracts:		
Electricity	$ 24	$ 13
Natural gas	13	9
Total current derivative assets [1]	37	22
Noncurrent assets:		
Commodity contracts:		
Electricity	8	9
Natural gas	2	2
Total noncurrent derivative assets [1]	10	11
Total derivative assets [2]	$ 47	$ 33
Current liabilities:		
Commodity contracts:		
Electricity	$ 52	$ 51
Natural gas	90	113
Total current derivative liabilities	142	164

Noncurrent liabilities:		
Commodity contracts:		
Electricity	16	22
Natural gas	42	53
Total noncurrent derivative liabilities	58	75
Total derivative liabilities (2)	$ 200	$ 239

(1) Total current derivative assets are included in Other current assets, and Total noncurrent derivative assets are included in Other noncurrent assets on the condensed consolidated balance sheets.
(2) As of June 30, 2024 and December 31, 2023, no derivative assets or liabilities were designated as hedging instruments.

PGE's net volumes related to its Assets and Liabilities from price risk management activities resulting from its derivative transactions, which are expected to deliver or settle at various dates through 2035, were as follows (in millions):

	June 30, 2024	December 31, 2023
Commodity contracts:		
Electricity	5 MWhs	3 MWhs
Natural gas	193 Decatherms	213 Decatherms
Foreign currency	$ 25 Canadian	$ 20 Canadian

PGE has elected to report positive and negative exposures resulting from derivative instruments pursuant to agreements that meet the definition of a master netting arrangement gross on the condensed consolidated balance sheets. In the case of default on, or termination of, any contract under the master netting arrangements, such agreements provide for the net settlement of all related contractual obligations with a given counterparty through a single payment. These types of transactions may include non-derivative instruments, derivatives qualifying for scope exceptions, receivables and payables arising from settled positions, and other forms of non-cash collateral, such as letters of credit. As of June 30, 2024, gross amounts included as Price risk management liabilities subject to master netting agreements were $29 million, comprised of $23 million for natural gas and $6 million for electricity, for which PGE has posted no collateral. As of December 31, 2023, gross amounts included as Price risk

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management liabilities subject to master netting agreements were $28 million, for which PGE had posted $1 million collateral. Of the gross amounts recognized as of December 31, 2023, $25 million was for natural gas and $3 million was for electricity.

Net realized and unrealized losses (gains) on derivative transactions not designated as hedging instruments are classified in Revenues, net or Purchased power and fuel, as applicable, in the condensed consolidated statements of income and comprehensive income and were as follows (in millions):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Commodity contracts:				
Electricity	$ (11)	$ 88	$ (30)	$ 53
Natural Gas	6	65	20	197

Net unrealized and certain net realized losses/(gains) presented in the table above are offset within the condensed consolidated statements of income and comprehensive income by the effects of regulatory accounting. Of the net amounts recognized in Net income for the three-month periods ended June 30, 2024 and 2023, net gains of $5 million and net losses of $157 million, respectively, have been offset. Net gains of $54 million and net losses of $363 million have been offset for the six-month periods ended June 30, 2024 and 2023, respectively.

Assuming no changes in market prices and interest rates, the following table indicates the year in which the net unrealized loss/(gain) recorded as of June 30, 2024 related to PGE's derivative activities would become realized as a result of the settlement of the underlying derivative instrument (in millions):

	2024	2025	2026	2027	2028	Thereafter	Total
Commodity contracts:							

Electricity	$ 19	$ 18	$ (1)	$ (1)	$ —	$ 1	$ 36
Natural gas	45	46	24	2	—	—	117
Net unrealized loss/(gain)	$ 64	$ 64	$ 23	$ 1	$ —	$ 1	$ 153

PGE's secured and unsecured debt is currently rated at investment grade by Moody's Investors Service (Moody's) and S&P Global Ratings (S&P). Should Moody's or S&P reduce their rating on the Company's unsecured debt to below investment grade, PGE could be subject to requests by certain wholesale counterparties to post additional performance assurance collateral, in the form of cash or letters of credit, based on total portfolio positions with each of those counterparties. Certain other counterparties would have the right to terminate their agreements with the Company.

The aggregate fair value of derivative instruments with credit-risk-related contingent features that were in a liability position as of June 30, 2024 was $189 million, for which PGE has posted $56 million in collateral, consisting of $11 million of letters of credit and $45 million of cash. If the credit-risk-related contingent features underlying these agreements were triggered at June 30, 2024, the cash requirement to either post as collateral or settle the instruments immediately would have been $131 million. As of June 30, 2024, PGE had no cash collateral posted for derivative instruments with no credit-risk-related contingent features. Cash collateral for derivative instruments is classified as Margin deposits included in Other current assets on the Company's condensed consolidated balance sheets.

As of June 30, 2024, PGE held from counterparties $10 million in collateral, consisting of $5 million of letters of credit and $5 million of cash. The obligation to return cash collateral held for derivative instruments is included in Accrued expenses and other current liabilities on the Company's condensed consolidated balance sheets.

PGE is exposed to credit risk in its commodity price risk management activities related to potential nonperformance by counterparties. Credit risk may be concentrated to the extent the Company's counterparties have similar economic, industry or other characteristics and due to direct or indirect relationships among the counterparties. PGE manages the risk of counterparty default according to its credit policies by performing financial credit reviews, setting limits and monitoring exposures, and requiring collateral (in the form of cash, letters of credit, and guarantees) when needed. The Company also uses standardized enabling agreements and, in certain cases, master netting agreements, which allow for the netting of positive and negative exposures under multiple agreements with counterparties.

See Note 4, Fair Value of Financial Instruments, for additional information concerning the determination of fair value for the Company's Assets and Liabilities from price risk management activities.

NOTE 6: EARNINGS PER SHARE

Basic earnings per share are computed based on the weighted average number of common shares outstanding during the period. Diluted earnings per share are computed using the weighted average number of common shares outstanding and the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Potential common shares consist of: i) employee stock purchase plan shares; ii) contingently issuable time-based and performance-based restricted stock units, along with associated dividend equivalent rights; and iii) shares issuable pursuant to the at the market offering program. Unvested performance-based restricted stock units and associated dividend equivalent rights are included in dilutive potential common shares only after the performance criteria have been met.

For the three and six months ended June 30, 2024, unvested performance-based restricted stock units and related dividend equivalent rights of 513 thousand shares were excluded from the dilutive calculation because the performance goals had not been met, with 440 thousand shares excluded for the three and six months ended June 30, 2023.

Net income is the same for both the basic and diluted earnings per share computations. The denominators of the basic and diluted earnings per share computations are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Weighted-average common shares outstanding—basic	103,034	97,087	102,167	94,478

Dilutive effect of potential common shares *	198	543	171	472
Weighted-average common shares outstanding—diluted	103,232	97,630	102,338	94,950

* As of June 30, 2023, 292 thousand incremental shares were included in the calculation of diluted EPS related to the securities under the EFSA. There was no dilutive impact from the EFSA in 2024 as it was settled in July 2023.

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NOTE 7: SHAREHOLDERS' EQUITY

The activity in equity during the three and six-month periods ended June 30, 2024 and 2023 was as follows (dollars in millions, except per share amounts):

	Common Stock		Accumulated Other Comprehensive Loss	Retained Earnings	Total
	Shares	Amount			
Balances as of December 31, 2023	101,159,609	$ 1,750	$ (5)	$ 1,574	$ 3,319
Issuances of shares pursuant to equity-based plans	148,926	—	—	—	—
Issuances of shares pursuant to equity agreements	1,714,972	78	—	—	78
Dividends declared ($0.4750 per share)	—	—	—	(48)	(48)
Net income	—	—	—	109	109
Other comprehensive income	—	—	1	—	1
Balances as of March 31, 2024	103,023,507	$ 1,828	$ (4)	$ 1,635	$ 3,459
Issuances of shares pursuant to equity-based plans	43,176	1	—	—	1
Stock-based compensation	—	4	—	—	4
Dividends declared ($0.5000 per share)	—	—	—	(52)	(52)
Net income	—	—	—	72	72
Balances as of June 30, 2024	103,066,683	$ 1,833	$ (4)	$ 1,655	$ 3,484
Balances as of December 31, 2022	89,283,353	$ 1,249	$ (4)	$ 1,534	$ 2,779
Issuances of shares pursuant to equity-based plans	159,603	—	—	—	—
Issuances of shares pursuant to equity agreements	7,178,016	300	—	—	300
Stock-based compensation	—	(1)	—	—	(1)
Dividends declared ($0.4525 per share)	—	—	—	(40)	(40)
Net income	—	—	—	74	74
Balances as of March 31, 2023	96,620,972	$ 1,548	$ (4)	$ 1,568	$ 3,112
Issuances of shares pursuant to equity-based plans	30,245	1	—	—	1
Issuances of shares pursuant to equity agreements	2,212,610	92			92
Stock-based compensation	—	6	—	—	6
Other comprehensive income	—	—	1	—	1
Dividends declared ($0.4750 per share)	—	—	—	(51)	(51)
Net income	—	—	—	39	39
Balances as of June 30, 2023	98,863,827	$ 1,647	$ (3)	$ 1,556	$ 3,200

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At-the-Market Offering Program—On April 28, 2023, PGE entered into an equity distribution agreement under which it could sell up to $300 million of its common stock through at the market offering programs. In 2023, pursuant to the terms of the equity distribution agreement, PGE entered into separate forward sale agreements with forward counterparties. In March 2024, the Company issued 1,714,972 shares pursuant to the agreements and received net proceeds of $78 million. In 2024, PGE entered into additional forward sale agreements with forward counterparties, exhausting the $300 million facility. As of June 30, 2024, these additional agreements were outstanding. The Company could have physically settled the remaining amount by delivering 5,139,501 shares in exchange for cash of $218 million as of June 30, 2024. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity.

NOTE 8: CONTINGENCIES

PGE is subject to legal, regulatory, and environmental proceedings, investigations, and claims that arise from time to time in the ordinary course of its business. Contingencies are evaluated using the best information available at the time the condensed consolidated financial statements are prepared. Legal costs incurred in connection with loss contingencies are expensed as incurred. The Company may seek regulatory recovery of certain costs that are incurred in connection with such matters, although there can be no assurance that such recovery would be granted.

Loss contingencies are accrued, and disclosed if material, when it is probable that an asset has been impaired or a liability incurred as of the financial statement date and the amount of the loss can be reasonably estimated. If a reasonable estimate of probable loss cannot be determined, a range of loss may be established, in which case the minimum amount in the range is accrued, unless some other amount within the range appears to be a better estimate.

A loss contingency will also be disclosed when it is reasonably possible that an asset has been impaired, or a liability incurred, if the estimate or range of potential loss is material. If a probable or reasonably possible loss cannot be reasonably estimated, then PGE: i) discloses an estimate of such loss or the range of such loss, if the Company is able to determine such an estimate; or ii) discloses that an estimate cannot be made and the reasons why the estimate cannot be made.

If an asset has been impaired or a liability incurred after the financial statement date, but prior to the issuance of the financial statements, the loss contingency is disclosed, if material, and the amount of any estimated loss is recorded in either the current or the subsequent reporting period, depending on the nature of the underlying event.

PGE evaluates, on a quarterly basis, developments in such matters that could affect the amount of any accrual, as well as the likelihood of developments that would make a loss contingency both probable and reasonably estimable. The assessment as to whether a loss is probable or reasonably possible, and as to whether such loss or a range of such loss is estimable, often involves a series of complex judgments about future events. Management is often unable to estimate a reasonably possible loss, or a range of loss, particularly in cases in which: i) the damages sought are indeterminate or the basis for the damages claimed is not clear; ii) the proceedings are in the early stages; iii) discovery is not complete; iv) the matters involve novel or unsettled legal theories; v) significant facts are in dispute; vi) a large number of parties are represented (including circumstances in which it is uncertain how liability, if any, would be shared among multiple defendants); or vii) a wide range of potential outcomes exist. In such cases, there may be considerable uncertainty regarding the timing or ultimate resolution, including any possible loss, fine, penalty, or business impact.

EPA Investigation of Portland Harbor

An investigation by the United States Environmental Protection Agency (EPA) of a segment of the Willamette River known as Portland Harbor that began in 1997 revealed significant contamination of river sediments. The EPA subsequently included Portland Harbor on the National Priority List pursuant to the federal Comprehensive

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Environmental Response, Compensation, and Liability Act as a federal Superfund site. PGE has been included among more than one hundred Potentially Responsible Parties (PRPs), as it historically owned or operated property near the river.

A Portland Harbor site remedial investigation was completed pursuant to an agreement between the EPA and several PRPs known as the Lower Willamette Group (LWG), which did not include PGE. The LWG funded the remedial investigation and feasibility study and stated that it had incurred $115 million in investigation-related costs. The Company anticipates that such costs will ultimately be allocated to PRPs as a part of the allocation process for remediation costs of the EPA's preferred remedy.

The EPA finalized a feasibility study, along with the remedial investigation, and the results provided the framework for the EPA to determine a clean-up remedy for Portland Harbor that was documented in a Record of Decision (ROD) issued in 2017. The ROD outlined the EPA's selected remediation plan for clean-up of Portland Harbor that had an undiscounted estimated total cost of $1.7 billion, comprised of $1.2 billion related to remediation construction costs and $0.5 billion related to long-term operation and maintenance costs. Remediation construction costs were estimated to be incurred over a 13-year period, with long-term operation and maintenance costs estimated to be incurred over a 30-year period from the start of construction. Stakeholders have raised concerns that the EPA's cost estimates are understated, and PGE estimates undiscounted total remediation costs for Portland Harbor per the ROD could range from $1.9 billion to $3.5 billion. The EPA acknowledged the estimated costs were based on data that was outdated and that pre-remedial design sampling was necessary to gather updated baseline data to better refine the remedial design and estimated cost.

A small group of PRPs performed pre-remedial design sampling to update baseline data and submitted the data in an updated evaluation report to the EPA for review. The evaluation report concluded that the conditions of Portland Harbor have improved substantially with the passage of time. In response, the EPA indicated that while it would use the data to inform implementation of the ROD, the EPA's conclusions remained materially unchanged. With the completion of pre-remedial design sampling, Portland Harbor is now in the remedial design phase, which consists of additional technical information and data collection to be used to design the expected remedial actions. Certain PRPs, not including PGE, have entered into consent agreements to perform remedial design and the EPA has indicated it will take the initial lead to perform remedial design on the remaining areas. The Company anticipates that remedial design costs will ultimately be allocated to PRPs as a part of the allocation process for remediation costs of the EPA's preferred remedy. The entirety of Portland Harbor continues under an active engineering design phase.

PGE continues to participate in a voluntary process to determine an appropriate allocation of costs amongst the PRPs. In a letter dated June 28, 2024, the U.S. Department of Justice and the EPA indicated their expectation and objective is that the PRPs will resolve cleanup and response cost liabilities by participating in a single, overall Consent Decree as Settling Defendants with negotiations beginning in the fall of 2024 and concluding no later than March 2027. Although cost allocation activities are ongoing, significant uncertainties remain surrounding facts and circumstances that are integral to the determination of such an allocation percentage, including conclusion of remedial design, a final allocation methodology, and data with regard to property specific activities and history of ownership of sites within Portland Harbor that will inform the precise boundaries for clean-up. It is probable that PGE will share in a portion of the costs related to Portland Harbor.

Based on the above facts and remaining uncertainties in the voluntary allocation process, PGE does not currently have sufficient information to reasonably estimate the amount, or range, of its potential liability or determine an allocation percentage that would represent PGE's portion of the liability to clean-up Portland Harbor. However, the Company may obtain sufficient information, prior to the final determination of allocation percentages among PRPs, to develop a reasonable estimate, or range, of its potential liability that would require recording of the estimate, or

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low end of the range. The Company's liability related to the cost of remediating Portland Harbor could be material to PGE's financial position.

In cases in which injuries to natural resources have occurred as a result of releases of hazardous substances, federal and state natural resource trustees may seek to recover for damages at such sites, which are referred to as Natural Resource Damages (NRD). The EPA does not manage NRD assessment activities but does provide claims information and coordination support to the NRD trustees. NRD assessment activities are typically conducted by a Council made up of the trustee entities for the site. The Portland Harbor NRD trustees consist of the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, the State, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe.

The NRD trustees may seek to negotiate legal settlements or take other legal actions against the parties responsible for the damages. Funds from such settlements must be used to restore injured resources and may also compensate the trustees for costs incurred in assessing the damages. PGE's portion of NRD liabilities related to Portland Harbor will not have a material impact on its results of operations, financial position, or cash flows.

The impact of costs related to EPA and NRD liabilities on the Company's results of operations is mitigated by the Portland Harbor Environmental Remediation Account (PHERA) mechanism. As approved by the OPUC in 2017, the PHERA allows the Company to defer estimated liabilities and recover incurred environmental expenditures related to Portland Harbor through a combination of third-party proceeds, including but not limited to insurance recoveries, and, if necessary, through customer prices. The mechanism established annual prudency reviews of environmental expenditures and third-party proceeds. Annual expenditures in excess of $6 million, excluding expenses related to contingent liabilities, are subject to an annual earnings test and would be ineligible for recovery to the extent PGE's actual regulated return on equity exceeds its return on equity as authorized by the OPUC in PGE's most recent GRC. PGE's results of operations may be impacted to the extent such expenditures are deemed imprudent by the OPUC or ineligible per the prescribed earnings test. The Company plans to seek recovery of any costs resulting from EPA's determination of liability for Portland Harbor through application of the PHERA. At this time, PGE is not collecting any Portland Harbor cost from the PHERA through customer prices.

Governmental Investigations

In March, April, and May 2021, the Division of Enforcement of the Commodity Futures Trading Commission (CFTC), the Division of Enforcement of the SEC, and the Division of Enforcement of the FERC, respectively, informed the Company they are conducting investigations arising out of the energy trading losses the Company previously announced in August 2020. The Company is cooperating with the CFTC, the SEC, and the FERC. Management cannot predict the eventual scope or outcome of these matters.

Colstrip-Related Litigation

The Company has a 20% ownership interest in the Colstrip Units 3 and 4 coal-fired generating plant (Colstrip), which is located in the state of Montana and operated by one of the co-owners, Talen Montana, LLC (Talen). Various business disagreements have arisen amongst the co-owners regarding interpretation of the Ownership and Operation (O&O) Agreement and other matters. An arbitration process has been initiated to address such business disagreements and, along with other matters related to Colstrip, are summarized below.

Arbitration—In March 2021, co-owner NorthWestern Corporation (NorthWestern) initiated arbitration against all other co-owners of Colstrip to determine whether co-owners representing 55% or more of the ownership shares can vote to close one or both units of Colstrip, or, alternatively, whether unanimous consent is required. The O&O

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Agreement among the parties states that any dispute shall be submitted for resolution to a single arbitrator with appropriate expertise. The parties had agreed to stay the arbitration through April 1, 2024 and are now in the process of reengaging in arbitration discussions. An arbitration date has not yet been scheduled. PGE cannot predict the ultimate outcome of the arbitration process.

Richard Burnett; Colstrip Properties Inc., et al v. Talen Montana, LLC; PGE, et al.—In December 2020, the original claim was filed in the Montana Sixteenth Judicial District Court, Rosebud County, Cause No. CV-20-58. The plaintiffs allege they have suffered adverse effects from the defendants' coal dust. In August 2021, the claim was amended to add PGE as a defendant. Plaintiffs are seeking economic damages, costs and disbursements, punitive damages, attorneys' fees, and an injunction prohibiting defendants from allowing coal dust to blow onto plaintiffs' properties, as determined by the Court. The trial date has been rescheduled for June 2, 2025. The Company is unable to predict the outcome or estimate a range of any possible loss in this matter.

Westmoreland Mine Permits—Two lawsuits were commenced by the Montana Environmental Information Center, challenging certain permits relating to the operation of the Westmoreland Rosebud Mine, which provides coal to Colstrip. In the first, the Montana District Court for Rosebud County issued an order vacating a permit for one area of the mine. This case was appealed and on November 22, 2023, the Supreme Court of Montana reinstated the Montana District Court's determination vacating the permit and affirming the lower court order to return to the Board of Environmental Review for additional permit review considerations. In the second, the Montana Federal District Court issued findings and recommended that a decision approving expansion of the mine into a new area should be vacated, but recommended the decision not take effect for 365 days from the date of a final order. On November 24, 2023, the Ninth Circuit Court of Appeals dismissed the appeal by Westmoreland for lack of appellate jurisdiction and noted that the appropriate venue to raise issues will be the U.S. Office of Surface Mining during the remand process. PGE is not a party to either of these proceedings, but is continuing to monitor the progress of both lawsuits and assess the impact, if any, of the proceedings on Westmoreland's ability to meet its contractual coal supply obligations.

Other Matters

PGE is subject to other regulatory, environmental, and legal proceedings, investigations, and claims that arise from time to time in the ordinary course of business that may result in judgments against the Company. Although management currently believes that resolution of such known matters, individually and in the aggregate, will not have a material impact on its financial position, results of operations, or cash flows, these matters are subject to inherent uncertainties, and management's view of these matters may change in the future.

NOTE 9: GUARANTEES

PGE enters into financial agreements for, and purchase and sale agreements involving physical delivery of, both power and natural gas that include indemnification provisions relating to certain claims or liabilities that may arise relating to the transactions contemplated by these agreements. Generally, a maximum obligation is not explicitly stated in the indemnification provisions and, therefore, the overall maximum amount of the obligation under such indemnifications cannot be reasonably estimated. PGE periodically evaluates the likelihood of incurring costs under such indemnities based on the Company's historical experience and the evaluation of the specific indemnities. As of June 30, 2024, management believes the likelihood is remote that PGE would be required to perform under such indemnification provisions or otherwise incur any significant losses with respect to such indemnities. The Company has not recorded any liability on the condensed consolidated balance sheets with respect to these indemnities.

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NOTE 10: INCOME TAXES

Income tax expense for interim periods is based on the estimated annual effective tax rate, which includes tax credits, regulatory flow-through adjustments, and other items, applied to the Company's year-to-date, pre-tax income. The significant differences between the Federal statutory tax rate and PGE's effective tax rate are reflected in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Federal statutory tax rate	21.0 %	21.0 %	21.0 %	21.0 %
Federal tax credits*	(18.5)	(11.2)	(17.1)	(10.0)
State and local taxes, net of federal tax benefit	9.2	8.3	9.1	8.8
Flow-through depreciation and cost basis differences	(0.7)	(0.6)	(0.6)	0.5
Reversal of excess deferred income tax	(2.9)	(3.8)	(2.7)	(3.7)
Other	0.8	7.1	0.3	0.9
Effective tax rate	8.9 %	20.8 %	10.0 %	17.5 %

* Federal tax credits primarily consist of production tax credits (PTCs) earned from Company-owned wind-powered generating facilities. PTCs are earned based on a per-kilowatt hour rate and, as a result, the annual amount of PTCs earned will vary based on weather conditions and availability of the facilities. PTCs are earned for 10 years from the in-service dates of the corresponding facilities. PGE's PTC generation will end at various dates through 2034.

Carryforwards

Federal tax credit carryforwards as of June 30, 2024 and December 31, 2023 were $94 million and $73 million, respectively. These credits primarily consist of PTCs, which will expire at various dates through 2044. PGE included anticipated proceeds from the sale of tax credits in determining the need for a valuation allowance. PGE believes that it is more likely than not that its deferred income tax assets as of June 30, 2024 will be realized, however a valuation allowance has been recorded for the expected discount on the sale of tax credits. The valuation allowance as of June 30, 2024 was $1 million and was deferred as a regulatory asset. As of December 31, 2023, no material valuation allowance was recorded. As of June 30, 2024, and December 31, 2023, PGE had no material unrecognized tax benefits.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward-Looking Statements

The information in this report includes statements that are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, statements that relate to expectations, beliefs, plans, assumptions, and objectives concerning future results of operations, business prospects, loads, outcome of litigation and regulatory proceedings, capital expenditures, market conditions, events or performance, and other matters. Words or phrases such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "predicts," "projects," "will likely result," "will continue," "should," "based on," "conditioned upon," "considers," "could," "expected," "forecast," "goals," "needs," "promises," "subject to," "targets," or similar expressions are intended to identify such forward-looking statements.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties that could cause actual results or outcomes to differ materially from those expressed. Portland General Electric Company's

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(PGE, or the Company) expectations, beliefs, and projections are expressed in good faith and are believed by the Company to have a reasonable basis including, but not limited to, management's examination of historical operating trends and data contained either in internal records or available from third parties, but there can be no assurance that PGE's expectations, beliefs, or projections will be achieved or accomplished.

In addition to any assumptions and other factors and matters referred to specifically in connection with forward-looking statements, factors that could cause actual results or outcomes for PGE to differ materially from those discussed in such forward-looking statements include:

- governmental policies, legislative action, and regulatory audits, investigations, and actions, including those of the Federal Energy Regulatory Commission (FERC), the Public Utility Commission of Oregon (OPUC), the United States Securities and Exchange Commission (SEC), and the Division of Enforcement of the Commodity Futures Trading Commission, with respect to allowed rates of return, financings, electricity pricing and price structures, acquisition and disposal of facilities and other assets, construction and operation of plant facilities, transmission of electricity, recovery of power costs, operating expenses, deferrals, timely recovery of costs and capital investments, energy trading activities, and current or prospective wholesale and retail competition;
- economic conditions that result in decreased demand for electricity, reduced revenue from sales of excess energy during periods of low wholesale market prices, impaired financial stability of vendors and service providers, and elevated levels of uncollectible customer accounts;
- inflation and volatility in interest rates;
- changing customer expectations and choices that may reduce customer demand for PGE's services may impact the Company's ability to make and recover its investments through rates and earn its authorized return on equity, including the impact of growing distributed and renewable generation resources, changing customer demand for enhanced electric services, and an increasing risk that customers procure electricity from Electricity Service Suppliers (ESSs) or the adoption of community choice aggregation;
- the timing or outcome of legal and regulatory proceedings and issues including, but not limited to, the matters described in Regulatory Matters of the "Overview" in this Item 2, along with "Regulatory Assets and Liabilities" in Note 3, Balance Sheet Components and Note 8, Contingencies in the Notes to the Condensed Consolidated Financial Statements in Item 1. Financial Statements of this Quarterly Report on Form 10-Q;
- natural or human-caused disasters and other risks, including, but not limited to, earthquake, flood, ice, drought, extreme heat, lightning, wind, fire, accidents, equipment failure, acts of terrorism, computer system outages, and other events that disrupt PGE operations, damage PGE facilities and systems, cause the release of harmful materials, cause fires, and subject the Company to liability;
- cybersecurity attacks, data security breaches, physical attacks and security breaches, or other malicious acts that cause damage to the Company's generation, transmission, or distribution facilities, information technology systems, inhibit the capability of equipment

or systems to function as designed or expected, or result in the release of confidential customer, vendor, employee, or Company information;

- the effects of climate change, whether global or local in nature, including unseasonable or extreme weather and other natural phenomena that may affect energy costs or consumption, increase the Company's costs, cause damage to PGE facilities and system, or adversely affect its operations;
- unseasonable or severe weather and other natural phenomena, such as the greater size and prevalence of wildfires in Oregon in recent years, which could affect public safety, customers' demand for power, and PGE's ability and cost to procure adequate power and fuel supplies to serve its customers, access the wholesale energy market, or operate its generating facilities and transmission and distribution systems, and the Company's costs to maintain, repair, and replace such facilities and systems, and recovery of such costs;

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- PGE's ability to effectively implement a public safety power shutoff (PSPS) and de-energize its system in the event of heightened wildfire risk or implement effective system hardening programs, the inability of which could lead to potential liability if energized systems are involved in wildfires that cause harm, as well as the risk that damages from wildfires may not be recoverable through rates or insurance, resulting in impact to the financial condition, results of operations, or reputation of the Company;
- operational factors affecting PGE's power generating facilities and battery storage facilities, including forced outages, fires, unscheduled delays, hydro and wind conditions, and disruption of fuel supply, any of which may cause the Company to incur repair costs or purchase replacement power at increased costs;
- default or nonperformance on the part of any parties from whom PGE purchases fuel, capacity, or energy, which may cause the Company to incur costs to purchase replacement power and related renewable attributes at increased costs;
- complications arising from PGE's jointly-owned plant, including changes in ownership, adverse regulatory outcomes or legislative actions, or operational failures that result in legal or environmental liabilities or unanticipated costs related to replacement power or repair costs;
- delays in the supply chain and increased supply costs, failure to complete capital projects on schedule or within budget, inability to complete negotiations on contracts for capital projects, failure of counterparties to perform under agreements, or the abandonment of capital projects, any of which could result in the Company's inability to recover project costs or impact PGE's competitive position, market share, or results of operations in a material way;
- volatility in wholesale power and natural gas prices, including but not limited to volatility caused by macroeconomic and international issues, that could require PGE to post additional collateral or issue additional letters of credit pursuant to power and natural gas purchase agreements;
- changes in the availability and price of wholesale power and fuels, including natural gas and coal, and the impact of such changes on the Company's power costs;
- capital market conditions, including availability of capital, volatility of interest rates, reductions in demand for investment-grade commercial paper, volatility of equity markets as well as changes in PGE's credit ratings and outlook on such credit ratings, any of which could have an impact on the Company's cost of capital and its ability to access the capital markets to support requirements for working capital, construction of capital projects, the repayments of maturing debt, and stock-based compensation plans, which are relied upon in part to retain key executives and employees;
- future laws, regulations, and proceedings that could increase the Company's costs of operating its thermal generating plants, or affect the operations of such plants by imposing requirements for additional emissions controls or significant emissions fees or taxes in order to mitigate carbon dioxide, mercury, and other gas emissions;
- changes in, and compliance with, environmental laws and policies, including those related to threatened and endangered species, fish, and wildlife;
- changes in residential, commercial, or industrial customer growth, or demographic patterns, including changes in load resulting in future transmission constraints, in PGE's service territory;
- the effectiveness of PGE's risk management policies and procedures;
- employee workforce factors, including potential strikes, work stoppages, transitions in senior management, the ability to recruit and retain key employees and other talent, and turnover due to macroeconomic trends such as voluntary resignation of large numbers of employees similar to that experienced by other employers and industries since the beginning of the COVID-19 pandemic;
- new federal, state, and local laws that could have adverse effects on operating results;

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- failure to achieve the Company's greenhouse gas emission goals or being perceived to have either failed to act responsibly with respect to the environment or effectively respond to legislative requirements concerning greenhouse gas emission reductions, any of which could lead to adverse publicity and have adverse effects on the Company's operations and/or damage the Company's reputation;
- social attitudes regarding the electric utility and power industries;
- political and economic conditions;
- the impact of widespread health developments and responses to such developments (such as voluntary and mandatory quarantines, including government stay at home orders, as well as shut downs and other restrictions on travel, commercial, social and other activities), which could materially and adversely affect, among other things, demand for electric services, customers' ability to pay, supply chains, personnel, contract counterparties, liquidity, and financial markets;
- changes in financial or regulatory accounting principles or policies imposed by governing bodies;
- risks and uncertainties related to current or future generation and transmission projects, including, but not limited to regulatory processes, legal actions, transmission capabilities, system interconnections, inflationary impacts, supply chain constraints, supply cost increases (including application of tariffs impacting solar module imports), permitting and construction delays, and legislative uncertainty; and
- acts of war or terrorism.

Any forward-looking statement speaks only as of the date on which such statement is made and, except as required by law, PGE undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time and it is not possible for management to predict all such factors or assess the impact of any such factor on the business or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statement.

OVERVIEW

Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) is intended to provide an understanding of the business environment, results of operations, and financial condition of PGE. MD&A should be read in conjunction with the Company's condensed consolidated financial statements contained in this report, and other periodic and current reports filed with the SEC.

PGE is a vertically-integrated electric utility engaged in the generation, transmission, distribution, and retail sale of electricity. The Company participates in wholesale markets by purchasing and selling electricity and natural gas in an effort to meet the needs of, and obtain reasonably-priced power for, its retail customers, manage risk, and administer its long-term wholesale contracts. In addition, PGE continues to develop products and service offerings for the benefit of retail and wholesale customers. The Company generates revenues and cash flows primarily from the sale and distribution of electricity to retail customers in its service territory in the State of Oregon (State).

Company Strategy

The Company exists to power the advancement of society. PGE energizes lives, strengthens communities, and fosters energy solutions that promote social, economic, and environmental progress. The Company is committed to being a clean energy leader and delivering steady growth and returns to shareholders. PGE is focused on working with customers, communities, policy makers, and other stakeholders to deliver affordable, safe, reliable electricity service to all, while increasing opportunities to deliver clean and renewable energy, reducing greenhouse gas emissions, and responding to evolving customer expectations. At the same time, the Company is building an increasingly smart, integrated, and interconnected grid that spans from residential customers to other utilities within

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the region. PGE is transforming all aspects of its business to empower its workforce to be even more results oriented to serve customers well. To create a clean energy future, PGE is focused on the following strategic imperatives:

- *Decarbonize Power*—Reduce greenhouse gas (GHG) emissions associated with electricity served to retail customers by at least 80% by 2030 and 100% by 2040;
- *Electrify the Economy*—Increase beneficial electricity use to capture the benefits of new technologies while building an increasingly clean, flexible, and reliable grid; and

- *Advance Performance*—Improve safety, efficiency, and system and equipment reliability while maintaining affordable energy service and growing earnings per share 5% to 7% annually.

Climate Change

State-mandated GHG emissions reduction targets—In June 2021, the Oregon legislature passed House Bill (HB) 2021, establishing a 100% clean electricity by 2040 framework for PGE and other investor-owned utilities and electric service suppliers in the State. A number of provisions in the bill align with PGE's strategic direction and highlight Oregon's ambitious, economy-wide goals to combat climate change. The GHG emissions reduction targets applicable to these regulated entities are an 80% reduction in GHG emissions by 2030, 90% by 2035, and 100% by 2040 and every year thereafter. For more information regarding HB 2021 and the baseline to which the target reductions apply, see *"HB 2021"* in the "Laws and Regulations" section of this Overview.

Empowering customers and communities—PGE's customers have a desire for purchasing clean energy, as over 228 thousand residential and small commercial customers voluntarily participate in PGE's Green Future Program, the largest renewable power program by participation in the nation. In 2017, Oregon's most populous city, Portland, and most populous county, Multnomah, each passed resolutions to achieve 100% clean and renewable electricity by 2035 and 100% economy-wide clean and renewable energy by 2050. Other jurisdictions in PGE's service area have similar goals and continue to consider similar goals for the future.

The Company implemented a customer subscription option, the Green Future Impact Program, which is a renewable energy program that allows large business and municipality customers to have a choice in how they source their electricity. Under the Green Future Impact Program, customers can enroll in a Customer-Supplied Option (CSO) or PGE-Supplied Option (PSO). Under the CSO, participants are responsible for finding a renewable energy facility that meets established requirements and bringing those resources to PGE. Under the PSO, customers who enrolled in Phase I can receive energy from PGE-provided purchased power agreements (PPAs) for renewable resources and customers who enroll in Phase II can receive energy either from PGE-provided PPAs for renewable resources or energy from renewable resources that are PGE owned, under certain conditions.

As of June 30, 2024, the Green Future Impact Program has an approved capacity of 750 MW nameplate. Through this voluntary program, the Company seeks to support customers' clean energy acceleration.

The Climate Pledge—In 2021, PGE joined The Climate Pledge, a commitment to be net-zero annual carbon emissions by 2040, which is a decade ahead of the Paris Agreement's goal of 2050. As a signatory to The Climate Pledge, PGE agrees to: i) measure and report GHG emissions on a regular basis; ii) implement decarbonization strategies in line with the Paris Agreement through real business changes and innovations, including efficiency improvements, renewable energy, materials reductions, and other carbon emission elimination strategies; and iii) neutralize any remaining emissions with additional, quantifiable, real, permanent, and socially-beneficial offsets.

Severe weather—In recent years, PGE's territory has experienced unprecedented heat, historic ice and snowstorms, and wildfires. On January 13, 2024, the Company's service territory encountered the first of a series of severe winter weather events, including snow, ice, and high winds that caused catastrophic damage to physical assets and resulted in widespread customer power outages. For more information regarding the January 2024 severe winter

weather event, see "Declared States of Emergency" within this Overview section of this Item 2. In August 2023 the region experienced a record-breaking heat wave with temperatures reaching all-time recorded highs for the month. This resulted in a peak load demand of 4,498 MW, exceeding the Company's previous all-time peak load demand, and surpassing the prior summer peak load by nearly 6%. The increase and severity of weather events highlights the importance of combating the effects of climate change through decarbonizing the power supply and investing in a more reliable and resilient grid.

Investing in a Clean Energy Future

The Resource Planning Process— PGE's resource planning process includes working with customers, stakeholders, and regulators to chart the course toward a clean, affordable, and reliable energy future. With the passage of HB 2021, PGE created a Clean Energy Plan (CEP), which articulates the Company's strategy to meet the 2030, 2035, and 2040 emission reduction targets through an equitable transition to a decarbonized grid. The CEP is based on, and was filed in connection with, the Company's 2023 Integrated Resource Plan (IRP). PGE filed its first combined IRP and CEP with the OPUC in March 2023. That filing projected PGE's resource and capacity needs over the next 20 years and proposed an Action Plan to meet near-term needs, subject to the new HB 2021 emissions reduction requirements.

PGE estimates a total resource need of approximately 3,500 to 4,500 MW of renewable energy and non-emitting capacity in order to meet the Company's 2030 emissions reduction target. Through the 2021 All-Source RFP, PGE procured 311 MW of wind resources and 475 MW of capacity, leaving a remaining need to procure approximately 2,700 to 3,700 MW.

On January 25, 2024, the OPUC acknowledged PGE's 2023 IRP, subject to certain conditions, providing regulatory support for the Company to pursue the near-term resource additions articulated in the Action Plan. However, the OPUC declined to acknowledge the CEP, directing the Company to provide additional forecast of its emission reductions based on new analysis in the combined CEP/IRP Update to be filed in the first quarter of 2025. PGE will continue to pursue its 2023 All-Source RFP while revising forecasts of emissions in the CEP.

2021 All-Source RFP

Pursuant to the 2021 All-Source RFP process, seeking approximately 1,000 MW of renewable resources and non-emitting dispatchable capacity, PGE entered into agreements to acquire resources as follows:

- *Clearwater Wind Development (Clearwater)*—PGE and NextEra Energy Resources, LLC, a subsidiary of NextEra Energy, Inc. entered into agreements to construct a 311 MW wind energy facility in Eastern Montana. PGE owns 208 MW of production capacity of the facility. Subsidiaries of NextEra Energy Resources, LLC, which operates the facility, owns the remaining 103 MW of production capacity and sells their portion of the output to PGE under a 30-year PPA. The company owned portion of the project was placed in-service during the first quarter of 2024 with a total cost of $424 million, including AFUDC.
- *Seaside Grid*—PGE entered into an agreement to construct a 200 MW Battery Energy Storage System (BESS) in Portland, Oregon. PGE will own the resource, with an investment of approximately $360 million, excluding AFUDC. The project has an estimated commercial operation date of June 30, 2025. As of June 30, 2024, the Company has recorded $129 million, including AFUDC, in CWIP for the Seaside Grid.
- *Constable BESS (formerly Evergreen)*—PGE entered into an agreement to construct a 75 MW BESS in Hillsboro, Oregon. PGE will own the resource, with an investment of approximately $150 million, excluding AFUDC. The project has an estimated commercial operation date of December 31, 2024. As of June 30, 2024, the Company has recorded $103 million, including AFUDC, in CWIP for the Constable BESS.

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- *Sundial BESS (formerly Troutdale Grid)*—PGE entered into a storage capacity agreement for a 200 MW BESS in Troutdale, Oregon. NextEra Energy Resources, LLC, will own the resource and will sell the capacity to PGE under a 20-year storage capacity agreement. The project has an estimated commercial operation date of December 31, 2024.

The Clearwater agreements and all BESS agreements represent the final procurement from the 2021 All-Source RFP. Resources required to meet the remaining 2030 need are anticipated to be procured through future acquisition processes, including, but not limited to, the 2023 All-Source RFP and future RFPs.

All BESS projects will be directly interconnected to PGE's system. Emissions associated with energy used to charge the BESS are accounted for when they are emitted from the generating facility. BESS projects do not add incremental emissions to the grid, and therefore, are non-emitting dispatchable capacity resources. The BESS projects will qualify for the federal investment tax credit (ITC). The Clearwater agreements qualify for production tax credits (PTCs) and are eligible under Oregon's Renewable Portfolio Standard (RPS). The agreements will be subject to prudency review by the OPUC.

In February 2022, NewSun Energy LLC (NewSun) filed a petition for judicial review in the Marion County Circuit Court against the OPUC challenging the scoring methodology in the 2021 All-Source RFP. PGE joined in the case as an intervenor. NewSun also filed a motion to stay the 2021 All-Source RFP process, which the Court subsequently denied. The OPUC filed a motion to dismiss the case and PGE joined the OPUC's motion to dismiss. NewSun opposed the motion. In May 2022, the Court granted the motion to dismiss to which NewSun responded in June 2022 by filing a notice of appeal with the Court of Appeals of the State of Oregon. After receiving multiple extensions, NewSun filed its opening brief in the appeal in February 2023 and PGE filed a response brief in June 2023. In August 2023, PGE filed a notice asking the Court to dismiss the case. That motion remains pending. Oral argument in this case occurred March 18, 2024. The parties await a decision from the Court.

In October 2022, NewSun filed a petition in Deschutes County Circuit Court seeking review of the OPUC order acknowledging, with conditions, PGE's 2021 All-Source RFP shortlist. PGE intervened in this case and, in March 2023, filed a motion to dismiss. In September 2023, the judge granted PGE's motion to dismiss. In November 2023, NewSun filed a notice of appeal in the Court of Appeals of the State of Oregon. Opening briefs in the Appeal were filed March 1, 2024, with PGE and OPUC responses filed July 12, 2024. Oral arguments are expected to occur in late 2024 or early 2025.

PGE cannot predict the outcome of these proceedings or potential impact, if any, to its 2021 All-Source RFP process.

2023 All-Source RFP

PGE filed notice with the OPUC in January 2023 that an RFP in 2023 was needed to procure resources to meet a forecasted 2026 capacity shortfall and to make continued progress toward decarbonization targets under HB 2021. These actions were consistent with the 2023 IRP Action Plan and CEP. PGE filed the draft 2023 All-Source RFP with the OPUC in May 2023 and regulatory approval was granted in January 2024. The Company issued the RFP to market on February 2, 2024, seeking bids for resources that can provide non-emitting dispatchable capacity and renewable generation. Bids were submitted in the first quarter of 2024 and are currently being evaluated based on the OPUC-approved scoring methodology. PGE plans to file for acknowledgement of a proposed final shortlist in the third quarter of 2024 with a final selection currently planned for late 2024 or early 2025.

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Transmission Upgrades

In alignment with local and regional transmission plans, the 2023 IRP Action Plan, and CEP, PGE is evaluating and implementing upgrades to existing transmission resources and expansions of current transmission networks. Transmission resource actions are intended to alleviate congestion, improve regional adequacy and reliability, enable decarbonization goals, and address growing customer demand.

On May 28, 2024, PGE signed a non-binding memorandum of understanding in the development of the North Plains Connector, an approximately 415-mile, high-voltage direct-current (HVDC) transmission line to be constructed with endpoints near Bismarck, North Dakota and Colstrip, Montana. The parties will now work to finalize definitive agreements regarding the Company's participation, which is expected to involve a 20% ownership share of the approximately $3.2 billion total investment of the project.

The North Plains Connector would be the nation's first HVDC transmission connection among three regional U.S. electric energy markets, providing additional flexibility and the sharing of resources across multiple time zones. The transmission line would provide PGE with 600 MW of transfer capacity, access to diverse energy resources, enhanced wholesale markets, and ease congestion on the existing western transmission system.

Building a resilient grid—To serve communities with clean energy, PGE's grid of the future will need to be smart and adaptive. Highlights of PGE's key investments and plans for building a resilient grid include:

- *Wildfire Mitigation*—PGE has a Wildfire Mitigation Program under which an annual Wildfire Mitigation Plan (WMP) is developed and submitted to the OPUC, as required by state law, to coordinate activities across the Company and with state-wide stakeholders. The 2024 WMP forecasts $45 million in operations and maintenance costs and an additional $43 to $49 million in capital investments in the current year to continue system hardening efforts, expand situational awareness capabilities, implement specific inspection and maintenance along with vegetation management, raise community and customer awareness, and take operational actions within high fire risk zones. PGE strives to improve regional safety by reducing the risk that the Company's electric utility infrastructure could cause a wildfire, while limiting the impacts of PSPS events and other mitigation activities on customers and increasing the resiliency of PGE assets to wildfire damage. In the six months ended June 30, 2024, PGE invested $15 million in capital projects related to wildfire mitigation and resiliency and utility asset management, consistent with the 2024 WMP.
- *Virtual Power Plant (VPP)*—PGE's VPP is a production resource comprised of Distributed Energy Resources (DERs) and flexible loads that are managed through technology platforms to provide grid and power operations services. PGE's customer offerings related to energy efficiency and flexible load programs, rooftop solar, battery storage, and electric vehicle charging solutions support grid reliability and increase portfolio flexibility and resource diversity. These DERs and flexible loads are the foundation of PGE's VPP that will provide a growing suite of grid and system services over time. When coordinated through the Company's DER Management Systems, the various DERs and flexible loads support cost-effective decarbonization, advance customer and community energy resiliency, promote customer engagement with the energy system, and unlock additional grid services that enhance PGE's operation of a dynamic two-way system. In 2023, PGE saw record energy demand of 4,498 MW on August 14. Customer actions that day, orchestrated through the VPP, reduced load by more than 90 MW, helping avoid customer service interruptions and reducing exposure to scarcity pricing in energy markets.
- *Distribution System Plan (DSP)*—In 2021 and 2022, PGE filed its inaugural DSP in two parts, which were accepted by the OPUC in March 2022 and February 2023, respectively. While the OPUC Staff is in the process of reviewing whether to modify the current DSP guidelines, PGE plans to file its next DSP in the fourth quarter of 2024. The DSP outlines distribution system assets, describes how the Company plans for new load, including distributed resources such as electric vehicles (EVs) and Solar

Photovoltaic

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installations, and presents the vision for modernizing the grid to enable accelerated decarbonization and customer participation in meeting PGE's clean energy goals.

Electrify the economy—To help Oregon reach its decarbonization goals, PGE is working to build a safe, reliable, and affordable, economy-wide, clean energy future. The Company is committed to increasing electrification of buildings and supports the accelerating pace of vehicle electrification for our customers, as well as its own vehicle fleet.

Transportation electrification is one of the most significant ways to reduce GHG emissions in Oregon. PGE is engaged with customers and communities to manage EV charging load, develop infrastructure projects aimed at improving accessibility to electric vehicle charging stations, build fleet partnerships, and offer programs to encourage customers to advance transportation electrification.

In 2021, the Oregon legislature enacted HB 2165, ensuring the OPUC has clear and broad authority to allow electric company investments in infrastructure to support transportation electrification.

In 2023, PGE's second Transportation Electrification (TE) plan was filed and accepted by the OPUC. This second TE plan considers current and planned activities, along with forecasted EV loads and potential system impacts. The 2023 TE plan represents a continuation of the approach and programmatic efforts found within PGE's 2019 TE plan while also outlining the Company's current strategy to integrate TE into utility business in order to plan, service, and manage EV load.

In the 2023 to 2025 period covered by the 2023 TE plan, capital expenditures are expected to be approximately $25 million. The final 2023 TE plan with its planned activities was accepted by the OPUC on October 17, 2023.

Businesses and families continue to turn to electricity to serve their home and workplace needs. PGE continues to pursue advanced technologies to enhance the grid, pursue distributed generation and energy storage, and develop microgrids and the use of data and analytics to better predict demand and support energy-saving customer programs.

Laws and Regulations

Federal Grants—In November 2021, the $1.2 trillion Infrastructure Investment and Jobs Act (IIJA), which includes approximately $550 billion of new federal spending, was signed into law. PGE continues to pursue multiple areas under the IIJA, and other state, federal, and private programs, for potential grant funding of projects. These projects target improvements in electrical system reliability and resiliency, wildfire situational awareness and mitigation, greater communications capabilities, advancements in customer usage analytics using artificial intelligence, renewable resources and advanced electrical grid support, hydro generation operations, hydrogen production, utility workforce development, and regional transmission capacity constraints.

As of June 30, 2024, PGE has been associated with the submission of 38 grant applications as the Prime or Sub-recipient/Supporter and has been awarded 11 grants totaling $307.8 million, including the following:

- *U.S. Department of Energy (DOE) Bethel-Round Butte Transmission Line Upgrade*—The U.S. DOE selected the Confederated Tribes of Warm Springs (CTWS), in partnership with PGE, for a $250 million grant to upgrade the existing 230 kV Bethel-Round Butte Transmission line to 500 kV. The project will accelerate the development of transmission capacity, enabling new carbon-free generation in Central and Eastern Oregon to reach customer demand loads in Western Oregon. The added capacity and associated upgrades will also increase resiliency of the transmission system as well as resiliency of the CTWS Tribal communities by increasing resources available to CTWS to support adaptation and response strategies. The U.S DOE, CTWS, and PGE are negotiating the final funding and scope for the line upgrade as part of a multi-year process.

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- *U.S. DOE Smart Grid Chip*—The U.S. DOE selected a PGE led consortium for a $50 million grant for the Smart Grid Chip project. The project will enable real-time information at each meter to improve the visibility of the electrical system to grid operators, providing detection of potential operational problems and shorten outage times, ultimately helping to anticipate and mitigate the impacts of extreme weather on grid resiliency. The DOE and PGE are negotiating the final funding and scope for the line upgrade as part of a multi-year process.

PGE is in the process of assessing the impacts of these federal grants on the Company's results of operations. Although PGE continues to apply for additional grants, the Company cannot predict the ultimate timing and success of securing funding from federal programs.

Inflation Reduction Act of 2022—The Inflation Reduction Act of 2022 (IRA) was signed into law in August 2022 with a majority of the provisions effective for tax years beginning after December 31, 2022.

The United States Treasury and the Internal Revenue Service released extensive rules addressing credit transfer eligibility and application, including but not limited to, required registration, filing, and documentation for transferors and transferees to elect and claim a credit transfer. On December 12, 2023, PGE received approval from the OPUC to transfer 2023 production tax credits and record any difference in the full value and the discounted value in a property balancing account. Consistent with options available under the IRA, PGE transferred 2023 credits with the final transfer occurring in the first quarter of 2024. On April 16, 2024, PGE received approval from the OPUC to transfer 2024 and 2025 PTCs and record any difference in the full value and the discounted value in a property balancing account. PGE has entered into an agreement to transfer 2024 and 2025 PTCs and expects to generate and transfer approximately $58 million in PTCs in 2024.

Compared to previous resource planning processes, the Company believes the new tax incentives will provide additional investment opportunities for PGE and result in lower customer prices. Increased capital expenditures in such investment opportunities would likely result in additional financing needs through debt and equity instruments.

HB 2021—In 2021, the Oregon Legislature passed HB 2021, which, among other things, requires retail electricity providers to reduce GHG emissions associated with serving Oregon retail electricity consumers 80% by 2030, 90% by 2035, and 100% by 2040, compared to baseline emissions levels, which for PGE, is calculated by using average annual emissions for the years 2010 through 2012.

HB 2021 requires utilities to develop a CEP for meeting the targets, concurrent with each IRP, that results in an affordable, reliable, and clean electric system. In reviewing a CEP, the OPUC must ensure that utilities create a plan that is in the public interest, demonstrate continual progress toward meeting the targets, and take actions as soon as practicable that facilitate rapid reduction of GHG emissions.

A law adopted in 2009 requires retail electricity providers to annually report to the Oregon Department of Environmental Quality (ODEQ) the GHG emissions associated with electricity used to serve retail customers. In the target years of 2030, 2035, and 2040, and every year thereafter in the target period, the OPUC will use the data reported to the ODEQ for that compliance year to determine whether the reduction targets are met under HB 2021.

RPS standards and related laws—In 2016, Oregon Senate Bill (SB) 1547 increased the 2007 benchmarks for the percentage of electricity that must come from renewable sources by dates certain and required the elimination of coal as a fuel for generation of electricity used to serve Oregon utility customers no later than 2030.

PGE ceased coal fired operation at its Boardman generating facility (Boardman) in 2020 and decommissioning of the plant is substantially complete. The Company has a 20% ownership share in Colstrip Units 3 and 4 coal-fired generation plant (Colstrip) and, in response to SB 1547, has accelerated depreciation of Colstrip to December 31,

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2025. In order to meet PGE's regulatory and legislative requirements, the Company continues to evaluate the possibility of exiting ownership in Colstrip. See Note 8, Contingencies, in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements" for information regarding legal proceedings related to Colstrip.

Any reduction in generation from Colstrip has the potential to provide additional capacity availability on the Colstrip transmission facilities, which stretch from eastern Montana to near the western end of that state to serve markets in the Pacific Northwest and neighboring states. PGE has an approximate 15% ownership interest in, and capacity on, the Colstrip transmission facilities. See *"Investing in a Clean Energy Future"* in this Overview for information regarding development in eastern Montana.

Other provisions of SB 1547:

- established RPS thresholds of 27% by 2025, 35% by 2030, 45% by 2035, and 50% by 2040;
- limited the life of renewable energy credits (RECs) generated from facilities that become operational after 2022 to five years, but continue unlimited lifespan for all existing RECs and allow for the generation of additional unlimited RECs for a period of five years for projects online before December 31, 2022; and
- provided opportunity to pursue recovery of energy storage costs related to renewable energy in the Company's Renewable

Adjustment Clause (RAC) filings.

PGE believes it is on track to meet the 2025 RPS threshold.

EPA Regulations for Electric Generating Facilities—On April 25, 2024, the United States Environmental Protection Agency (EPA) released a package of final regulations pertaining to electric generation facilities. The regulations include:

- Greenhouse gas regulations for new natural gas-based turbines and existing coal-based units, pursuant to section 111 of the Clean Air Act (CAA). The rule finalizes (a) the repeal of the Affordable Clean Energy rule; (b) guidelines for GHG emissions from existing fossil fuel-fired steam generating electric generating units; and (c) revisions to existing performance standards for new, reconstructed, or heavily modified fossil fuel-fired stationary combustion turbine electric generating units.
- Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (the ELG Rule), which applies to wastewater discharges from coal-based generating units and establishes pollution control requirements, building upon the 2015 and 2020 ELG Rules. The rule includes a subcategory of requirements for coal plants that will be retired or repowered by the end of 2028 and provides additional compliance pathways for coal plants that retire by the end of 2034.
- Updated Mercury and Air Toxics Standards, pursuant to section 112 of the CAA, which sets emissions limits for filterable particulate matter for coal-based generating units. The rule reduces those limits from the standards that were originally set in 2012.

PGE continues to evaluate each of these rules to assess the impact it may have on the Company's continuing investment in Colstrip, which could be material. PGE notes that a substantial number of legal challenges have been filed regarding these rules. These challenges, if successful, could affect the applicability to PGE and Colstrip specifically. To the extent these regulations result in increased compliance costs, the Company expects to seek recovery of those costs through the ratemaking process.

In addition, the regulations included Disposal of Coal Combustion Residuals from Electric Utilities – Legacy CCR Surface Impoundments. This rule builds on 2015 regulations, which apply to active power plants that dispose of coal combustion residuals in surface impoundments or landfills, by regulating inactive surface impoundments at inactive power plants, and CCR management units at active and inactive power plants. PGE has assessed the

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potential impact of the CCR regulation changes and believes it will not have a material impact on the Company's current Asset Retirement Obligations.

Regulatory Matters

PGE focuses on providing reliable, clean power to customers at affordable prices while providing a fair return to investors. To achieve this goal the Company must execute effectively within its regulatory framework and maintain prudent management of key financial, regulatory, and environmental matters that may affect customer prices and investor returns. The following discussion provides detail on such matters.

General Rate Case—On February 29, 2024, PGE filed with the OPUC a GRC based on a 2025 test year (2025 GRC) that seeks a $225 million increase in the annual revenue requirement related primarily to recovery of costs associated with non-emitting battery projects, an increase in base business costs for upgrades to PGE's transmission and distribution system, and investments in strengthening and safeguarding the grid to meet growing customer demand and bolster reliability. PGE continues to build a stronger grid designed to withstand severe weather and allow energy to flow from more resources to improve reliability, resiliency, and capability to deliver safe, dependable, clean electricity to customers. The total increase in annual revenue requirement includes an increase of $37 million as a result of higher net variable power costs expected in 2025, reflected in the Annual Power Cost Update Tariff (AUT) also filed, separately, with the OPUC February 29, 2024 (OPUC Docket UE 436). The NVPC projection will be updated periodically during 2024.

Other key items in the 2025 GRC filing include requests for a Renewable Automatic Adjustment Clause mechanism for standalone energy storage and an investment recovery mechanism.

The proposed net increase in annual revenue requirement in the 2025 GRC was based upon a:

- capital structure of 50% debt and 50% equity;
- return on equity of 9.75%;
- cost of capital of 7.189%; and
- rate base of $7.5 billion.

Regulatory review of the 2025 GRC is expected to continue throughout 2024. The Company cannot predict the ultimate outcome of the remaining regulatory process. A final order on the 2025 GRC is targeted to be issued by the OPUC by the end of 2024, with new customer prices to take effect January 1, 2025.

The 2025 GRC filing (OPUC Docket UE 435) and the 2025 AUT filing, including copies of direct testimony and exhibits, are available on the OPUC website at www.oregon.gov/puc.

***Declared states of emergency*—**Beginning January 13, 2024, the Company's service territory encountered a severe winter weather event that included snow, ice, and high winds over several days that caused catastrophic damage to physical assets and resulted in widespread customer power outages. Along with over a dozen mutual assistance crews, PGE repaired damage and restored power to over 500,000 customers throughout the storm and the days that followed.

As a result of the historic winter storm, Oregon's Governor declared a state of emergency on January 18, 2024, which allows PGE to seek recovery of incremental storm expenses through the previously filed emergency deferral, as the OPUC had pre-authorized for costs associated with declared states of emergency. On February 9, 2024, PGE filed a Notice of Deferral with the OPUC, under Docket UM 2190, related to the emergency restoration costs for the January storm and, as of June 30, 2024, has deferred as regulatory assets $44 million, including interest, of the costs

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to repair damage to PGE's transmission and distribution systems and restore power to customers. The OPUC maintains responsibility to review utility requests to amortize deferred amounts into customer prices, including a review of utility prudence in a future proceeding, among other requirements, which would include an earnings test. For further information, see "*January 2024 storm and damage"* in the Regulatory Assets and Liabilities section of Note 3, Balance Sheet Components in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements."

On July 5, 2024, the Governor of Oregon declared a statewide emergency for a heat wave that engulfed the region. The Company is in the process of determining costs that resulted from the heat wave that may be eligible for recovery under the Declared state of emergency deferral.

***Power costs*—**Pursuant to the AUT process, PGE annually files an estimate of power costs for the following year. As approved by the OPUC, the 2024 AUT included a final increase in power costs for 2024, and a corresponding increase in annual revenue requirement, of $216 million from 2023 levels, which were reflected in customer prices effective January 1, 2024.

***Portland Harbor Environmental Remediation Account (PHERA) mechanism*—**The EPA has listed PGE as one of over one hundred Potentially Responsible Parties (PRPs) related to the remediation of the Portland Harbor Superfund site. As of June 30, 2024, significant uncertainties still remained concerning the precise boundaries for clean-up, the assignment of responsibility for clean-up costs, the final selection of a proposed remedy by the EPA, and the method of allocation of costs amongst PRPs. It is probable that PGE will share in a portion of these costs. In a Record of Decision (ROD) issued in 2017, the EPA outlined its selected remediation plan for clean-up of the Portland Harbor site, which had an estimated total cost of $1.7 billion. Stakeholders have raised concerns that EPA's cost estimates are understated, and PGE estimates undiscounted total remediation costs for Portland Harbor per the ROD could range from $1.9 billion to $3.5 billion. The Company does not currently have sufficient information to reasonably estimate the amount, or range, of its potential costs for investigation or remediation of Portland Harbor. However, the Company may obtain sufficient information, prior to the final determination of allocation percentages among PRPs, to develop a reasonable estimate, or range, of its potential liability that would require recording an estimate, or low end of the range. The Company's liability related to the cost of remediating Portland Harbor could be material to PGE's financial position. The impact of such costs to the Company's results of operations is mitigated by the PHERA mechanism. As approved by the OPUC, the recovery mechanism allows the Company to defer and recover estimated liabilities and incurred legal and technical analysis expenditures related to the Portland Harbor Superfund Site through a combination of third-party proceeds, including, but not limited to, insurance recoveries, and customer prices, as necessary. The mechanism established annual prudency reviews of environmental expenditures and third-party proceeds, and annual expenditures in excess of $6 million, excluding contingent liabilities, are subject to an annual earnings test. PGE's results of operations may be impacted to the extent such expenditures were to be deemed imprudent by the OPUC or disallowed per the prescribed earnings test. For further information regarding the PHERA mechanism, see "EPA Investigation of Portland Harbor" in Note 8, Contingencies in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements."

***Decoupling*—**The decoupling mechanism, previously authorized by the OPUC through 2022, was intended to provide for recovery of margin lost as a result of a reduction in electricity sales attributable to energy efficiency, customer-owned generation, and conservation efforts by residential and certain commercial customers. The mechanism provided for collection from (or refund to) customers if weather-adjusted use per customer was less (or more) than that projected in the Company's most recent GRC.

In the 2022 GRC, parties reached an agreement that eliminated PGE's decoupling mechanism upon the effective date of new customer prices that resulted in May 2022. Pursuant to the 2022 GRC Order, the OPUC adopted the agreement such that deferrals would not occur after 2022, although amortization of then previously recorded deferrals was to continue as scheduled until collected or refunded in future customer prices. For the year ended

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December 31, 2022, with OPUC approval, PGE is collecting $5 million in customer prices over a one-year period that began January 1, 2024.

In the 2024 GRC filing, the Company included a concept proposal to resume decoupling, with certain modifications. As stipulated in the 2024 GRC settlement agreement, PGE made a tariff filing on January 26, 2024 that proposed weather-normalized decoupling. At a public meeting on June 11, 2024, the OPUC permanently suspended PGE's proposed tariff, effectively denying the proposal.

Renewable recovery framework—As previously authorized by the OPUC, the RAC is a primary method available to recover costs associated with renewable resources. The RAC allows PGE to recover prudently incurred costs of renewable resources through filings made each year, outside of a GRC. Under the RAC, during 2023, the Company submitted a filing for Clearwater, which went into service in January 2024. See *"Clearwater RAC"* in Note 3, Regulatory Assets and Liabilities, in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements," for more information regarding the timing of the tariff, annual revenue requirement, and related deferral.

Operating Activities

In addition to electricity provided by PGE's own generation portfolio, to meet retail load requirements and balance energy supply with customer demand, the Company purchases and sells electricity in the wholesale market. To fuel its generation portfolio, the Company purchases natural gas in the United States and Canada and sells excess gas back into the wholesale market. PGE also performs portfolio management and wholesale market services for third parties in the region.

The Company participates in the California Independent System Operator's (CAISO) western Energy Imbalance Market (EIM), which allows, among other things, more renewable energy integration into the grid by better complementing the variable output of renewable resources. PGE recently signed the implementation agreement to join the CAISO's Extended Day-Ahead Market (EDAM) to build on the success of the western EIM and help provide the Company and its customers access to more affordable, reliable and clean energy. Utilities that participate in the EDAM, expected to begin operating in 2026, will bid their anticipated energy demand and generating resources into the market a day ahead of expected usage. The EDAM will then optimize generation resources and the energy needed for all market participants, allowing them to receive the least costly and cleanest energy to meet their energy needs. The EDAM takes advantage of existing technology and systems PGE has deployed and leverages the Company's transmission system to connect regional resources across a common market, such as hydropower and wind facilities in the Pacific Northwest and solar facilities in California and the desert Southwest.

In its ongoing effort to benefit retail and wholesale customers, in 2023, PGE joined the Western Power Pool's resource adequacy program known as the Western Resource Adequacy Program (WRAP), which could become a binding commitment in 2026 or 2027. The WRAP represents a regional framework to more effectively address resource adequacy, enhance reliability, integrate clean energy, and manage costs through resource diversification and capacity sharing across a wide geographic footprint and broad pool of participants across the West.

PGE generates revenues and cash flows primarily from the sale and distribution of electricity to its retail customers. The impact of seasonal weather conditions on demand for electricity can cause the Company's revenues, cash flows, and income from operations to fluctuate from period to period. Summer peak deliveries have continued to exceed those of the winter months for nearly ten years, generally resulting from growing air conditioning demand and the trend toward a warmer overall climate. In August 2023, demand reached a new all-time high, surpassing the previous mark, which was set in summer 2021. Historically, PGE had experienced its highest MWa deliveries and retail energy sales during the winter heating season. Although a new record high winter peak load was set as recent

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as December 2022, the summer peak deliveries in each year since 2021 have exceeded that winter peak. Retail customer price changes and customer usage patterns, which can be affected by the economy also have an effect on revenues. Wholesale power availability and price, hydro and wind generation, and fuel costs for thermal plants can also affect income from operations. PGE has taken measures to enhance the availability of supply chain-constrained items that are needed to serve new and existing customers, such as advance ordering of critical materials, pre-securing manufacturing capacity with strategic partners, and evaluating availability with established and new suppliers. PGE has also taken measures to help mitigate cost increases through long-term agreements, supplier engagement, and expanding the supply base.

Customers and Demand—The following tables present total energy deliveries and the average number of retail customers by customer type for the periods indicated:

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024	2023	% Change	% Change (Weather-Adjusted)	2024	2023	% Change	% Change (Weather-Adjusted)
Energy deliveries (MWhs in thousands):								
Retail:								
Residential	1,608	1,730	(7)%	(1)%	3,851	4,057	(5)%	— %
Commercial	1,548	1,595	(3)	—	3,176	3,252	(2)	(1)
Industrial	1,204	1,140	6	7	2,390	2,211	8	9
Subtotal	4,360	4,465	(2)	1	9,417	9,520	(1)	2
Direct access:								
Commercial	127	154	(18)	(18)	247	283	(13)	(13)
Industrial	451	430	5	5	847	866	(2)	(2)
Subtotal	578	584	(1)	(1)	1,094	1,149	(5)	(5)
Total retail	4,938	5,049	(2)	1 %	10,511	10,669	(1)	1 %
Wholesale	2,104	1,453	45		4,283	2,849	50	
Total	7,042	6,502	8 %		14,794	13,518	9 %	

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Average number of retail customers:								
Residential	828,355	88 %	814,419	88 %	826,297	88 %	814,187	88 %
Commercial	113,577	12	112,190	12	113,223	12	112,333	12
Industrial	208	—	196	—	206	—	195	—
Direct access	496	—	539	—	505	—	541	—
Total	942,636	100 %	927,344	100 %	940,231	100 %	927,256	100 %

Total retail energy deliveries for the six months ended June 30, 2024 decreased 1% compared with the six months ended June 30, 2023, as decreases in residential and commercial deliveries more than offset the increase from industrial customers.

Residential weather-adjusted deliveries saw average usage per customer 1.6% lower during the first six months of 2024 compared with 2023, while the average number of residential customers was 1.5% greater during 2024 than 2023.

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For the six months ended June 30, 2024, milder temperatures have resulted in lower Total Retail Energy deliveries when compared to the same six months of 2023. During the three-month period ended March 31, 2024 compared to the same three months of 2023, the impact of weather on Total Retail deliveries was negative with overall warmer than average, and considerably warmer than the prior year, temperatures experienced. In the three-month period ended June 30, 2024, total heating degree-days were comparable to the same period of 2023, as warmer temperatures in April 2024 were largely offset by cooler temperatures the following month, while both years were, in total for the quarter, warmer than average. May 2023 produced an unusually high number of cooling degree-days and elevated deliveries occurred, which resulted in weather having an overall negative impact on deliveries in the second quarter of 2024 compared to the same period of 2023.

The industrial class continues to show growth in energy deliveries, up 5.4% and 5.2% in the three months and six months ended June 30, 2024, respectively, compared to the same periods in 2023, reflecting strength in the digital services sector.

The following table indicates the number of heating and cooling degree-days for the three and six months ended June 30, 2024 and 2023, along with the current 15-year averages based on weather data provided by the National Weather Service, as measured at Portland International Airport:

	Heating Degree-days			Cooling Degree-days		
	2024	2023	Avg.	2024	2023	Avg.
First Quarter	1,755	1,927	1,838	—	—	—
April	310	404	364	—	12	3
May	192	105	178	23	87	26
June	45	45	66	85	96	79
Second Quarter	547	554	608	108	195	108
Year-to-date	2,302	2,481	2,446	108	195	108
(Decrease) increase from the 15-year average	(6)%	1 %		— %	81 %	

The Company's cost-of-service opt-out program caps participation by customers in the fixed three-year and minimum five-year opt-out programs, which account for the majority of energy delivered to Direct Access customers who purchase their energy from ESSs. Had the cap limit been fully subscribed and utilized, 13% of PGE's total retail energy deliveries for the first six months of 2024 would have been to these customers.

In 2020, PGE began offering service to customers under an OPUC created New Large Load Direct Access program for unplanned, large, new loads and large load growth at existing customer sites. With the adoption of the New Large Load Direct Access program, which is capped at 119 MWa, as much as 17% of the Company's energy deliveries could have been supplied by ESSs to Direct Access customers. Actual deliveries to Direct Access customers of energy supplied by ESSs represented 10% of PGE's total retail energy deliveries for the first six months of 2024 and 2023.

Power Operations—PGE utilizes a combination of its own generating resources and wholesale market transactions to meet the energy needs of its retail customers. The Company participates in wholesale markets by purchasing and selling electricity and natural gas in an effort to meet the needs of, and obtain reasonably-priced power for, its retail customers. PGE continuously makes economic dispatch decisions based on numerous factors, such as plant availability, customer demand, river flows, wind conditions, and current wholesale prices. As a result, the amount of power generated and purchased in the wholesale market to meet the Company's retail load requirement can vary from period to period and impacts NVPC and income from operations.

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The following table provides information regarding the performance of the Company's generating resources for the six months ended June 30, 2024 and 2023:

	Plant availability (1)		Actual energy provided compared to projected levels (2)		Actual energy provided as a percentage of total system load	
	2024	2023	2024	2023	2024	2023
Generation:						
Thermal:						
Natural gas	77 %	80 %	91 %	93 %	32 %	35 %
Coal (3)	65	89	86	93	5	8
Wind (4)	91	98	102	97	11	8
Hydro	94	91	93	80	5	5

(1) Plant availability represents the percentage of the period plants were available for operations, which is impacted by planned maintenance and forced, or unplanned, outages.

(2) Projected levels of energy are included as part of PGE's AUT. Such projections establish the power cost component of retail prices for the following calendar year. Any shortfall is generally replaced with power from higher cost sources, while any excess generally displaces power from higher cost

sources.

(3) Plant availability reflects Colstrip, which PGE does not operate.

(4) Plant availability includes Wheatridge Renewable Energy Facility and Clearwater, which PGE does not operate.

Energy received from PGE-owned and jointly-owned thermal plants during the six months ended June 30, 2024 compared to 2023 decreased 2%. This decrease was primarily driven by economic dispatch decisions. Energy expected to be received from thermal resources is projected annually in the AUT based on forecast market prices, variable costs to run the plant, and the constraints of the plant. PGE's thermal generating plants require varying levels of annual maintenance, which is generally performed during the second quarter of the year.

Total energy received from hydroelectric generation sources, both PGE-owned generation and purchased, increased 31% during the six months ended June 30, 2024 compared to 2023 primarily due to the addition of capacity under two purchased hydro contracts in 2024. Energy purchased from mid-Columbia and other regional hydroelectric projects increased 37% while energy generated by the Company-owned facilities increased 10% during the six months ended June 30, 2024. Energy expected to be received from hydroelectric resources is projected annually in the AUT based on a modified hydro study, which utilizes 80 years of historical stream flow data. See "*Purchased power and fuel*" in the Results of Operations section in this Item 2, for further detail on regional hydro results.

Energy received from PGE-owned and under contract wind resources increased 45% during the six months ended June 30, 2024 compared to 2023 primarily due to the addition of Clearwater in 2024. Energy expected to be received from wind generating resources is projected annually in the AUT based on historical generation. Wind generation forecasts are developed using a 5-year rolling average of historical wind levels or forecast studies when historical data is not available.

Under PGE's PCAM, the Company may share with customers a portion of cost variances associated with NVPC. Customer prices can be adjusted annually to absorb a portion of the difference between the forecasted NVPC included in customer prices (baseline NVPC) and actual NVPC for the year, if such differences exceed a prescribed "deadband" limit, which ranges from $15 million below to $30 million above baseline NVPC. To the extent actual NVPC, subject to certain adjustments, is outside the deadband range, the PCAM provides for 90% of the excess variance to be collected from, or refunded to, customers. Pursuant to a regulated earnings test, a refund will occur only to the extent that it results in PGE's actual regulated return on equity (ROE) for the given year being no less than 1% above the Company's latest authorized ROE, while a collection will occur only to the extent that it results

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in PGE's actual regulated ROE for that year being no greater than 1% below the Company's authorized ROE. The following is a summary of the results of the Company's PCAM as calculated for regulatory purposes for the six months ended June 30, 2024 and 2023, respectively:

- For the six months ended June 30, 2024, actual NVPC was $52 million below baseline NVPC. Based on forecast data, NVPC for the year ending December 31, 2024 is currently estimated to be below the baseline and within the established deadband range. Accordingly, there is no estimated refund to customers expected under the PCAM for 2024.

- For the six months ended June 30, 2023, actual NVPC was $19 million above baseline NVPC. For the year ended December 31, 2023, actual NVPC was $5 million above baseline NVPC, which was within the established deadband range. Accordingly, no estimated collection from customers was recorded for 2023.

A portion of the costs related to a January 2024 storm, which qualified as a Reliability Contingency Event (RCE) as approved by the OPUC in PGE's 2024 GRC, was deferred as a regulatory asset. Under the RCE mechanism, PGE is allowed to pursue recovery of 80% of costs for RCEs above amounts forecasted in the Company's AUT, with the remaining 20% flowing through operating expenses and subject to the existing PCAM. For more on the 2024 RCE, see *"Regulatory Assets and Liabilities"* in Note 3, Balance Sheet Components in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements."

Results of Operations

The following tables provide financial and operational information to be considered in conjunction with management's discussion and analysis of results of operations.

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The results of operations are as follows for the periods presented (dollars in millions):

	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	% Increase (Decrease)	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023	% Increase (Decrease)
Total revenues	$ 758	$ 648	17 %	$ 1,687	$ 1,396	21 %
Operating expenses:						
Purchased power and fuel	275	220	25	680	524	30
Generation, transmission and distribution	107	101	6	206	194	6
Administrative and other	97	93	4	192	173	11
Depreciation and amortization	122	113	8	243	224	8
Taxes other than income taxes	41	40	3	88	83	6
Total operating expenses	642	567	13	1,409	1,198	18
Income from operations	116	81	43	278	198	40
Interest expense, net*	52	41	27	103	85	21
Other income:						
Allowance for equity funds used during construction	6	4	50	11	7	57
Miscellaneous income, net	9	5	80	15	17	(12)
Other income, net	15	9	67	26	24	8
Income before income tax expense	79	49	61	201	137	47
Income tax expense	7	10	(30)	20	24	(17)
Net income	**72**	**39**	**85**	**181**	**113**	**60**
Other comprehensive income	—	1	—	1	1	—
Net income and Comprehensive income	**$ 72**	**$ 40**	**80 %**	**$ 182**	**$ 114**	**60 %**

* Includes an allowance for borrowed funds used during construction of $4 million and $3 million for the three months ended June 30, 2024 and 2023, respectively, and $8 million and $5 million for the six months ended June 30, 2023, respectively.

Net income for the three months ended June 30, 2024 increased $33 million, or 85%, compared to the three months ended June 30, 2023, driven largely by an increase in Income from Operations. Retail revenues were up not only as a result of general price increases but also as a result of an increase in prices to cover anticipated higher net variable power costs, as authorized by the OPUC in the AUT. Purchased power and fuel expense rose 25% over the same period of 2023, although much of that increase was volume driven, as wholesale energy prices have shown a decline from the same period a year ago. While retail energy deliveries remained relatively comparable period over period, total system load increased 8%, driven by increases in wholesale energy deliveries. Generation, transmission and distribution expenses were up due to maintenance activities, vegetation management, and service restoration work. Depreciation and amortization expense, driven by higher depreciable asset balances, and Interest expense, net, due to higher long-term debt balances, were both higher, as anticipated, and largely offset by increased revenues. Other income, net benefited in 2024 from higher AFUDC credits, while a reduced Income tax expense reflects increases in PTC benefits.

Net income for the six months ended June 30, 2024 increased $68 million, or 60%, compared to the same period of 2023. Retail revenues increased due to higher prices to cover anticipated higher net variable power costs, as authorized by the OPUC in the AUT, as well as general price increases, with a partial offset as a result of a slight reduction in Total Retail deliveries. Wholesale revenues increased, driven by a 50% increase in deliveries. The

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increase in Administrative and general expense reflects increases in various categories including customer related items, which was largely due to the amortization of previously deferred COVID-19 expenses now being collected in customer prices and offset in revenues, wages and benefits, outside services, and regulatory expense. Increases in Depreciation and amortization expense, driven by higher depreciable asset balances, and Interest expense, net, due to higher long-term debt balances, were anticipated and largely offset by increased revenues. Other income, net increased in 2024 partially due to the higher AFUDC credits, while a reduced Income tax expense reflects increases in PTC benefits.

Total revenues consist of the following for the periods presented (dollars in millions):

	Three Months Ended June 30,	Six Months Ended June 30,

	2024		2023		2024		2023	
Retail:								
Residential	$ 307	40 %	$ 279	44 %	$ 722	43 %	$ 641	46 %
Commercial	219	29	196	30	446	27	393	28
Industrial	104	14	87	13	206	12	169	12
Subtotal	630	83	562	87	1,374	82	1,203	86
Direct access:								
Commercial	3	—	2	—	5	—	4	—
Industrial	6	1	5	1	10	1	9	1
Subtotal	9	1	7	1	15	1	13	1
Subtotal Retail	639	84	569	88	1,389	83	1,216	87
Alternative revenue programs, net of amortization	(3)	—	2	—	(14)	(1)	5	—
Other accrued revenues, net	4	—	(4)	(1)	5	—	(3)	—
Total retail revenues	640	84	567	87	1,380	82	1,218	87
Wholesale revenues	99	13	62	10	275	16	150	11
Other operating revenues	19	3	19	3	32	2	28	2
Total revenues	$ 758	100 %	$ 648	100 %	$ 1,687	100 %	$ 1,396	100 %

Total retail revenues—The following items contributed to the increase in Total retail revenues for the three and six months ended June 30, 2024 compared to the same periods in 2023 (in millions):

	Three Months Ended	Six Months Ended
June 30, 2023	$ 567	$ 1,218
Change in prices as a result of the AUT, approved by the OPUC (partially offset in Purchased power and fuel)	48	102
Average price of energy deliveries due primarily to customer price increases	33	81
Recovery of deferrals for 2020 Wildfire, 2021 ice storm, and COVID-19	(1)	4
Retail energy deliveries driven by changes in customer load	(7)	(11)
Clearwater RAC deferral	(3)	(13)
Combination of various supplemental tariffs and adjustments	3	(1)
June 30, 2024	$ 640	$ 1,380
Change in Total retail revenues	$ 73	$ 162

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Wholesale revenues result from sales of electricity to utilities and power marketers made in the Company's efforts to meet the needs of, and obtain reasonably priced power for, its retail customers, manage risk, and administer its long-term wholesale contracts. Such sales can vary significantly from year to year as a result of economic conditions, power and fuel prices, hydro and wind availability, and customer demand.

For the three months ended June 30, 2024, Wholesale revenues increased $37 million, or 60%, from the three months ended June 30, 2023 driven primarily by a $28 million increase that resulted from higher sales volumes.

Wholesale revenues for the six months ended June 30, 2024 increased $125 million, or 83%, from the six months ended June 30, 2023, as a 50% increase in sales volumes added $76 million to revenues and the average wholesale sales price was up 22%, due largely to the market conditions surrounding the January 2024 storm event in the region.

Other operating revenues for the three months ended June 30, 2024 were comparable with the same period in 2023. In the six months ended June 30, 2024, Other operating revenues were up $4 million compared to the same period of 2023, as transmission related revenues drove the increase.

Purchased power and fuel expense includes the cost of power purchased and fuel used to generate electricity to meet PGE's retail load requirements, as well as the cost of settled electric and natural gas financial contracts.

The following items contributed to the change in Purchased power and fuel for the three and six months ended June 30, 2024 compared to the same period in 2023 (dollars in millions, except for average variable power cost per Megawatt hour (MWh):

	Three Months Ended		Six Months Ended	
June 30, 2023	$	220	$	524
Average variable power cost per MWh		28		155
Total system load		27		75
2021 PCAM deferral amortization		—		1
2024 RCE deferral		—		(75)
June 30, 2024		275		680
Change in Purchased power and fuel	$	55	$	156
Average variable power cost per MWh:				
June 30, 2023	$	35.19	$	40.01
June 30, 2024	$	40.10	$	52.00
Total system load (MWhs in thousands):				
June 30, 2023		6,138		12,922
June 30, 2024		6,774		14,384

For the three months ended June 30, 2024, the $28 million increase related to the change in average variable power cost per MWh was driven by a 6% increase in the average cost of purchased power and a 26% increase in the average cost for the Company's own generation, driven primarily by price risk management activity. The $27 million increase resulting from the overall mix of purchased power and generation used to meet total system load was primarily due to a 15% increase of energy obtained from purchased power and a 5% increase in the Company's own generation.

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For the six months ended June 30, 2024, the $155 million increase related to the change in average variable power cost per MWh was driven by a 26% increase in the average cost of purchased power and a 27% increase in the average cost for the Company's own generation, driven primarily by higher physical power and natural gas prices due to severe weather events in the first quarter. The $75 million increase related to total system load was comprised of an 18% increase of energy obtained from purchased power primarily due to the addition of capacity under two purchased hydro contracts in 2024, and a 6% increase in the Company's own generation primarily due to the addition of Clearwater in 2024.

PGE's sources of energy, total system load, and retail load requirement are as follows for the periods presented:

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Sources of energy (MWhs in thousands):								
Generation:								
Thermal:								
Natural gas	1,641	24 %	1,624	26 %	4,669	32 %	4,520	35 %
Coal	255	4	432	7	781	5	1,028	8
Total thermal	1,896	28	2,056	33	5,450	37	5,548	43
Hydro	345	5	374	6	738	5	669	5
Wind	948	14	602	10	1,538	11	1,083	8
Total generation	3,189	47	3,032	49	7,726	53	7,300	56
Purchased power:								
Hydro	1,851	27	1,412	23	3,415	24	2,492	19
Wind	415	6	244	4	721	5	476	4
Solar	350	5	394	6	497	3	539	4
Natural Gas	—	—	—	—	94	1	11	—
Waste, Wood, and Landfill Gas	46	1	38	1	85	1	81	1

Source not specified	923	14	1,018	17	1,846	13	2,023	16
Total purchased power	3,585	53	3,106	51	6,658	47	5,622	44
Total system load	6,774	100 %	6,138	100 %	14,384	100 %	12,922	100 %
Less: wholesale sales	(2,104)		(1,453)		(4,283)		(2,849)	
Retail load requirement	4,670		4,685		10,101		10,073	

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Purchased power in the table above includes power received from qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (PURPA) as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Sources of energy (MWhs in thousands):				
PURPA purchased power:				
Hydro	11	11	21	19
Wind	10	8	15	14
Solar	196	201	287	303
Waste, Wood, and Landfill Gas	5	30	33	58
Total	222	250	356	394

The following table presents the forecast April-to-September 2024 and actual 2023 runoff at particular points of major rivers relevant to PGE's hydro resources:

	Runoff as a Percent of Normal*	
Location	2024 Forecast	2023 Actual
Columbia River at The Dalles, Oregon	75 %	83 %
Mid-Columbia River at Grand Coulee, Washington	73	79
Clackamas River at Estacada, Oregon	93	101
Deschutes River at Moody, Oregon	94	98

* Volumetric water supply forecasts and historical averages for the Pacific Northwest region are prepared by the Northwest River Forecast Center, with the Natural Resources Conservation Service and other cooperating agencies.

Actual NVPC for the three and six months ended June 30, 2024 increased compared to the same periods in 2023 as follows (in millions):

	Three Months Ended	Six Months Ended
June 30, 2023	$ 158	$ 374
Purchased power and fuel expense	55	230
Wholesale revenues	(37)	(125)
2021 PCAM deferral amortization	$ —	1
2024 RCE deferral	$ —	(75)
June 30, 2024	$ 176	$ 405
Change in NVPC	$ 18	$ 31

For further information regarding NVPC in relation to the PCAM, see *"Purchased power and fuel expense"* and *"Revenues"* within this "Results of Operations" for more details.

For the three months ended June 30, 2024 and 2023, actual NVPC was $31 million below and $5 million above baseline NVPC, respectively. For the six months ended June 30, 2024 and 2023, actual NVPC was $52 million below and $19 million above baseline NVPC, respectively.

Based on forecast data, NVPC for the year ending December 31, 2024 is currently estimated to be below the baseline and within the deadband. Accordingly, there is no estimated refund to customers expected under the PCAM for 2024.

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Generation, transmission and distribution increased as follows for the three and six months ended June 30, 2024 compared to the same periods in 2023 (in millions):

	Three Months Ended		Six Months Ended	
June 30, 2023	$	101	$	194
Generating facility expenses driven by increased major maintenance activities		6		10
Vegetation management, inspection, wildfire mitigation, and distribution maintenance expenses		5		9
Service restoration and storm response costs		4		7
Miscellaneous expenses		(9)		(14)
June 30, 2024	$	107	$	206
Change in Generation, transmission and distribution	$	6	$	12

Administrative and other increased as follows for the three and six months ended June 30, 2024 compared to the same periods in 2023 (in millions):

	Three Months Ended		Six Months Ended	
June 30, 2023	$	93	$	173
Amortization of COVID-19 bad debt expense deferral		—		4
Regulatory and Professional services costs		—		2
Employee compensation and benefits		1		3
Customer related costs		2		3
Miscellaneous expenses		1		7
June 30, 2024	$	97	$	192
Change in Administrative and other	$	4	$	19

PGE commenced amortization of previously deferred COVID-19 related bad debt expenses on April 1, 2023. For the six months ended June 30, 2024, the Company amortized $7 million of COVID-19 related bad debt expense that was offset in revenues.

Depreciation and amortization expense increased $9 million and $19 million in the three and six months ended June 30, 2024, respectively, compared to the same periods in 2023. The increase was primarily due to higher utility plant balances.

Taxes other than income taxes increased $1 million and $5 million in the three and six months ended June 30, 2024, respectively, compared to the same periods in 2023. The increases were driven by higher property taxes and franchise fees.

Interest expense, net increased $11 million and $18 million, respectively, in the three and six months ended June 30, 2024 compared to the same periods in 2023, primarily due to higher long-term debt balances.

Other income, net increased $6 million and $2 million for the three and six months ended June 30, 2024, respectively, compared to the same periods in 2023. The increase was primarily driven by higher AFUDC from higher construction work in process balances.

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Income tax expense decreased $3 million and $4 million, respectively, in the three and six months ended June 30, 2024, compared to the same period in 2023, driven by higher production tax credit benefits offset by higher tax expense driven by higher pre-tax income.

Critical Accounting Policies and Estimates

There have been no material changes to the Company's critical accounting policies and estimates as previously disclosed in Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 20, 2024.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

PGE's access to short-term debt markets, including revolving credit from banks, helps provide necessary liquidity to support the Company's current operating activities, including the purchase of power and fuel. Long-term capital requirements are driven largely by capital expenditures for distribution, transmission, and generation facilities to support both new and existing customers, repairs from major storm damage, information technology systems, and debt refinancing activities. PGE's liquidity and capital requirements can also be significantly affected by other working capital needs, including margin deposit requirements related to wholesale market activities, which can vary depending upon the Company's forward positions and the corresponding price curves.

The following summarizes PGE's cash flows for the periods presented (in millions):

	Six Months Ended June 30,	
	2024	2023
Cash and cash equivalents, beginning of period	$ 5	$ 165
Net cash provided by (used in):		
Operating activities	364	143
Investing activities	(639)	(574)
Financing activities	276	279
Increase (decrease) in cash and cash equivalents	1	(152)
Cash and cash equivalents, end of period	$ 6	$ 13

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Cash Flows from Operating Activities—Cash flows from operating activities are generally determined by the amount and timing of cash received from customers and payments made to vendors, as well as the nature and amount of non-cash items, including depreciation and amortization, deferred income taxes, and pension and other postretirement benefit costs included in net income during a given period. The following items contributed to the net change in cash flows from operations for the six months ended June 30, 2024 compared with the six months ended June 30, 2023 (in millions):

	Increase/ (Decrease)
Net income	$ 68
Accounts receivable and Unbilled revenue	(66)
Margin deposits activity	82
Accounts payable	199
Regulatory deferral activity	(130)
Depreciation and amortization	19
Deferred income taxes	21
Tax credit sales	13
Other miscellaneous changes	15
Net change in cash flow from operations	$ 221

PGE estimates that non-cash charges for depreciation and amortization in 2024 will range from $475 million to $525 million. Combined with other sources, total cash expected to be provided by operations is estimated to range from $700 million to $800 million.

Cash Flows from Investing Activities—Net cash used in investing activities for the six months ended June 30, 2024 increased $65 million when compared with the six months ended June 30, 2023. Cash flows used in investing activities consist primarily of capital expenditures related to new construction and improvements to PGE's distribution, transmission, and generation facilities, which increased $50 million.

Excluding AFUDC, the Company plans to make capital expenditures of $1.3 billion in 2024, which it expects to fund with cash to be generated from operations during 2024, as discussed above, the issuance of short- and long-term debt securities, and issuances of shares pursuant to the at-the-market offering program. For additional information, see *"Debt and Equity Financings"* in this Liquidity and Capital Resources section of Item 2.

Cash Flows from Financing Activities—During the six months ended June 30, 2024, net cash provided by financing activities was primarily the result of the funding of $450 million in First Mortgage Bonds (FMBs) and $78 million in proceeds from the issuance of common stock pursuant to the at-the-market offering program. This was partially offset by $146 million in commercial paper maturities and payment of $96 million of dividends.

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Capital Requirements

The following table presents PGE's estimated capital expenditures and contractual maturities of long-term debt for 2024 through 2028, excluding AFUDC (in millions):

	2024	2025	2026	2027	2028
Ongoing capital expenditures [1]	$ 915	$ 865	$ 895	$ 890	$ 920
Transmission	170	180	255	265	435
Clearwater	20	—	—	—	—
BESS projects	235	155	—	—	—
Total capital expenditures [2]	$ 1,340	$ 1,200	$ 1,150	$ 1,155	$ 1,355
Long-term debt maturities	$ 80	$ —	$ —	$ 160	$ 100

(1) Consists primarily of upgrades to, and replacement of, generation, transmission, and distribution infrastructure, as well as new customer connections. Includes accrued capital additions, preliminary engineering, removal costs, and certain intangible working capital assets.
(2) Amounts are estimates as of the date of this report and may be affected by economic conditions, including but not limited to, impacts of inflation, changes to the cost of materials and labor, and financing costs.

Debt and Equity Financings

PGE's ability to secure sufficient short- and long-term capital at a reasonable cost is determined by its financial performance and outlook, credit ratings, capital expenditure requirements, alternatives available to investors, market conditions, and other factors, such as the volatility in the capital markets in response to inflationary pressures and interest rate increases by the federal reserve. Management believes that the availability of its revolving credit facility, the expected ability to issue short- and long-term debt and equity securities, and cash expected to be generated from operations provide sufficient cash flow and liquidity to meet the Company's anticipated capital and operating requirements for the foreseeable future.

For 2024, PGE expects to fund estimated capital requirements with cash from operations, which is expected to range from $700 million to $800 million, and issuances of long-term debt securities of up to $750 million. PGE plans to fund any shortfall through the combination of issuance of common stock and the issuance of short-term debt or commercial paper, as needed. The actual timing and amount of any such issuances of debt, equity, and commercial paper will be dependent upon the timing and amount of capital expenditures and debt payments.

Short-term Debt. Pursuant to an order issued by the FERC in January 2024, PGE has authorization to issue short-term debt up to a total of $900 million through February 6, 2026. The following table shows available liquidity as of June 30, 2024 (in millions):

	As of June 30, 2024		
	Capacity	Outstanding	Available
Revolving credit facility [1]	$ 750	$ —	$ 750
Letters of credit [2]	320	86	234
Total credit	$ 1,070	$ 86	$ 984
Cash and cash equivalents			6
Total liquidity			$ 990

(1) Scheduled to expire September 2028.
(2) PGE has four letter of credit facilities under which the Company can request letters of credit for an original term not to exceed one year.

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On August 18, 2023, PGE entered into an amendment of its existing revolving credit facility. As of June 30, 2024, PGE had a $750 million unsecured revolving credit facility scheduled to expire in September 2028. The facility allows for unlimited extension requests, provided that lenders with a pro-rata share of more than 50% of the facility approve the extension request. The revolving credit facility supplements operating cash flows and provides a primary source of liquidity. In addition, the credit facility offers the potential for adjustments to interest rate margins and fees based on PGE's achievement of certain annual sustainability-linked metrics related to its non-emitting generation capacity and the percentage of management comprised of women and employees who identify as black, indigenous, and people of color. Pursuant to the terms of the agreement, the revolving credit facility may be used as backup for commercial paper borrowings, to permit the issuance of standby letters of credit, and to provide cash for general corporate purposes. PGE may borrow for one, three, or six months at a fixed interest rate established at the time of the borrowing, or at a variable interest rate for any period up to the remaining term of the applicable credit facility. As of June 30, 2024, PGE had no outstanding balance on the revolving credit facility.

The Company has a commercial paper program under which it may issue commercial paper for terms of up to 270 days, limited to the unused amount of credit under the revolving credit facility. As of June 30, 2024, PGE had no commercial paper outstanding. The aggregate unused available credit capacity under the revolving credit facility was $750 million. The Company has elected to limit its borrowings under the revolving credit facility in order to allow coverage for the potential need to repay any commercial paper that may be outstanding at the time.

Long-term Debt. As of June 30, 2024, PGE's total long-term debt outstanding, net of $15 million of unamortized debt expense, was $4,433 million.

On February 22, 2024, PGE entered into a Bond Purchase Agreement related to the sale of $450 million in FMBs. The Bonds were issued and funded in full on February 22, 2024 and consist of:

- a series, due in 2029, in the amount of $100 million that will bear interest from its issuance date at an annual rate of 5.15%;
- a series, due in 2034, in the amount of $100 million that will bear interest from its issuance date at an annual rate of 5.36%; and
- a series, due in 2054, in the amount of $250 million that will bear interest from its issuance date at an annual rate of 5.73%.

Equity—On April 28, 2023, PGE entered into an equity distribution agreement under which it could sell up to $300 million of its common stock through at-the-market offering programs. In 2023, pursuant to the terms of the equity distribution agreement, PGE entered into separate forward sale agreements with forward counterparties. In March 2024, the Company issued 1,714,972 shares pursuant to the agreements and received net proceeds of $78 million. In 2024, PGE entered into additional forward sale agreements with forward counterparties, exhausting the $300 million facility. As of June 30, 2024, these additional agreements were outstanding. The Company could have physically settled the remaining amount by delivering 5,139,501 shares in exchange for cash of $218 million. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity.

PGE anticipates entering into a new at-the-market offering program in the third quarter of 2024. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity.

For additional information on the at-the-market offering programs, see Note 7, Shareholders' Equity, in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements."

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Capital Structure. PGE's financial objectives include maintaining a common equity ratio (common equity to total consolidated capitalization, including current debt maturities and excluding lease obligations) of approximately 50% over time. Achievement of this objective helps the Company maintain investment grade credit ratings and provides access to long-term capital at favorable interest rates. The Company's common equity ratio was 44.0% and 44.6% as of June 30, 2024 and December 31, 2023 respectively.

Credit Ratings and Debt Covenants

PGE's secured and unsecured debt is rated investment grade by Moody's Investors Service (Moody's) and S&P Global Ratings (S&P), with current credit ratings and outlook as follows:

	Moody's	S&P
Issuer credit rating	A3	BBB+

Senior secured debt	A1	A
Commercial paper	P-2	A-2
Outlook	Negative	Stable

In June 2024, Moody's revised the Company's outlook from Stable to Negative. These outlook changes are not expected to have a material impact on the Company's liquidity or collateral obligations.

In the event Moody's or S&P reduce their credit rating on PGE's unsecured debt below investment grade, the Company could be subject to requests by certain of its wholesale, commodity, and transmission counterparties to post additional performance assurance collateral in connection with its price risk management activities. The performance assurance collateral can be in the form of cash deposits or letters of credit, depending on the terms of the underlying agreements, are based on the contract terms and commodity prices, and can vary from period to period. Cash deposits that PGE provides as collateral are classified as Margin deposits in PGE's condensed consolidated balance sheets, while any letters of credit issued are not reflected on the condensed consolidated balance sheets.

As of June 30, 2024, PGE had posted $75 million of collateral with these counterparties, consisting of $55 million in cash and $20 million in letters of credit. Based on the Company's energy portfolio, estimates of energy market prices, and the level of collateral outstanding as of June 30, 2024, the amount of additional collateral that could be requested upon a single agency downgrade to below investment grade is $59 million, and decreases to $26 million by December 31, 2024 and to $8 million by December 31, 2025. The amount of additional collateral that could be requested upon a dual agency downgrade to below investment grade is $178 million and decreases to $101 million by December 31, 2024 and to $55 million by December 31, 2025.

PGE's financing arrangements do not contain ratings triggers that would result in the acceleration of required interest and principal payments in the event of a ratings downgrade. However, the cost of borrowing and issuing letters of credit under the credit facilities would increase.

The indenture securing PGE's outstanding FMBs constitutes a direct first mortgage lien on substantially all regulated utility property, other than expressly excepted property. Interest is payable semi-annually on FMBs. The issuance of FMBs requires that PGE meet earnings coverage and security provisions set forth in the Indenture of Mortgage and Deed of Trust (Indenture) securing the bonds. PGE estimates that on June 30, 2024, under the most restrictive issuance test in the Indenture, the Company could have issued up to $385 million of additional FMBs. Any issuances of FMBs would be subject to market conditions and amounts could be further limited by regulatory authorizations or by covenants and tests contained in other financing agreements. PGE also has the ability to release property from the lien of the Indenture under certain circumstances, including bond credits, deposits of cash, or certain sales, exchanges, or other dispositions of property.

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PGE's revolving credit facility contains customary covenants and credit provisions, including a requirement that limits consolidated indebtedness, as defined in the credit agreements, to 65.0% of total capitalization (debt-to-total capital ratio). As of June 30, 2024, the Company's debt-to-total capital ratio, as calculated under the credit agreement, was 56.7%.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

PGE is exposed to various forms of market risk, consisting primarily of fluctuations in commodity prices, foreign currency exchange rates, and interest rates, as well as credit risk. Any variations in the Company's market risk or credit risk may affect its future financial position, results of operations, or cash flows. There have been no material changes to market risks, or credit risk, affecting the Company from those set forth in Part II, Item 7A of the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 20, 2024.

Item 4. Controls and Procedures.

Disclosure Controls and Procedures

PGE's management, under the supervision and with the participation of its Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures as required by Exchange Act Rule 13a-15(b) as of the end of the period covered by this report. Based on that evaluation, PGE's Chief Executive Officer and Chief Financial Officer have concluded that, as of June 30, 2024, these disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes in PGE's internal control over financial reporting that occurred during the quarter ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

See Note 8, Contingencies in the Notes to Condensed Consolidated Financial Statements in Item 1.—"Financial Statements," for information regarding legal proceedings.

Item 1A. Risk Factors.

There have been no material changes to PGE's risk factors set forth in Part I, Item 1A of the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 20, 2024.

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Item 5. Other Information.

Rule 10b5-1 Trading Arrangements

During the three months ended June 30, 2024, no director or officer (as defined in Rule 16a-1(f) of the Exchange Act) adopted or terminated a "Rule 10b5-1 trading agreement," as the term is defined in Item 408(c) of Regulation S-K.

Item 6. Exhibits.

Exhibit Number	Description
3.1	Third Amended and Restated Articles of Incorporation of Portland General Electric Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed May 9, 2014).
3.2	Twelfth Amended and Restated Bylaws of Portland General Electric Company (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed October 27, 2023).
31.1	Certification of Chief Executive Officer.
31.2	Certification of Chief Financial Officer.
32	Certifications of Chief Executive Officer and Chief Financial Officer.
101.INS	XBRL Instance Document. The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover page information from Portland General Electric Company's Quarterly Report on Form 10-Q filed July 26, 2024, formatted in iXBRL (Inline Extensible Business Reporting Language).

Certain instruments defining the rights of holders of other long-term debt of the Company are omitted pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K because the total amount of securities authorized under each such omitted instrument does not exceed 10% of the total consolidated assets of the Company and its subsidiaries. The Company hereby agrees to furnish a copy of any such instrument to the SEC upon request.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PORTLAND GENERAL ELECTRIC COMPANY
(Registrant)

Date: July 25, 2024

By: /s/ Joseph R. Trpik
Joseph R. Trpik
Senior Vice President, Finance
and Chief Financial Officer
(duly authorized officer and principal financial officer)

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Section 2: EX-31.1 (EX-31.1)

Exhibit 31.1

CERTIFICATION

I, Maria M. Pope, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Portland General Electric Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the period presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	July 25, 2024	By:	/s/ Maria M. Pope
			Maria M. Pope
			President and Chief Executive Officer

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Section 3: EX-31.2 (EX-31.2)

Exhibit 31.2

CERTIFICATION

I, Joseph R. Trpik, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Portland General Electric Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the period presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 25, 2024 By: /s/ Joseph R. Trpik

Joseph R. Trpik
Senior Vice President, Finance
and Chief Financial Officer

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Section 4: EX-32 (EX-32)

Exhibit 32

CERTIFICATIONS PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

We, Maria M. Pope, President and Chief Executive Officer, and Joseph R. Trpik, Senior Vice President, Finance and Chief Financial Officer, of Portland General Electric Company (the "Company"), hereby certify that the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2024, as filed with the Securities and Exchange Commission on July 26, 2024 pursuant to Section 13(a) of the Securities Exchange Act of 1934 (the "Report"), fully complies with the requirements of that section.

We further certify that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Maria M. Pope	/s/ Joseph R. Trpik
Maria M. Pope	Joseph R. Trpik
President and Chief Executive Officer	*Senior Vice President, Finance and Chief Financial Officer*
Date: July 25, 2024	Date: July 25, 2024

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PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2816

2024 Q2 Earnings Call Transcript
POR – Portland General Electric Company

September 10, 2024

S&P Global
Market Intelligence

Portland General Electric Company NYSE:POR

FQ2 2024 Earnings Call Transcripts

Friday, July 26, 2024 3:00 PM GMT

S&P Global Market Intelligence Estimates

	-FQ2 2024-			-FQ3 2024-	-FY 2024-	-FY 2025-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	0.65	0.69	6.15	0.63	3.08	NA
Revenue (mm)	716.60	758.00	5.78	885.50	3057.95	NA

Currency: USD
Consensus as of Jul-26-2024 9:06 AM GMT

- EPS NORMALIZED -

	CONSENSUS	ACTUAL	SURPRISE
FQ3 2023	0.54	0.46	1 (14.81 %)
FQ4 2023	0.87	0.67	2 (22.99 %)
FQ1 2024	1.09	1.21	3 11.01 %
FQ2 2024	0.65	0.69	4 6.15 %

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Call Participants

EXECUTIVES

Joseph R. Trpik
Senior VP of Finance & CFO

Maria MacGregor Pope
President, CEO & Director

Nick White
Investor Relations Executive

ANALYSTS

Gregg Gillander Orrill
UBS Investment Bank, Research Division

Nicholas Joseph Campanella
Barclays Bank PLC, Research Division

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

Richard Wallace Sunderland
JPMorgan Chase & Co, Research Division

Shahriar Pourreza
Guggenheim Securities, LLC, Research Division

Sophie Ksenia Karp
KeyBanc Capital Markets Inc., Research Division

Unknown Analyst

Presentation

Operator

Good morning, everyone, and welcome to Portland General Electric Company's Second Quarter 2024 Earnings Results Conference Call. Today is Friday, July 26, 2024. This call is being recorded [Operator Instructions]

For opening remarks, I will turn the conference call over to Portland General Electric's Manager of Investor Relations, Nick White. Please go ahead, sir.

Nick White
Investor Relations Executive

Thank you, Jonathan. Good morning, everyone. I'm happy you can join us today. Before we begin this morning, I would like to remind you that we have prepared a presentation to supplement our discussion, which we will be referencing throughout the call. The slides are available on our website at investors.portlandgeneral.com.

Turning to Slide 2. Some of our remarks this morning will constitute forward-looking statements. We caution you that such statements involve inherent risks and uncertainties, and actual results may differ materially from our expectations. For a description of some of the factors that could cause actual results to differ materially, please refer to our earnings press release and our most recent periodic reports on Forms 10-K and 10-Q, which are available on our website.

Turning to Slide 3, leading our discussion today are Maria Pope, President and CEO; and Joe Trpik, Senior Vice President of Finance and CFO. Following their prepared remarks, we will open the line for your questions. Now it is my pleasure to turn the call over to Maria.

Maria MacGregor Pope
President, CEO & Director

Thank you, Nick, and good morning, everyone. Thank you for joining us today. Our second quarter results reflect our focus on execution, and steady growth trajectory in 2024 and beyond.

Starting with Slide 4, I'll highlight key drivers of our second quarter financial results. For the quarter, we reported GAAP net income of $72 million or $0.69 per diluted share. This compares with second quarter 2023 GAAP net income of $39 million or $0.39 per diluted share and non-GAAP net income of $44 million or $0.44 per share. These results, which Joe will discuss in detail were driven by 3 areas: first, continued growth in demand from industrial customers, primarily semiconductor manufacturing and data centers. Second, second quarter's mild weather and solid power cost performance. And third, our continued focus on cost management and risk mitigation.

While these results mark an improvement from 2023, we recognize that there is still more work to do. We remain focused on meeting expectations for the year and improving our ROE towards authorized levels.

Turning to Slide 5. We I'd like to start by recognizing my PGE colleagues who worked extremely hard during the regional heat wave. In early July, we saw 5 consecutive days of record high temperatures, consistent with other areas across the West. Our resilience during this intense period of high heat underscores the value of new processes and training, procurement of additional hydro supply and diverse wind resources as well as capital investments and technology deployments that strengthened equipment reliability and energy supply management. These targeted investments also speak to our focus on affordability and how careful planning has reduced painful energy price volatility during extreme events.

I also want to recognize the important role that our customers played in this event. They took significant demand response actions to reduce energy consumption by 109 megawatts during peak periods of the heat event, the largest electricity demand shift we've seen. These collective actions during this period of extreme weather made a huge difference. Additionally, throughout this hot period and all of the dry conditions that we are seeing, wildfire mitigation remains a key focus. Our year-round program of system hardening, managing vegetation and sharpening operational practices are key to this risk-based approach.

With wildfire season officially declared in June, we've deployed enhanced system protection and control settings, including reclosers and switches and other equipment. These enhancements act in conjunction with our monitoring tools and include panoramic AI cameras and weather stations that provide important data and situational awareness through our teams, local agencies and first responders. As wildfire remains a critical issue for our industry, requiring a continued cooperation with regulators, legislators, insurers, public sector agencies as we address this societal wide risk.

Shifting to growth. Our ongoing renewable generation and capacity RFP remains squarely in focus as we work to achieve our clean energy goals. Bid submission concluded in April and bid evaluation culminated in initial project shortlist filed with the OPUC in early June. We're again seeing strong subscription for both generation and capacity resources with a mix of wind, solar, battery and pumped hydro projects that will move forward for further evaluation. A final project shortlist is expected in August with bid selection this winter.

We are excited to build upon the momentum of the recent RFP projects, including Clearwater Wind and 3 battery projects to provide customers with the next generation of safe, reliable, affordable, clean energy resources. Beyond the RFP, PGE is pursuing options to advance clean energy transition and excess low-cost renewable energy.

On our last call, I highlighted PGE's participation in the CAISO Extended Day-Ahead Market, or EDAM, aimed at achieving additional renewable energy integration across the West. Additionally, our transmission work focused on improvements within our footprint is moving forward to support customer growth. And we're also collaborating with Tribal Partners, Bonneville Power Administration and other regional utilities and stakeholders to make progress on critical transmission expansion that will facilitate more cost-effective renewable energy supply.

For example, in May, PGE signed an MOU with Grid United and Elite for development of the North Plains Connector [indiscernible]. These plains highlight the important work our sector is undertaking to build a cleaner and more reliable energy system that enables economic growth for all. Our resource planning work, especially important in the context of the load growth that we're experiencing across the region is progressing well. We're seeing further validation of our service territories trajectory underscored by robust industrial load growth from semiconductor manufacturing and technology infrastructure customers.

In the second quarter, industrial load increased 6.2% weather-adjusted compared to the same quarter in 2023. Oregon's leaders remain focused on capturing the benefits of recent legislation and industry tailwinds. These efforts are bearing fruit with additional federal and state CHIPS Act funds flowing to local projects.

In addition to Intel's recent $36 billion announcement, [indiscernible] Research is completing a new R&D facility [indiscernible] are expanding in Beaverton and Portland, respectively.

We're also seeing meaningful growth among our regions data center sector. These customers are enabled by the transpacific subsea fiber landings on the west side of our served territory, similar to the [indiscernible] network landing in North Virginia. Growth from both these important sectors represent an exciting opportunity for our reason, bringing quality jobs and infrastructure improvements at a level we have not seen in over 50 years.

I'll now turn briefly to our 2025 general rate case, which Joe will cover further in his remarks. Our teams received OPUC staff and intervenor testimony earlier this month, and we'll be building off of recent constructive conversations during upcoming settlement conferences. Collaboration with customers, interveners, regulators and legislators to find creative solutions to opportunities and challenges unfolding in our service territory and industry is key. We look forward to continuing these discussions, including a workshop later today.

As we look to the second half of 2024, our strategy remains firmly rooted in transforming our local system to address growing customer needs, effectively deploying resources to increase our resiliency to extreme weather, managing affordability for all customers. We remain focused on achieving our targets, executing our plan and delivering value for customers, communities and shareholders. With that, I'll turn it over to Joe. Joe?

Joseph R. Trpik
Senior VP of Finance & CFO

Thank you, Maria, and good morning, everyone. Turning to Slide 6. Our Q2 results reflect continued focus on execution and cost management, further semiconductor manufacturing and data center growth and solid power cost per point. Our region saw the effects of El Nino throughout the quarter with slightly warmer conditions in April, followed by cooler conditions in May and June. Q2 2024 load decreased by 2.2% overall, but increased by 0.9% weather adjusted compared to Q2 2023. Q2 2024 residential load decreased 7.1% year-over-year or 1.1% weather adjusted. This was largely driven by lower usage per customer for continued energy efficiency, partially offset by residential customer count increases of 1.7%.

Commercial load decreased 4.2% or 2% weather-adjusted driven largely by energy efficiency efforts in the commercial class. Growth among the industrial customers persisted with load increasing 5.5% or 6.2% weather adjusted. Demand from technology infrastructure and semiconductor manufacturing customers remain robust, and we continue to see a strong pipeline of projects in our area.

These dynamics further solidify confidence in our service territory. And as such, we are reiterating our 2024 weather-adjusted load growth guidance of 2% to 3% and our long-term load growth guidance of 2% [indiscernible].

I'll now cover our financial performance quarter-over-quarter. We observed a $0.05 decrease in revenues primarily due to weather-driven decreases in deliveries, a $0.09 increase resulting from the rightsizing of our cost structure and improve wildfire mitigation, vegetation management, other O&M and capital assets serving customers. An EPS increase from power costs of $0.16 was driven by a $0.04 EPS increase due to power cost detriments in Q2 2023 that reverse for this comparison and a 12% EPS increase from derisking actions in mild weather conditions throughout the quarter that drove lower power costs than anticipated in the annual update tariff.

Lastly, we had a $0.05 increase from other items, including higher AFUDC, higher returns on nonqualified benefit trust assets and lower income tax expense generally from tax credit impacts, partially offset by the dilutive impact of recent equity drops.

On to Slide 7 for our capital forecast. Our plan for 2024 continues to progress including base investments, transmission projects and the [indiscernible] and seaside batteries. Regarding the RFP, as Maria mentioned, refinements of the bids presented in the initial shortlist filed in June is continuing as expected. The initial shortlist included approximately 3 gigawatts of nameplate renewable and capacity resources made up of 22 distinct bids, many with multiple configuration options. About 45% of these bids included some component of build transfer ownership options. Bid evaluation will continue towards a final shortlist filing next month, and we will keep you informed as we're able to share more details.

I'll again highlight that our capital plan does not include any possible forthcoming RFP projects. Potential updates to our capital forecast would occur upon bid selection and contract execution, which is now expected in Q4 2024 or Q1 2025.

On to Slide 8 for our summary of liquidity and financing. Total available liquidity as of June 30 is $990 million. Our investment-grade credit ratings and strong balance sheet remain unchanged from our last disclosure. I will note that in June, Moody's changed PGE's outlook from stable to negative, while affirming our credit ratings. We remain closely engaged with both S&P and Moody's and are working diligently to maintain our existing ratings. We continue to expect debt issuances in the second half of the year of up to $300 million, focused on the funding of capital expenditures.

Regarding equity, our current base capital plan clarifies our needs for the coming years. For 2024 through 2026, we anticipate annual need of approximately $300 million to support our base capital investments as well as make progress on our capital structure over the next few years.

As our equity ratio improved, we anticipate a moderate decline in the annual base needs after 2026. We've made progress on this strategy in 2024. Let me start by highlighting that we satisfy our equity needs to support our 2024 base capital plan and capital structure management. We grew $78 million under the ATM in Q1 and entered into additional forward sale agreements in Q2 to exhaust the $300 million ATM facility. The ATM portion priced in the second quarter remained outstanding as of the end of June.

In preparation for the future and consistent with this plan earlier today, we also registered a new at-the-market filing. This new shelf filing allows incremental issuances over multiple years and includes a forward component much like the previous program. The refreshed ATM provides another useful tool and optimal flexibility as we navigate our financing plan, enabling opportunistic at equity market access and the ability to closely match issuances with accretive investments. Any action under this new ATM this year would be to maintain our strong credit metrics in support of our 2025 base capital plan and our long-term equity ratio management.

As always, we plan to opportunistically raise capital in support of rate base investments and we'll evaluate potential opportunities to derisk our financing plan using the forward feature.

We continue to monitor the RFP bid selection as the RFP bid selection approaches and will keep you informed. Overall, our current expectation is any potential RFP ownership opportunities will be financed in line with our authorized capital structure and we have confidence in our financing flexibility for potential ownership options. Our year-to-date financing activities highlight our debt and equity market execution, and we remain confident in our demand and capability.

We are committed to carefully managing our capital structure and dilution, maintaining strong credit metrics and [indiscernible] capital markets in support of accretive rate-based investments that provide strong customer benefits.

Turning to the 2025 general rate case, which is proceeding through its intermediate stages. This case remains centered on capital projects, providing long-term benefits to all of our customers, including battery storage projects that improve power cost management and grid flexibility, distribution investments to address grid modernization, network reliability and system resiliency in face of increasing extreme weather and transmission investments to enable customer growth and renewable resource integration.

Opening testimony has been exchanged and ultimate settlement conferences are scheduled throughout the summer, including one later today. We look forward to the continued constructive engagement with stakeholders as the case proceeds. Review of the filing will continue through the year for rates effective at the beginning of 2025. All items remain subject to OPUC approval.
Our Q2 results display continued execution of our plan for 2024 and beyond. Given our current progress, we are reaffirming our 2024 adjusted guidance of $2.98 to $3.18 per share, and our long-term earnings and dividend growth guidance of 5% to 7%. As we enter the last half of 2024, we remain focused on cost management efforts, thoughtful capital deployment and careful planning that yields maximum benefits for customers, shareholders and the communities we serve. And now, operator, we are ready for questions.

Question and Answer

Operator

[Operator Instructions] And our first question comes from the line of Nick Campanella from Barclays.

Nicholas Joseph Campanella
Barclays Bank PLC, Research Division

You talked about a moderate decline in equity needs after 2026, and I know that you just refreshed the ATM here. So just how do you think about what's run rate equity per year through '25 now? And it does sound like that this ATM has been sized for any shortlist additions. Is that the right takeaway here?

Joseph R. Trpik
Senior VP of Finance & CFO

Thank you, Nick. Looking through the next few years, the equity need is about $300 million for the base plan as we've presented here to both serve the capital plan and the balance sheet repair. After that, you would think to a plan that would be moderately less than I'd call it somewhere near half of that needed to sort of maintain that excess of our investments above our internal cash flows.

Nicholas Joseph Campanella
Barclays Bank PLC, Research Division

Okay. I appreciate that. And then I guess just in terms of the operating environment through July, the comments on DER response was interesting. And just how are you kind of trending versus your baseline and your PCAM now? And I know that you also talked about some derisking efforts in this quarter on power costs that you took advantage of. So just how do you just kind of feel on that for the rest of the year?

Joseph R. Trpik
Senior VP of Finance & CFO

Sure. So our operating environment to date when we talk to the power markets, obviously, we had talked to -- the loads been down, but we've also have seen a limited amount of volatility within -- in the power markets. And when you combine that load being down in the power markets and what opportunities that's afforded us, we are $52 million below the baseline for the PCAM to date. We do expect by the end of the year that will come back within the [indiscernible] considering that the third quarter is the most volatile of our -- both the market and weather conditions that we'll see. But the derisking to date, we feel, has really yielded this reduced volatility and allowed us to get a little bit ahead of the PCAM and what is the extreme weather. I think it's operating effectively. And a lot of the derisking we thought would occur has materialized itself so far to this year.

Operator

And our next question comes from the line of Shar Pourreza from Guggenheim Partners.

Shahriar Pourreza
Guggenheim Securities, LLC, Research Division

So maybe just a real high-level question for you to start. You guys have the 2% load growth out there. The backdrop obviously seems to be trending above that on like semiconductor and data center demand. How should we be thinking about how you want to update The Street going forward on sort of the earnings growth? I realize you guys want to be conservative, we get that, but could you get to a point in the next few quarters where you at least speak kind of directionally to where you are relative to the upper half or top end of that 5% to 7%?

Maria MacGregor Pope
President, CEO & Director

Sure. Thank you, Shar. So first of all, we are seeing good load growth, almost exclusively from the industrial sector. And just for perspective, half of our industrial sector is semiconductors, which has a growth rate -- it's a little bit more modest than what you see in the data centers, but probably longer in duration. We're looking at growth in some of our semiconductor companies over the next decade.

The 20% of our customer base in the fastest-growing area for that industrial section, -- excuse me, data centers and there, we're seeing really quite significant growth. In addition to the infrastructure investments of new substations and transmission, what we're also seeing is need for greater amounts of renewable energy, and we'll be updating you all with our IRP results probably in early 2025. That was -- that's probably what would influence our growth rate more than anything.

Most importantly, right now, we're going through a competitive bidding process and are pretty encouraged by the pricing levels that we're seeing and the robust bids.

Shahriar Pourreza
Guggenheim Securities, LLC, Research Division

Got it. So some were not to kind of paint you in the corner, but could that update be the year-end call? Sometime in the February time frame? Or is that too early relative to the IRP?

Maria MacGregor Pope
President, CEO & Director

Yes. I think that's when we generally give our guidance for the year. I also want to acknowledge that there's a lot of things that we're balancing. We're balancing need for additional infrastructure. Obviously, wildfire expenditures, affordability pressures that we're seeing across the board as well as just the timing of many of these investments that our customers are making.

Shahriar Pourreza
Guggenheim Securities, LLC, Research Division

Right. Okay. That's helpful. And then just you guys briefly touched on it, but the settlement conference scheduled for today. Obviously, there's been quite an interesting testimony to date, including some strong words from [indiscernible]. What are -- I guess, what are the prospects for settlements in your view at this point? And where are you kind of closest and furthest apart here?

Maria MacGregor Pope
President, CEO & Director

Sure. And I appreciate that we've seen quite a bit of vocabulary in positioning within the rate case testimony that's been provided. We have worked collaboratively over the years and have strong relationships with all of our interveners and parties. And the conversations actually are going quite well and are quite constructive. And we do appreciate that the most important thing is that we're serving our customers and affordability is first and foremost [indiscernible] one of the things I'd point out is that we recently were rated the top customer experience utility by Forrester in the country for our effectiveness, the ease in which customers are able to work with us, and the delivery of our products and services and really how good they feel about their experience with Portland General. So we're really proud of all of the hard work that supports our customers day in and day out.

Operator

And our next question comes from the line of Richard Sunderland from JPMorgan.

Richard Wallace Sunderland
JPMorgan Chase & Co, Research Division

Starting with transmission. You had some language in the release around your efforts there. I'm hoping you could talk a little bit more about that. I know it's been topical over the past year. Is this alluding to anything new overall on sort of 5-year, 10-year capital potential? And if that's the case, how much of that is in your 5-year capital plan currently?

Maria MacGregor Pope
President, CEO & Director

Sure. So as you know, we began breaking out transmission separately in our capital expenditure table because to meet Shar's earlier point, our growing customer needs, we really look at transmission in terms of sort of 3 circles. The first one is existing rights of way within and adjacent to our service territory, and that's really areas where we're dealing with dramatic customer growth in certain load areas and certain constraint points that we have in our area.

The next is transmission. So across the State of Oregon, we're working with number of parties, most notably the [indiscernible] they received a $250 million grant to expand the transmission line that we own. That's over about 100 miles, those sorts of projects in collaboration with others. And then third, really working across the entire region. You've seen our work with the Bonneville Power

Administration, and they've announced $2.3 billion of transmission expenditures, many of those would benefit our customers in this area. And then also looking at things like the North Plains Connector with Grid United and Elite bringing together 3 different regions across the entire country to enable access to not only renewable energy and different geographic environments and time zones, but areas where there's already excess renewable energy currently in the ground.

So we really look at this as a sort of risk adjusted for a company like Portland General, way of addressing transmission and rapid customer growth.

Richard Wallace Sunderland
JPMorgan Chase & Co, Research Division

Understood. That is helpful. And then separately, I appreciate some of the commentary you offered earlier on wildfire season and the enhanced line settings. Could you expand a little bit on what you're seeing across local conditions and relative risk this year versus prior years? And similarly, I guess, I'm also curious how state and federal engagement is trending in your view on a framework to address this risk?

Maria MacGregor Pope
President, CEO & Director

Sure. So first of all, I want to note that much of the State of Oregon is in a Level 5 condition. This is -- was a recent change, driven by many of the lightning storms that have taken place over the past week to 10 days. They're currently over 130 fires burning in Oregon, many of which are east of the cascades or much further south of the state towards the California border. We take fire very seriously, and in particular, monitoring its impact on our more remote facilities. We do not have any wildfires currently burning in our service territory. And we've long been focused on wildfire prevention and really around planning and investments in system hardening, mitigation, we've significantly taken up our vegetation management, recognizing the impact of the last 3 years, extraordinary heat starting with the heat dome back in June of 2020. We've seen extensive tree mortality that has increased the vegetation risk quite a bit. And so recognizing the science around that, we've really taken up our spend in that area.

And then third, really detection and early mitigation and that gets to your question around how we work with first responders. We work at the most local level in every county and community with firefighters, first responders and community leaders who are very focused on the danger of wildfire and who have a lot of questions and interaction with us. But most importantly, for those first responders, they're able to access the same data that we do through the AI cameras and directly into those cloud providers to provide responses much faster than we would have been able to do otherwise.

Operator

And our next question comes from the line of Paul Fremont from Ladenburg Thalmann.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

I'm hoping to get a little bit more clarity surrounding the equity -- the planned equity issuance. Should we assume the $300 million is issued evenly $100 million each year, '24 through '26, and the $78 million that's been issued so far this year, would that imply that there's another $20 million of equity planned for this year?

Joseph R. Trpik
Senior VP of Finance & CFO

So the equity plan, to be clear, is $300 per annum. The $78 million that we had issued this year, we have the remainder of the $300 million that we plan to use for financing this year for that incremental capital. And then we need $300 million per year for the next 2 subsequent years to fund the capital plan and address the balance sheet needs before we tail down to a more modest level of equity need to fund the incremental capital.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

Okay. So the $100 million this year would be incremental to finishing off the existing ATM?

Joseph R. Trpik
Senior VP of Finance & CFO

So no, the ATM, so we've issued and drawn $78 million on the year. We have the remaining amount that we have issued that we would anticipate we would draw in the second half of this year to fund our capital plan. So there would ultimately be draws in this year of $300 million in 2024.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

Okay. So $300 million total in '24 and then in '25 and '26, $100 million a year?

Joseph R. Trpik
Senior VP of Finance & CFO

$300 million a year. Yes, our capital plans in '25 and '26 average a little bit more than $1.2 billion and that incremental amount among our -- above our operating cash flow that's available would be coming from that equity and to address some balance sheet repair to get us to our optimal cap structure.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

Okay. Great. And then when is the North Plains Connector, when would that be completed in terms of construction?

Maria MacGregor Pope
President, CEO & Director

Sure. They're looking at utilizing the faster NEPA processes of just a couple of years and having shovels in the ground in 2027 with completion about 2029.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

And is that all in your current CapEx plan?

Maria MacGregor Pope
President, CEO & Director

No, it's not.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

Okay. And then weather so far this quarter, can you give us a sense of, I guess, what the weather has been like so far in July for you?

Maria MacGregor Pope
President, CEO & Director

Sure. First of all, following up over on a very mild second quarter, we had extreme temperatures setting records for the first part of July in most areas of the state and in particular, in our service territory. Since then, temperatures have moderated and been much cooler.

Overall, conditions are quite dry. And we are seeing hydro conditions that are actually slightly deteriorated from this time last year with the Columbia River in particular at about 75% and 73% versus sort of right around 80% last year. So we have pretty intense conditions for the balance of the third quarter. And then hopefully, we will begin to see cooler trends with changing patterns as we go forward into 2025.

Paul Basch Michael Fremont
Ladenburg Thalmann & Co. Inc., Research Division

And then sort of last question for me. Any thoughts on the timing of when you would potentially file your next rate case? And is that dependent on sort of what happens with the RFPs?

Maria MacGregor Pope
President, CEO & Director

It certainly -- there are a lot of conditions. The first one is the current rate case that we're in and the ongoing discussions is really where we're focused. And based on that and many of the items that we filed to try and be able to create more of a gap versus annual rate cases would be really, I think, something that everybody would benefit from if we can find a way to those sorts of solutions.

Operator

And our next question comes from the line of Sophie Karp from KBCM.

Sophie Ksenia Karp
KeyBanc Capital Markets Inc., Research Division

A couple of high-level questions for me. I'm just kind of wondering, as you invest in your growth potential [indiscernible] for investment growth going forward, would you still think that ATM is the right vehicle to raise equity for the type of growth? Or would you eventually pivot to some other forms of financing? What is the tipping point for that?

Joseph R. Trpik
Senior VP of Finance & CFO

I think the -- so I do think, yes, at some point, other forms of finance are going to make sense. The ATM works. It allows us some flexibility as it relates to our base capital plan, as it relates to both the RFP outcome that we would expect here in the fourth quarter or first quarter of next year as well as any potential additional growth that comes or is identified through the next IRP, evaluating other forms of financing based on the size and scale of those is something that will have to do to just really maximize our options and flexibility. So yes, I think the ATM works in the base, but we'll think as we talk to [indiscernible].

Maria MacGregor Pope
President, CEO & Director

And Sophie, I want to also acknowledge that we've really been working to maximize government grants and tax equity. Projects currently sort of in the works are close to about $2 billion of federal funds. Obviously, the $1 billion hydrogen hub for which we're contributing the Boardman site, an offtake agreement in water rights as well as the $250 million I mentioned for transmission line that's in the State of Oregon. But in addition to that, the $50 million of smart grid investments as well as the PTCs and ITCs of our most recent wind farm in Montana and then some of the batteries is in excess of $400 million directly reducing the -- are offsetting the investment that we've made in those and reducing the impact in customer prices and our financing needs. And so we would also expect for the future RFPs to be able to utilize PTCs and ITCs very effectively.

Sophie Ksenia Karp
KeyBanc Capital Markets Inc., Research Division

Got it. Got it. That's helpful. And then I was kind of curious if there's been any evolution in your thinking about kind of the forming of the holdco. I know that's something that's been discussed, it's been topical, but kind of curious if you guys are thinking about the timing there or is it something that is still very long term for you?

Joseph R. Trpik
Senior VP of Finance & CFO

So currently, there's nothing in our immediate plans as it relates to a holdco. But as we talk to the longer-term continued growth of the company and the future RFPs, evaluating a holdco, the benefits that it would have if we had one to the customers and to the structure is clearly something we're considering, but it is not something that is immediately sitting in front.

Maria MacGregor Pope
President, CEO & Director

So it's interesting, we're one of the few utilities that doesn't have this fairly common structure. I think there's 3 of us left in the country. And so obviously, we're taking a look at how we maximize low-cost financing to benefit the investments that we need to make on behalf of customers.

Operator

And our next question come from the line of Gregg Orrill from UBS.

Gregg Gillander Orrill
UBS Investment Bank, Research Division

The RFP shortlist, what information gets made public around that in terms of what should we expect to see there? And then what -- how do you think about going from the shortlist to the selection in December or early next year?

Joseph R. Trpik
Senior VP of Finance & CFO

So the short list, I'd sort of go back in history. So when we get to the RFP shortlist, that disclosure will be similar to what you would have seen the last time we had this disclosure. It will have technical disclosures about the different sites, the size of the megawatts -- if it's a build transfer ownership versus PPA. So that will be the information that comes out on the shortlist. Subsequent to that process, the work will be -- and obviously, the shortlist started this, an assessment on -- from the lease risk, lease cost of beginning the contract negotiations from the most -- the highest scored on down and working through that process. And then as those contract negotiations settle is when we would declare the -- is it a PPA or is it a build transfer and layer that into either a capital plan or a power cost plan for the company.

Operator

And our next question comes from the line of [indiscernible] from Jefferies.

Unknown Analyst

Let me try to clean up on a few things from the queue here, if you guys don't mind. Speaking of missing out on something here, the Grid United announcement here with [indiscernible] the 20% ownership stake, right? How do you think about the time line for [indiscernible] from the MOU? Because to me, you talk about 2027 construction starting in theory, you've got to get that resolved prior and potentially also need a holdco structure in place prior. How do you think about the time line here for all these pieces that come together and when you'd be in a position to formalize that MOU into an ownership stake presumably over the next couple of years?

Maria MacGregor Pope
President, CEO & Director

Yes, I think that's exactly it. It's going to take us a couple of years. So we look forward to discussions with Michael Skelly and his group, as you note and are very impressed with the advancements that they've already made, the easements and permits they have in hand and as well as some of the equipment that they've already put on order to ensure that they don't run into any supply chain issues.

There's also other partners that they're having conversations with, and I think you'll see further announcements with other Pacific Northwest and other utilities.

Joseph R. Trpik
Senior VP of Finance & CFO

And I think, just to add to on the ownership side and the 20% stake, that is somewhat an open dialogue right now. I do agree there's structures of everything since it has not been declared at all from a jointly owned plant, which would not really require a holding company to own it as an investment or another one, which may require holdco are things that are all going to be evaluated as we work through this and the other partners come in.

Unknown Analyst

Yes, absolutely. But it sounds like -- but on the holdco side, that would need to get resolved prior as well, just to confirm that too over the next couple of years?

Maria MacGregor Pope
President, CEO & Director

Not necessarily.

Joseph R. Trpik
Senior VP of Finance & CFO

Only to the extent that we wanted -- we were holding it in a holdco. There are structures where this type of investment could be or interest could be held within the current regulated entity. That clarity of holdco will be only dictated by the ultimate ownership structure as it plays out.

Unknown Analyst

Right. Yes, understood. And just in terms of cash, I just want to come back to this ATM question. I want to ask it in the context of -- I saw the Moody's announcement here in the interim, see the equity ratio where it stands. When you talk about $300 million per year, how do you think about kind of teeing up and truing up against maybe some of the issues highlighted there with the credit backdrop? Is there kind of a true-up here? Or do you think through the period at the $300 million per annum kind of trajectory that these other issues would resolve themselves as well in tandem?

Joseph R. Trpik
Senior VP of Finance & CFO

I think if we look at this holistically, yes, we -- when we designed the plan and [indiscernible] $300 million per annum for the next few years, we have sort of a conservative balance sheet here, one of the most conservative in the sector. And we believe that, that path to get to where we get to should address all of sort of the driving to the capital structure, managing our credit metrics and ensuring that we have the right strength in our balance sheet. So it was designed considering all of those over that 3-year period.

Unknown Analyst

Right. Got it. Okay. Excellent. And then just a quick one here on cash. How much was that storm -- I mean -- the heat wave here, there's some language here [indiscernible] how much cash would that be? And to the extent of which you were to go and securitize recovery [indiscernible]?

Joseph R. Trpik
Senior VP of Finance & CFO

So we're talking the heat wave that -- that just occurred in July after the quarter closed. So this -- the heat wave that we just occurred has -- we have not formerly quantified it. It is significantly less than a January event. It does, we believe, at least on initial assessment meet the definition for a few of the days as a reliability contingency event. But relatively not significant numbers, especially when you put it in context of the other [indiscernible] event. And it's something we're quantifying. But we haven't assigned dollars to it, but it isn't anywhere near the magnitude of these other events, and we'll disclose that in the third quarter to the extent that it's even significant.

[indiscernible] as I said, it's not something that is driving our financing activities here. It is not something I expect to have any impact on our overall financing plan for the year.

Unknown Analyst

Right. Excellent. And just lastly, the RFP timing, what was the cause of that delay, just quickly?

Joseph R. Trpik
Senior VP of Finance & CFO

The delay to move us into August. It is just the rate -- there's a regulatory process, some administrative items that we're honestly just [indiscernible] as we we've worked through this. They are normal administrative items that moved things a couple of weeks. There was nothing unusual or out of the ordinary.

Operator

This does conclude the question-and-answer session of today's program. I'd like to hand the program back to Maria Pope for any further remarks.

Maria MacGregor Pope
President, CEO & Director

Thank you, and thank you for joining us all today. We appreciate your interest in Portland General Electric, and we look forward to connecting with you soon. Thank you, and have a great day.

Operator
Thank you, ladies and gentlemen, for your participation in today's conference. This does conclude the program. You may now disconnect. Good day.

CASE: UE 435
WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
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STAFF EXHIBIT 2817

2024 Q2 Earnings Call Slides
POR – Portland General Electric Company

September 10, 2024

Exhibit 99.2

Portland General Electric

EARNINGS CONFERENCE CALL

SECOND QUARTER 2024

Cautionary statement

Information Current as of July 26, 2024
Except as expressly noted, the information in this presentation is current as of July 26, 2024 – the date on which PGE filed its Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 - and should not be relied upon as being current as of any subsequent date. PGE undertakes no duty to update this presentation, except as may be required by law.

Forward-Looking Statement
Statements in this presentation that relate to future plans, objectives, expectations, performance, events and the like may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements represent our estimates and assumptions as of the date of this report. The Company assumes no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

Forward-looking statements include statements regarding the Company's full-year earnings guidance (including assumptions and expectations regarding annual retail deliveries, average hydro conditions, wind generation, normal thermal plant operations, operating and maintenance expense and depreciation and amortization expense) as well as other statements containing words such as "anticipates," “assumptions,” “based on,” "believes," "conditioned upon," “considers,” “could,” "estimates," "expects," “forecast,” “goals,” “intends,” “needs,” “plans,” “predicts,” “projects,” “promises,” “seeks,” "should," “subject to,” “targets,” “will continue,” “will likely result,” or similar expressions.

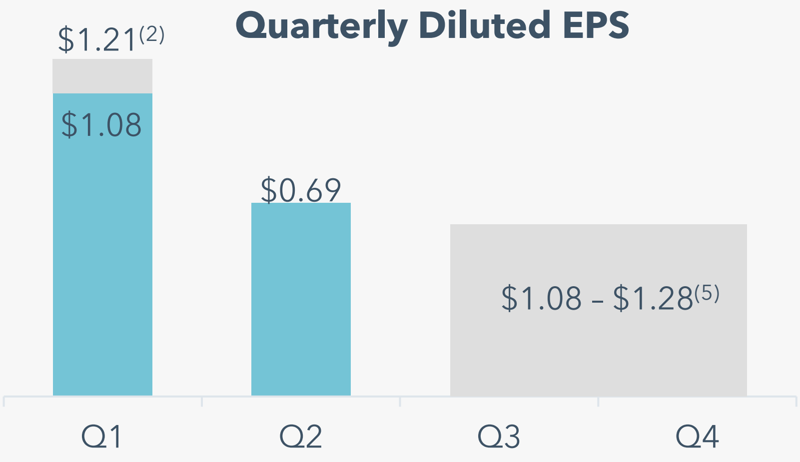
Investors are cautioned that any such forward-looking statements are subject to risks and uncertainties, including, without limitation: the timing or outcome of various legal and regulatory actions; changing customer expectations and choices that may reduce demand for electricity; the sale of excess energy during periods of low demand or low wholesale market prices; operational risks relating to the Company's generation and battery storage facilities, including hydro conditions, wind conditions, disruption of transmission and distribution, disruption of fuel supply, and unscheduled plant outages, which may result in unanticipated operating, maintenance and repair costs, as well as replacement power costs; delays in the supply chain and increased supply costs (including application of tariffs impacting solar module imports), failure to complete capital projects on schedule or within budget, failure of counterparties to perform under agreement, or the abandonment of capital projects, which could result in the Company's inability to recover project costs, or impact our competitive position, market share, revenues and project margins in material ways; default or nonperformance of counterparties from whom PGE purchases capacity or energy, which require the purchase of replacement power and renewable attributes at increased costs; complications arising from PGE’s jointly-owned plant, including ownership changes, regulatory outcomes or operational failures; the costs of compliance with environmental laws and regulations, including those that govern emissions from thermal power plants; changes in weather, hydroelectric and energy market conditions, which could affect the availability, cost and required collateral for purchased power and fuel; changes in capital and credit market conditions, including volatility of equity markets as well as changes in PGE’s credit ratings and outlook on such credit ratings, reductions in demand for investment-grade commercial paper or interest rates, which could affect the access to and availability or cost of capital and result in delay or cancellation of capital projects or execution of the Company’s strategic plan as currently envisioned; general economic and financial market conditions, including inflation; the effects of climate change, whether global or local in nature; unseasonable or severe weather conditions, wildfires, and other natural phenomena and natural disasters that could result in operational disruptions, unanticipated restoration costs, third party liability or that may affect energy costs or consumption; the effectiveness of PGE’s risk management policies and procedures; PGE’s ability to effectively implement Public Safety Power Shutoffs (PSPS) and de-energize its system in the event of heightened wildfire risk; cyber security attacks, data security breaches, physical attacks and security breaches, or other malicious acts, which could disrupt operations, require significant expenditures, or result in claims against the Company; employee workforce factors, including potential strikes, work stoppages, transitions in senior management, and the ability to recruit and retain key employees and other talent and turnover due to macroeconomic trends; widespread health emergencies or outbreaks of infectious diseases such as COVID-19, which may affect our financial position, results of operations and cash flows; failure to achieve the Company’s greenhouse gas emission goals or being perceived to have either failed to act responsibly with respect to the environment or effectively responded to legislative requirements concerning greenhouse gas emission reductions; social attitudes regarding the electric utility and power industries; political and economic conditions; acts of war or terrorism; changes in financial or regulatory accounting principles or policies imposed by governing bodies; changes in effective tax rate; and risks and uncertainties related to generation and transmission projects, including, but not limited to, regulatory processes, transmission capabilities, system interconnections, permitting and construction delays, legislative uncertainty, inflationary impacts, supply costs and supply chain constraints. As a result, actual results may differ materially from those projected in the forward-looking statements.

Risks and uncertainties to which the Company are subject are further discussed in the reports that the Company has filed with the United States Securities and Exchange Commission (SEC). These reports are available through the EDGAR system free-of-charge on the SEC’s website, www.sec.gov and on the Company’s website, investors.portlandgeneral.com. Investors should not rely unduly on any forward-looking statements.

Topics for today's call

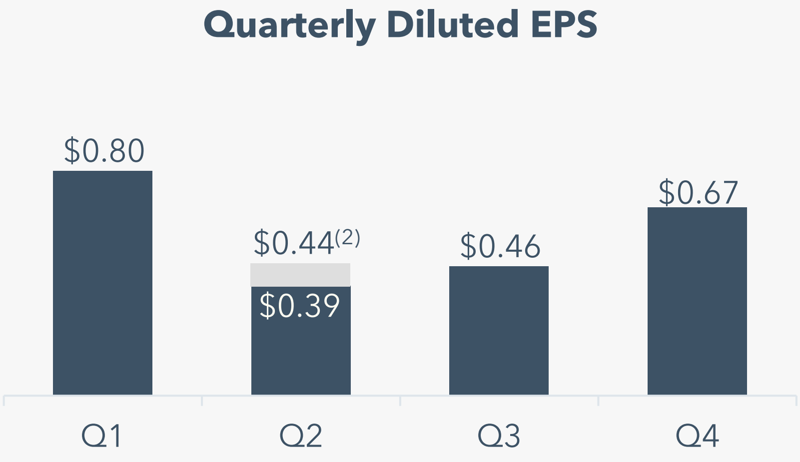
Second quarter 2024 financial results

	Q2 2024	Q2 2023	2024 YTD	2023 YTD
GAAP net income (in millions)	$72	$39	$181	$113
GAAP diluted earnings per share (EPS)	$0.69	$0.39	$1.77	$1.19
Exclusion of January 2024 storm costs (2)	-	-	$0.18	-
Exclusion of 2020 Boardman revenue requirement refund charge(2)	-	$0.07	-	$0.07
Tax effect (3)	-	($0.02)	($0.05)	($0.02)
Non-GAAP adjusted diluted earnings per share	$0.69	$0.44	$1.90	$1.24



2024 Earnings Guidance
$2.98 - $3.18

2024E Accounting ROE(5)(6)
8.6% - 9.2%



2023 GAAP Diluted EPS(4)
$2.33

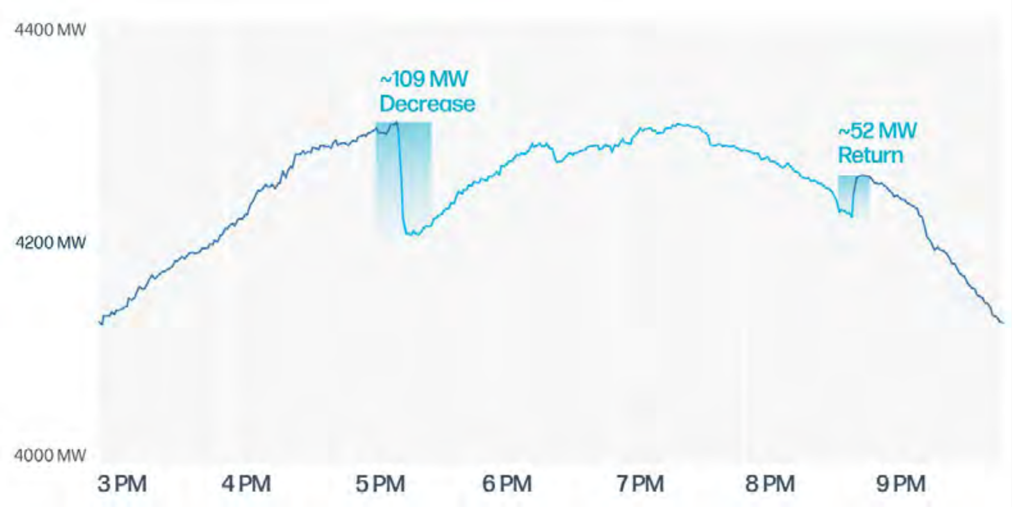
2023 Non-GAAP Diluted EPS(4)
$2.38

2023 Accounting ROE(6)
7.5%

(1) The amount and timing of dividends payable and the dividend policy are at the sole discretion of the Portland General Electric Board of Directors and, if declared and paid, dividends may be in amounts that are less than projected
(2) PGE believes that excluding the effects of the previously disclosed January 2024 storm costs and Boardman revenue requirement refund deferral charge provides a meaningful representation of the Company's comparative earnings and reflects the present operating financial performance (see appendix for important information about non-GAAP measures)
(3) Tax effects were determined based on the Company's full-year blended federal and state statutory tax rate
(4) Quarterly values may not sum to 2023 totals due to rounding
(5) Q3-Q4 2024 EPS estimate and 2024 Accounting ROE range calculated based on 2024 earnings guidance of $2.98 to $3.18
(6) Return on average equity

Q2 highlights and 2024 outlook

During July heat event, customer actions reduced electricity demand by ~109 MW



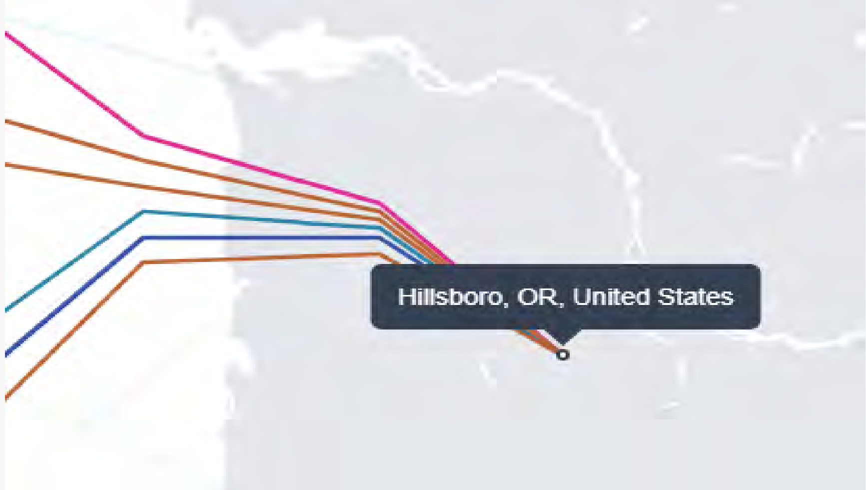
Data above is for July 8, 2024

NPC Signed a non-binding memorandum of understanding in the development of the North Plains Connector, a transmission line with endpoints near Bismarck, ND and Colstrip, MT

Industrial load growth

6.2% Q2'24 energy deliveries for the Industrial class increased 6.2% from Q2'23, on a weather adjusted basis, driven by data center growth

Pacific subsea cables land in Oregon, supporting data center expansion

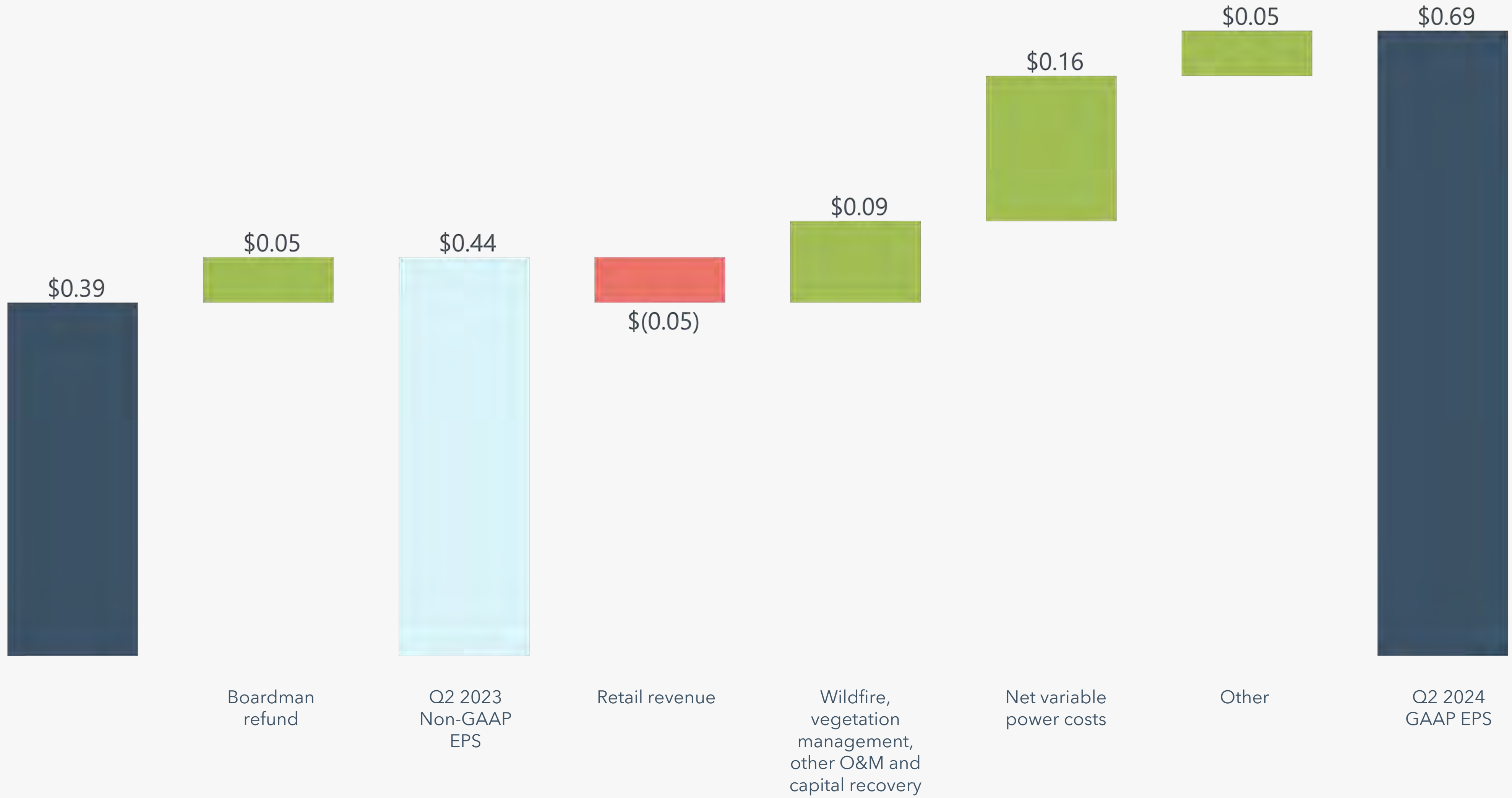


Source: TeleGeography

PGE is increasingly well positioned to achieve our 5% to 7% long term earnings growth rate

We remained focused on **customer growth**, **capital investments** and **operational discipline**

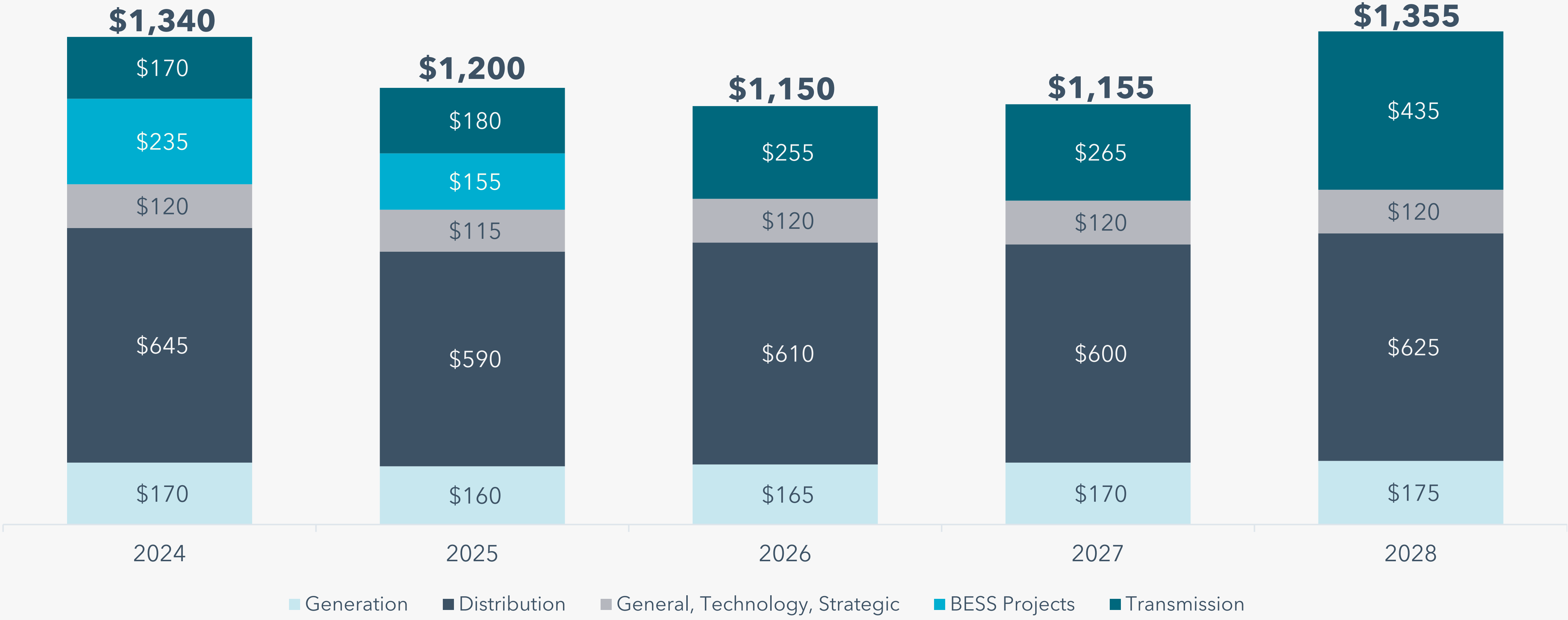
Q2 2024 earnings bridge



Note: Dollar values are earnings per diluted share

Reliability and resiliency investments

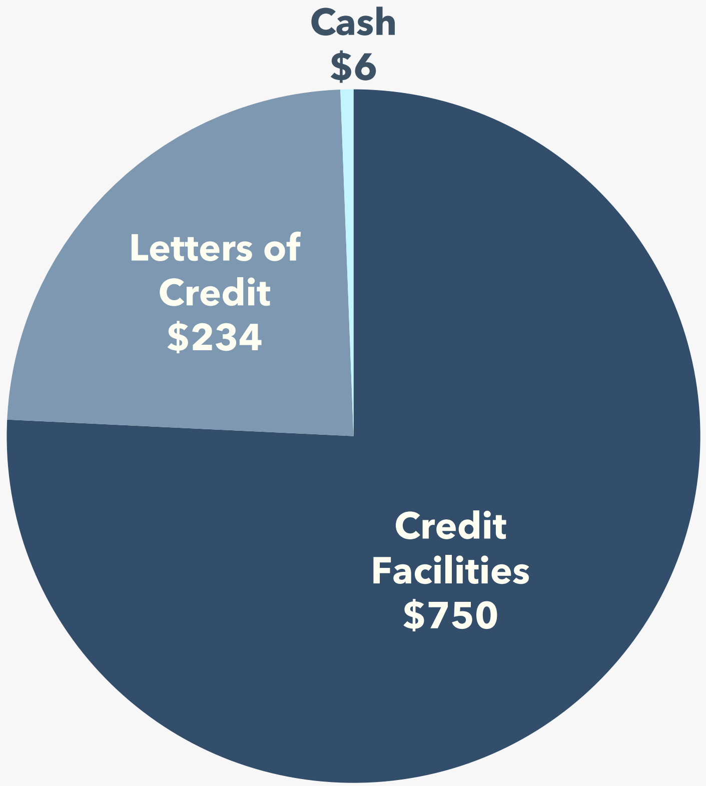
Capital expenditures forecast(1)



Note: Dollar values in millions. Capital expenditures exclude allowance for funds used during construction. These are projections based on assumptions of future investment. Actual amounts expended will depend on various factors and may differ materially from the amounts reflected in this capital expenditure forecast
(1) Values presented do not include incremental potential investments for future RFP cycles

Liquidity and financing

Total Liquidity: $990 million
as of June 30, 2024 (dollars in millions)



Ratings	S&P	Moody's
Senior Secured	A	A1
Senior Unsecured	BBB+	A3
Commercial Paper	A-2	P-2
Outlook	Stable	Negative

Actual and expected 2024 debt financings (dollars in millions)	Q1	Q2	Q3	Q4
Long-term debt	$450		$160	$140

Equity financings (dollars in millions)	Total facility	Settled to-date
At-The-Market Offering Program(1)	$300	$78
At-The-Market Offering Program(2)	$400	$0

Appendix

This presentation contains certain non-GAAP measures, such as adjusted earnings, adjusted EPS and adjusted earnings guidance. These non-GAAP financial measures exclude significant items that are generally not related to our ongoing business activities, are infrequent in nature, or both. PGE believes that excluding the effects of these items provides a meaningful representation of the Company's comparative earnings per share and enables investors to evaluate the Company's ongoing operating financial performance. Management utilizes non-GAAP measures to assess the Company's current and forecasted performance, and for communications with shareholders, analysts and investors. Non-GAAP financial measures are supplementary information that should be considered in addition to, but not as a substitute for, the information prepared in accordance with GAAP.

Items in the periods presented, which PGE believes impact the comparability of comparative earnings and do not represent ongoing operating financial performance, include the following:

- 2024: Non-deferrable Reliability Contingency Event (RCE) costs resulting from the January 2024 winter storm
- 2023: Boardman revenue requirement settlement charge associated with the year ended 2020, resulting from the OPUC's 2022 GRC Final Order

Due to the forward-looking nature of PGE's non-GAAP adjusted earnings guidance, and the inherently unpredictable nature of items and events which could lead to the recognition of non-GAAP adjustments (such as, but not limited to, regulatory disallowances or extreme weather events), management is unable to estimate the occurrence or value of specific items requiring adjustment for future periods, which could potentially impact the Company's GAAP earnings. Therefore, management cannot provide a reconciliation of non-GAAP adjusted earnings per share guidance to the most comparable GAAP financial measure without unreasonable effort. For the same reasons, management is unable to address the probable significance of unavailable information.

PGE's reconciliation of non-GAAP earnings for the three months ended March 31, 2024, the three months ended June 30, 2023 , and the year ended December 31, 2023 are on the following slide.

Non-GAAP financial measures

Non-GAAP Earnings Reconciliation for the three months ended March 31, 2024		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the three months ended March 31, 2024	$109	$1.08
Exclusion of January 2024 storm costs	19	0.18
Tax effect [1]	(5)	(0.05)
Non-GAAP as reported for the three months ended March 31, 2024	$123	$1.21

Non-GAAP Earnings Reconciliation for the three months ended June 30, 2023		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the three months ended June 30, 2023	$39	$0.39
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect [1]	(2)	(0.02)
Non-GAAP as reported for the three months ended June 30, 2023	$44	$0.44

Non-GAAP Earnings Reconciliation for the year ended December 31, 2023		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the year ended December 31, 2023	$228	$2.33
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect [1]	(2)	(0.02)
Non-GAAP as reported for the year ended December 31, 2023	$233	$2.38

(1) Tax effects were determined based on the Company's full-year blended federal and state statutory tax rate

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WITNESS: MATT MULDOON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2818

Investor Presentation [June 17, 2024]
POR – Portland General Electric Company

September 10, 2024

PGE

Investor Presentation

PORTLAND GENERAL ELECTRIC

June 17, 2024

Cautionary statement

Information Current as of April 26, 2024

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Forward-Looking Statements

This presentation contains forward-looking statements withing the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on assumptions about the future, involve risks and uncertainties, and are not guarantees. Future results may differ materially from those expressed or implied in any forward-looking statement. These forward-looking statements represent our estimates and assumptions only as of the date set above. The company assumes no obligation to update or revise any forward-looking statement as a result of new information, future events or otherwise.

Forward-looking statements include statements regarding the Company's full-year earnings guidance (including assumptions and expectations regarding annual retail deliveries, average hydro conditions, wind generation, normal thermal plant operations, operating and maintenance expense and depreciation and amortization expense) as well as other statements containing words such as "anticipates," "assumptions," "based on," "believes," "conditioned upon," "considers," "could," "estimates," "expects," "forecast," "goals," "intends," "needs," "plans," "predicts," "projects," "promises," "seeks," "should," "subject to," "targets," "will continue," "will likely result," or similar expressions.

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The Company

PGE at a glance

Quick facts

- Vertically integrated energy company that generates, transmits and distributes electricity
- Approximately 934,000 retail customers within a service area of approximately 1.9 million residents(1)
- Roughly half of Oregon's population lives within PGE service area, encompassing 51 incorporated cities entirely within the State of Oregon
- Roughly two-thirds of Oregon's commercial and industrial activity occurs in PGE service area

Leading the way to a clean energy future for Oregon

- Our goals align with the 100% clean energy by 2040 framework. The targets to reduce baseline greenhouse gas emissions from power served to Oregon retail customers are:
  - 80% reduction in greenhouse gas emissions by 2030
  - 90% reduction in greenhouse gas emissions by 2035
  - 100% reduction in greenhouse gas emissions by 2040

3,500+ MWs of Generation

Financial snapshot

- 2023 revenue: $2.9 billion
- 2023 diluted earnings per share: $2.33 GAAP, $2.38 adjusted non-GAAP(2)
- Net utility plant assets: $8.6 billion(1)

(1) As of December 31, 2023

(2) In 2023, GAAP net income was $228 million, or $2.33 per diluted share. After adjusting for the impacts of Boardman revenue requirement settlement charge, non-GAAP net income was $233 million, or $2.38 per diluted share. The net effect of the deferral release was $0.05 per diluted share (see appendix for important information about non-GAAP measures, guidance, and reconciliations)

Investment thesis

Investing in a reliable and clean energy future

- Adopting 100% clean energy by 2040 framework
- Entered into agreements for 475 MW of battery storage and 500 MW of hydro contracts; 2,700 to 3,700 MW of additional non-emitting resources remain to be procured through multi-stage RFP processes through 2030

Building a smarter more resilient grid

- Investing in our system to maintain and increase resiliency to mitigate against extreme weather and wildfires
- Modernizing our grid with a community-centered distribution system to advance environmental justice, accelerate distributed energy resources and maximize grid benefits

Focusing on operational effectiveness and efficiency

- 5% to 7% long-term EPS growth(1) and dividend growth guidance(2)
- Improved key safety and reliability metrics
- Continuing to implement efficiencies and manage costs through technology

High-growth service area

- Urban service territory with strong growth in semiconductor and data center demand
- Growing number of customer connects and 2% long-term load growth, through 2027

Constructive regulatory framework

- Regulatory mechanisms to recover costs and add renewables, including a Renewable Adjustment Clause, Wildfire Mitigation Automatic Adjustment Clause and forward test year
- Vertically integrated, regulated utility

Prioritizing customer service and experience

- No. 1 ranked renewable power program in the Unites States for 14 years(3)
- Ranked as a Top 5 Utility in the United States for Customer Experience according to Forrester's The US Customer Experience Index for 2021, 2022 and 2023(4)

(1) Long-term EPS growth base year is 2022 adjusted results
(2) The amount and timing of dividends payable and the dividend policy are at the sole discretion of the Portland General Electric Board of Directors and, if declared and paid, dividends may be in amounts that are materially less than projected. EPS estimates and projections are based on assumptions and there can be no assurance regarding the amount of future earnings consistent with earnings guidance
(3) National Renewables Energy Laboratory. NREL did not release rankings in 2011
(4) Forrester's The US Utilities Customer Experience Index Rankings, 2021-2023. Annual rankings are issued retrospectively for each calendar year

Diverse, growing service area

- Growing **core urban service area** with strong population growth supporting services (government, education, restaurants, healthcare, and other services)
- **I-5 corridor** and port access provide opportunity for transportation and warehousing and market access for traditional manufacturing (wood products, food, metals)
- **'Silicon Forest' high tech cluster** includes R&D and component manufacturing. Hillsboro fiber infrastructure provides unique opportunity for continued growth connected to AI expansion, including data center and high-tech development. Companies with operations in PGE's service territory include Intel, Lam Research, Analog Devices, Microchip Technologies, Qorvo, Adobe, DRT, QTS and others
- Residential customers accounted for 37% of retail deliveries in 2023, commercial 34%, industrial 29%
- Strong industrial load growth, 7.5% CAGR from 2018-2023
- Forecast energy deliveries growth of 2% per year through 2027 driven by high-tech industrial customers and stable residential and commercial segments

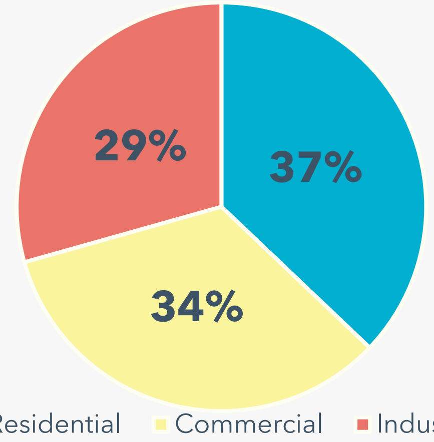
Core metro service area

I-5 corridor

'Silicon Forest' high tech cluster

Robust demand growth led by industrial class

2023 Load Mix(1)



Historical Growth(1)

2.2%

Total Load Growth CAGR 2018-2023

1.1%

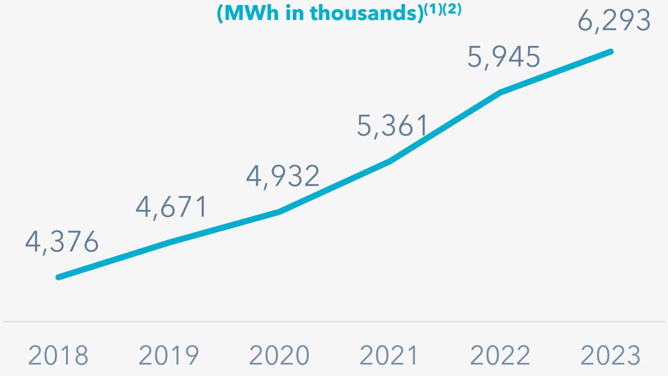
Residential Customer Count Growth CAGR 2018-2023

Track record of strong industrial growth

7.5%

Industrial Load Growth CAGR 2018-2023(1)(2)

Historical Industrial Load Growth
(MWh in thousands)(1)(2)



2023 Industrial Load Mix(1)

~50% Semiconductor & High Tech

~20% Data Centers & Artificial Intelligence

~30% Traditional Manufacturing & Other

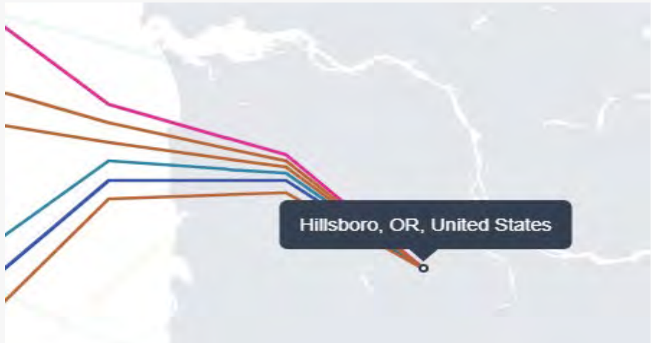
Ongoing high tech investment in Oregon(3)

$500M+ State grants, loans, and tax credits for Oregon semiconductor industry

$40B+ Expected state-wide semiconductor investment resulting from recent legislative incentives

6,300 Expected job creation from state-wide semiconductor investment from recent legislative incentives

Pacific subsea cables land in Oregon, supporting data center expansion



Source: TeleGeography

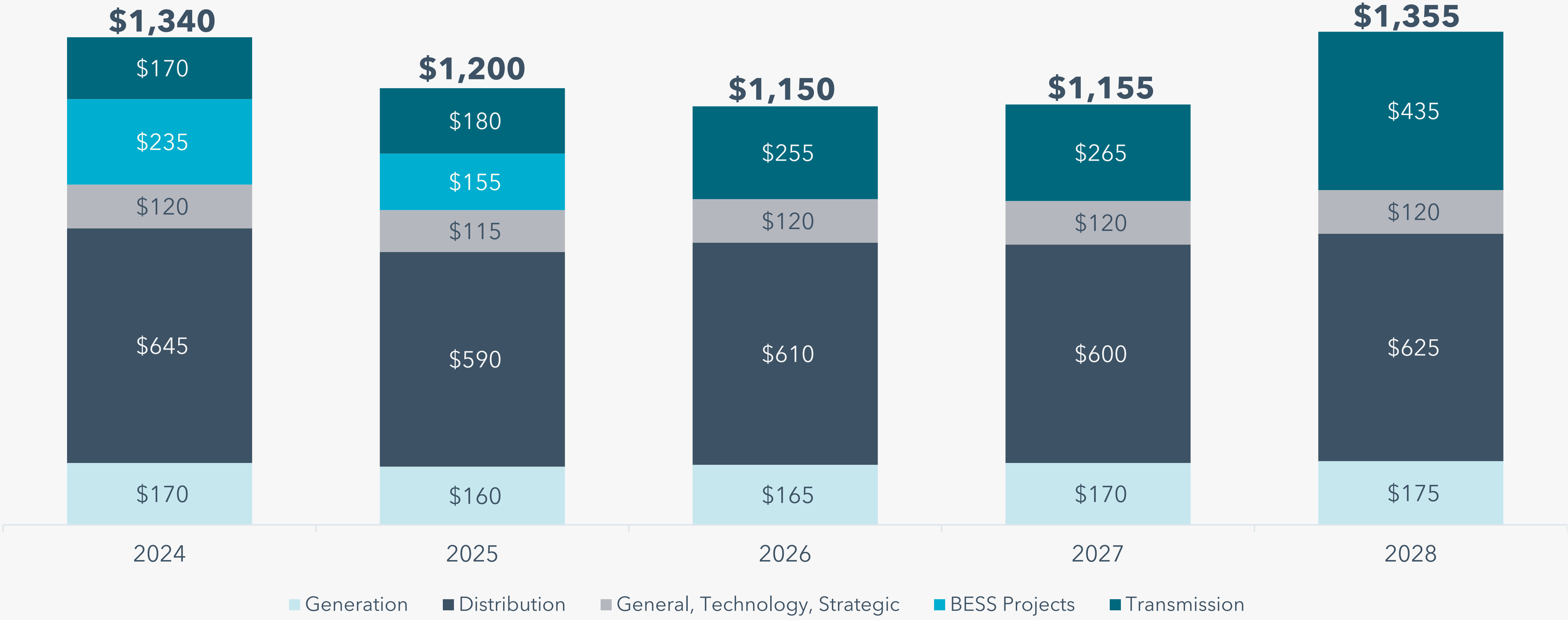
Established Data Center Market Ranking

A recent study (4) ranked Oregon as the **5th largest** data center market nationally

(1) As of December 31, 2023
(2) Includes energy deliveries to commercial and industrial customers that purchase their energy from ESSs
(3) Oregon HB 2009 and Oregon CHIPS Act (SB 4)
(4) Cushman and Wakefield 2024 Global Data Center Market Comparison

Reliability and resiliency investments

Capital expenditures forecast[1]

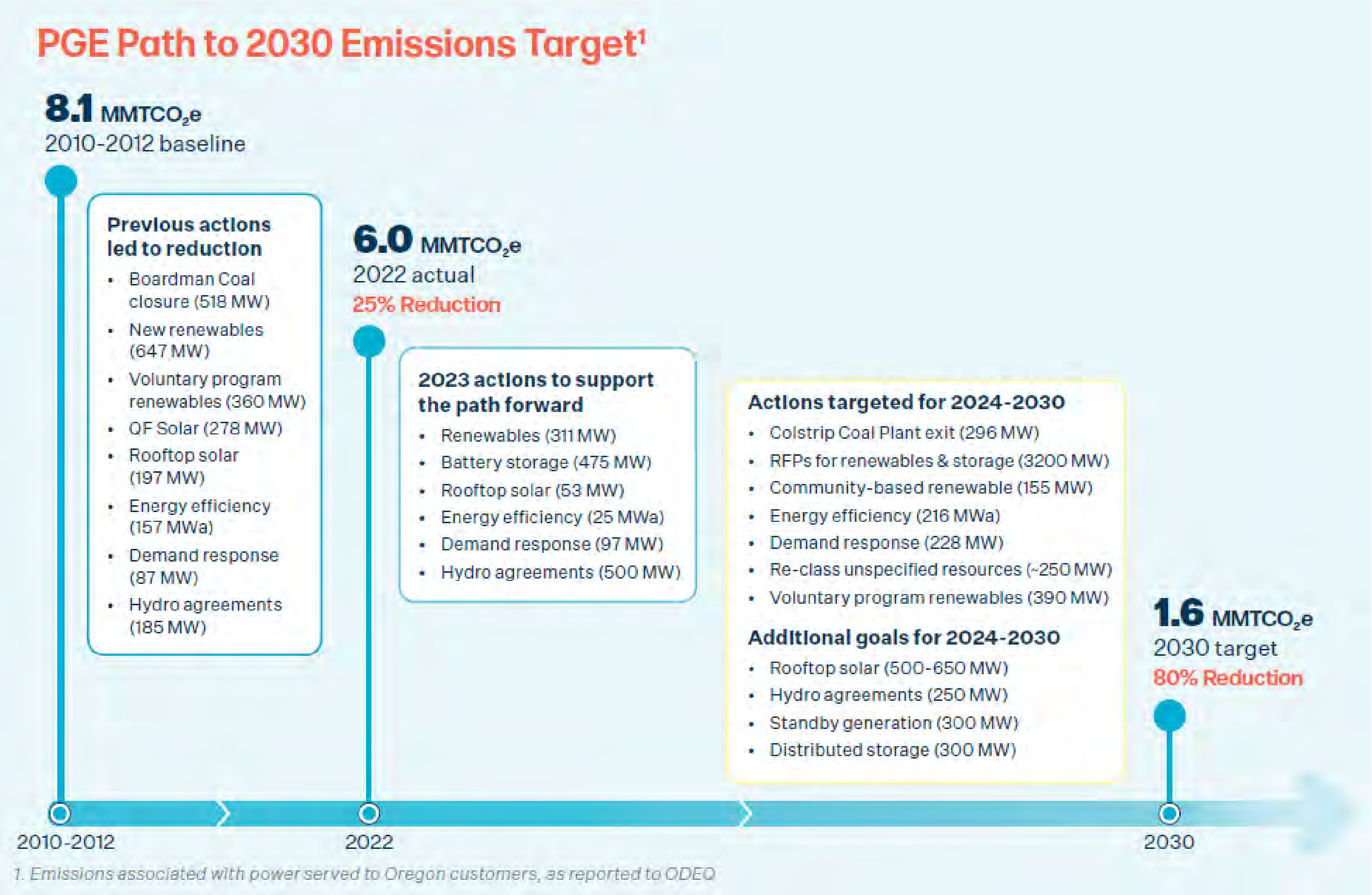


Note: Dollar values in millions. Capital expenditures exclude allowance for funds used during construction. These are projections based on assumptions of future investment. Actual amounts expended will depend on various factors and may differ materially from the amounts reflected in this capital expenditure forecast

(1) Values presented do not include incremental potential investments for future RFP cycles

Clean energy transition

Advancing toward a clean energy future



PGE has made significant progress toward decarbonization in the past decade

Meaningful steps underway to meet 2030 emissions targets:

- Removing coal from our portfolio to meet our legislative requirement
- Clearwater Wind Development placed in service in January 2024, bringing online 311 MW of non-emitting energy, and entered into agreements for 475 MW of battery storage and 500 MW of hydro contracts
- 2,700 to 3,700 MW of additional non-emitting resources remain to be procured through multi-stage RFP processes through 2030

Our decarbonization strategy is multi-faceted to support reliable and affordable power:

- Clean energy
- Customer-sited solutions
- Technology and innovation
- Regional solutions to resource adequacy

Resource planning and procurement

2023 IRP Action Plan

Customer Actions
- Increased energy efficiency, distributed energy resources and incorporation of customer demand response

Community-Based Renewable Energy (CBRE) Action
- RFPs for qualifying CBRE resources, 66 MW in service by 2026, 155 MW in service by 2030

Energy Action
- Renewable RFPs, target acquiring 261 MWa per year

Capacity Action
- Capacity RFPs to acquire sufficient capacity to meet forecasted needs

Transmission Actions
- Pursue options to alleviate congestion and upgrade key transmission resources

2023 RFP Timeline

✓ **May 2023** Draft RFP submitted to OPUC for approval

✓ **February 2024** Final RFP issuance

✓ **April 2024** Bid submissions due

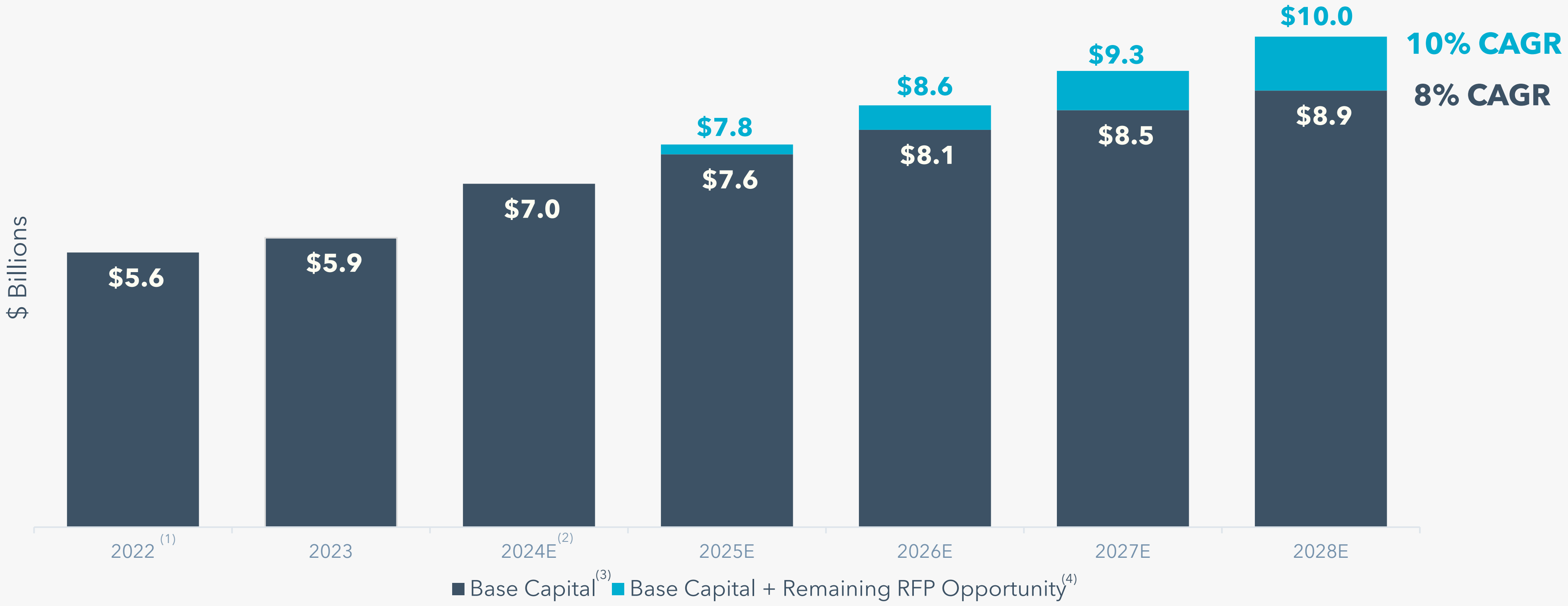
❑ **Q3 2024*** Submit request for acknowledgement of final shortlist to OPUC and shortlist publication

❑ **Q3/Q4 2024*** Execution of final contracts with winning bidders

*Subject to change depending on the quantity and complexity of bids received and should circumstances require

Illustrative rate base growth

- PGE's five-year base capital expenditure forecast of $6.2 billion drives 8% average rate base growth, from 2022 base year
- Illustrative incremental RFP opportunities(2) potentially increase average rate base growth to 10%, from 2022 base year



Note: Amounts presented are for illustrative purposes and represent potential values based on the assumptions outlined below. Amounts do not represent guidance and actual amounts may differ materially

(1) 2022 rate base value based on UE 394 2022 GRC Rate Base amount, inclusive of Colstrip

(2) 2024 beginning rate base is assumed consistent with the stipulated 2024 GRC value ($6.2B) plus capex of $424M for the Clearwater wind project

(3) Base scenario illustrates the potential impact of the following assumptions: a) 2024 beginning earnings power rate base is assumed consistent with the stipulated 2024 GRC value ($6.2B) plus capex of $424M for the Clearwater wind project; b) annual capital expenditures from 2024-2028 consistent with current capital expenditures forecast on slide 8; c) 2024 depreciation and amortization of $500M (mid-point of 2024 earnings guidance assumption); d) multi-year closing of transmission capex to rate-base, and; e) 25-year useful life for new asset additions thereafter

(4) The base capital + incremental opportunity from RFPs illustrates the potential impact of the following assumptions: a) a total remaining IRP opportunity of 3,200 MW (mid-point of remaining resource need of 2,700 to 3,700 MW, including both energy and capacity resources); b) 25% ownership of the midpoint 3,200 MW opportunity; c) $1,900 installed cost per KW (based on indicative values for 2021 RFP PGE-Owned Resources); d) RFP projects procured in serial cycles and with evenly spread project spend through year-end 2029 (Note: This is illustrative and actual RFP opportunity spend may be unevenly distributed); and e) 25-year useful life for RFP asset additions

2025 General rate case

Rate Case Key Terms – UE 435	
Rate Base	$7.5 billion
Rate Base Increase	$878 million, 13%
ROE	9.75%
Capital Structure	50/50
Cost of Debt	4.628%
Cost of Capital	7.189%
Revenue Requirement Increase	$225 million, including $37 million for power costs
Other Key Terms	• Recovery of Constable and Seaside BESS projects • Redefining definition of "associated storage" within the Renewable Automatic Adjustment Clause mechanism to include standalone energy storage • Proposed investment recovery mechanism for reliability and resiliency assets • Proposed refund of monetized Investment Tax Credits to customers over 5-year period

Management cannot predict the outcome of the rate case and all items are subject to OPUC approval

Key Strengths

Operational excellence

Continued focus on safety and a leader in reliability

Lost Time Incident Rate

0.29

2022: 0.74

System Average Interruption Duration Index (SAIDI)[1]

2nd Quartile

2022: 2nd Quartile

Overall Generation Availability

86.5%

2022: 86.3%

Note: All data is as of December 31, 2023

(1) Excluding major event days. Benchmarked against the 2022 Institute of Electrical and Electronics Engineers (IEEE) Reliability survey

Customer focus

CUSTOMER SATISFACTION

Ranked in the **top decile** nationwide for Residential Customer Delight according to Escalent's National Energy Utility Benchmarking Study (2023) (1)

TOP 5

Ranked as a **Top 5** Utility in the United States for Customer Experience according to Forrester's The US Customer Experience Index for 2021, 2022 and 2023 (1)

PGE PROGRAMS

#1

Continued position as **number 1** ranked renewable power program in the United States for 14 years according to the National Renewable Energy Laboratory (2023) (2)

Enrolled **over 69,000**(3) households in our Income Qualified Bill Discount Program, 80% program satisfaction rate of households surveyed

(1) Annual rankings are issued retrospectively for each calendar year
(2) NREL did not release rankings in 2011
(3) Amount enrolled as of December 31, 2023

Clean energy and transmission investment

Building a smarter, stronger, more flexible grid to deliver the power customers need today and into the future

Advancing the clean energy transition

Clearwater Wind Facility

- **311** MW of emissions-free generation for PGE customers
  - PGE owns **208** MW of the project, a $424 million investment
  - PGE entered into a PPA with a subsidiary of NextEra Energy Resources for the remaining **103** MW
- This facility is eligible for recovery under the Renewable Resource Automatic Adjustment Clause (RAAC)

Upgrading infrastructure to enable growth

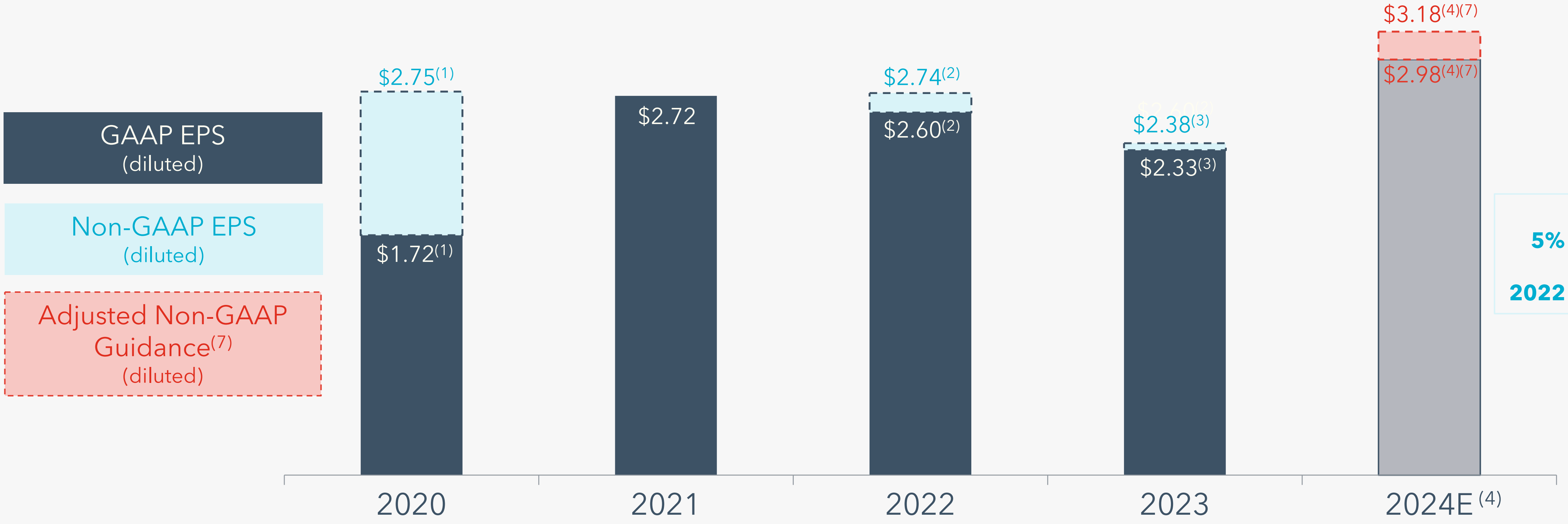
Transmission Projects

Multi-phase projects that support customers and improve reliability for the region

- **Tonquin Project**
  - 115kV transmission lines and substation upgrade
- **Hillsboro Reliability Project**
  - 230kV transmission lines and substation upgrade

- Additional substation upgrades throughout the service territory to enable load growth, led by high-tech and digital customers

Long-term financial performance

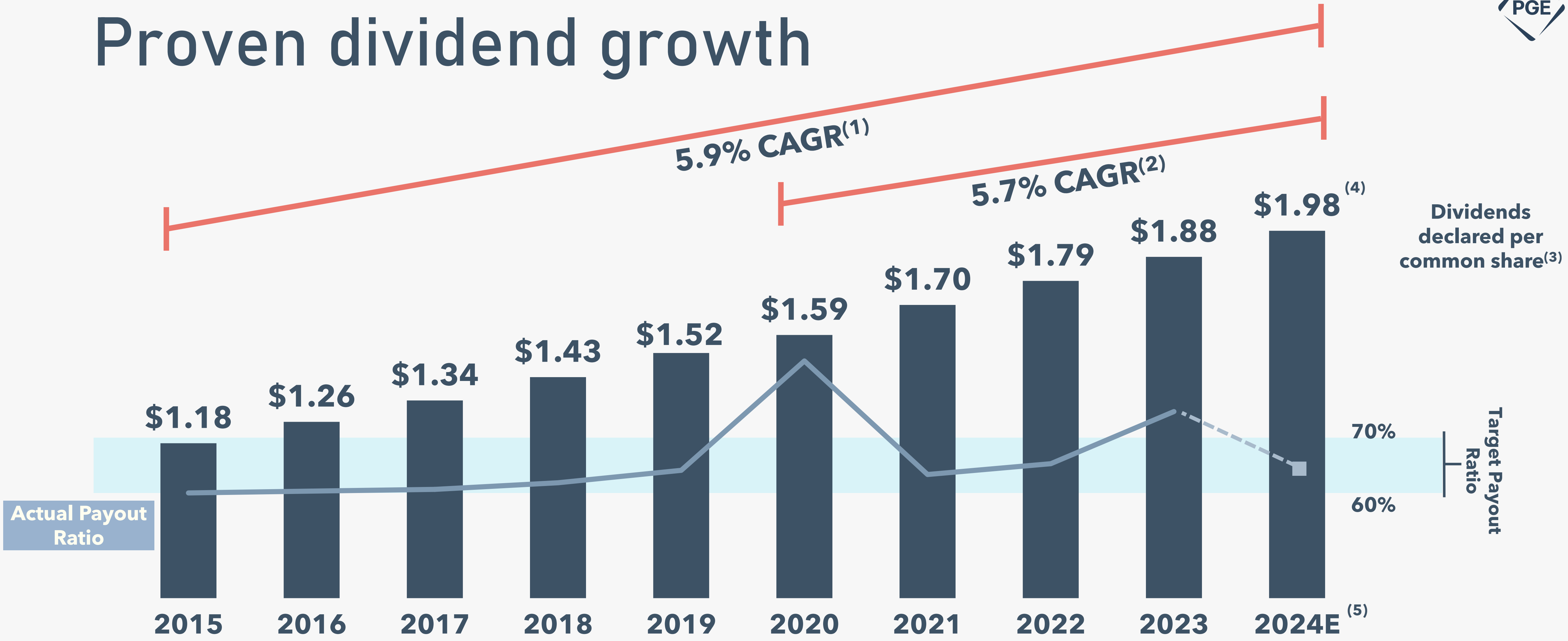


Long-term 5% to 7%(4) earnings growth from 2022 adjusted base year

	2020	2021	2022	2023	2024E (4)
Accounting ROE(6)	6.0%	9.2%	8.5%	7.5%	8.6% - 9.2%(5)(6)(7)
Allowed ROE	9.5%	9.5%	9.5%	9.5%	9.5%

(1) In 2020 GAAP net income was $155 million, or $1.72 per diluted share. After adjusting for the impacts of the Energy Trading Losses, non-GAAP net income was $247 million, or $2.75 per diluted share. The net effect of the energy trading losses was $1.03 per diluted share (see appendix for important information about non-GAAP measures, guidance, and reconciliations)
(2) In 2022, GAAP net income was $233 million, or $2.60 per diluted share. After adjusting for the impacts of released deferrals related to 2020, non-GAAP net income was $245 million, or $2.74 per diluted share. The net effect of the deferral release was $0.14 per diluted share (see appendix for important information about non-GAAP measures, guidance, and reconciliations)
(3) In 2023, GAAP net income was $228 million, or $2.33 per diluted share. After adjusting for the impacts of Boardman revenue requirement settlement charge, non-GAAP net income was $233 million, or $2.38 per diluted share. The net effect of the deferral release was $0.05 per diluted share (see appendix for important information about non-GAAP measures, guidance, and reconciliations)
(4) Estimates and projections are based on assumptions and there can be no assurance regarding the amount of future earnings consistent with earnings guidance and earnings growth guidance
(5) 2024E Accounting ROE calculated based on adjusted earnings guidance range of $2.98 to $3.18 (see appendix for important information about non-GAAP measures, guidance, and reconciliations)
(6) Return on average equity
(7) See appendix for important information about non-GAAP measures, guidance, and reconciliations

Proven dividend growth

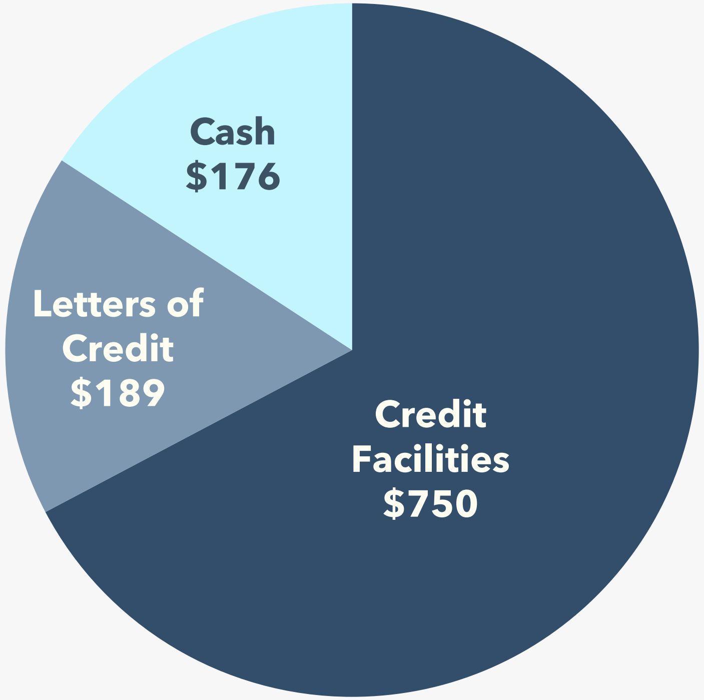


Long-term dividend growth guidance of 5-7%[4]

(1) Compound Annual Growth Rate from 2015 through 2024E
(2) Compound Annual Growth Rate from 2020 through 2024E
(3) Represents annual dividends declared per common share
(4) Estimates and projections are based on assumptions and there can be no assurance regarding the amount of future dividends. The amount and timing of dividends payable and the dividend policy are the sole discretion of the Portland General Electric Board of Directions, and if declared and paid, dividend may be in amounts that are less than projected
(5) 2024E estimated dividends declared based on annualization of quarterly dividend declared in April 2024. 2024E dividend payout ratio is calculated using the midpoint of adjusted earnings guidance of $2.98 to $3.18

Liquidity and financing

Total Liquidity: $1,115 million
as of March 31, 2024 (dollars in millions)



Ratings	S&P	Moody's
Senior Secured	A	A1
Senior Unsecured	BBB+	A3
Commercial Paper	A-2	P-2
Outlook	Stable	Stable

Actual and expected 2024 debt financings (dollars in millions)	Q1	Q2	Q3	Q4
Long-term debt	$450		$160	$140

Equity financings (dollars in millions)	Total facility	Settled to-date
At-The-Market Offering Program(1)	$300	$78

(1) PGE entered into an at-the-market offering program in the second quarter of 2023. In March 2024, pursuant to the terms of the equity distribution agreement, PGE issued 1,714,972 shares and received net proceeds of $78 million, settling all forward sale agreements in place. Any proceeds from the issuances of common stock will be used for general corporate purposes and investments in renewables and non-emitting dispatchable capacity

Environmental, Social and Governance

Environmental, social, & governance highlights

Decarbonize

Electrify

Perform

GHG Emissions Targets	In 2023, PGE's total system load was comprised of 35% specified, non-emitting energy sources. PGE continued to make steady progress, reducing emissions from unspecified sources[1], procuring clean energy resources and investing in the tools that will support driving emissions toward target levels in future years
Clean Energy Investment	Completed construction of the new Clearwater 311 MW wind energy facility in January 2024 and procured 475 MW of battery energy storage systems to begin serving customers in 2024 and 2025
Green Financing Framework	Executed an additional $500 million in green bonds in 2023 to continue supporting clean energy investments under our Green Financing Framework
Diversity, Equity and Inclusion	Amidst tight labor market conditions, PGE continued to attract and retain a diverse workforce, with women accounting for over 35% and Black, Indigenous and People of Color (BIPOC) employees more than a fourth, of the leadership at PGE

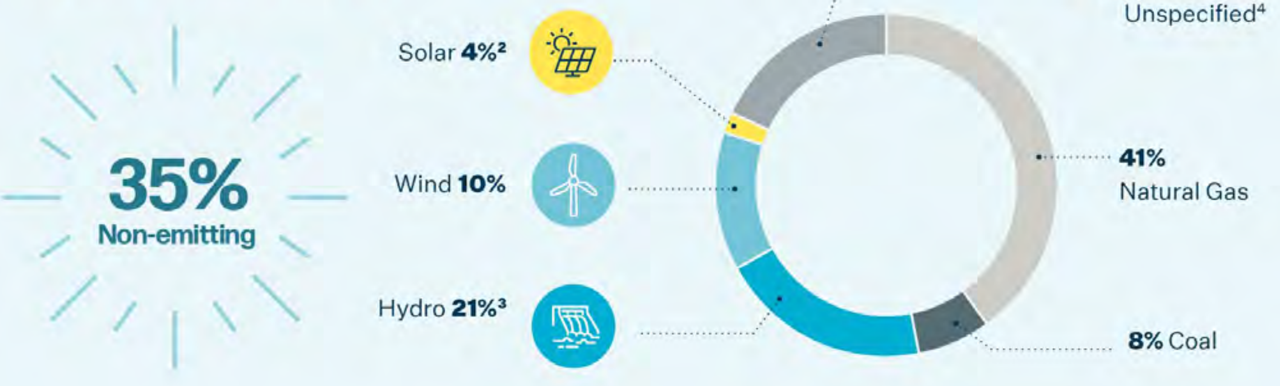
Our 2023 Environmental, Social & Governance Report highlights key initiatives and achievements that support PGE's **commitment to decarbonization and advancing well-being for customers, employees, communities and the environment**

1) Unspecified sources consist of purchased power for which a specific generating resource is not defined, and could be any of the generation types (e.g., wind, hydro, gas)

Clean energy commitment

PGE's clean energy and emissions goals have always been rooted in our customers' preferences, who are some of the most sophisticated renewable energy buyers in the world

Resource mix for PGE's total system load[1] Retail and wholesale



Scope 1

6.84 million metric tons of CO_2e

Scope 1 emissions includes all of PGE's direct emissions, made up of fuel burned by thermal generating resources, fuel burned by PGE's vehicle fleet and natural gas used at PGE's office facilities.

Scope 2

0.04 million metric tons of CO_2e

Scope 2 emissions are emissions related to Transmission and Distribution line loss and emissions associated with power purchased from a third party that is consumed by PGE.

Scope 3

2.29 million metric tons of CO_2e

Scope 3 emissions include the generation of purchased electricity then sold to end users. Reporting and data collection capabilities are still being developed for other Scope 3 sources of emissions.

PGE's goals go above and beyond required emission reduction targets and PGE was the first utility in the U.S. to sign The Climate Pledge

- Commitment to reach net-zero carbon emissions by 2040, which will require reducing Scope 1, 2 and 3 emissions

PGE has made significant progress towards decarbonization in the past decade, with meaningful steps in place to meet future goals

- By 2030, PGE will no longer generate electricity with coal to serve Oregon customers
- 2,700 to 3,700 MW of additional non-emitting resources to be procured through 2030
- Commitments to reduce environmental impacts from other areas of the business, including goals set to electrify PGE's vehicle fleet

1. Percentages above represent 2023 resource mix from PGE's total system load, inclusive of wholesale volumes.
2. Represents utility-scale solar, does not include customer rooftop solar resources.
3. Hydro amounts include purchases from Bonneville Power Administration, which may have an immaterial amount of emissions associated with them, per ODEQ rules.
4. Unspecified is purchased power for which a specific generating resource is not defined and could be any of the generation types (e.g., wind, hydro, gas).

Green financing framework

2021

Adopted

our **Green Financing Framework** under which we issue green financing instruments to finance or refinance sustainable projects

2021

Issued

$150M in inaugural green bonds to finance the first-of-its scale **Wheatridge** renewable facility

2022

Issued

$100M in green bonds, which were funded in 2023, supporting the development of **Constable** and **Seaside** battery projects

2022

Executed

a **$499M** equity forward agreement, a first-of-its kind Green Use of Proceeds equity offering. Proceeds support the construction of **Clearwater Wind Facility** and **Constable** battery project

2023

Issued

$500M in green bonds to support the **Seaside** battery project and future renewable projects

Community and employee engagement

$197M spent with diverse suppliers in 2023, 18% of total spend for 2023

20,000+ volunteer hours completed by employees and retirees

67% employee participation in charitable giving and/or volunteering

$4.6M in total charitable giving

Established ***Community Benefits and Impact Advisory Group***, working to develop more equitable strategies for the clean energy future

Developed a ***Strategic Tribal Engagement Plan*** *(STEP)*, enhancing engagement with the 7 area Tribes that PGE works with

27% Black, Indigenous and People of Color make up over **one-fourth** of leadership

35% Women make up over **one-third** of leadership, including our CEO

Multiple **leadership development programs** offered to employees to cultivate high performing and diverse leaders

100% rating as a Best Place to Work for LGBTQ Equality for **10 years** in a row

Recognized globally in the 2023 Bloomberg Gender Equality Index

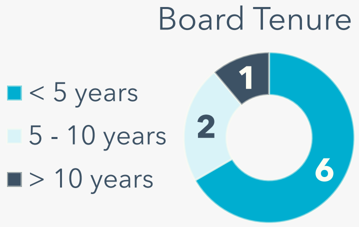
Note: Information above is as of December 31, 2023

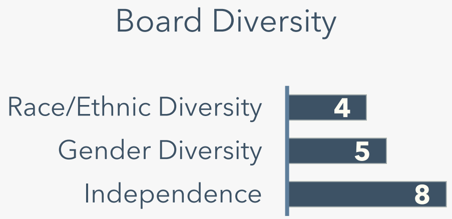
Diverse and experienced Board

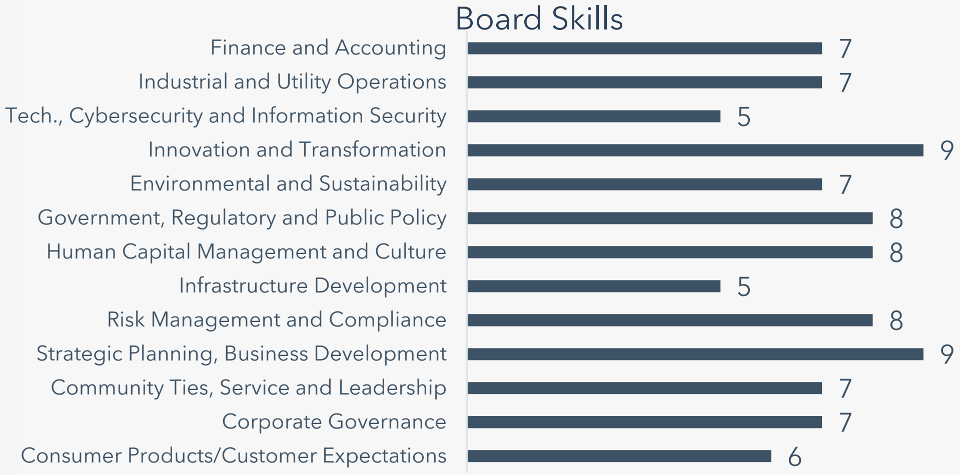
	Name	Age	Director Since	Industry/Experience	Diversity	Committee Membership[1]	Other Public Boards
	**Dawn Farrell** Independent	64	2022	Utilities/Energy	White/Woman	• Finance • Governance	1
	**Marie Oh Huber** Independent	62	2019	Law/Technology/Customer Experience	Asian/Woman	• Compensation • Governance	0
	**Kathryn Jackson** Independent	66	2014	Technology/Environmental	White/Woman	• Audit and Risk, Chair • Governance	2
	**Michael Lewis** Independent	61	2021	Utilities	African American/Man	• Compensation • Finance, Chair	2
	**Michael Millegan** Independent	65	2019	Communications/Technology	African American/Man	• Audit and Risk • Finance	1
	**John O'Leary** Independent	63	2024	Automotive/Clean Transportation	White/Man	• Audit and Risk • Finance	1
	**Patricia Pineda** Independent	72	2022	Human Resources/Consumer Products	Latina/Woman	• Compensation, Chair • Finance	2
	**Maria Pope** President and CEO	59	2018	Utilities/Finance	White/Woman		1
	**James Torgerson** Independent Chair	71	2021	Energy/Finance	White/Man	• Audit and Risk • Governance	0

Track record of thoughtful refreshment enables us to have a Board with the experience and diverse perspectives needed to oversee our business

Diverse and Independent Leadership







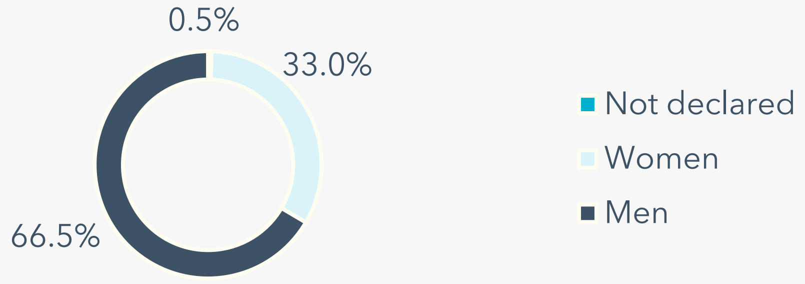
(1) Key to Abbreviated Committee Names: Compensation- Compensation, Culture and Talent Committee, Governance- Nominating, Governance and Sustainability Committee
Note: Information as presented in the 2024 Proxy statement, filed on March 6, 2024

Diversity, equity, and inclusion

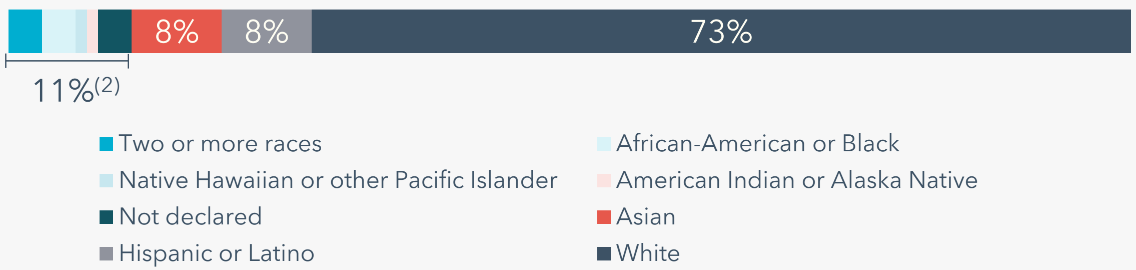
Committed to DEI across our business

- **Partners and suppliers:** Increased our supplier diversity to 18% of total supplier spending in 2023, up from 14% in 2022
- **Awareness, education, and training:** Racial equity education for our board, leadership and employees
- **Recruitment and development:** Development opportunities for underrepresented, high-potential employees interested in leadership
- **Awards and recognition:** Perfect score on the Human Rights Corporate Equality Index for 10 years in a row and inclusion in the Gender-Equality Index for 5 years in a row
- **Competitive pay and benefits:** Diversity metrics included in incentive programs. PGE employees in the same role, with comparable work experience, at the same location earn a near-perfect dollar-for-dollar pay
- **Policies and purpose:** Human Rights Policy Statement established, promoting our commitment to our employees, communities, suppliers and partners

Workforce by Gender(1)



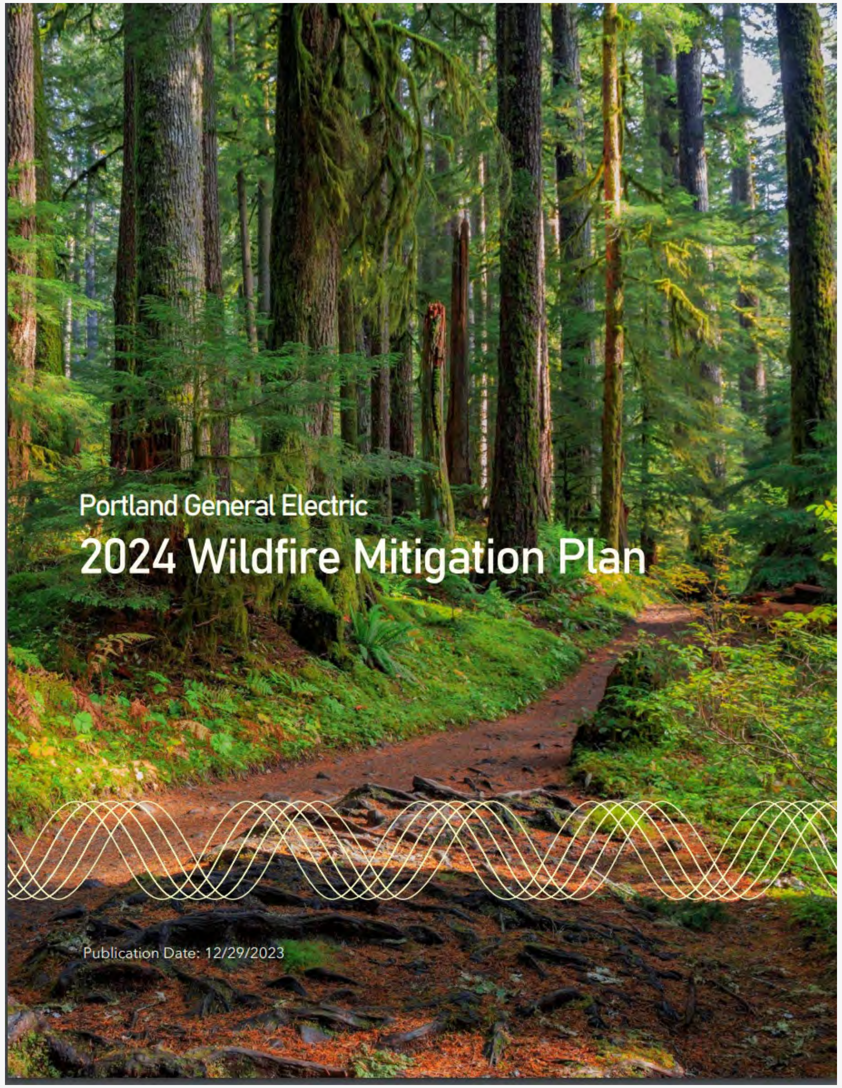
Workforce Racial/Ethnic Diversity(1)



(1) As of December 31, 2023
(2) Two or more races, 3%; African-American or Black, 3%; Native Hawaiian or other Pacific Islander, 1%; American Indian or Alaska Native, 1%; No answer, 3%

Appendix

Wildfire regulatory framework



WMP Annually, PGE files a Wildfire Mitigation Plan with the OPUC which summarizes our approach to addressing wildfire risk. The 2024 Wildfire Mitigation Plan (Docket UM 2208) was submitted in December 2023

AAC PGE's Wildfire Automatic Adjustment Clause (AAC) is designed to enable timely recovery of wildfire mitigation costs, including O&M and capital expenditures

PGE works closely with key stakeholders to plan and coordinate on wildfire prevention and response, including

- Peer utilities
- State, Tribal and local fire agencies
- Fire management officers
- District foresters
- Oregon Department of Forestry
- Oregon Joint Use Association
- Private landowners
- Electric Power Research Institute
- Western Energy Institute
- Edison Electric Institute
- US DOE
- Federal fire agencies
- International Wildfire Risk Mitigation Consortium

PANO AI cameras detect fires and notify PGE and local agencies instantaneously

PGE's wildfire risk mitigation hierarchy

PSPS
PGE turns off power in a limited, high-risk area to help reduce the risk of wildfire and to help protect people, property and the environment

OPERATIONAL PRACTICES
Implement operational system settings, including protection systems, line and vegetation maintenance, and using a risk-informed protection strategy to reduce risk of ignitions

SITUATIONAL AWARENESS
Improve PGE's wildfire-related risk management and situational awareness capabilities

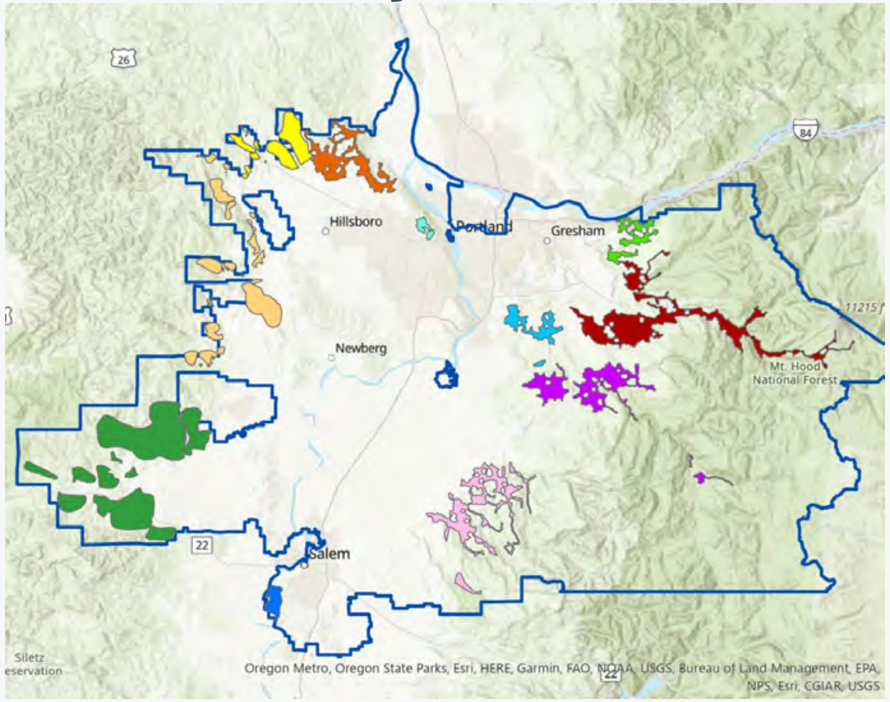
SYSTEM HARDENING
Implement a systematic, risk-informed approach to identify and prioritize system hardening and resiliency measures to avoid potential fires and protect PGE assets

Public Safety Power Shutoff

2 In response to extreme conditions, PGE has successfully implemented two Public Safety Power Shutoffs (PSPS), one in 2020 and one in 2022 to protect lives, property and public spaces

Operational Practices

11	Defined high risk fire zones (HFRZs) within PGE's service territory
2.4%	Percent of PGE customers within HFRZs
9%	Percent of PGE service territory identified as HFRZ
4%	Percent of PGE's overhead system located within a HFRZ
78	Reclosers throughout HFRZs, enabling operational readiness and protection during fire season



High Fire Risk Zones (brightly shaded) within PGE's service territory (outlined)

System Hardening And Situational Awareness

$91M	Forecasted 2024 Wildfire Mitigation spend[1]
50%	Percent of distribution lines that are undergrounded in PGE's service territory
100%	HFRZ camera detection and weather station coverage

1) Per PGE's 2024 Wildfire Mitigation Plan. Amount calculated using the midpoint of the $43 - $49.2 forecasted capital costs

Public safety power shutoff (PSPS)

Temporarily turning off power during extreme weather conditions to reduce wildfire risk

Factors we consider before calling a Public Safety Power Shutoff (PSPS)

These may include but aren't limited to:

- High winds
- Real-time observations from the field
- Dry vegetation
- Red Flag Warning
- Temperature
- Collaboration with local, state and regional agencies
- Low humidity levels

PSPS notifications to partners, customers and other stakeholders

	Warning	Likely	Imminent	Happening*	Restoration begins*	Restoration complete*
When:	**48–72 hours** before a PSPS	**24–48 hours** before a PSPS	**1–4 hours** before a PSPS	**During** a PSPS	When it's safe	PSPS is over
What:	We haven't made a final decision yet, but it's looking like a PSPS is possible.	We haven't made a final decision yet, but it's looking increasingly likely a PSPS will be necessary.	To protect lives and property, we expect to call a PSPS very soon. Now's the time to activate your emergency plan and be sure to keep your outage kit handy.	Power is being shut off. PGE may open a Community Resource Center to provide essential resources like information, water, ice and a place to charge electronic devices.	Crews are patrolling and will respond to downed lines, repair damage and visually inspect equipment to make sure it's safe to restore power.	The immediate threat has passed and power has been restored. But we'll continue to monitor conditions so we can keep our customers and communities safe.
How you'll hear may include: (From us and emergency partners)	We will notify our partners (e.g. public safety partners, key government officials and critical facilities) via: • **Email/Phone** • **Other approprite communication channels**	We, and our partners, will notify impacted customers, stakeholders and community-based organizations via: • **Email** • **Social media** • **Updates on the PGE website** • **Media updates** • **Advertising**	We, and our partners, will give impacted customers an estimated time when their power will be shut off via: • **Email** • **Social media** • **Updates on the PGE website** • **Media updates** • **Advertising**	We know this is challenging, so we'll do everything we can to stay in touch with impacted customers via: • **Email** • **Social media** • **Updates on the PGE website** • **Media updates** • **Proactive power out text message** • **Advertising**	As crews work on restoration, we'll share any new or relevant information to make sure you're kept up to date via: • **Email** • **Social media** • **Updates on the PGE website** • **Media updates** • **Advertising**	When conditions stabilize and power has been restored, we'll notify impacted customers via: • **Email** • **Social media** • **Updates on the PGE website** • **Media updates** • **Proactive power on text message** • **Advertising**

*PGE will provide status updates at least every 24 hours

Constructive regulatory / policy framework

Oregon

- Oregon legislation requires 100% clean energy by 2040
- Oregon Public Utility Commission
  - Governor-appointed 3-member commission with staggered 4-year terms
  - Commission has consistently approved investments in renewables, going back to Biglow Canyon Wind Farm, which went online 15 years ago
- Regulatory dynamics support PGE and the transition to clean energy
  - Renewable Portfolio standard (adopted in 2007; increased in 2016)
  - Renewable Adjustment Clause
  - Forward test years
  - Integrated resource planning framework
  - Accelerated depreciation of Colstrip to 2025
  - History of reasonable settlements in rate cases
  - Regulatory support for recovery of storm response and wildfire mitigation costs

Federal

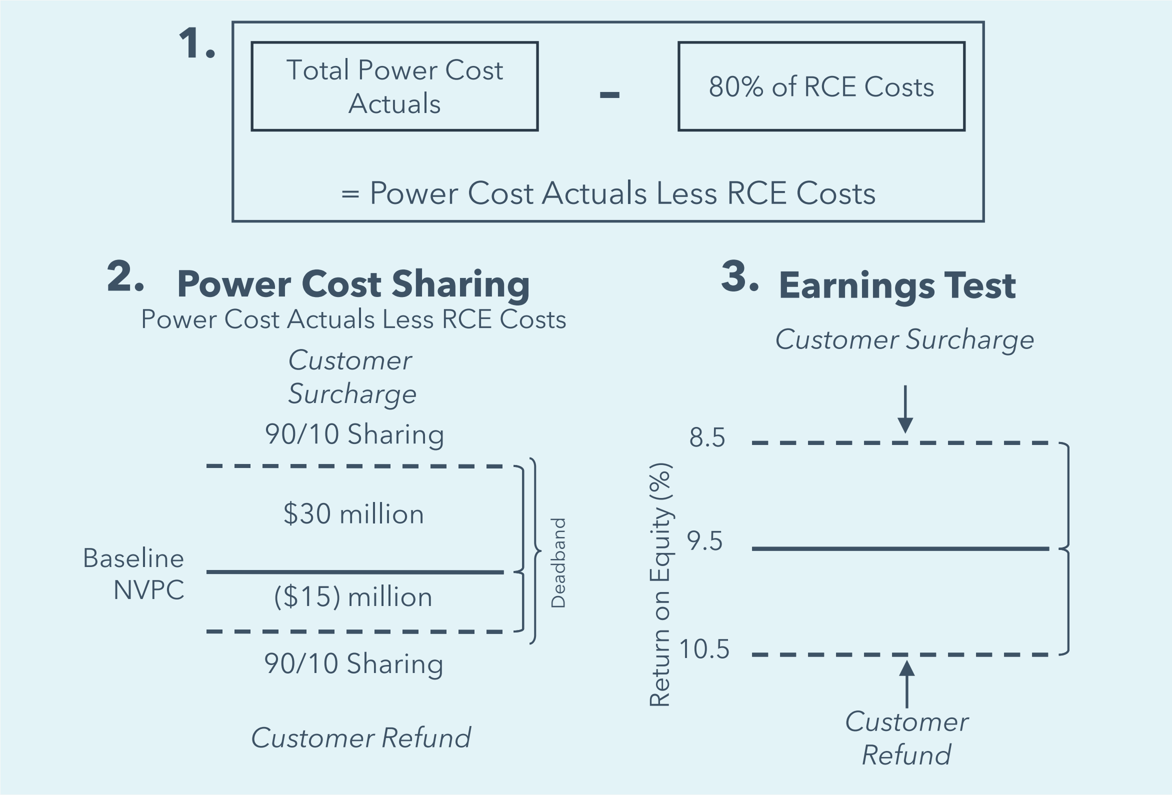
- The Inflation Reduction Act (IRA), which was signed into law in August 2022, is expected to further enhance PGE's already strong prospects for renewables-based growth
- Better positions renewables to be owned and operated by regulated utilities like PGE and makes renewables more affordable for PGE customers
  - Allows for solar projects to elect ITC or PTC
  - Allows for the transfer of tax credits after 2022
  - Standalone storage can earn tax credits
- Makes tax credits available for renewable energy through the later of 2032 or when annual greenhouse gas emission in the U.S. electric sector falls 75% from 2022 levels
  - Effectively increases the competitiveness of renewables relative to conventional generation, bolstering long-term deployment
  - Improves the economics for repowering existing renewables as they age

PGE's regulatory framework in Oregon, along with the recently-signed IRA, position the company to play an important role in the decarbonization of Oregon

Recovery of power costs

Annual power cost update tariff

- Annual reset of prices based on forecast of net variable power costs (NVPC) for the coming year
- Subject to OPUC prudency review and approval, new prices go into effect on or around January 1 of the following year



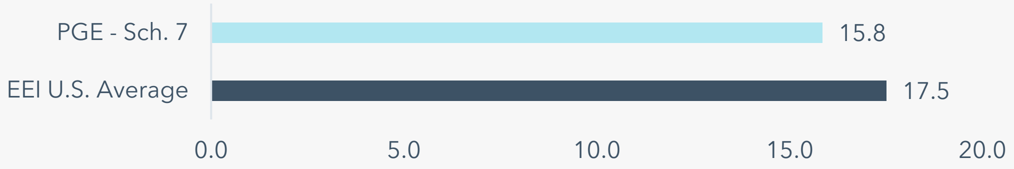
- PGE can recover 80% of power costs prudently incurred during Reliability Contingency Events (RCEs) subject to the following criteria:
  - Day-Ahead Mid-C index prices exceed $150/MWh
  - PGE is eligible to request or acquire RA assistance through a regional RA program in which it participates
  - A neighboring Balancing Authority has publicly declared an event that indicates potential supply or actual supply constraints
- PGE absorbs power costs/benefits, excluding the 80% RCE Cost recovery, within the deadband range. Amounts outside the deadband are shared 90% with customers and 10% with PGE, subject to an earnings test applied using the regulated ROE as a threshold
- Customer surcharge occurs if PGE's actual regulated ROE is below 8.5% (ROE will not exceed 8.5% with surcharge); Customer refund occurs if PGE's actual regulated return is above 10.5% (regulated return will not decrease below 10.5% with refund)

Detriment / (Benefit) PCAM Baseline at Year End(2):										
	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Over / (Under)	($7)	($3)	($10)	$15	($3)	$5	$ (13)	$30(3)	$23	$5

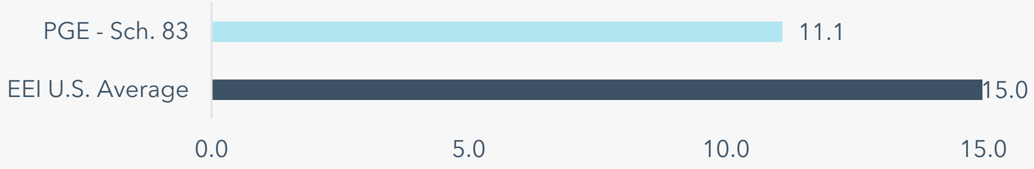
(1) Costs estimated based on framework approved within the 2024 GRC (UE 416). Future RCE costs could vary significantly based on market pricing, duration or other event specific factors
(2) Dollar values in millions
(3) Represents variance to baseline net of 90% of the excess variance to be collected from customers

Average retail price comparison

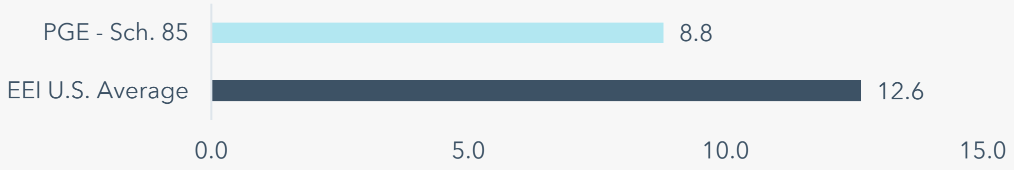
Residential Electric Service Prices:
1,000 kWh monthly consumption
(Prices in cents per kWh)



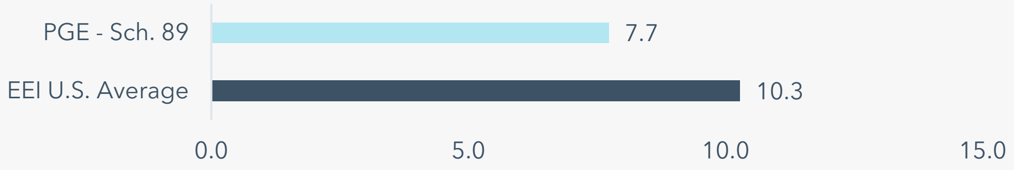
Commercial Electric Service Prices:
40 kW demand and 14,000 kWh monthly consumption
(Prices in cents per kWh)



Industrial Electric Service Prices
1,000 kW peak demand and 400,000 kWh monthly consumption
(Prices in cents per kWh)



Large Industrial Electric Service Prices
50,000 kW peak demand and 32,500,000 kWh monthly consumption
(Prices in cents per kWh)



Note: EEI U.S. Average is based on Investor-owned utilities only
Source: EEI Typical Bills and Average Rates Report for Prices in effect July 1, 2023

2024 Earnings Sensitivities

	Sensitivity	Full-Year Adjusted EPS Impact
Load Growth - Residential[(1)]	± 1%	± $0.07
Load Growth – Commercial[(1)]	± 1%	± $0.02
Load Growth – Industrial[(1)]	± 1%	± $0.01
O&M Expense	± $10 million	± $0.07
Interest Rates[(2)]	± 25 bps	± $0.01
Effective Tax Rate	± 1%	± $0.03

(1) Assumes incremental load is charged at average retail rate per customer class and served at average Annual Update Tariff (AUT) power cost rate
(2) Assumes interest rate impact for full year on outstanding debt issuances and expected debt financings in 2024

Non-GAAP financial measures

This press release contains certain non-GAAP measures, such as adjusted earnings, adjusted EPS and adjusted earnings guidance. These non-GAAP financial measures exclude significant items that are generally not related to our ongoing business activities, are infrequent in nature, or both. PGE believes that excluding the effects of these items provides a meaningful representation of the Company's comparative earnings per share and enables investors to evaluate the Company's ongoing operating financial performance. Management utilizes non-GAAP measures to assess the Company's current and forecasted performance, and for communications with shareholders, analysts and investors. Non-GAAP financial measures are supplementary information that should be considered in addition to, but not as a substitute for, the information prepared in accordance with GAAP.

Items in the periods presented, which PGE believes impact the comparability of comparative earnings and do not represent ongoing operating financial performance, include the following:

- 2020: Certain energy trading losses
- 2022: Non-cash Wildfire and COVID deferral reversal charge associated with the year ended 2020, resulting from the OPUC's 2022 GRC Final Order earnings test
- 2023: Boardman revenue requirement settlement charge associated with the year ended 2020, resulting from the OPUC's 2022 GRC Final Order

Due to the forward-looking nature of PGE's non-GAAP adjusted earnings guidance, and the inherently unpredictable nature of items and events which could lead to the recognition of non-GAAP adjustments (such as, but not limited to, regulatory disallowances or extreme weather events), management is unable to estimate the occurrence or value of specific items requiring adjustment for future periods, which could potentially impact the Company's GAAP earnings. Therefore, management cannot provide a reconciliation of non-GAAP adjusted earnings per share guidance to the most comparable GAAP financial measure without unreasonable effort. For the same reasons, management is unable to address the probable significance of unavailable information.

PGE's reconciliation of non-GAAP earnings for the years ended December 31, 2020, December 31, 2022, and December 31, 2023 are on the following slide.

Non-GAAP financial measures

Non-GAAP Earnings Reconciliation for the year ended December 31, 2020		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the year ended December 31, 2020	$155	$1.72
Exclusion of certain trading losses	127	1.42
Tax effect [1]	(35)	(0.39)
Non-GAAP as reported for the year ended December 31, 2020	$247	$2.75

Non-GAAP Earnings Reconciliation for the year ended December 31, 2022		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the year ended December 31, 2022	$233	$2.60
Exclusion of 2020 Wildfire and COVID deferral reversal	17	0.19
Tax effect [1]	(5)	(0.05)
Non-GAAP as reported for the year ended December 31, 2022	$245	$2.74

Non-GAAP Earnings Reconciliation for the year ended December 31, 2023		
(Dollars in millions, except EPS)	**Net Income**	**Diluted EPS**
GAAP as reported for the year ended December 31, 2023	$228	$2.33
Exclusion of Boardman revenue requirement settlement charge	7	0.07
Tax effect [1]	(2)	(0.02)
Non-GAAP as reported for the year ended December 31, 2023	$233	$2.38

(1) Tax effects were determined based on the Company's full-year blended federal and state statutory tax rate

CASE: UE 435
WITNESS: ROSE PILEGGI

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2900

Rebuttal Testimony
Cost of Long-Term Debt,
Power Cost Hedging and Trading Expenses

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Rose Pileggi. I am a Senior Utility Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Exhibit No. Staff/500 and my witness qualifications statement is provided in Exhibit No. Staff/501.

Q. What is the purpose of your testimony?

A. I address Portland General Electric Company's (PGE or the Company) filed Reply Testimony regarding the Cost of Long-Term (LT) Debt, and the Alliance of Western Energy Consumers' (AWEC) filed Opening Testimony, and PGE's filed Reply Testimony regarding Margin Net Interest, Revolver Fees, and Broker Fees.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/2901, Portland General Electric's responses to Data Requests.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. COST OF LONG-TERM (LT) DEBT

Q. Please provide a summary of PGE's position on the Cost of LT Debt in its Reply Testimony filing.

A. The Company states "PGE does not oppose Staff's change."[1] This statement was made in response to Staff's calculated Cost of LT Debt of 4.641, which was an increase of 1.3 basis points[2] on the Company's filed Cost of Debt.[3]

Q. Does Staff intend to change its recommendation on the Cost of Long-Term Debt?

A. No. As PGE does not oppose Staff's change, Staff is comfortable with maintaining the same recommendation as filed in Staff's Opening Testimony.

Q. What is Staff's recommendation for the Cost of LT Debt?

A. Staff maintains its recommendation of a 4.641 percent Cost of Long-Term Debt as recommended in Staff/500, Pileggi/5.

[1] PGE/1800, Figueroa – Liddle/67.
[2] 1 basis point (bps) = 1/100 of 1 percent.
[3] PGE/1800, Figueroa – Liddle/67 and Staff/500, Pileggi/5.

ISSUE 2. POWER COST HEDGING AND TRADING EXPENSES

Q. Please summarize AWEC's recommendation in its Opening Testimony regarding Margin Net Interest, Broker Fees and Revolver Fees.

A. AWEC's Opening Testimony recommends that these items be removed from rates. AWEC recommends the removal of Revolver Fees, a decrease to revenue requirement of $2,157,244, as the Cost of Debt in this docket accounts for long-term debt[4] only.[5] AWEC recommends the removal of Margin Net Interest, a decrease to revenue requirement of $1,264,295, with the rationale that there is a cash benefit to PGE from holding the deposits.[6] Using the same reasoning as with Revolver Fees, AWEC recommends the removal of Broker Fees, as such fees are not considered in the Cost of Capital.[7] The impact of this is a decrease to revenue requirement of $138,080.[8] The total decrease to revenue requirement from these three adjustments is approximately $3.56M.

Q. Please summarize PGE's response in its Reply Testimony to AWEC regarding these three issues.

A. PGE states that: "PGE first included revolver fees, margin net interest and broker fees in A&G in its 2011 GRC (Docket No. UE 215), as a result of the stipulated agreement between Staff, the Oregon Citizens' Utility Board, and the

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[4] Long-term debt is outstanding debt that will mature more than one year after the rate effective date. Revolver loans are not considered a part of long-term debt.
[5] AWEC/100, Mullins/42-43.
[6] AWEC/100, Mullins/43-44.
[7] AWEC/100, Mullins/44.
[8] Id.

Industrial Customers of Northwest Utilities (AWEC's predecessor), that was formally adopted through Commission Order No. 10-410."[9] PGE goes on to address each of the issues in greater detail. First, the revolving credit facilities support liquidity during short-term liquidity shortages and bolsters credit ratings. The fees associated with this issue are not related to any credit itself, but access to such.[10] Second, deposits associated with the Margin Net Interest issue must be readily available to pay back, and do not provide a cash benefit to the Company as the deposits must remain liquid.[11] Finally, the Broker Fees are: "…fees PGE pays to third-party brokers for arranging or locating trades for PGE's power operations organization as well as fees from clearing brokers and exchanges that facilitate trades of energy, capacity, transmission, and fuel-related commodities."[12] PGE maintains that these issues should continue to be treated as they have since the stipulated agreement adopted under Order No. 10-410.[13]

Q. Does the adoption of a stipulated agreement create a binding precedent?

A. No. The presence of a stipulated agreement, adopted by the Commission, does not create a binding precedent. The agreement is a resolution of issues amongst the parties and adoption of such does not bind the Commission or represent a decision by the Commission on the future treatment of issues.

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9 PGE/1400, Mersereau – Van Oostrum – Batzler/42.
10 PGE/1400, Mersereau – Van Oostrum – Batzler/44-45.
11 PGE/1400, Mersereau – Van Oostrum – Batzler/46-47.
12 PGE/1400, Mersereau – Van Oostrum – Batzler/47.
13 PGE/1400, Mersereau – Van Oostrum – Batzler/43, 47 and 48.

Q. What is Staff's recommendation related to Margin Net Interest?

A. It is Staff's understanding that these expenses are real costs to the Company, variable, and tied directly and solely to power costs. The deposits are held by PGE, or held by PGE's counterparts, and generate the Margin Net Interest. In response to Staff Data Request No. 694, PGE states that "Minimum liquidity requirements vary by counterparty from 0-2 days. PGE must remit payment within 1-2 days depending on the counterparty."[14]

In response to Staff's discovery request, the Company confirmed the amount it includes in the Test Year for Margin Net Interest for deposits it holds for counter parties is net of interest payments received from counter parties for PGE deposits held by the counter parties. Absent a cash benefit from the deposits held by PGE, which the Company has indicated does not exist for these deposits, there does not seem to be cause for a disallowance related to Margin Net Interest.

The Broker Fees addressed in AWEC's Opening Testimony and PGE's Reply Testimony are not tied to equity or debt issuances, and only to Net Variable Power Costs (NVPC).[15] Staff is still awaiting some responses from the Company to determine what portion of the Broker Fees are variable and which are fixed.

Q. What is Staff's recommendation regarding AWEC's proposed disallowances?

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[14] See Staff/2901, Page 1, Portland General Electric's response to Staff Data Request No. 694.
[15] PGE/1400, Mersereau – Van Oostrum – Batzler/47-48, and Staff/2901, Page 2, Portland General Electric's response to Staff Data Request No. 743.

A. Staff recommends no adjustment for the issues identified by AWEC.

Q. Does Staff have another recommendation related to the costs at issue in AWEC's proposed adjustments?

A. Given that the Company states these costs are directly tied to their NVPC, Staff believes they would be best addressed in PGE's AUT. Staff did not make this recommendation in Opening Testimony and will only make it conditionally in rebuttal because intervenors will not have opportunity to respond in testimony. If the Company and other parties do not oppose Staff's recommendation and indicate so in testimony or closing briefs, Staff recommends the Commission direct PGE to modify Schedule 125 to include the costs and revenues identified by AWEC. The modification would not encompass NVPC for 2025 as that has been resolved by stipulation but would be effective for the next NVPC.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: ROSE PILEGGI

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 2901

Exhibits in Support
Of Rebuttal Testimony
Portland General Electric's Responses to Data Requests

September 10, 2024

August 30, 2024

To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 694
Dated August 23, 2024

Request:

In PGE/1400, Mersereau – Van Oostrum – Batzler/46, it states that "These amounts… …must be readily available to pay back." What are the minimum liquidity requirements for these amounts? What is the timeline on which PGE must pay back the monies after receiving notice?

Response:

Minimum liquidity requirements vary by counterparty from 0-2 days. PGE must remit payment within 1-2 days depending on the counterparty.

August 30, 2024

To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 743
Dated August 23, 2024

Request:

Please confirm that all broker fees addressed in AWEC/100, Mullins/44 and PGE/1400, Mersereau – Van Oostrum – Batzler/48 are associated with Net Variable Power Costs.

Response:

PGE confirms that the broker fees addressed in AWEC/100 and PGE/1400 are associated with net variable power costs.

CASE: UE 435
WITNESS: BRET STEVENS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3000

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Bret Stevens. I am a Senior Economist employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is Exhibit No. Staff/900, and my Witness Qualifications Statement is Exhibit No. Staff/901.

Q. What is the purpose of this testimony?

A. I respond to Portland General Electric's (PGE or Company) Reply Testimony on several issues including PGE's marginal cost study, rate spread, load following credit, the basic charge, rate base calculation, and alternative recovery proposals.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/3001.This exhibit contains non-confidential data requests in support of this testimony.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. PGE'S MARGINAL COST STUDY

Q. Please summarize your positions on PGE's generation marginal cost study from Opening Testimony.

A. Staff did not make any recommendations regarding PGE's marginal cost study in Opening Testimony.

Q. Did any other parties offer adjustments to PGE's generation marginal cost study?

A. Yes. AWEC proposed a handful of adjustments in its Opening Testimony. AWEC's proposal modifies PGE's proposal in the following ways:[1]

1. Removes capacity value from the cost of wind and solar resources when estimating the cost of energy.
2. Uses tuned ELCC under firm transmission for all resources.
3. Uses local lower average output wind and solar resources when modeling the cost of energy.
4. Uses Mid-C prices consistent with Mid-C purchases and adjusts weights on wind, solar, and market energy.
5. Does not remove flexibility value from battery cost.

Q. How did PGE respond to AWEC's proposals?

A. PGE agreed with AWEC's proposal to use a tuned ELCC and adjust the weights for wind, solar, and market energy.[2] PGE also made additional changes to the marginal cost study not proposed by AWEC such as:[3]

[1] AWEC/200, Kaufman/5-6.
[2] PGE/1900, Macfarlane-Manley/3.
[3] *Id.*

1. Reducing the flexibility and energy value of the battery proportional to the capacity contribution of the wind and solar resources;
2. Changing how the capacity contribution of wind and solar are calculated;
3. Updating the cost date for the battery, wind, and solar; and
4. Using the Nevada property tax rate for the Mead solar resource.

PGE did not agree with AWEC's other proposals. The Company pushed back against AWEC's argument that PGE's capacity and energy costs were inappropriately calculated.

In response to AWEC's recommendation to calculate the energy cost by subtracting the pure capacity cost from a proxy resource that produces both energy and capacity,[4] PGE argued that such an historic approach was more appropriate in the past when natural gas generators were used as proxies in the marginal cost study. PGE testified this method is no longer appropriate given the use of renewables and batteries, as the ELCC of renewables is used to determine the amount of batteries needed - not the opposite.[5] PGE also argued that AWEC's conclusion that PGE's capacity value calculation would result in a negative capacity value in certain situations was based on assumptions that are unreasonable.[6] Lastly, PGE refuted AWEC's argument that PGE's model calculated only a portion of the capacity cost by contending that capacity was being served both by renewables and batteries.[7]

[4] AWEC/200, Kaufman/7-11.
[5] PGE/1900, Macfarlane-Manley/7.
[6] *Id*. at 5.
[7] *Id.* at 6.

PGE argued against AWEC's proposal to assume firm transmission for all energy resources, stating that even though the cost of PGE-owned firm transmission is included, it does not eliminate the risk of conditional firm transmission. Further, PGE reasons it is difficult to obtain firm transmission rights in the current environment, so modeling resources as if they are guaranteed is not a realistic assumption. [8]

PGE argued that it is appropriate to use Montana and Mead as proxy energy resources as they had high-capacity factors and diverse seasonal output. Using local resources, as proposed by AWEC, would not be in line with these goals.[9] PGE also argued that it is appropriate to use the transmission cost associated with a new extra-regional transmission line for Montana wind, as opposed to the Clearwater transmission price, as there was no more available transmission on that line.[10]

PGE also pushed back against AWEC's argument that shaping the Mid-C price by the Loss of Load Probability (LOLP) reflects capacity needs and not energy needs. PGE argued that shaping the market energy price by the LOLP reflects the price of market energy when energy purchases are needed and that an unweighted annual average price, like AWEC proposes, is not appropriate. Further, PGE argues that its forecasted market prices are reasonable.[11]

[8] *Id.* at 8.
[9] *Id.* at 10.
[10] *Id.* at 11.
[11] *Id.*

Lastly, PGE disagreed with AWEC's position that the flexibility value of storage should be included in the capacity cost. The Company testified the flexibility value represents a benefit stream that fast-acting dispatchable resources should receive for addressing flexibility adequacy. As such, this value should be removed from the capacity cost calculation.[12]

Q. Does Staff oppose the changes PGE made to its generation marginal cost study in Reply Testimony?

A. No.

Q. How does Staff respond to AWEC's other proposals?

A. Staff does not agree with AWEC's proposals that were not adopted by the Company in Reply Testimony. Staff agrees that resource planning has changed significantly since PGE's legacy methodology was developed. Staff also agrees that, while there is capacity value captured by procuring renewable resources, that value does not reduce the need to procure renewable resources to meet the Company's energy needs.[13] The holistic approach and outcome from PGE's marginal cost model seems to produce reasonable results given Staff's current understanding of the Company's cost drivers and long-term strategy. AWEC's proposals drastically increase the marginal capacity cost and decrease the marginal energy cost, largely benefitting the customers they represent.

Q. Does Staff have any concerns about PGE's marginal cost model?

[12] *Id.* at 12-13.
[13] PGE/1900, Macfarlane-Manley/6.

A. Yes. Staff is generally concerned about the treatment of customers with extremely large loads in the marginal cost study. Specifically, Staff is concerned about whether the full cost impact of their load is accurately reflected in the marginal cost study. Staff is looking into this issue and may discuss it in another proceeding, Docket No. UE 430.

Q. Why does Staff question whether the full impact of extremely large loads is captured in the marginal cost study?

A. Staff is concerned that the current framework of quantifying energy and capacity marginal costs as items that can be separately identified is not appropriate in the current policy environment. In particular, Staff notes that these extremely large load customers are often customers with extremely high load factors.[14] Whereas in the past, planning for these customers may have been as simple as procuring a thermal plant that could be run as a baseload resource, current policy obligations such as HB 2021 require the Company to acquire non-emitting resources that are often intermittent. While the per-kWh energy cost of these intermittent resources may be low, serving the needs of these extremely large, baseload customers would require the Company to pair these resources with storage or to transact in the open market, which significantly raises the cost to serve these new customers.

Further, Staff is concerned that distribution and transmission investments needed to serve these new, very large loads are not being identified as a marginal cost of serving the load; and, the large T&D plant investments

[14] PGE/2000, Macfarlane – Pleasant/13.

required come with high risk of stranded asset costs if the load fails to materialize or shows up later than expected. This stranded asset cost would then be socialized to other customers on the system. Due to this, Staff believes that the current marginal cost study framework does not adequately model the costs imposed by an extremely large customer with an inflexible load and believes that this cost shift should be investigated in UE 430 or another proceeding identified by the Commission.

Q. Please summarize your positions on PGE's customer marginal cost study from Opening Testimony.

A. Staff did not make any recommendations regarding PGE's customer marginal cost study in Opening Testimony. While Staff has concerns about possible cost shifting from very large customers onto other customers for reasons described above, Staff believes that PGE's proposed marginal cost study is an adequate basis for use in developing rate spread and rate design in this proceeding.

Q. Did any other parties offer adjustments to PGE's customer marginal cost study?

A. Yes. AWEC proposed modifying the non-residential allocator for the Flexible Load Product Portfolio Department spread to be based on 50/50 load and customer count as opposed to just load.

Q. How did PGE respond to AWEC's proposal?

A. PGE agreed with AWEC's proposal.

Q. Did PGE make any other changes to its customer marginal cost study?

A. Yes. PGE excluded Schedule 90 from its spread of the Interconnection Services Department to be consistent with its position in Opening Testimony.

Q. How does Staff respond to AWEC and PGE's proposed changes?

A. Staff does not oppose these changes to the customer marginal cost study.

ISSUE 2. RATE SPREAD

Q. Please summarize your positions on PGE's rate spread from Opening Testimony.

A. Staff proposed a cap equal to 125 percent of the average increase and a floor of 89.4 percent of the average increase.[15]

Q. Did any other parties offer adjustments to PGE's proposed rate spread?

A. Yes. AWEC argued that PGE should not use the Customer Impact Offset (CIO) to equalize the distribution charge for lighting schedules.

Q. How did PGE respond to Staff and AWEC's proposals?

A. PGE did not agree with Staff's rate spread proposal, arguing that Staff's rate spread bands are too narrow.[16] The Company also argued against AWEC's proposal stating that the CIO for lighting customers simply moves money between lighting schedules and does not affect any other customer class.

Q. How does Staff respond to PGE's argument that Staff's proposed rate spread caps and floors are too narrow?

A. Staff maintains its position from its Opening Testimony. Staff argues that in the face of a large increase such as the one PGE is requesting, and against today's backdrop of increasing affordability concerns, it is both reasonable and within the Commission's discretion to temper rate impacts to customers in order to balance the interests of the utility investor and the consumer. The

[15] Staff/900, Stevens/13.
[16] PGE/2000, Macfarlane-Pleasant/20.

narrowing of the spread in range of rate changes to customer classes is necessary to mitigate the impacts of cumulative rate changes and to promote equity among the rate classes.[17] Further, the band proposed here is not too dissimilar to the bands Staff has proposed in recent electric rate cases.[18]

Q. How does Staff respond to AWEC's proposal to not use the CIO to equalize the distribution charge for lighting schedules?

A. Staff does not agree with AWEC. Staff agrees with the Company that the CIO is necessary to temper the range of increases in the rate spread.

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[17] *In the Matter of IDAHO POWER COMPANY, Request for a General Rate Revision*. Docket No. UE 426, Staff/1500, Stevens/37 (March 25, 2024).
In the Matter of Northwest Natural Gas Company, dba NW Natural, Request for a General Rate Revision, Docket No. UG 490, Staff/1800, Shierman/13 (April 18, 2024).
In the Matter of PacifiCorp dba Pacific Power, Request for a General Rate Revision, Docket No. UE 433, Staff/3800, Stevens/18 (August 16, 2024).
[18] *In the Matter of IDAHO POWER COMPANY, Request for a General Rate Revision*. Docket No. UE 426, Staff/1500, Stevens/38 (March 25, 2024).
In the Matter of PacifiCorp dba Pacific Power, Request for a General Rate Revision, Docket No. UE 433, Staff/3800, Stevens/19 (August 16, 2024).

ISSUE 3. BASIC CHARGE

Q. Please summarize your positions on PGE's basic charge proposal from Opening Testimony.

A. Staff recommended the Commission not adopt PGE's proposal to increase its residential basic charge. Staff did not oppose the Company's proposal to increase non-residential basic charges.

Q. Did any other parties offer adjustments to PGE's basic charge proposal?

A. Yes. The Oregon Citizens' Utility Board (CUB) also opposed PGE's proposed increase to the residential basic charge.[19] CUB argued that the Company's goal of collecting nine percent of their residential revenue through the basic charge is arbitrary.[20] CUB also argued that PGE had not performed an equity analysis on their basic charge proposal.[21]

Q. How did PGE respond to Staff and CUB's proposals?

A. PGE did not agree with CUB and Staff's recommendation to not increase the residential basic charge. The Company did provide some analysis on the impacts of a higher basic charge on lower income households. PGE stated that of all its residential customers who are assumed to be low income, 60 percent would have lower bills in the winter under the Company's proposed basic charge. This number would increase to 70 percent for energy burdened customers. However, the Company also stated that many of the same

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[19] CUB/200, Wochele-Jenks/21.
[20] *Id.* at 5.
[21] *Id.*at 6.

residential customers would likely see higher bills the rest of the year.[22] PGE states that this phenomenon takes place because winter usage is slightly negatively correlated with income, meaning as income goes up, usage declines.[23]

PGE further argued that its basic charge increase was in line with gradualism.[24] The Company stated that it is important to allocate costs between fixed and volumetric charges.[25] Effectively, PGE is arguing that since its overall rates have risen sharply over the past few years, PGE's residential basic charge should as well. The Company also compared its basic charge to regional People's Utility Districts (PUDs), Co-Ops, and Investor-Owned Utilities (IOUs) and argued that PGE's proposed basic charge is well below the basic charges of peer utilities in the region.[26] PGE also argues that the proportion of residential customer bills that are recovered from the basic charge is low compared to the recent past. Lastly, PGE argued that transformers should be included in the calculation of the embedded basic charge.

Q. How does Staff respond to PGE's argument that transformer costs should be included in the embedded basic charge?

A. Staff's Opening Testimony position has not changed. Staff's long-standing position is that transformers are inappropriate to include in the cost-basis for basic charges. The basic charge is meant to reflect short-run customer

[22] PGE/2000, Macfarlane-Pleasant/6-7.
[23] *Id.* at 7.
[24] *Id.* at 8.
[25] *Id.*
[26] *Id.* at 9.

costs, of which transformers are not. Staff does recognize that the differential in PGE's basic charge is attributable to transformer density between single- and multi-family housing. However, Staff views this as a differential in the cost to serve customers in different housing types that is simply reflected in the basic charge as opposed to having a differential energy charge.

Q. How does Staff respond to PGE's argument that the portion of a residential customer's bill that is recovered through the fixed charge is falling?

A. Staff is not necessarily concerned about this argument. Staff believes that the basic charge should be set based on the principles of cost causation, gradualism, and equity. The exact portion of a residential customer's bill that is recovered through the basic charge is irrelevant to balancing these priorities. PGE's Figure 4 shows that the basic charge, as a percentage of a customer's bill, has decreased since 2017. This should not be surprising. In theory, the only time the basic charge should increase in exact concert with total class revenues is if the cost categories related to the basic charge rise at the same pace as general company costs. This has not been the case.

Table 1 shows the growth in residential customer bills by cost category since UE 335 in 2018.[27,28] Over this time, the average single-family

[27] Response to OPUC DR 656.
[28] Response to OPUC DR 657.

customer's bill has increased by 41 percent. Roughly half of this increase has been due to Production costs, which are not part of the basic charge calculation. While the second largest increase – 35 percent – has been due to distribution plant additions, the vast majority of these costs are not related to service drops, meters, or short-run billing and thus are not related to the basic charge. The only cost category that has seen a significant increase that is related to the basic charge is Other Consumer costs, at 17 percent. That said, both Metering and Billing costs have slightly fallen over this time. Cost increases not related to short-run customer costs have dominated in recent years, as such, the portion of a residential customer's bill that is recovered through the basic charge should be expected to decrease.

Table 1. Bill Impact by Cost Category (2018 - 2024)

Category	Change in Bill Impact	Share of Bill Impact
Production	$19.54	46%
Transmission	$3.36	8%
Distribution	$14.74	35%
Metering	-$0.46	-1%
Billing	-$2.15	-5%
Other Consumer	$7.06	17%
Total	$42.08	100%

Q. How does Staff respond to PGE's argument that the increase to the basic charge is in line with gradualism principles?

A. Staff disagrees. As discussed in Staff's Opening Testimony, PGE's basic charge grew by $2 from 2010-2022.[29] If PGE's proposed basic charge is adopted, the basic charge will have grown by $4 dollars in just two years.

[29] Staff/1900, Stevens/20-21.

This translates to a 36 percent increase for single-family customers and a 50 percent increase for multi-family customers in the last two years alone, the most recent increase going into effect a month and a half before the Company filed this case. The speed at which the Company is proposing to change the basic charge is by no means "gradual" compared to the recent history.

Q. How does Staff respond to PGE's equity impact analysis?

A. Staff appreciates the Company's analysis as the equity impacts of the basic charge increase are important to this discussion. The results of this analysis show mixed results for low-income customers. Low-income customers typically consume more energy than average in the winter and less energy than average in the summer and shoulder months. As such, lower-income bills would moderate over the course of the year. PGE also stated that it expected the customer segment who would experience the most comprehensive benefit are energy burdened customers that are not considered "low-income". PGE argues the vast majority of this group is likely in the 60-100 percent SMI range.[30]

While Staff appreciates this analysis, it is ultimately incomplete. All else equal, an increase to the basic charge can be seen as a transfer of income from low users to high users as it is overall a revenue neutral rate design instrument within the residential class. It is then important to know the composition of these groups to fully understand the impacts of a change to the

[30] PGE/2000, Macfarlane-Pleasant/6-7.

basic charge. In PGE's analysis, they identify the makeup of low-income customers and energy burdened customers fairly well. However, PGE does not discuss at length who the "winners" of an increased basic charge are. For instance, PGE's Figure 1 shows that the customers receiving the largest benefit are those consuming over roughly 1,700 kWhs a month.[31] While the relationship between usage and income is not necessarily clear-cut, it is reasonable to assume that customers with very high usage are generally not low-income. It is important to understand the make-up of this group, particularly if the decrease these customers are experiencing is coming directly from an increase on primarily lower income customers.

Understanding the full impacts of this change is imperative for deciding on the appropriateness of the basic charge increase. The burden of proof is on the utility to demonstrate that its proposed policies do not have disproportionate and inequitable impacts on low-income customers.

Staff remains unconvinced. The Company may provide additional detail in its Surrebuttal, but this does not give Staff and Intervenors time to fully respond to PGE's analysis, again limiting the record on an issue that is front-of-mind for Staff, stakeholders, and many members of the public. As a corollary, Staff would greatly benefit from receiving access to more granular usage and income data held by the Company to conduct its own impact analysis on these issues. Staff would like to continue to analyze the tradeoffs of a higher basic charge before adopting a consecutive increase to the basic charge.

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[31] *Id.* at 6.

Q. Please discuss PGE's comparison to other peer utilities.

A. In its testimony, PGE compares its current and proposed basic charge to other utilities, claiming that the proposed basic charge is low compared to its peer utilities.[32] Notably, all other IOUs included in this list have comparable or lower basic charges, while PUDs are the only ones listed with noticeably higher basic charges. Further, PGE includes PacifiCorp's proposed basic charge from UE 433, which has not been approved. PUDs may have different financial drivers and motivations than IOUs. Staff has repeatedly disagreed with the merits of using this comparison in the past.[33] Staff agrees that PGE's residential basic charges are similar to some peer IOU utilities, but also not substantially lower as PGE argues.

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[32] *Id.* at 8-9.
[33] UE 399, Staff/700, Dlouhy/26.

ISSUE 4. LOAD FOLLOWING CREDIT

Q. Please summarize your positions on PGE's Load Following Credit update from Opening Testimony.

A. Staff recommended that the Load Following Credit not be updated. Staff did not believe that PGE provided sufficient justification to more than triple the credit. The Company proposed pegging the Load Following Credit to the flexibility value of a 4-hour lithium-ion battery calculated in its IRP. In Staff's view, the Company did not provide sufficient justification to replace the current Load Following Credit, which was set via stipulation.[34]

Q. Did any other parties offer adjustments to PGE's Load Following Credit proposal?

A. No.

Q. How did PGE respond to Staff's proposal?

A. PGE did not agree with Staff's position.[35] PGE stated that it is "imperative" to update the Load Following Credit in this proceeding.[36] The Company argued that it had not been updated since 2018 and is based on outdated inputs from the 2016 IRP. The Company reiterated the rationale for the Load Following Credit stating that it represents the benefits that Schedule 90's volume and load factor provide to the rest of the system. PGE argued that this benefit makes it so that PGE does not need to operate a peaker plant or buy energy in the short-term market to serve Schedule 90's load.

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[34] Staff/900, Stevens/25-26.
[35] PGE/2000, Macfarlane-Pleasant/17.
[36] *Id.*

Q. How does Staff respond to PGE's argument it is imperative to update the Load Following Credit in this proceeding?

A. Staff does not agree. If the Load Following Credit is going to be both continued and updated, it should be updated with a value that represents the value that Schedule 90 provides to the rest of the system. At this time, PGE has not provided a convincing rationale for why the flexibility value of a lithium-ion battery is appropriate to use as a benchmark for this benefit.

Further, PGE has not provided sufficient rationale to support the existence of the Load Following Credit at all. The Load Following Credit is effectively a transfer from smaller schedules to Schedule 90 to recognize the reduced load-following cost of service Schedule 90 loads.

PGE has not provided convincing evidence that the benefits represented by the Load Following Credit are not already represented in rates. Schedule 90's load profile decreases the amount of flexibility reserves needed to be purchased by the utility. As such, the Company's rate base is lower than it would be otherwise. This in turn lowers rates for all customers, including Schedule 90. At the very least, the avoided costs are already *partially* being passed through to Schedule 90. Further, because of Schedule 90's high load factor, Schedule 90 customers already pay less generation costs than they would otherwise. This means that they pay for less generation costs, including batteries partially used for flexibility purposes than they would otherwise. Assigning the full flexibility value of a lithium-ion battery to Schedule 90 for its flat load is inappropriate, as the benefits of Schedule 90's high load factor are already reflected in current rates.

Finally, Staff reiterates its concerns that the loads for Schedule 90 are not an equivalent benefit as that of a battery avoided. No equivalence has been shown but rather it is assumed by PGE. Therefore the updated methodology is unfounded and should not be relied upon. Staff finds it inappropriate to increase the Load Following Credit. Given this unjustified benefit, Staff believes that it may even be warranted to entirely eliminate the Load Following Credit.

Q. What is Staff's recommendation on this issue?

A. Staff has a primary and secondary recommendation. Staff's primary recommendation is to reject PGE's proposed update to the Load Following Credit in this case. Staff does not believe that PGE has provided sufficient evidence to justify the use of the 4-hour lithium-ion flexibility value to represent the value of Schedule 90's high load factor. Staff's secondary recommendation is to eliminate the Load Following Credit. Staff is amenable to continuing the credit at its current level, while continuing to investigate its appropriateness in a future proceeding or in UE 430.

ISSUE 5. RATE BASE CALCULATION

Q. Please summarize your positions on PGE's rate base calculation from Opening Testimony.

A. In Opening Testimony, Staff recommended using the average of monthly averages (AMA) method of rate base calculation for the purpose of calculating required net operating income. Particularly, for the Test Year ending on December 31, 2025, the average of monthly averages rate base is calculated using a 13-month average for the 2025 rate base amounts, without new capital additions that cannot be included in accordance with ORS 757.355(1).[37]

Q. Did any other parties offer adjustments to PGE's rate base calculation?

A. Yes. AWEC, like Staff, argues that PGE's rate base calculation is problematic.[38] AWEC also recommended that PGE use a 13-month AMA methodology. However, AWEC proposed that the rate base balance be based on a 13-month average of 2024 rate base amounts as opposed to Staff's recommendation to use 2025 rate base amounts.[39] AWEC criticized the Company's characterization of their rate base calculation as "end-of-period" as they assume all capital placed into service in 2024 came online on January 1, 2024.[40] Instead, AWEC argues that they use a hybrid methodology that misrepresents rate base.[41] AWEC also argued that the used and useful

[37] Staff/900, Stevens/27-28.
[38] AWEC/100, Mullins/7-15.
[39] *Id.* at 16.
[40] *Id.* at 7.
[41] *Id.* at 13.

standard does not prevent PGE from making a reasonable return.[42] AWEC, again like Staff, highlighted that the Commission used an AMA methodology for many years before PGE switched to the PTPSS or EOP methodology. Further, AWEC argues that the EOP methodology inflates rate base. AWEC's proposed adjustment would lead to a $60.24 million dollar revenue requirement reduction.

Q. How did PGE respond to Staff and AWEC's proposals?

A. PGE disagreed with both Staff and AWEC's proposals. PGE argued that Staff's approach was unreasonable as it creates a mismatch of rate base treatment between gross plant and accumulated depreciation.[43] PGE also argued that Staff's proposal systematically lowers PGE's rate base and would effectively result in a 60 basis point decrease to PGE's ROE.[44] The Company argued that Staff's proposal disrupts the balance between the regulatory lag faced by the Company and the depreciation lag faced by customers.[45] PGE also states that customers do see some benefit of depreciation expense in the Test Year because the Company annualizes depreciation expense for 2024 capital additions.[46] PGE continued to argue that Staff's method would violate GAAP principles.[47] PGE argued that Staff's method is not a better reflection of

[42] *Id* at 8.
[43] PGE/1300, Batzler-Meeks/11-12.
[44] *Id.* at 12.
[45] *Id.* at 14.
[46] *Id.* at 15.
[47] *Id.* at 16.

the Company's rate base over the Test Year. Lastly, PGE argued that Staff's estimate of the impact of its proposed method is not accurate.

In reference to AWEC's proposal, PGE argued again that it systematically undervalued its rate base.[48] PGE argued that the orders used in support of AWEC's proposal were old and prior to ORS 757.355.[49] Lastly, they argued that AWEC's method is not in line with the future Test Year.[50]

Q. How does Staff respond to PGE's argument that Staff's approach creates a mismatch between gross plant and accumulated depreciation?

A. Staff recognizes that the gross plant forecasted under Staff's proposed method would not match with the Company's actual gross plant during the Test Year. To be clear, Staff believes that proposing a method that does so would violate ORS 757.355, as capital additions placed into service after the rate effective date cannot be included in rates. That said, Staff's recommendation is to forecast 2025 rate base only using capital additions that are lawful for the Company to include under Oregon statutes. Staff also notes that an argument can be made that PGE's current methodology creates a mismatch between gross plant, accumulated depreciation, and depreciation through the annualization of 2024 capital additions.[51]

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[48] *Id*. at 23.
[49] *Id.*
[50] *Id.* at 24.
[51] AWEC/100, Mullins/10-14.

Lastly, Staff does not find that AWEC's proposal creates a mismatch between gross plant, depreciation, and accumulated depreciation as PGE asserts. While Staff agrees that AWEC's proposal is not as consistent with the idea of a future Test Year, Staff does agree that it complies with the matching principle. As Staff has stated in other cases, the future Test Year paired with ORS 757.355 makes strict compliance with the matching principle inherently difficult.[52] If AWEC's proposal was combined with moving to a historical Test Year in rate cases, Staff does agree that AWEC's rate base method would undoubtedly comply with the matching principle, ORS 757.355, and all tax normalization rules. Critically, it would also credit customers for depreciation expense paid in the Test Year.

Q. How does Staff respond to PGE's argument that Staff's approach systematically lowers PGE's rate base?

A. In effect, Staff agrees that using Staff's method would lower PGE's rate base. To be clear, Staff is arguing that PGE's rate base is artificially inflated as customers are not credited in rate base used in the rate of return expense component for depreciation expense paid during the Test Year

Q. How does Staff respond to PGE's argument that Staff's approach disrupts the balance between the regulatory lag faced by the Company and the depreciation lag faced by customers?

[52] *In the Matter of PacifiCorp dba Pacific Power, Request for a General Rate Revision.* Docket No. UE 433, Staff/3800, Stevens/30-31 (August 16, 2024).

A. Staff disagrees with this statement. As discussed in this case and UE 416, PGE's previous general rate case, one of the Company's primary goals in recent years has seemingly been to reduce regulatory lag as much as possible via trackers.[53,54] To be clear, Staff is not stating that its rate base calculation methodology recommendation is in response to the Company's efforts to reduce regulatory lag. Staff only points this out to say that by adopting Staff's methodology, the balance described by the Commission will not be unduly disrupted.

Q. How does Staff respond to PGE's argument that under PGE's method customers do see some benefit of Test Year depreciation?

A. Staff agrees that customers do see *some* benefit of Test Year depreciation but only due to the annualization of 2024 capital additions. However, Staff notes that this benefit is small relative to the total level of deprecation incurred over the Test Year. Further, as discussed by AWEC, this annualization arguably causes the same issues that PGE levies against Staff's proposed method.[55]

Q. How does Staff respond to PGE's argument Staff's method would violate GAAP principles?

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[53] *In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, Request for a General Rate Revision; and 2024 Annual Power Cost Update.* Docket No. UE 416, Staff/2200, Dlouhy-Muldoon-Scala-Stevens/1-32 (June 13, 2023).
[54] Staff/100, Beitzel/4-7.
Staff/200, Scala/17-18.
Staff/1700, Dlouhy/7;29-32.
[55] AWEC/100, Mullins/12-13.

A. Staff again disagrees with this argument. Staff proposes that, for ratemaking purposes, the Company use the 2025 Test Year AMA balance projecting no major capital additions to be in compliance with ORS 757.355(1). Staff recognizes that in reality, the Company will likely have large non-growth-related capital additions in the Test Year, however these additions cannot be included for ratemaking purposes under ORS 757.355 and thus should not be included in the Test Year rate base. In financial statements, the Company will be using actual rate base, as opposed to projecting rate base into a future year. Staff's rate base calculation methodology is meant to only be used for ratemaking purposes.

Q. How does Staff respond to PGE's argument Staff's method is a worse reflection of the Company's Test Year rate base?

A. Again, the primary motive of Staff's method is not to accurately represent PGE's gross plant in the Test Year, as doing so would violate ORS 757.355. Rather, Staff's methodology is meant to credit customers for depreciation expense paid in the Test Year, while complying with ORS 757.355.

Q. How does Staff respond to PGE's criticism that Staff's estimated impact is inaccurate?

A. Staff agrees that its adjustment is not precise and stated in its Opening Testimony that Staff is not proposing that this number be used as the final revenue requirement adjustment, but recommends the Commission adopt Staff's methodology and require the Company calculate a precise adjustment.[56] Staff requested that the Company calculate the impact of its adjustment in DR 729. The Company response stated that it is unable to complete the analysis as it requires a monthly forecast of plant closings through 2025—which it has not yet developed. Staff also welcomes the Company to provide its own estimation in its next round of testimony. This is a complicated issue and Staff does not have the resources or data to complete the analysis needed in the time allowed in this rate case to make a precise adjustment. Alternatively, the Commission could adopt the Staff estimate as a reasonable basis of the adjustment.

Q. How does Staff respond to PGE's criticism of AWEC's proposal?

A. Staff agrees that AWEC's proposal is not necessarily in line with the concept of a future Test Year. Staff's rate base valuation methodology is Staff's best attempt at the future Test Year analogue to AWEC's proposal that complies with Oregon law.

As discussed earlier, Staff does recognize that AWEC's proposal has merits. Combined with the use of a historical Test Year, AWEC's proposal would satisfy Staff's concerns about crediting customers for Test Year depreciation expense and ORS 757.355. It would also lay to rest any of PGE's concerns about GAAP principles and regulatory compliance. However, reverting to a historical Test Year would be a change from current precedent.

Q. Does Staff prefer AWEC's solution over its own?

[56] Staff/900, Stevens/32-33.

A. No. Staff continues to support its Opening Testimony position. However, Staff is open to continuing discussion about AWEC's proposal, particularly in the context of using a historical Test Year.

ISSUE 6. ALTERNATIVE RECOVERY PROPOSALS

Q. Please summarize your positions on PGE's Investment Recovery Mechanism (IRM) proposal from Opening Testimony.

A. In Opening Testimony, Staff did not support PGE's IRM proposal. Staff argued that the proposal lacked clear benefits for ratepayers and would largely only serve to reduce PGE's regulatory lag. Staff also argued that if the IRM were to be considered by the Commission, the Commission should modify the IRM to include a three-year stay-out, earnings test, and a requirement to update accumulated depreciation for the entire eligible class of assets with any IRM rate adjustment.

Q. Did any other Parties comment on PGE's IRM proposal?

A. Yes. AWEC and CUB also commented on the IRM proposal.[57,58] Both parties opposed IRM for various reasons. AWEC argued that the scope of the proposal was too broad.[59] AWEC also argued that in UM 1772 the Commission had set up parameters for a similar safety cost recovery mechanism and that the IRM was not in line with these parameters.[60] Like Staff, AWEC also argued that there was no guarantee that the IRM would reduce the frequency of rate cases.[61]

[57] AWEC/100, Mullins/67.
[58] CUB/100, Jenks/61.
[59] AWEC/100, Mullins/68.
[60] *Id.* at 68-72.
[61] *Id.* at 71.

CUB, like Staff, argued that the mechanism would largely be used to shorten regulatory lag for the Company.[62] CUB also argued that the administration of the IRM would be difficult and lead to difficulty in the prudence review process.[63] Lastly, CUB did state that the Commission should open an investigation into making ratemaking more efficient.[64]

Q. How did PGE respond to Parties' comments?

A. In Reply Testimony, PGE withdrew the IRM proposal while also responding to points made by CUB and AWEC.

Q. Does Staff have any additional comments regarding the withdrawal of the IRM?

A. Yes. Staff notes that the IRM was intended to recover investments to maintain safety, reliability, and resilience.[65] This largely takes the form of distribution system investments. In other contexts, Staff has raised concerns about the Company's operational decisions and investments to maintain its distribution system and maintain reliable service. These concerns seemed to have been validated in January of this year, when approximately 400,000 PGE customers lost power for an extended period of time, marking the second time an outage of this magnitude has affected PGE's customers in the winter since 2021.

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[62] CUB/100, Jenks/55.
[63] *Id.* at 56-58.
[64] *Id.* at 62.
[65] Staff/900, Stevens/34.

Staff understands that the utility system is facing significant pressures. Staff appreciates parties' exploration of creative approaches that are responsive to these pressures, but cautions against mechanisms focused on dollar-for-dollar instantaneous recovery. Rather, Staff seeks consideration of balanced mechanisms, which focus on disciplining spending decisions and providing transparency into the value that customers are receiving for these levels of spend.

Consequently, Staff believes it to be critically important to create more transparency into the relationship between PGE's distribution system investment and operational decisions and the value that customers receive, such as improved reliability, better transparency and awareness during reliability events, and enhanced access to the grid. As such, establishing a mechanism with little regulatory lag and limited insight into utility performance is not a priority for the use of Staff resources. Instead, Staff believes that greater oversight and mechanisms meant to incentive both cost effective investment and responsible operational decisions is of the utmost importance. While Staff is not proposing an alternative mechanism at the time, Staff remains interested in exploring options to meet these goals that focus on spending discipline and customer value.

Q. What concerns does Staff have regarding the Company's capital investments?

A. Many of Staff's concerns relate to the Company's investment decisions around pole replacements that date back to UE 416. In UE 416, Staff observed a substantial set of investments in its capital investment plans related to PGE's FITNES program and indicated a substantial increase in its planned costs for replacing poles relative to the previous decade. Staff issued discovery about this large cost increase late in the docket, but Staff's data requests went unanswered after the rate case was fully settled. Similar discovery, as part of the Company's Wildfire Mitigation Plan docket, UM 2208, has not been resolved.

Q. Does Staff have concerns about whether these costs have translated into increased reliability?

A. Yes. Following the 2021 ice storms, the Company received feedback that the substantial delays in restoration were unacceptable, and thereafter investments in operational technology intended to improve the situational awareness were made by the Company. Unfortunately, it did not appear those resulted in improved performance for customers. During the 2024 storm, some customers were unable to see their outages reflected in the outage webpage, their AMI meters did not seem to result in recorded outages, and both OMS and ADMS did not seem to have consistent and reliable information driving decision making for restoration efforts.

Q. Were others hampered by the incorrect data regarding outage status?

A. Yes, outage information is used by various web services and federal entities to inform public safety partners and others to understand impacts to communities and help highlight contingency planning. Incorrect data resulted in public safety partners needing to dismiss information presented here, but most importantly, potentially hampering how communities were supported through knowledge of the true nature of outages throughout the company's service territory. While Staff does not propose any changes to cost recovery mechanisms at this time related to the Company's investments or storm response, Staff feels that it is important to flag our belief that any alternative ratemaking proposals incentivize improved operations and efficient investment, and the Company's proposed IRM did not accomplish that.

Q. Did PGE introduce the idea of any other alternative recovery proposals?

A. Yes. PGE, both in Opening Testimony and Reply Testimony, briefly discussed the idea of a forthcoming multi-year rate case proposal.[66,67]

Q. Is Staff open to the idea of exploring a multi-year rate case framework?

A. Yes. Staff appreciates parties' interest in exploring multi-year rate cases as a potential response to the pace of investment that may be needed to meet customer needs and the state's goals, although Staff believes that it will be most constructive to discuss this topic in a Staff-led investigation. Staff's proposal for an investigation is in line with CUB's recommendation from Opening Testimony.[68] Staff believes that identifying a multi-year rate case framework that successfully promotes the public interest is a major lift that requires significant engagement and broad expertise. Establishing this entirely new rate case framework on top of the issues normally presented in

[66] PGE/400, Bekkedahl-Felton/16.
[67] PGE/1600, Cloud-Albi-Putnam/36.
[68] CUB/100, Jenks/62.

a rate case would not be constructive given the statutory timelines set by a rate case. Lastly, Staff stresses that any solution to the efficiency of the rate setting process should balance risk, lag, and benefits between shareholders and ratepayers. Further, a multi-year rate case model seems better suited to a steady-state world where the Company is performing well in matters such as low-income programs, vegetation management, wildfire management, and customer service/quality issues. Since we are not in a steady state world, Staff would likely support and see the need for performance metrics where revenues, both increases and decreases, would be affected by the Company's performance. Ideally, this mechanism would be enabled through greater data transparency and create balanced incentives for spending discipline and utility performance.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: BRET STEVENS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3001

Non-Confidential Discovery in Support of Rebuttal Testimony

September 10, 2024

Staff Data Request 656

For a single-family residential customer with average electricity consumption, please provide a breakdown of the portion of the customer's bill under the Company's existing tariffs that fund:

- Non-wildfire transmission plant and O&M expenses
- Non-wildfire distribution plant and O&M expenses
- Generating expenses, including all costs related to the TAM, PCAM, and generating plant and O&M expenses
- All wildfire plant and O&M expenses that are recovered through base rates or adjustment schedules
- All other costs recovered through base rates that do not fall into a category listed above but appear on a customer's bill under the Company's existing tariffs
- All other costs recovered through adjustment schedules that do not fall into a category listed above but appear on a customer's bill under the Company's existing tariffs.

In your response, please list any assumptions and adjustment schedules that are used to calculate each of the above listed categories and provide workpapers.

PGE Response to Data Request 656

PGE objects to this request as it is overly burdensome and requires significant new work. PGE further objects that in so far as this requests seeks information concerning existing rates and not amounts requested in this case, the request is not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving its objections, PGE responds as follows:

Attachment A provides the requested information based on the following assumptions:

- The estimated breakdown for single-family residential customer bill is based on an average usage of 795 kWh per month.
- All rates used in responding to this Data Request are rates currently in effect for 2024 as of August 21, 2024.
- Generating expenses include those in base rates, Sch 125 if applicable (PGE's AUT, which PGE assumes is meant by "TAM"), Sch 102 Residential Exchange, Sch 126 PCAM, Sch 145 Boardman and Sch 146 Colstrip.
- PGE has included the recently updated price for Schedule 151 Wildfire Mitigation Cost Recovery that was effective August 1, 2024. This is the only cost separated into the Wildfire category. Currently all wildfire costs are isolated into Schedule 151. Base Rates still contain routine vegetation management costs.

- PGE has included Taxes and other Fees that are applicable to all residential customers such as Low Income Assistance, Public Purpose Charge and the Oregon Corporate Tax.
- PGE has excluded any taxes or excess privilege taxes or franchise fees imposed by specific jurisdictions such as city or county and PGE's Schedule 106 Multnomah County Business Income Tax.

Staff Data Request 657

For a single-family residential customer with average electricity consumption, please provide a breakdown of the portion of the customer's bill under the Company's tariffs in effect as of January 1, 2020, that fund:

- Non-wildfire transmission plant and O&M expenses
- Non-wildfire distribution plant and O&M expenses
- Generating expenses, including all costs related to the TAM, PCAM, and generating plant and O&M expenses
- All wildfire plant and O&M expenses that are recovered through base rates or adjustment schedules
- All other costs recovered through base rates that do not fall into a category listed above but appear on a customer's bill under the Company's existing tariffs
- All other costs recovered through adjustment schedules that do not fall into a category listed above but appear on a customer's bill under the Company's existing tariffs.

PGE Response to Data Request 657

PGE objects to this request as it is overly burdensome and requires significant new work. PGE further objects that in so far as this request seeks information concerning existing rates and not amounts requested in this case, the request is not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving its objection, PGE responds as follows:

PGE provides the requested information based on the compilation of data from current tariffs and multiple assumptions to simplify into the format requested.

Attachment A provides the requested information based on the following assumptions:

- The estimated breakdown for single-family residential customer bill is based on an average usage of 800 kWh per month.
- All rates used in responding to this Data Request were for rates in effect as of January 1, 2020.
- Generating expenses include those in base rates, Sch 125 if applicable (PGE's AUT, which PGE assumes is meant by "TAM"), Sch

102 Residential Exchange, Sch 126 PCAM, Sch 145 Boardman and Sch 146 Colstrip.

- Wildfire costs were not explicitly broken out separately in the transmission and distribution revenue requirements in the 2020 revenue requirement for ratemaking, though PGE did have wildfire expenses embedded in base rates at the time.
- PGE has included Taxes and other Fees that are applicable to all residential customers such as Low Income Assistance, Public Purpose Charge and the Oregon Corporate Tax.
- PGE has excluded any taxes or excess privilege taxes or franchise fees imposed by specific jurisdictions such as city or county and PGE’s Schedule 106 Multnomah County Business Income Tax

Staff Data Request 729

Referring to PGE/1300, Batzler-Meeks/18, please calculate the Company’s Test Year rate base value using a 13-month AMA for the 2025 Test Year excluding capital additions that come into service after the rate effective date of this case. Please provide all related workpapers.

PGE Response to Data Request 729

PGE objects to this request as it is overly burdensome and requires significant new work. Subject to and without waiving its objection, PGE responds as follows:

PGE is unable to complete the analysis requested as it requires a monthly forecast of plant closings from January 1 through December 31, 2025, which PGE has not yet developed as PGE has based its current request on plant closings as of December 31, 2024.

CASE: UE 435
WITNESS: MADISON BOLTON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3100

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Madison Bolton. I am a Senior Energy and Policy Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes, I provided Opening Testimony in Staff Exhibit 1600.

Q. What is the purpose of your testimony?

A. I respond to Portland General Electric Company's (PGE or the Company) arguments in favor of making the Transportation Line Extension Allowance (TLEA) in the Schedule 56 Commercial Make-Ready Electric Vehicle (EV) Pilot a permanent allowance. The pilot's funds are forecasted to be fully reserved by August 25, 2025. I recommend the Commission not approve PGE's TLEA proposal and direct the Company to bring new TLEA proposals forward for review in Docket No. UM 2033 PGE's Transportation Electrification (TE) Plan.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/3101 with Staff's response to PGE's DR 22, consisting of 1 page.

ISSUE 1. SCHEDULE 56 TLEA

Q. Please summarize the Company's Reply Testimony regarding the TLEA.

A. PGE disagrees with Staff's concerns about TLEA design and provides the following arguments in favor of making the TLEA permanent:

- PGE disagrees with Staff's conclusion that the benefit-cost ratio (BCR) does not support continuing the TLEA, criticizing Staff's model assumptions, including a $228 per-kW-year value for cost of capacity and a more recent set of AURORA energy price outputs than the Company used. PGE claims that the $228 value is due to an inconsistency in the Effective Load Carrying Capability (ELCC) calculation that was clarified in UM 1893 to produce a $175 cost of capacity.[1] PGE also notes that it cannot verify Staff's energy price assumptions because Staff did not specify which modeling output was used and that PGE used the reference price forecast from the most recent Commission-acknowledged Integrated Resource Plan (IRP).[2]
- PGE disagrees that the TLEA BCR should be compared to PacifiCorp's because PGE did not use a Resource Value of Solar (RVOS) in the analysis and because make-ready infrastructure was not included in PacifiCorp's TLEA.[3] PGE implies that a 1.33 BCR is not necessary for their TLEA because the models between the utilities are different.

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1 PGE/2000, Macfarlane – Pleasant/24, at 14-15.
2 PGE/2000, Macfarlane – Pleasant/25, at 1-4.
3 PGE/2000, Macfarlane – Pleasant/26, at 5-16.

- The Company includes distribution costs and revenues in its TLEA calculations. Staff did not include this when finding the parity ratio for Schedule 38 marginal costs and revenues.[4]
- PGE claims there are other benefits of a TLEA that are not factored into a BCR model including earlier engagement with customers to identify and plan for grid impacts. PGE also notes that the TLEA requires customers to install demand response capable chargers, which opens up future EV flex load participation.[5]
- PGE claims the three-year TE plan cycle causes a delay in funding for customers' requests, pausing projects while PGE waits to have additional funding approved.[6]
- PGE also points to ChargePoint Inc.'s (ChargePoint) testimony in support of the TLEA proposal. ChargePoint is the only other intervenor to have submitted testimony on this topic.

Q. Has Staff's position changed since opening testimony?

A. No. Staff continues to recommend that the Commission not approve a permanent TLEA in this case because PGE has not demonstrated that it provides enough value based on the Company's cost/benefit analysis.

Q. Is Staff making any claim that the EV Make-Ready Fleet Partner pilot program should end?

4 PGE/2000, Macfarlane – Pleasant/27, at 5-10.
5 PGE/2000, Macfarlane – Pleasant/28, at 1-8.
6 PGE/2000, Macfarlane – Pleasant/29, at 1-8.

A. No. The program has operated for multiple years and Staff is not disputing that it has value. Staff is only noting that PGE has failed to make the case that the pilot program nets enough value to transition to a permanent TLEA without further refinement with UM 2033 stakeholders.

The Make-Ready Fleet Partner Pilot's funds are approved in the Company's TE plan. The remaining funds are estimated to be fully reserved by 2025. Staff is not recommending that the program should end in 2025. PGE can make any proposal for a new budget or a permanent TLEA through the Company's TE plan.

Q. How does Staff respond to PGE's claim that a $175 cost of capacity is more accurate than Staff's $228 value?

A. The $175 value the Company points to has been disputed by Staff as part of the investigation into energy efficiency avoided costs in Docket No. UM 1893.[7] The $228 value was calculated using a multi-year horizon, while the $175 value is based on a tuned ELCC for 2026. Observing that marginal ELCCs decline over a multi-year outlook, PGE would have to procure an increasing amount of the proxy resource (four-hour battery) to provide the same capacity contribution. Thus, the dollar per kW-year value also increases. Because of this, Staff believes the multi-year numbers more accurately depict the situation.

[7] Order No. 24-119, Appendix A, Page 13.

Additionally, Staff's $228 kW-year value is lower than recent analysis for levelized cost of storage from Lazard, which reports a range of $252-$323.[8] Staff's proposed value is actually deferential to the Company's own analysis.

Q. Has Staff provided the source of the AURORA energy price outputs used in the adjusted BCR analysis?

A. Yes. Staff initially noted the energy price data was sourced from Idaho Power Company's (IPC) 2023 Integrated Resource Plan (IRP) in the BCR model itself in cell I247.[9] Staff provided further detail in response to PGE DR 22, showing that the outputs were from IPC's response to Staff DR 91 in Docket No. LC 84.[10]

Staff used the forward energy price outputs in question because Staff believes that Idaho Power's IRP forward market price outputs represent a more up-to-date set of data.

Q. Does Staff agree with PGE that using the Company's most recent acknowledged IRP forward market price curve is most appropriate?

A. Generally, Staff believes that assumptions and methodologies from the most recently acknowledged IRP are appropriate for use in valuation activities. However, Staff has previously acknowledged that certain uses cases may require certain deviation approaches, such as energy efficiency. Staff has also noted that forward market prices are an IRP assumption that can go stale and should be updated in valuation use cases such as PURPA avoided costs. Staff

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8 *Lazard 2023 Levelized Cost Of Energy+*, Page 18, April 12, 2023.
9 Staff 1604, Updated TLEA Cost/Benefit Analysis Workpaper, Cell I247.
10 Staff 3101, Staff Response to PGE DR 22.

does not recommend that the Company use PGE's forward market price curve in its TLEA calculation. Staff utilized Idaho Power's AURORA outputs to demonstrate how the cost effectiveness of the proposed TLEA would change using a fresher, more accurate forward price curve.

Q. Please explain why a BCR of 1.33 is important.

A. When the Commission approved PacifiCorp's TLEA, Staff demonstrated that a 1.33 BCR provided a reasonable buffer to shield other customers from potential cost shifting and risks associated with this type of permanent TE subsidy.[11] Staff believes that PGE's TLEA should incorporate a similar BCR standard to ensure the subsidy does not pose excessive detriment to all other customers.

A line extension allowance is typically used to recognize the benefits that a new customer brings to the existing customers on a system. If the resulting BCR of a line extension allowance is less than one, there is no net benefit to the existing customers, which means there is no basis from a cost/benefit standpoint to offer the line extension allowance. While a BCR equal to one technically indicates that the program is revenue neutral and customers are not burdened by its costs, there is still no guarantee that the BCR model is fully accurate in reality. For example, PGE calculated a BCR of 0.97. This is very close to reaching a neutral BCR, but if PGE's BCR model has even a slight error, the actual BCR of the program could be well below one. Producing a

[11] Docket No. ADV 1148, Staff Report, page 5, November 9, 2020.

BCR of 1.33 ensures that even if the Company's model is not fully accurate, there is still enough buffer for the program to provide a material benefit.

Q. Does it matter that PGE and PacifiCorp's TLEA calculations differ when holding PGE to the same 1.33 BCR standard?

A. No. PGE points to PacifiCorp's use of the Resource Value of Solar (RVOS) model[12] to calculate the marginal cost of a TE customer at hourly intervals. In contrast, PGE's model does not consider *all* of the associated costs on an hourly basis to calculate that value. PGE suggests that, due to this difference, the Company's TLEA should not be held to the same standard.[13] Staff is not advocating for PGE to use RVOS to calculate the marginal cost of TE customers but notes that, at a fundamental level, the RVOS model and PGE's model share the same goal: to capture the marginal cost.

Even if PacifiCorp's and PGE's methods of determining marginal cost were significantly different, that does not change the standard for what a reasonable percentage of the benefit to existing customers should be. If both PacifiCorp's and PGE's methods are considered reasonably accurate, they should produce a reasonable enough BCR estimate to warrant being held to a similar standard. By approving PacifiCorp's TLEA, the Commission was satisfied with the accuracy of PacifiCorp's methodology, but Staff cannot verify that PGE's methods warrant the same confidence based on the underlying assumptions

[12] In Docket No. ADV 1148, PacifiCorp applied the RVOS model specifically to TE customer load profiles. PacifiCorp defended the use of RVOS, claiming it was the best-suited tool to estimate the marginal cost of specific customers in specific locations.

[13] PGE/2000, Macfarlane – Pleasant/26

currently proposed. PGE's comparison of PacifiCorp's BCR calculation appears to question whether the Commission's approval of PacifiCorp's TLEA was warranted based on its accuracy. Staff is not partial to how the BCR is ultimately calculated, but PGE's TLEA proposal does not meet the same burden of proof that PacifiCorp's Commission-approved TLEA meets by producing a BCR of 1.33.

When comparing PGE and PacifiCorp's methods further, PGE states that "PGE's analysis is materially different and does not consider all costs such as Transmission and Distribution on an hourly basis."[14] This raises further concerns that PGE's BCR analysis is not accurate. PGE appears to have omitted transmission entirely in the BCR analysis. While Staff is not necessarily disputing *how* PGE applies transmission and distribution values in its TLEA model, Staff is concerned that the accuracy of the model is impacted by simply not addressing transmission costs in the calculation. To balance concerns about regulatory fairness and Staff's worries about PGE's methodology, Staff continues to recommend that the Commission not approve the Company's TLEA proposal in this proceeding.

Q. What other differences did PGE point out between its own TLEA analysis and PacifiCorp's?

A. PGE's TLEA includes:

1. Make-ready construction costs on the customer's side of the meter, while PacifiCorp's does not.

[14] PGE/2000, Macfarlane – Pleasant/26, at 11-12.

2. A minimum contract requirement with a penalty if the customer does not meet the load commitment. PacifiCorp's TLEA does not utilize this.

Regarding PacifiCorp's lack of a minimum contract, PGE's point is not persuasive because PGE does not use the contracted load as the basis for establishing a BCR at or near one. Instead, PGE uses an alternative scenario that exceeds the minimum contract. PGE's program might mitigate some risks, but it is overly generous because even with minimum loads and a potential penalty, the program is not cost effective. The compensation levels to customers are too high, creating higher risk that isn't effectively mitigated. Additionally, if electrification became uneconomic to these customers, the net loss could exceed the minimum contract penalty, which would also mean it's less expensive for the customer to pay PGE back rather than incur further losses from electrifying their fleet.

Even if using the Company's own committed energy estimates, the TLEA still creates a six percent subsidization of costs over 10 years. Ultimately, PGE's BCR analysis does not fundamentally meet the burden of proof that a permanent subsidy for the program is warranted, especially when considering Staff's updated inputs. The updated cost of capacity value uses a more realistic multi-year horizon, and Staff's energy price inputs represent a more up-to-date forecast.

Q. Are the unquantifiable benefits of the TLEA dependent on its approval?

A. Not necessarily. PGE claims that the TLEA would allow for a higher level of engagement with fleet customers early in their design process to craft a better plan for their energy needs, and that it would not be possible without the line extension allowance. Staff does not believe that paying for these customers' construction costs is required for this benefit. A relatively smaller operations and maintenance or administrative expense for providing technical assistance could produce this benefit.

PGE also claims that the TLEA requires demand response chargers that enable participation in flexible demand programs. Staff contends that this is a quantifiable benefit and invites the Company to include this benefit in its BCR. It is also possible that the monetary value is too small to be impactful in the BCR calculation.

Q. Did any other stakeholders respond to PGE's TLEA proposal?

A. Yes. ChargePoint provided testimony supporting the Company's TLEA because it will "provide helpful support for fleet customers looking to electrify their fleets, which will encourage EV adoption."[15] ChargePoint also expressed appreciation that the TLEA "will support make-ready infrastructure and line extensions which are utility core competencies, and does not involve unnecessary and anticompetitive utility ownership of chargers."[16]

Q. What is Staff's response to ChargePoint's idea that the TLEA will encourage EV adoption?

15 ChargePoint/100, Skowron/18.
16 *Id.*

A. Staff does not agree that PGE has demonstrated that its TLEA is the best tool to accelerate Transportation Electrification. Staff views TE as a market transformation measure that will become widely adopted at some point. With that in mind, a permanent subsidy socialized to all customers, especially one that is lacking a sufficient BCR, is inappropriate. It burdens other customers with costs that are not fully mitigated in this case, and even creates risk that the cost of these investments may never be fully recovered if the Schedule 56 customer leaves PGE's service.

It is also undetermined whether transitioning the Make-Ready Pilot to a TLEA provides the optimal TE benefit for the cost. Staff believes examining the Company's TLEA proposal and other types of TE incentives in the context of the Company's TE Plan could help identify measures that produce the greatest value. The Company's TE Plan process offers a more in-depth view into the performance of TE pilots, which could help evaluate whether a TLEA, or other strategies, are the most effective incentives. Given the proposed TLEA's cost-benefit ratio discussed previously, Staff believes a more in-depth look at TE incentives is preferable in Docket No. UM 2033, PGE's TE plan, to enable the Company to select the TE incentives with the best overall value.

Q. What is Staff's recommendation for the proposed TLEA?

A. Staff continues to recommend that the Commission reject PGE's proposal to move the TLEA as proposed to a permanent offering because the Company has not shown the burden of proof that it is cost effective. The Company's proposal will benefit from further development and review as part of an overall

TE budget and strategy in Docket No. UM 2033. UM 2033 also provides a more thorough and rigorous review in the context of TE as a whole. Staff welcomes PGE to file any proposed changes to Schedule 56 in the next TE Plan on May 1, 2025.

PGE states that the Commission may decide to direct PGE to offer the TLEA in its current state with budget approvals occurring in the TE Plan. Staff does not recommend that the Commission do this. There is no obligation or reason for the Commission to order PGE to provide the TLEA. The Commission can approve or disapprove PGE's next proposed TE budget after public review from Staff and stakeholders.

Q. Does Staff's recommendation cause funding delays due to the three-year cycle of TE Plans?

A. Not inherently. Oregon Administrative Rules (OAR) Chapter 870, Division 87 provide a TE Plan update process for mid-cycle budget increases.[17] Because PGE has already indicated that there is high likelihood that all of the Schedule 56 funds are reserved for the three-year period, the Company can seek approval of the appropriately sized budget in the Company's TE Plan.

Also, if this is the case, PGE can consider whether it can achieve the same transportation electrification benefits with a reduced incentive. In any event,

[17] OAR 860-087-0020(2)(f): An electric company may propose TE Plan updates at any time between scheduled TE Plan filings. An electric company is required to file a TE Plan update for material changes to its TE Plan. Material changes are new TE program or infrastructure measure applications, or program or infrastructure measure changes that require new incremental ratepayer dollars. Commission staff will work with parties to propose a schedule for public review of TE Plan updates.

Staff continues to recommend that the Commission reject PGE’s TLEA proposal in this rate case.

Q. Does this conclude your testimony?

A. Yes

CASE: UE 435
WITNESS: MADISON BOLTON

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 3101

Staff Response to PGE DR 22

September 10, 2024

UE 435 – OPUC Response to PGE Data Request DR 22
Page 1

Date: August 15, 2024

TO:
Jaki Ferchland
Portland General Electric Company
Manager, Rates & Regulatory Affairs
121 SW Salmon Street, 3WTC-0306
Portland, OR 97204

FROM: Madison Bolton, Staff

OREGON PUBLIC UTILITY COMMISSION
Docket No. UE 435 – PGE Data Request No. 22

PGE Data Request No. 22:

Reference Staff/ 1600, Bolton/ 5 at line 15. Please provide the source and any workpapers with formulae intact of the AURORA energy prices used in Staff's update to PGE's cost benefit analysis workpaper provided in Staff Exhibit 1604.

OPUC Data Response No. 22:

The AURORA energy prices in Staff's update to PGE's cost benefit analysis workpaper, Staff Exhibit 1604, were provided in 'Idaho Power Company's Response to Staff's DR No. 91 – Attachment 1- IPC Zonal Prices" in Docket No. LC 84.

See the Excel file "OPUC Data Response No. 22 – Attachment 1". The AURORA prices are grouped by year and average hourly prices on Sheet 1. Sheet 2 contains the AURORA output from 'Idaho Power Company's Response to Staff's DR No. 91 – Attachment 1"

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3200

Redacted
Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Eric Shierman. I am a Senior Utility Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes, Staff Exhibits 2200-2209.

Q. What is the purpose of your testimony?

A. My testimony agrees in part and rebuts in part PGE's Reply Testimony on the topics of transportation electrification (TE), PGE's fleet of motor vehicles, and capital expenditures on line extension allowances.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared nine supporting exhibits.

Exhibit Staff/3201, consisting of 1 page.
Exhibit Staff/3202, consisting of 1 page.
Exhibit Staff/3203, consisting of 4 pages.
Exhibit Staff/3204, consisting of 1 page.
Exhibit Staff/3205, consisting of 2 pages.
Exhibit Staff/3206, consisting of 13 pages.
Exhibit Staff/3207, consisting of 28 pages.
Exhibit Staff/3208, consisting of 19 pages.
Exhibit Staff/3209, consisting of 37 pages.

Q. How is your testimony organized?

A. My testimony is organized as follows:

SUMMARY OF RECOMMENDATIONS

Q. Please summarize the recommendations included in your Rebuttal Testimony.

A. Staff recommends the Commission:

1. Permanently remove $1.9 million from the rate base for imprudent capital expenditures on TE.[1]
2. Reduce the operating expenses for TE by $463 thousand for reconciliation with PGE's TE Plan.
3. Reduce the operating expenses for EV Field Operations by **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** for reconciliation with PGE's TE Plan.
4. Permanently remove $20.7 million from the rate base for imprudent capital expenditures on private chargers for PGE's fleet of motor vehicles.
5. Remove $3.7 million from the rate base for the imprudent procurement of motor vehicles for PGE's fleet.
6. Permanently remove $1.1 million from the rate base for imprudent capital expenditures on line extension allowances.

1 All dollar figures in this testimony are rounded. The exact values can be found in the supporting exhibits.

ISSUE 1. TRANSPORTATION ELECTRIFICATION

Q. What was Staff's position on TE in Opening Testimony?

A. Staff recommended the Commission permanently remove $1.9 million from the rate base for imprudent capital expenditures on UM 1811 pilots, Electric Island, and a TE Database, remove $151 thousand from the rate base for stranded chargers at the Salem Electric Avenue site, and reduce the operating expenses for TE by $920 thousand.

- The TE-adjustments to PGE's rate base all originated from prior rate cases which were temporarily settled. Staff concluded that PGE exceeded the budget cap on capital expenditures in Order No. 19-385 in UM 1811. Staff concluded that capital expenditures on Electric Island were both illegal and unnecessary. And Staff concluded that investing in a TE Database was not necessary to analyze TE data.[2]
- The adjustment for stranded chargers came from Staff's observation that the Salem Electric Avenue site was no longer used and useful.[3]
- The adjustment to operating expenses for TE came from the difference in the base rate operating expenses PGE seeks to recover in this proceeding and the TE Budget for base rate operating expenses approved in Order No. 23-380 from UM 2033.[4]

Q. Please summarize PGE's position on TE in Reply Testimony.

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[2] Staff/2200/Shierman/3-8.
[3] Staff/2200, Shierman/8.
[4] Staff/2200, Shierman/9.

A. PGE concedes that the Company exceeded the budget for one UM 1811 pilot, TriMet, by $3.5 thousand, but requests the Commission deny Staff's recommendation to permanently disallow the remaining adjustment.[5] PGE requests the Commission reject Staff's recommendation to disallow the recovery of capital related to Electric Island.[6] PGE requests the Commission reject Staff's recommendation for disallowance of the Salem Electric Avenue site.[7] PGE requests the Commission approve $2.7 million in operating expenses for the TE Department and $993 thousand in operating expenses for the Field EV Operations Department.[8]

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to UM 1811 pilot capital expenditures?

A. PGE argues:

1. Order No. 19-385's budget cap on capital expenditures does not apply to overhead and allocated costs.[9]
2. The basis for these costs being indirect is that they could not be forecast for budgeting purposes.[10]

Q. Regarding PGE's first point about the UM 1811 pilots, does Staff agree with PGE's interpretation of Order No. 19-385?

5 PGE/1500, McFarland – Lawrence/32.
6 PGE/1500, McFarland – Lawrence/38.
7 PGE/1500, McFarland – Lawrence/33.
8 PGE/1500, McFarland – Lawrence/26.
9 PGE/1500, McFarland – Lawrence/30-32.
10 PGE/1500, McFarland – Lawrence/32.

A. For the most part, no. The Company adds to the word "direct" in that order's definition of overnight capital costs with a modifying word "incurred" to assert an alternative definition of overnight capital costs in a way that treats overhead and allocated costs as indirect and therefore beyond the scope of the budget.[11] Staff responds:

- PGE directly capitalized overhead and allocated costs for building Electric Avenue by putting them into the rate base. PGE's alternative definition of indirect costs is at odds with the definition provided in Order No. 19-384, which characterizes indirect costs as "interest on expenses and capital carrying costs (e.g., interest during the construction period, property taxes, income taxes, salvage, return requirements) related to the overnight capital costs, franchise fees, OPUC fees, and uncollectibles."[12] These are derived from the project's costs. Overhead and allocations are not derived from the project's costs. When overhead and allocations are capitalized, they are a part of the project cost.
- Even PGE's added modifier "incurred" doesn't necessarily suggest overhead and allocated costs are indirect. If these costs were not incurred in the construction of Electric Avenue, PGE wouldn't be able to capitalize them to the Company's rate base.
- Staff does agree with PGE that AFUDC is reasonably interpreted as interest on expenses, as written into UM 1811's unique budget definition. PGE

[11] PGE/1500, McFarland - Lawrence/31.
[12] See Docket No. UM 1811, OPUC, Order No. 19-385, November 7, 2019, Appendix A, p 4.

capitalized $15.4 thousand for AFUDC on Electric Avenue.[13] Staff has removed that amount from the recommended disallowance, bringing it down to $352 thousand.

Q. Regarding PGE's second point about the UM 1811 pilots, does Staff agree with PGE's assertion that overhead is too difficult to predict for budgeting?

A. No. Staff's response is that, to a certain degree, all components of a budget are uncertain. Order No. 19-385 refers to the higher uncertainty of costs that are derived from the rate base years later when the authorized rate of return is particularly unpredictable when, given the right circumstances, a rate case that determines such a cost may not be held until many years into the future. In contrast, forecasting the cost of overhead and allocated costs is a relatively simple near-term estimation.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to capital expenditures on Electric Island?

A. PGE argues:

1. It is not outside of standard practice to engage with customers prior to the development of a tariff to ensure that there is interest in the pilots or programs to be proposed.
2. There are numerous benefits to this partnership.

Q. Regarding PGE's first argument on Electric Island, does Staff agree that it is common practice to engage with customers on new tariffs?

[13] Staff Exhibit 3201.

A. Yes, however, PGE's actions with Daimler Trucks North America (DTNA) exceeded mere engagement, so Staff believes PGE's reasoning misses the point. Staff responds that engagement with DTNA is not the issue. The issue is that PGE provide regulated services without a tariff. At the time, Staff weighed several legal remedies, including seeking a civil penalty from PGE through civil court. Staff chose to pursue a remedy in the form of a disallowance in the next rate case, which became UE 394.[14] This penalizing remedy was chosen in lieu of the high cost of civil litigation.

Q. Regarding PGE's second argument on Electric Island, does Staff believe that there may be benefits to a partnership with Daimler?

A. Yes. Staff believes that Electric Island *may* provide significant benefits **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**[15] However, the expectation of customer benefit in isolation does not alone make an investment prudent. Excessive spending beyond what is necessary to achieve the benefit can make an investment imprudent. That is what Staff observes in Electric Island: unnecessary and excessive capital spending. DTNA made the decision to enter the heavy-duty EV market and develop charging at MW speeds before receiving an offer of ratepayer subsidies from PGE. Such a subsidy was not necessary for PGE to

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14 See Docket No. ADV 1239, OPUC Staff, Staff Report, March 7, 2021, pp 3-7.
15 See Docket No. UE 394, PGE, Response to OPUC DR 712, August 30, 2024, p 1.

provide DTNA valuable technical assistance. The cost of PGE's collaborative role was only **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** of the capital expenditures PGE has sought to add to the rate base, as shown in Staff Exhibit 3202. This modest expense PGE incurred providing technical assistance was the Commission-authorized means to gain learnings from Electric Island and improve the final design and construction of the site, funded by the UM 1938 deferral as an operating expense. PGE spent beyond that, offering DTNA a ratepayer subsidy to fund this multinational corporation's construction costs. Staff sees no evidence that funding DTNA's construction cost was required for ratepayers to realize the benefits of this project. Cost recovery for these actions, unless disallowed by the Commission, unduly burden customers already faced with increasing rate pressures and affordability challenges. Staff believes greater prudence and discretion should be exercised to limit customers' exposure to excessive costs. PGE did not do so here.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustment to capital expenditures on the TE Database?

A. PGE argues:

1. This project created a TE database where none existed.
2. PGE cannot report on Division 87 performance metrics without the TE Database.
3. The TE Database has an intake form.
4. Benefit/Cost Analysis is inappropriate.

5. The cost of the TE database is only $125 thousand.[16]

Q. Regarding PGE's first argument on the TE Database, does Staff agree that no database existed?

A. No. Staff responds that PGE already had a corporate database that can house TE data. PGE has shared this data with Staff over the years, before making capital expenditures on the TE Database, and Staff has been able to analyze this raw data without the need for a specialized database. PGE has not been able to demonstrate the TE Database provides a substantial marginal benefit over its existing information systems.

Q. Regarding PGE's second argument on the TE Database, does Staff agree that PGE cannot report on Division 87 performance metrics without the TE Database?

A. No. Staff explored this point through discovery. Staff DR 716 gave PGE an opportunity to explain what Division 87 reporting requirements cannot be performed without the TE Database and what the technical barriers are. PGE's response contains no articulation of technical barriers.[17] Instead, PGE describes the complexity of data and provides a list of several metrics that PGE claims cannot be reported on by the annual May 1st TE Plan Report filing deadline without the TE Database.

Staff concludes PGE's TE data is relatively uncomplicated. PGE asserts the complexity of this data by stating the Company's TE data consists of

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[16] PGE 1500, McFarland – Lawrence/38-40.
[17] Staff/3202, Shierman/1-4.

"charging ports across 11 TE programs which can support 7 different charging use-cases, and utilizes data from various PGE sources and 28 qualified commercial charging software vendors with 185 unique software/hardware combinations."[18] Staff is familiar with these items and believes that the Company overstates the complexity. PGE's charging data can also be described as consisting of only two types: meter data and session data. Meter data comes from PGE's Advanced Metering Infrastructure (AMI), and PGE's rates already reflect the capital and O&M entailed in using that data. Session data comes from what is generally called the Original Equipment Manufacturer (OEM). OEM data is collected from the charging device itself and supplied by a vendor. Though PGE may receive the OEM data from 28 vendors with 185 unique software/hardware combinations, the actual data is relatively similar. The primary data points PGE needs for most Division 87 reporting is the unique number for the charger and the energy deliveries. Since the vendors can provide this data to PGE as Comma Separated Values (CSV) files, OEM data can be accessed in a relatively simple Microsoft Excel document.

Staff concludes the following metrics, which PGE refers to in response to OPUC DR 716, are very simple descriptive statistics from relatively small data sets that could technically be performed in a spreadsheet using PGE's existing corporate information systems:

- *Percent of program-enabled ports by use case located within and/or providing direct benefits and services to underserved communities or*

[18] See Docket No. UE 435, PGE, Response to OPUC DR 716, August 30, 2024.

communities identified using a Commission approved tool. This is a relatively simple function of taxonomizing the use case of a program participant's ports and the site address. Underserved community status can be inferred either from the identity of the program participant or the location of the site. This requires merely keeping a running total and percentages in a spreadsheet that corresponds with a profile for each port.

- *Types of electric transportation technology supported by a utility portfolio as a percent of total investments, organized into categories such as micromobility, passenger vehicles, light-duty fleet vehicles, medium- and heavy-duty fleet vehicles, school buses, and transit buses.* This is a simple exercise in descriptive statistics covering broad vehicle categories that amounts to little more than deriving percentages of expenditures.
- *Percent of program-enabled charging load that occurs off-peak, by use case.* Staff has observed PGE perform this analysis without the TE Database. PGE fits the load shape of a use case into PGE's 12X24 matrix of system risk from the Company's IRP. PGE shared an example of this analysis in this proceeding as a response to Staff DRs 737 and 738. PGE's response to those DRs, regarding the benefit/cost analysis of the Company's proposed changes to Schedule 56, are identical to the analysis PGE provided in ADV 1149 back in 2020, before the TE Database was operational. PGE has long had a corporate data base suitable for analyzing customer load.

- *Total EV load enrolled in managed charging, and potential for managed charging. Estimated percent of EV load enrolled in managed charging.* This is a simple aggregation of total energy deliveries to program participants divided by the EV component of PGE's load forecast.
- *Number of program-enabled ports by use case.* This is a simple tally of program participation broken down by a broad qualitative characteristic of the vehicles charged.
- *Percent of total public ports by use case within utility service territory that are program enabled.* This is a simple tally of program participants divided by total public ports. Staff observes PGE uses Environmental Protection Agency data for the denominator.
- *Price ($/kWh) to charge at program-enabled ports by use case.* This can be easily surveyed at Plugshare.com.
- *Uptime at utility-owned and supported ports by use case.* Electric Vehicle Supply Equipment (EVSE) vendors provide the reporting that PGE can break down by each site's use case.

There are, of course, more efficient means of analyzing data than manually manipulating a spreadsheet that fall short of the cost PGE incurred creating a one-off database. A PGE employee should be able to process both meter and OEM TE data with the aid of free software such as R or Python. PGE's operating expenses assume the existence of employees with these data analysis skills.

Q. Regarding PGE's third argument on the TE Database, does Staff agree that the TE Database is necessary, because without it there could be no intake form for customers?

A. No. PGE's existing customer management software and web hosting software should be able to provide customers with an intake form. If PGE truly lacked this capability, then creating separate systems for customer-facing use cases, such as one intake system for TE and another for each other program participation process would not be prudent either.

Q. Regarding PGE's fourth argument on the TE Database, does Staff agree that benefit/cost analysis is inappropriate?

A. No. In many spaces, it is common for Staff to analyze the prudence of a regulated utility's decision based on a comparison of expected costs and expected benefits. PGE has not been able to provide Staff with this kind of cost justification or an analysis of benefits. In UE 416, PGE could merely say that the TE Database "will prevent significant future manual workload needs."[19] PGE should be able to provide more detail than that, because the future work needed might merely be having a PGE employee take a Python course. Such training would likely be less expensive to ratepayers than this capital expenditure.

Q. Regarding PGE's fifth argument on the TE Database, does Staff agree that it cost only $125 thousand?

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[19] See Docket No. UE 416, PGE, Response to OPUC DR 810, p 1.

A. No. PGE is seeking the recovery of $177 thousand due to a cost overrun. Staff requested an explanation for the cost overrun. PGE replied:

> During the planning phase, two software vendors stated there were Application Programming Interfaces (API's) available to use and provided a list of data available. During implementation, multiple data discrepancies were found in the API's which created rework for both the vendors and PGE to ensure the right type of data and version of the data was being sent and received. The project also included additional qualified EVSE vendors sending in data via sftp since their API's were not developed or ready for external use. During implementation, there were other data quality issues found with the sftp vendor data which required additional work to create exceptions to isolate or fix data found from the vendors.[20]

The reason PGE gives for the cost overrun underscores the imprudence of the investment. PGE's is paying to overcome bugs inherent in creating a new system. Staff concludes that $177 thousand is not a trivial-size cost. It's an expenditure of a sufficient magnitude that requires careful consideration of whether an investment in a custom, one-off database is justified over maintaining data analysis skills that can get more use from PGE's existing information system. The Commission should disallow such imprudent expenditures to deter against future growth of the excessive capital expenditures that an electric company is incented to make.

Q. What was Staff's position on stranded charging infrastructure in Opening Testimony?

A. Staff identified the Salem Electric Avenue site as no longer operational. Staff recommended its removal from the rate base for not being used and useful.

[20] See Docket No. UE 435, PGE, Response to OPUC DR 715, September 30, 2024, p 1.

Q. What reasons are given by PGE to justify its opposition to Staff's recommended removal of the Salem Electric Avenue site from the Company's rate base?

A. PGE argues:

1. This public charging site was a prudent investment.
2. The make-ready at that site remains used and useful.
3. The chargers are on schedule to be reinstalled in August 2024.

Q. Does Staff conclude any of these arguments are persuasive?

A. Yes. Though the first two arguments are not convincing, Staff confirmed, at the end of August, that these chargers have returned to commercial operation.[21] Figure 1 contains a photo of an EV charging at the Salem Electric Avenue.

[21] See Docket No. UE 435, PGE, Response to OPUC DR 711, September 3, 2024, p 1.

Figure 1: EV Charging at Salem Electric Avenue on August 30, 2024.

The Salem Electric Avenue site is now used and useful, so Staff withdraws the adjustment.

Q. What was Staff's position on TE operating expenses in Opening Testimony?

A. Staff found PGE is seeking to recover $920 thousand more in base rates for TE operating expenses than the Commission approved in Order No. 23-380.[22] Staff recommended the Commission disallow $920 thousand.[23]

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22 Staff Exhibit 2203.
23 Staff/2200, Shierman/9.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to TE operating expenses?

A. PGE argues:

1. Staff's adjustments to TE operating costs are duplicate of Staff's overall adjustment to the quantity of labor.[24]
2. The cost of TE planning should be beyond the scope of the TE Plan's budgeting.
3. O&M in the TE Plan budget contains funding for the EV Field Operations Department.
4. The budget includes formal training for field staff.
5. PGE has moved deferral O&M into base rates.[25]

Q. Regarding PGE's first argument on TE operating expenses, does Staff agree that some of the adjustments Staff made in Staff/2200 Opening Testimony were duplicative of Staff's overall adjustment to labor costs?

A. Yes. Staff agrees and removes the labor portion of Staff's TE operating expense adjustment. Staff notes that the reason for these adjustments has not changed and should be viewed as supporting the overall labor O&M reduction recommended by Staff Witness Stephanie Yamada. Staff now recommends the Commission disallow only $463 thousand in operating expenses for the TE Department, as shown in Staff Exhibit 3204.[26]

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24 PGE 1500, McFarland – Lawrence/4.
25 PGE 1500, McFarland – Lawrence/19-25.
26 Staff/3204, Cell D30.

Q. Regarding PGE's second argument on TE operating expenses, does Staff agree that the cost of TE planning should be beyond the scope of TE Plan budgeting?

A. No. Staff made this position clear to PGE during the review of PGE's second TE Plan last year. Oregon Administrative Rule (OAR) 860-087-0020(3)(g)(A) is also clear on this.[27] The scope of the TE Budget that requires Commission approval is "all expenditures to support transportation electrification". In Reply Testimony, PGE describes operating expenses for TE planning "ensures PGE can continue TE program development, development of the next TE Plan, and administration to support transportation electrification for our customers and execute on the customer transportation electrification programs in the TE Plan".[28] Therefore this is an expenditure to support transportation electrification.[29] The TE Plan is where the Commission decides the appropriate amount of ratepayer funds to spend on the policy goal of TE. The full cost of TE planning needs to be considered to avoid excessive administrative costs for an activity that rests upon a policy justification and lacks vetted evidence of net value from a traditional prudence perspective. Also, Staff does not see TE planning costs from the other electric companies on the level that PGE is requesting in this proceeding, furthering Staff's overarching concerns around what appear to be undisciplined spending habits. Despite this higher spending, Staff has not seen more rigor from PGE in the Company's TE planning that

27 See Docket No. UM 2033, OPUC, Order No. 23-380, October 20, 2023, Appendix A, p 7.
28 McFarland – Lawrence/21-22.
29 OAR 860-087-0020(3)(g)(A)(ii).

would justify such higher costs. Staff is open to supporting these higher costs only in the context of a holistic perspective of the customer and policy impacts. The place for PGE to make the case for planning cost expenditures far in excess of the other two electric companies' compliance costs to the same Division 87 rules is UM 2033, not this proceeding.

Q. Regarding PGE's third argument on TE operating expenses, does Staff agree that some of the operating costs in the TE Plan's budgeting contain O&M for EV field operations?

A. Yes. Staff has increased the granularity of our recommendation to the Commission on TE operating expenses by moving the budgeting for TE O&M on investments in Order No. 23-380 to the FERC accounts of the EV Field Operations Department.[30] In Opening Testimony, Staff treated the expenses for the EV Field Operations Department as a full proxy for PGE's private fleet chargers.[31] Rather than recommend the Commission disallow the entire $993 thousand, Staff recommends the Commission disallow only **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** for the EV Field Operations Department as shown in Staff Exhibit 3204.

Q. Regarding PGE's fourth argument on TE operating expenses, does Staff agree that the EV Field Operations Department needs more money than was budgeted in the TE Plan for O&M on EV investments due to the need for formal training?

[30] Staff/3204, Shierman/Cells D28:29.
[31] Staff/2203/ Shierman/Cell D11.

A. No. PGE's cost for training in the 2023 test year was only $23 thousand, an immaterial portion of the operating costs PGE is requesting as shown in Staff Exhibit 3205.[32]

Q. Regarding PGE's fifth argument on TE operating expenses, does Staff agree that Staff should include more revenue requirement in base rates to account for the movement of the UM 1938 and UM 2003 deferrals into base rates?

A. Yes. Staff notes **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** so there is no net increase, as shown in Staff Exhibit 3204.[33]

Q. Please conclude this TE portion of your testimony with a summary of Staff's recommendation for the Commission on TE.

A. Staff recommends the Commission permanently remove $1.9 million from the rate base for imprudent capital expenditures on TE. This comes from:

- $352 thousand in excessive capital expenditures on Electric Avenue and TriMet,
- $1.4 million on illegal and unnecessary capital expenditures on Electric Island, and
- $177 thousand on unnecessary capital expenditures on a TE Database.

32 Staff/3205, Shierman/2.
33 Staff/3204, Shierman/Cell D24.

Staff recommends the Commission remove **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** of base rate operating expenses for TE. This comes from:

- $463 thousand in over-budget non-labor expenditures for the TE Department.
- **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** in over-budget non-labor expenditures for the EV Field Operations Department.

These recommendations hold PGE to the Commission's decision in Order No. 23-380 that balances the policy goals of transportation electrification with the need to avoid excessive ratepayer burden.

ISSUE 2. PGE'S FLEET OF MOTOR VEHICLES

Q. What was Staff's position on PGE's fleet of motor vehicles in Opening Testimony?

A. Staff recommended the Commission permanently remove $20.7 million from the rate base for imprudent capital expenditures on private fleet EV chargers, remove $8.1 million from the rate base for the imprudent purchases of new vehicles, and reduce the operating expenses for maintaining PGE's private EV chargers by $993 thousand.

- Some of the fleet charger adjustments to PGE's rate base originated from prior rate cases that were temporarily settled. The investment in UE 394 was $6.9 million. The investment in UE 416 was $9.8 million.[34] The incremental investment in this proceeding is $4 million.[35]
- Some of the new vehicle adjustments to PGE's rate base originated from Staff's proposed adjustment of $2.4 million for this issue in UE 416, and parties stipulated to an agreement which included a black box settlement. The net EV premium is Staff's calculation that credits the reasonable price of an EV with the net present value of future fuel savings, O&M savings, tax credits, and government subsidies. Incremental to this proceeding, Staff concluded $325 thousand of PGE's purchases of new EVs is an imprudent net premium.[36]

[34] Staff/2200, Shierman/13-14.
[35] Staff/2200, Shierman/15.
[36] Staff/2200, Shierman/12-15.

- Staff reduced PGE's rate base by $120 thousand for excessive cost configurations.[37]
- Staff reduced PGE's rate base by $5.3 million for the premature retirement of serviceable vehicles.[38]
- Staff used the operating expenses of PGE's EV Field Operations department as a proxy for PGE's O&M on private fleet chargers and recommended disallowance of the entire $993 thousand. After accounting for O&M savings in the net EV premium of the vehicle purchase, the high cost of maintaining private fleet chargers only contributes to the cost side of the net premium.[39]

Q. Please summarize PGE's position on the Company's fleet in Reply Testimony.

A. PGE requests the Commission reject Staff's proposed adjustments related to fleet expenditures.[40]

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to capital expenditures on PGE's private fleet chargers?

A. The Company does not provide any clear justification. PGE/1700 does not provide a defense of the cost of the Company's private fleet charging stations but does not explicitly remove their request to recover these capital expenditures. However, PGE asserts that fleet electrification offers O&M

[37] Staff/2200, Shierman/16.
[38] Staff/2200, Shierman/16.
[39] Staff/2200, Shierman/16-17.
[40] PGE/1700, Powell – Clark/28.

savings over the premium price of the EV.[41] Consideration of the cost of the charging infrastructure smothers any reasonable claim of savings. Consideration of the infrastructure costs further complicates claims of O&M savings due to the considerable O&M cost PGE seeks to recover for maintaining the Company's private fleet chargers. The Company recommends the Commission reject Staff's proposed adjustment of O&M to maintain these private chargers, but does so with no claim that having private fleet chargers provides customers a net benefit.[42] So, Staff finds that PGE has not adequately justified the reasonableness of these investments with respect to the high capital cost these chargers add to the rate base.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to the capital costs for purchasing EVs since the last rate case?

A. PGE argues:

1. When Staff includes fuel savings, O&M savings, or tax credits, the result is $59 thousand of savings.
2. Staff underestimated O&M savings.
3. Replacing carbon-emitting vehicles is the right thing to do for community and customer.[43]

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41 PGE/7500, Powell – Clark /26.
42 PGE/1500, McFarland – Lawrence/26.
43 PGE/1700, Powell – Clark/26.

Q. Regarding PGE's first argument on the purchase of EVs since the last rate case, does Staff agree that when Staff included all categories of savings, the result is $59 thousand in savings?

A. No. PGE mischaracterized Staff's conclusion. Those fourteen vehicles that have all three categories of savings offer ratepayers negative savings because the negative EV price premium for those vehicles is too small to overcome the higher marginal cost of the private chargers, which come with considerable capital and operating costs. Staff offers a more precise way to articulate PGE's point: For vehicles that have material savings from fuel, O&M, and government subsidies, the net EV premium of those EVs is negative $59 thousand before the marginal cost of private chargers is considered.

This is not a helpful point for two reasons. First, PGE states agreement that not all vehicles have tax credits.[44] So, both Staff and PGE appear to agree that only those fourteen vehicles should have all three savings components. Second, PGE has not provided any new analysis of its own to assert what the net EV premium is for the entirety of incremental EV purchases in this proceeding. The only evidence on nets savings, from PGE, in this proceeding, are PGE's studies on fleet electrification contained in Staff/2204 and Staff/2205. **[BEGIN CONFIDENTIAL]** [redacted]

[44] PGE/1700, Powell – Clark/26.
[45] Staff/2204, Shierman/2.

[redacted] **[END CONFIDENTIAL]**.[47]

Q. Regarding PGE's second argument on the purchase of EVs since the last rate case, does Staff bear the burden of proof of justifying these O&M savings?

A. No. The responsibility lies with PGE, and PGE has not provided any evidence justifying the O&M savings for these other sixteen vehicles. These vehicles are electric forklifts and off-road vehicles (colloquially called dune buggies), specialized vehicles with relatively little vehicle miles traveled compared to the small trucks and cross over vehicles that Staff included in O&M savings. In Staff/2206, Staff used PGE's assumed O&M numbers, but PGE did not include

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46 Staff/2204, Shierman/15.
47 Staff/2205, Shierman/S4 in the sheet titled "Assump".

forklifts and off-road vehicles in the Company's fleet electrification study. Staff has no evidence to believe that the O&M is as large for these vehicles as PGE's assumed O&M savings for light duty vehicles. However, to incorporate PGE's argument into Staff's total cost of ownership analysis, Staff has deferentially modified Staff/2206 by giving these vehicles the same assumed O&M as a Chevrolet Silverado, likely an overestimation. This new analysis is shared as Staff Exhibit 3205 and shows a net EV premium of $231 thousand, which confirms the robustness of Staff's analysis when tested by a high O&M assumption. So, given PGE's claim of O&M savings for these forklifts and off-road vehicles, Staff reduces its adjustment for capital expenditures on EVs since the last rate case by $93.6 thousand.

Q. Regarding PGE's third argument on the purchase of EVs since the last rate case, does Staff agree that replacing carbon-emitting vehicles is the right thing to do for the community and customers?

A. Staff agrees that replacing carbon-emitting vehicles is a good thing for the community, but this does not necessarily mean that this mitigates concerns about cost effectiveness or fair ratemaking practices. Staff also expects there to be instances where electrifying a vehicle in PGE's fleet reduces costs for customers, but PGE is pursuing electrification in a way that goes beyond any hope for net savings for customers.

Ultimately, the question here is at what cost should PGE replace carbon-emitting vehicles. PGE does not appear to consider a limit to the cost burden ratepayers should bear for PGE's fleet electrification nor quantifies the level of assumed community benefits from reduced carbon emissions in a way that shows a net benefit.

The choice the Commission has given electric companies on fleet electrification is that they can choose to include fleet electrification as a TE program subject to public review in the TE Plan or they can choose not to and face a traditional prudence review for cost recovery. If approved as a TE program, fleet electrification can be considered holistically against other priorities for TE funding. Prudence review of fleet electrification outside of TE planning eliminates a valuable opportunity to consider policy goals, because it has not been vetted in the holistic manner necessary for the Commission to weigh in on fleet electrification as a part of a full TE Plan. The high cost of electrifying PGE's fleet might be more socially beneficial if spent on other TE activities. Staff believes that the TE planning process provides a more accessible venue to explore these issues in an inclusive and procedurally just manner. Staff finds this superior to the typically high participation barrier of contested proceeding of a general rate case and reasons that the more open process of UM 2033 is better suited to encourage robust and diverse stakeholder input on how this amount of money is best spent to advance Oregon TE policy.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to the capital costs from purchasing EVs in UE 416?

A. None. PGE only made arguments in Reply Testimony about the EV purchases incremental to this proceeding. In Opening Testimony, Staff/2200 recommended an adjustment of approximately $2.4 million. This adjustment was temporarily settled in UE 416, and Staff has carried those prior arguments into this proceeding, but Staff has no points from PGE on this adjustment to rebut.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to O&M on the Company's private fleet chargers?

A. PGE argues:

1. Fleet electrification aligns with Oregon Executive Order 20-04.
2. Fleet electrification prepares for compliance with the emission rules: Advanced Clean Trucks and Advanced Clean Cars II.
3. Fleet electrification develops learnings that can be shared with customers.[48]

Q. Regarding PGE's first argument on O&M for PGE's private fleet chargers, does Staff agree that PGE's fleet electrification aligns with Oregon Executive Order 20-04?

A. No. That executive order was to state agencies, not electric companies. The directive on the regulation of electric companies to the PUC includes the requirement that support for TE "is reasonably expected to result in long-term benefit to customers."[49] The overwhelming evidence in this proceeding is that PGE's fleet electrification poses a long-term cost to customers without commensurate benefit.

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[48] PGE/1500, McFarland – Lawrence/23-24.
[49] EO 20-04 B(2).

Q. Regarding PGE's second argument on O&M for PGE's private fleet chargers, does Staff agree that PGE's fleet electrification prepares for compliance with the emission rules: Advanced Clean Trucks and Advanced Clean Cars II?

A. No. These requirements do not go fully into effect until 2035 and they apply to the manufacturers of motor vehicles, not fleets. To the extent that these emissions rules apply before 2035, they impact the price of internal combustion engine (ICE) vehicles, so they send gradual compliance signals to fleets in the total cost of ownership. The current prices of most ICE vehicles relative to the premium price of EV and the cost of private chargers suggests PGE has been imprudently electrifying too quickly too early instead of identifying what fleet electrification efforts make sense now. This is important, because compliance costs for a dynamic market like TE generally decline over time, rather than increase, because of the time value of money and the changing technology for compliance. PGE has presented no evidence of net savings from early compliance.

Q. Regarding PGE's third argument on O&M for PGE's private fleet chargers, does Staff agree that PGE's fleet electrification develops learnings that can be shared with customers?

A. Possibly. PGE has not shared any specific learnings from the Company's own fleet electrification that it could share with customers and couldn't otherwise learn from participating in customers' fleet efforts through the provision of technical assistance. So, Staff has no reason to believe this is a material benefit. Also, this line of argument implies that PGE's own fleet electrification should be considered a cost to Fleet Partner, PGE's program for delivering support for customers' fleet electrification efforts. This would widen the gap of Fleet Partner's cost-effectiveness without necessarily improving the merits of PGE's own electrification.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to the capital costs from purchasing replacement vehicles prematurely?

A. PGE argues:

1. Staff used 2025 procurement data instead of 2024.
2. PGE looks at each vehicle comprehensively to determine if it's reached the end of its useful life.

Q. Regarding PGE's first argument on the premature purchase of replacement vehicles, does Staff agree that it used 2025 data?

A. Yes. Staff did not understand that PGE's response to OPUC DRs 324 and 325 contained vehicles that PGE is not seeking recovery for in this proceeding. PGE provided the remaining 2024 vehicle purchases in PGE/1704. Staff has taken that new data set and updated Staff's adjustment in Staff Exhibit 3205 to produce a new adjustment of approximately ($3.1 million).

Q. Regarding PGE's second argument on the premature purchase of replacement vehicles, does Staff agree that PGE looks at each vehicle comprehensively to determine if it has reached the end of its useful life?

A. Sometimes, but not the vehicles Staff has included for an adjustment. When PGE uses the mileage or age as the sole reason for retirement, that shows PGE had no evidence the vehicle would not be serviceable through the end of 2024. Being fully depreciated is not a prudent justification to rate base the higher cost of a replacement vehicle.

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to the capital costs from purchasing bucket trucks with Jobsite Energy Management Systems (JEMS)?

A. PGE argues:

1. These vehicles are needed for municipal ordinance compliance.
2. These vehicles are safer to operate.
3. These vehicles save wear and tear on the engine.

Q. Regarding PGE's first argument on the prudence of JEMS trucks, does Staff agree with PGE that the compliance need makes them prudent?

A. Yes. Before PGE/1700, the Company's justification for JEMS systems was fleet electrification. Staff concluded that their fuel savings were immaterial. However, given this new rational provided by PGE regarding the restrictions the use of vehicles due to sound decimal levels, Staff agrees that limitations on the hours of use could impede PGE's operations. Staff withdraws this adjustment of ($120 thousand). Staff has also removed adjustments of JEMS costs from UE 416 procurement.

Q. Regarding PGE's other two arguments on the prudence of JEMS trucks, does Staff agree with PGE that safety and depreciation savings make these vehicles prudent?

A. Staff would need to see more supporting evidence than PGE provided in Reply Testimony on these two other points, before agreeing that the safer operations and reduced wear and tear assertions resolved prudency concerns. However, since Staff was convinced by the municipal ordinance argument, Staff has not looked further into PGE's other two arguments.

ISSUE 3. CAPITAL EXPENDITURES ON LINE EXTENSION ALLOWANCES

Q. What was Staff's position on PGE's capital expenditures on line extension allowances in Opening Testimony?

A. From UE 394, UE 416, and this current proceeding, Staff has observed PGE uses unreasonably optimistic site load forecasts for EV related sites when calculating line extension allowances.[50] Staff recommended a reduction of $1.1 million from PGE's rate base for excessive capital expenditures on line extension allowances.

Q. Please summarize PGE's position on the Staff's adjustment to rate base for on line extension allowances in Reply Testimony.

A. PGE requests the Commission reject Staff's adjustment.[51]

Q. What reasons are given by PGE to justify its opposition to Staff's adjustments to capital expenditures on line extension allowances?

A. PGE argues:

1. PGE's site load forecasts combined EV load with building load.
2. Staff does not consider when the allowance calculation exceeds job cost.
3. At least one calculation excluded other site load.
4. The broad use of a capacity factor of 4 percent is inappropriate.
5. PGE cannot change the forecast in the middle of the project.[52]

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[50] Staff/2200, Shierman/18-33.
[51] PGE/1500, McFarland – Lawrence/29.
[52] PGE/1500, McFarland – Lawrence/27-29.

Q. Regarding PGE's first argument regarding line extension allowance capital expenditures, does Staff agree that PGE combined EV load with building load?

A. No. In every site load forecast Staff has reviewed for EV charging sites, the EV chargers have always had a separate line for the chargers' nameplate capacity. PGE has been unable to provide an example of the Company's assertion. Also, even if PGE had been making this analytic error, this point simply means PGE admits to an unreasonable site load forecast. PGE has been operating its own EV chargers since 2011. PGE has reasonably known the capacity utilization of chargers for more than a decade now.

Q. Regarding PGE's second argument relating to line extension allowance capital expenditures, does Staff agree that it had not considered when allowance costs exceeded job costs?

A. No. In the two examples PGE provided of this, Staff's adjustment did not exceed the job cost.

Q. Regarding PGE's third argument, does Staff agree that in at least one site load forecast adjustment, Staff excluded other site load?

A. Yes. Staff has removed the adjustment for that site and another that PGE was able to point to through discovery. Both are *de minus* to Staff's overall recommendation. Staff has included these edits with all three rate cases' analysis of these capital expenditures as Staff Exhibits 3207, 3208, and 3209.

Q. Regarding PGE's fourth argument, does Staff agree that the broad use of a 4 percent capacity factor is inappropriate?

A. No. That number is consistent with both Staff and PGE's observations shared in UE 416.[53] In this proceeding, PGE is asserting new numbers: 5 percent for public sites and 14 percent for private sites. However, these new ratios are load factors not capacity factors.

The load factor has a different denominator: maximum instantaneous use in kW derived from observed demand. The capacity factor's denominator is maximum potential energy use in kWh derived from the site's nameplate capacity. The load factor is inherently a higher percentage than a capacity factor, but it means a different thing. To convert into a forecast of energy deliveries, PGE's use of a load factor needs to be converted into energy deliveries, a conversion that requires some assumptions about how maximum demand deviates from average demand. PGE does not appear to be performing this conversion properly. Instead, PGE has been adjusting each site's nameplate capacity in a variety of ways and does not show a consistent conversion from an instantaneous demand metric to an energy metric.

This raises questions about why PGE uses a forecasting method that requires such added complexity. When a customer applies for new service, PGE has the nameplate capacity but does not yet have any observations of that customer's maximum demand.

Q. Regarding PGE's fifth argument, does Staff agree that PGE should not change the site load forecast in the middle of a project?

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[53] Docket No. UE 416, PGE, Response to OPUC DR 349.

A. Yes. However, this misses the point. PGE has reasonably been able to know that the capacity factor of EV chargers averages around 4 percent for more than a decade. There has never been a need to change a forecast in the middle of a project that Staff has reviewed for this proceeding. PGE should have been using an accurate, empirically derived capacity factor for the past three rate cases and has failed to do so.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3201

Electric Avenue AFUDC

September 10, 2024

Source: UE 394 OPUC DR 746

Program	Cost Element	Month	Amount
UM 1811 - Electric Avenue	5001: AFUDC Debt	201904	$ 184.73
UM 1811 - Electric Avenue	5001: AFUDC Debt	201905	$ 177.04
UM 1811 - Electric Avenue	5001: AFUDC Debt	201906	$ 88.77
UM 1811 - Electric Avenue	5001: AFUDC Debt	201911	$ 1,696.87
UM 1811 - Electric Avenue	5001: AFUDC Debt	201912	$ 1,450.19
UM 1811 - Electric Avenue	5001: AFUDC Debt	202001	$ 1,991.19
UM 1811 - Electric Avenue	5001: AFUDC Debt	202002	$ 851.46
UM 1811 - Electric Avenue	5001: AFUDC Debt	201912	$ (1,178.78)
UM 1811 - Electric Avenue	5001: AFUDC Debt	202002	$ (155.52)
UM 1811 - Electric Avenue	5002: AFUDC Equity	201904	$ 343.61
UM 1811 - Electric Avenue	5002: AFUDC Equity	201905	$ 362.72
UM 1811 - Electric Avenue	5002: AFUDC Equity	201906	$ 175.20
UM 1811 - Electric Avenue	5002: AFUDC Equity	201911	$ 3,538.27
UM 1811 - Electric Avenue	5002: AFUDC Equity	201912	$ 2,908.72
UM 1811 - Electric Avenue	5002: AFUDC Equity	202001	$ 4,019.55
UM 1811 - Electric Avenue	5002: AFUDC Equity	202002	$ 1,715.49
UM 1811 - Electric Avenue	5002: AFUDC Equity	201912	$ (2,457.96)
UM 1811 - Electric Avenue	5002: AFUDC Equity	202002	$ (313.93)
			$ 15,397.62

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3202

Redacted

Capital Expenditures on Electric Island

September 10, 2024

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3203

PGE's Clarified Need for TE Database

September 10, 2024

August 30, 2024

To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 716
Dated August 23, 2024

Request:

Referencing PGE/1500, McFarland – Lawrence/40, where the Company states: "The TE Database is a foundational investment for compliance with Division 87 reporting," please provide the Division 87 reporting requirements that could not be performed without the TE Database and explain what technical barrier the TE Database overcame.

Response:

The charger database allows PGE to efficiently track and analyze data on EVSE installed through customer programs. The database consolidates and standardizes available information of installed EVSE charging ports across 11 TE programs which can support 7 different charging use-cases, and utilizes data from various PGE sources and 28 qualified commercial charging software vendors with 185 unique software/hardware combinations. The exponential combination of data attributes along with charging session data would not be possible without the creation of a database to track the data for reporting and analysis.

The Division 87 reporting requirements that could not be performed without the TE Database include the metrics for TE Portfolio areas required in TE Plan annual report in OAR 860-087-0030(1). All metrics are defined by Order No. 22-314.

At minimum, it would be impractical for PGE to comply with the following requirements without a structured database of EV charging data.

Rule/Order	**Requirement**
OAR 860-087-0030(1)	File report on or before May 1 each year and include:

OAR 860-087-0030(1)(d)	A discussion of how the TE Plan met the performance area categories described in OAR 860-087-0020(3)(c)(A)-(H) and key lessons learned. This discussion shall include, as appropriate, performance metrics consistent with performance areas that are developed with stakeholder and electric company input.
Order No. 22-314	***(D) Equity of program offerings to meet underserved communities;***
Order No. 22-314	**Metric:** Percent of program-enabled ports by use case located within and/or providing direct benefits and services to underserved communities or communities identified using a Commission-approved tool. **Type of metric:** Baselining metric (report on progress; not used in evaluation or assessment) **Additional considerations:** Use cases include residential, multifamily, workplace, corridor, non-corridor public, light-duty vehicle (LDV) fleet, and medium- and heavy-duty vehicle (MHDV) fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.
Order No. 22-314	**Metric:** Types of electric transportation technology supported by a utility portfolio as a percent of total investments, organized into categories such as micromobility, passenger vehicles, light-duty fleet vehicles, medium- and heavy-duty fleet vehicles, school buses, and transit buses. **Type of metric:** Baselining metric (report on progress; not used in evaluation or assessment)
	(E) Distribution system impacts and grid integration benefits;

Order No. 22-314	**Metric:** Percent of program-enabled charging load that occurs off-peak, by use case. **Type of metric:** Performance metric (used in reporting, assessment and evaluation) **Additional considerations:** Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.
Order No. 22-314	**Metric:** Total EV load enrolled in managed charging, and potential for managed charging. Estimated percent of EV load enrolled in managed charging. **Type of metric:** Performance metric (used in reporting, assessment and evaluation) **Additional considerations:** Managed charging includes direct load control, vehicle-to grid, and behavioral demand response. Managed charging does not include time of use rates.
	(F) Program participation and adoption; and
Order No. 22-314	**Metric:** Number of program-enabled ports by use case. **Type of metric:** Performance metric (used in reporting, assessment and evaluation) **Additional considerations:** Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.
Order No. 22-314	**Metric:** Percent of total public ports by use case within utility service territory that are program-enabled. **Type of metric:** Baselining metric (report on progress; not used in evaluation or assessment)

Order No. 22-314	**Metric:** Number of participants in utility programs, broken down by program and underserved community status. **Type of metric:** Baselining metric
	(G) Infrastructure performance including charging adequacy which considers, but is not limited to reliability, affordability, and accessibility.
Order No. 22-314	**Metric:** Price ($/kWh) to charge at program-enabled ports by use case. **Type of metric:** Baselining metric (report on progress; not used in evaluation or assessment) **Additional considerations:** Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances.
Order No. 22-314	**Metric:** Uptime at utility-owned and supported ports by use case. **Type of metric:** Performance metric (used in reporting, assessment and evaluation) **Additional considerations:** Use cases include residential, multifamily, workplace, corridor, non-corridor public, LDV fleet, and MHDV fleet. When possible, distinguish between public and private ports. Program-enabled ports do not include ports exclusively supported by line extension allowances. Utilities should file TE Reports that compare actual annual results versus forecast for all performance areas. TE Reports should compare annual forecasted versus actual EV infrastructure installed in the utility's service territory.

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3204

Redacted

Operating Expenses for the TE Department and the EV Field Operations Department

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 3205

Training Costs for the EV Field Operations Department

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

EV Field Operations 2023 Crew Trainings			
Employee	**Training**	**Hours**	**2023 tuition cost**
Employee 1	ABB Level 1&2 Terra certification	40	$4,290
	ChargePoint online certification CT-4000, CP250, Express 1000	8	
	Gradall Material handler training certification	2	
	Bucket Training	2	
	Articulating Boom Training	2	
Employee 2	ABB Level 1&2 Terra certification	40	$4,290
	ChargePoint online certification CT-4000, CP250, Express 1000	8	
	Gradall Material handler training certification	2	
	Bucket Training	2	
	Articulating Boom Training	2	
Employee 3	ABB Level 1&2 Terra certification	40	$4,290
	ChargePoint online certification CT-4000, CP250, Express 1000	8	
	Gradall Material handler training certification	2	
	Bucket Training	2	
	Articulating Boom Training	2	
	ABB Level 1&2 Terra certification	40	$4,290

Employee 4	ChargePoint online certification CT-4000, CP250, Express 1000	8	
	Gradall Material handler training certification	2	
	Bucket Training	2	
	Articulating Boom Training	2	
	CDL training* Elite truck schooling	160	$6,038
	Total	376	$23,198

*CDL training is required for the journeymen position to drive larger vehicle such as the bucket truck for installing pole chargers.

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 3206

Confidential

Procurement of Motor Vehicles

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3207

Confidential

Adjustments to Line Extension Allowances in UE 394

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3208

Adjustments Incremental Line Extension Allowances in UE 416

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

CASE: UE 435
WITNESS: ERIC SHIERMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3209

Adjustments Incremental Line Extension Allowances

THIS IS FILED AS AN EXCEL FILE IN ELECTRONIC FORMAT

September 10, 2024

CASE: UE 435
WITNESS: STEPH YAMADA

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3300

REDACTED
Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Steph Yamada. I am a Senior Utility Analyst employed in the Water, Telecom, Safety and Consumers Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Please describe your educational background and work experience.

A. My witness qualifications statement is found in Exhibit Staff/1201.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address Portland General Electric's (PGE or Company) Reply Testimony and other Parties' Opening Testimony with regard to Wages & Salaries, Contract Labor, Full-Time Equivalents (FTE), Incentives, and Directors and Officers (D&O) insurance.

Q. Did you prepare any exhibits for this docket?

A. Yes. In addition to the exhibits provided with my Opening Testimony, I prepared Confidential Exhibit Staff/3301, containing PGE's Annual Incentive Plan FAQ document, which was provided in response to Staff's DR 264.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. SALARIES, WAGES AND CONTRACT LABOR

Q. Please summarize the Company's initial proposal for salaries, wages and contract labor.

A. PGE proposed Test Year salaries, wages, and overtime totaling $416,289,879 in Oregon,[1] as summarized in Figure 1.

FIGURE 1: TEST YEAR SALARIES, WAGES, OVERTIME

Category	Base Salaries & Wages	Overtime	Total
Exempt	259,857,295	1,083,608	260,940,904
Hourly	29,349,111	25,856,894	55,206,005
Officer	5,477,950	N/A	5,477,950
Union	94,665,020	N/A	94,665,020
Total	**389,349,376**	**26,940,503**	**416,289,879**

The Company's Test Year proposal is net of an ($11.7) million adjustment to account for vacancies and/or unfilled positions,[2] as well as an adjustment "that shifts $14.0 million from straight-time labor costs to contract labor costs[.]"[3] This $14 million shifting adjustment is based on PGE's history of over-budgeting for straight-time labor and under-budgeting for contract labor over 2021-2023.[4]

PGE's proposal for contract labor, including the $14 million increase related to the shifting adjustment, was $54,082,608. Including this amount, PGE's labor proposal totals $470,372,487 across all labor types.

[1] Staff/1202, PGE's Response to Staff's SDR 92.
[2] PGE/300, Trpik-Mersereau-Batzler/21 at 2-4.
[3] PGE/300, Trpik-Mersereau-Batzler/20 at 10-11.
[4] Staff/1202, PGE's Response to Staff's DR 273.

Q. Please summarize Staff's analysis and recommendations as described in its Opening Testimony.

A. Staff applied its standard three-year Wage and Salary (W&S) Model to the Company's proposed wages. In applying the W&S Model, Staff also reversed the Company's proposed $14 million shift from straight-time to contract labor, arguing that in-house and contract labor should continue to be analyzed separately in consideration of historical actuals, as has been done in the past. Staff noted that the Company's proposed shift would effectively shift labor dollars out of Staff's W&S Model, resulting in a smaller downward adjustment than would otherwise be produced by the model. Staff also argued that the inaccuracies in the Company's budget forecasts should not be used as a basis for ratemaking decisions, and that the Company's actual labor costs over 2021-2023 demonstrate a clear trend in which in-house labor costs are increasing and contract labor costs are decreasing, not vice versa.

With regard to union labor, since some contracts were in negotiation at the time of the Company's filing, Staff recommended that union wages be updated to reflect actual negotiated union wage increases if those amounts become known during the course of this proceeding.

Staff recommended a total adjustment of ($3,808,938) attributable to the Company's base salaries and wages for Oregon, excluding union labor. This amount was allocated ($2,254,891) to O&M and ($1,554,047) to capital. Other than reversing PGE's proposed $14 million shifting adjustment, Staff did not make any adjustments to contract labor.

Q. Did any intervenors make specific recommendations related to the Company's overall level of salaries and wages?

A. Yes. In its Opening Testimony, the Alliance of Western Energy Consumers (AWEC) proposed to hold FTE levels constant at 2023 levels, which affects the overall amount of wages included in the Test Year. Staff's discussion on FTEs is included in the next section of this testimony.

Q. Please summarize PGE's Reply Testimony position.

A. PGE continues to argue in support of the initial request reflected in its Opening Testimony. The Company maintains that its $14 million shift from straight-time to contract labor is appropriate. PGE also argues that "Staff's analysis does not review PGE's Total Labor request holistically, instead it looks at two components, specifically straight-time labor and overtime labor…"[5] and notes that "no actual analysis related to contract labor was provided [by Staff] as an exhibit to this case."[6] PGE also states that it "continue[s] to oppose the usage of the Three-Year Wage and Salaries model, while expressing [its] preference for a holistic evaluation of labor requirements."[7]

Q. Does Staff agree with PGE's assertion that its $14 million shifting adjustment is appropriate?

A. As discussed in my Opening Testimony, Staff disagrees. PGE's proposal to shift $14 million from straight-time to contract labor would effectively reduce the downward adjustment produced by Staff's W&S Model while artificially inflating

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[5] PGE/1400, Mersereau–Van Oostrum–Batzler/9 at 1-3.
[6] PGE/1400, Mersereau–Van Oostrum–Batzler/9 at 4-5.
[7] PGE/1400, Mersereau–Van Oostrum–Batzler/9 at 9-10.

PGE's contract labor costs, which have been decreasing since 2021. Instead, it is appropriate to analyze PGE's in-house and contract labor needs separately and in consideration of recent historical actuals related to each category.

Q. Does Staff agree that it has not viewed PGE's labor costs "holistically"?

A. No. PGE's argument seems to imply that, since Staff didn't analyze and adjust PGE's combined labor costs as a whole, Staff has somehow ignored certain aspects of PGE's labor requirements. On the contrary, Staff's proposal provides a reasonable overall labor inclusion while accounting for differences in distinct labor types. Even though Staff continues to believe that certain aspects of labor costs should be separately analyzed, Staff noted in its Opening Testimony that the combined cost of PGE's in-house and contract labor has remained relatively steady over 2021-2023.[8] Since utilities typically use a combination of in-house and contract labor to meet their labor needs, the two labor types tend to have an inverse relationship—when contract labor increases, in-house labor decreases, and vice versa. As shown in my Opening Testimony, PGE's recent actuals confirm this to be true over 2021-2023—as the Company's in-house labor costs have increased over that time, its contract labor costs have decreased correspondingly. Staff's analysis considers the overall level of PGE's labor costs while maintaining the separate and distinct nature of contract labor as compared to in-house labor. As discussed

[8] Staff/1200, Yamada/7-8.

elsewhere in this testimony, Staff's proposal results in an increase in combined labor costs compared to recent actuals, and is reasonable.

Q. Does Staff agree with PGE's statement that Staff provided no analysis related to contract labor in this case?

A. No. First, Staff disagrees with this assertion—Staff's Opening Testimony included an analysis showing that PGE's contract labor costs experienced an 18 percent decrease between 2021 and 2022, and a 22 percent decrease between 2022 and 2023, as reproduced below.

FIGURE 2: PGE ACTUAL CONTRACT LABOR COSTS, 2021-2023[9]

	2021	2022	2023
Contract Labor	$94,676	$77,974	$60,480
Change		**-18%**	**-22%**

Second, as noted in my Opening Testimony, other than reversing PGE's $14 million shifting adjustment, Staff proposed no reductions to PGE's proposal for contract labor. Specifically, Staff removed $14,000,000 from PGE's proposal of $54,082,608, resulting in a total actual inclusion of $40,082,608 for contract labor. This amount represents a decrease of 18.6 percent per year compared to 2023 actuals and is appropriate given the actual annual decreases since 2021, as shown in the previous table.

Q. Did PGE disagree with Staff's analysis that its actual contract labor costs have decreased annually since 2021?

9 Staff/1202, PGE's Response to Staff's DR 275, and PGE/300, Trpik-Mersereau-Batzler/18, Table 8, April 3, 2024, Errata filing.

A. No. PGE did not dispute Staff's analysis of the Company's recent trends regarding contract labor. Instead, the Company continues to argue in favor of artificially shifting costs from in-house to contract labor.

Q. In its Opening Testimony, Staff previously argued that contract labor and in-house labor should be analyzed separately, asserting that they are fundamentally different in nature. Does PGE disagree with this assertion?

A. No. While PGE continues to argue that its in-house and contract labor should be viewed "holistically," it does not dispute that the two labor types are fundamentally different. Rather, PGE notes that in-house employees are typically more knowledgeable and experienced than contract workers, and that contract labor "has more costs and inefficiencies compared to a directly employed workforce."[10]

Q. Is it appropriate to continue analyzing in-house and contract labor separately?

A. Yes. Given the differences in the labor types, it is appropriate to analyze them separately. It is a longstanding practice of the Commission to examine in-house labor using the three-year W&S Model, which adjusts the Company's actual historical labor costs for inflation and FTE changes to determine an appropriate Test Year amount. It is appropriate to continue analyzing in-house labor in this manner, and to consider contract labor separately.

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[10] PGE/1400, Mersereau–Van Oostrum–Batzler/10-11.

Q. Does the separate examination of in-house and contract labor costs inhibit PGE's ability to appropriately recover labor costs in rates?

A. No. As noted in my Opening Testimony, PGE is free to argue that its present circumstances warrant an increase in contract labor costs in conjunction with a demonstration that such an increase is necessary. It is a common ratemaking practice to base Test Year inclusions on historical costs, with appropriate adjustments where necessary. However, rather than bringing forth specific arguments to demonstrate that an increase is warranted, PGE continues to argue in favor of artificially inflating its contract labor costs by using dollars from in-house labor. As noted in my Opening Testimony, this self-serving proposal would benefit PGE by reducing the negative adjustment produced by Staff's W&S Model and would obscure the cost associated with each labor category.

Q. Does PGE project that its Test Year contract labor costs will increase over 2023 actuals?

A. No. PGE's request in this case, as well as its actual contract labor costs over 2021-2023, suggest that contract labor costs will decrease in the Test Year. As discussed previously, PGE initially proposed a Test Year contract labor inclusion of $54 million, which includes a $14 million increase applied by the Company. PGE's actual 2023 contract labor cost was approximately $60.5 million, as shown previously. Even after inflating its Test Year contract labor estimate by $14 million, PGE's proposal represents a decrease compared to 2023 levels.

Q. Does Staff's recommendation represent an overall increase to PGE's labor costs when considering both in-house and contract labor?

A. Yes. Including the FTE adjustments discussed later in this testimony, Staff proposes a total of $438.5 million across all labor types (straight time, overtime, and contract labor). This proposal represents an increase of $5.89 million over 2023 actuals, which totaled $432.6 million. In contrast, PGE proposes total Test Year labor of $470.37 million, as shown in the following table,[11] which represents an increase of $37.75 million over 2023 actuals.

FIGURE 3: PGE'S TOTAL TEST YEAR LABOR PROPOSAL

	2023 Actuals (1)	2024 Budget	2025 Test Year (3)
Salaried Straight Time	$204,136	$223,922	$224,846
Union Straight Time	$62,436	$74,236	$80,528
Hourly Straight Time	$17,680	$21,535	$22,344
Union Overtime	$32,631	$24,476	$25,855
Hourly Overtime	$1,378	$962	$1,083
Temporary PGE Labor	$2,628	$2,299	$2,386
Contract Labor	$60,480	$37,573	$54,083
Paid Time Off (PTO)	$51,252	$56,237	$59,249
Total Wages & Salaries (2)	**$432,621**	**$441,240**	**$470,372**

(1) Actuals do not include Level 3 storm outage labor.
(2) Numbers may not sum due to rounding.
(3) 2025 amounts are net of PGE's pre-filing adjustments.

Figures in 000's

The increase proposed by PGE is inappropriately large, especially considering the Company's recent trends in actual labor costs.

Q. When considering all labor categories, how does PGE's Test Year proposal compare to recent trends?

[11] PGE/300, Trpik-Mersereau-Batzler/18, Table 8, April 3, 2024, Errata filing.

A. As shown in the following table, across all labor types, PGE's actual costs increased by a total of 2.2 percent, or approximately $9.4 million, between 2021 and 2023.

FIGURE 4: PGE'S ACTUAL TOTAL LABOR COSTS

	2021[12]	**2022**[13]	**2023**[14]
Salaried Straight Time	$173,896	$193,479	$204,136
Union Straight Time	$55,318	$59,576	$62,436
Hourly Straight Time	$17,605	$17,609	$17,680
Union Overtime	$32,903	$28,879	$32,631
Hourly Overtime	$1,764	$1,093	$1,378
Temporary PGE Labor	$2,907	$2,996	$2,628
Contract Labor	$94,676	$77,974	$60,480
Paid Time Off (PTO)	$44,109	$46,527	$51,252
Total	**$423,177**	**$428,132**	**$432,621**
% Change		1.2%	1.0%

Figures in 000's

By contrast, PGE's request in this proceeding represents an increase of $37.75 million, or approximately 8.7 percent, over 2023 actuals, and an increase of $29.13 million, or 6.6 percent, over the Company's 2024 budget. This large increase greatly exceeds PGE's recent historical trends, and PGE has not justified the need for such a large increase.

Q. Do PGE's internal budgets have any bearing on ratemaking?

A. No. PGE argues that its internal budgets must include costs for in-house labor, even if those positions are ultimately filled by contract labor.[15] While that may be the case, this argument has no relationship to the Commission's

[12] Staff/1202, PGE's Response to Staff's DR 275.
[13] Staff/1202, PGE's Response to Staff's DR 275.
[14] PGE/300, Trpik-Mersereau-Batzler/18, Table 8, April 3, 2024, Errata filing.
[15] PGE/1400, Mersereau–Van Oostrum–Batzler/7 at 17-19.

decision-making regarding the overall amount of labor costs to be included in the Company's revenue requirement. The Commission determines an appropriate total revenue requirement for the Company. PGE is free to utilize contract labor and to utilize its financial resources for that purpose as needed.

Q. Please respond to PGE's statement that it opposes the use of the Three-year W&S Model.

A. The Commission has a longstanding history of using the W&S Model to determine the appropriate Test Year wage inclusion for in-house labor, and PGE has not demonstrated that present circumstances warrant a departure from the Commission's longstanding methodologies. The use of Staff's W&S Model is not only a longstanding practice, but has repeatedly been affirmed by the Commission as an effective means of calculating the wage inclusion as it "incorporates actual market-based data by using actual historic wages as a starting point, but also ensures the utilities are incented to minimize labor costs by using the All-Urban CPI to escalate historic wages to the test year."[16] The circumstances affecting the Company's Test Year wage inclusion are not materially different in this case compared to any other case in which the Commission has previously reaffirmed the use of the W&S Model. Specifically, the Company meets its labor needs with a combination of straight-time, overtime, and contract labor, which may fluctuate from year to year. While the Company insists that it is inappropriate to analyze its different labor types

[16] See Order Nos. 01-787 at 39-40 and 20-473 at 102.

separately, Staff maintains that the use of the W&S Model—which examines straight time and overtime separately from contract labor—is appropriate.

Q. Did PGE propose any changes with regard to union labor?

A. No. PGE did not include any discussion of union labor in its Reply Testimony.

Q. Has Staff's recommendation for wages and salaries changed since its Opening Testimony position?

A. No. Staff continues to recommend an adjustment of ($3,808,938), which is allocated ($2,254,891) to O&M and ($1,554,047) to capital.

ISSUE 2. FTE

Q. Please summarize the Company's initial proposal for FTEs.

A. PGE proposed 2,903 total FTEs in the Test Year, as summarized in the following table.[17]

FIGURE 5: PGE'S FTE PROPOSAL

Employee Type	FTE
Exempt	1,859
Hourly	371
Officer	10
Union	663
Total	**2,903**

This figure includes a 100 FTE reduction related to PGE's $11.7 million adjustment for vacancies and unfilled positions.[18] This figure also reflects the removal of 128 FTEs from the Exempt employee category in conjunction with PGE's proposal to shift costs from straight-time to contract labor, which was discussed previously.[19]

Q. Please summarize Staff's analysis and recommendations as described in its Opening Testimony.

A. Staff recommended including 2,817 FTEs in the Test Year. This figure was calculated by escalating PGE's actual December 2023 FTE counts by the Company's historical FTE growth rate of 0.7 percent per year through 2025. For the purpose of applying Staff's recommended FTE reduction in the W&S Model, Staff reversed PGE's removal of 128 FTEs related to the Company's

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[17] Staff/1202, PGE's Response to Staff's DR 92.
[18] Staff/1202, PGE's Response to Staff's DR 266.
[19] Staff/1202, PGE's Response to Staff's DR 461, Attachment 461-A.

proposed shift of costs from straight-time to contract labor. With this change, PGE's unadjusted Test Year proposal is 3,030 FTEs. Staff applied its 2,817 FTE recommendation against this amount, resulting in an overall reduction of 213 FTEs. Using average salaries as adjusted by Staff's Wage & Salary adjustments (discussed previously), Staff's recommendation resulted in an overall adjustment of ($28,057,324), which was allocated ($16,609,936) to O&M and ($11,447,388) to capital.

Q. Did any intervenors make specific recommendations related to the Company's overall FTE levels?

A. Yes. As discussed previously, AWEC recommended that PGE's FTEs be held constant at 2023 levels for the purpose of determining the appropriate labor cost inclusion. PGE's actual FTE count in December 2023 totaled 2,776.[20]

Q. Please respond to AWEC's proposal to hold PGE's FTE levels constant at 2023 levels.

A. AWEC's proposal relates to its stance that PGE's labor adjustments, including the ($11.7) million adjustment for unfilled positions and the $14 million shifting adjustment for contract labor, are "undocumented and largely arbitrary."[21] Staff does not disagree with this position. However, Staff recognizes that the Company's actual FTE counts over 2021-2023 reflect a slight annual increase. Staff's recommendation incorporates this increase while reversing the effects of PGE's proposed $14 million shifting adjustment. As discussed previously,

[20] Staff/1202, PGE's Response to Staff's SDR 92.
[21] AWEC/100, Mullins/41 at 5.

the result of Staff's recommendation is an increase of $5.89 million over 2023 actuals across all labor types (straight time, overtime, and contract labor). Staff's recommendation represents an appropriate level for PGE's labor costs.

Q. Please summarize PGE's Reply Testimony position.

A. PGE continues to argue in support of the proposals reflected in its Opening Testimony, stating that "Staff's proposed reduction of 213 FTEs, which equates to approximately $28 million, is excessive and unfounded."[22] PGE also states that Staff "lack[s]…engagement in meaningful and productive solutions to incorporate contract labor to a Test Year forecast while allowing the flexibility to fill PGE positions[.]"[23] Additionally, PGE states that "Staff and AWEC's proposals, if adopted, would also have detrimental impacts on future rate cases and artificially restrict PGE's ability to directly employ and promote a right-sized workforce at the peril of customers and PGE."[24] PGE also argues that Staff's adjustments are duplicative in some areas. PGE recommends that the Commission reject Staff's and AWEC's proposals.

Q. Does Staff agree with PGE's assertion that Staff's recommended FTE adjustment is "excessive and unfounded"?

A. Staff disagrees. As explained previously, Staff's adjustment is based on historical trends in the Company's in-house FTE counts. Staff's methodology to escalate PGE's actual FTEs based on the recent historical growth rate was

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[22] PGE/1400, Mersereau–Van Oostrum–Batzler/9 at 18-19.
[23] PGE/1400, Mersereau–Van Oostrum–Batzler/11 at 7-9.
[24] PGE/1400, Mersereau–Van Oostrum–Batzler/11 at 11-13.

adopted previously in Docket No. UE 197.[25] Since Staff's methodology utilizes actual historical figures and has been previously adopted by the Commission, the resulting adjustment is neither excessive nor unfounded.

Q. Does PGE dispute Staff's methodology to establish FTEs based on the Company's actual historical growth rate?

A. No. While PGE opposes Staff's adjustment, the Company offers no specific criticisms of Staff's proposed methodology.

Q. Does Staff agree with PGE's assertion that Staff lacks "engagement in meaningful and productive solutions to incorporate contract labor to a Test Year forecast while allowing the flexibility to fill PGE positions[.]"?

A. Staff disagrees and notes that PGE carries the burden of proof with regard to justifying its costs in this proceeding. Staff's position is that in-house and contract labor should be analyzed separately—consistent with the years-long standard treatment of these issues—and that PGE should therefore demonstrate its distinct Test Year needs for both in-house and contract labor. As also discussed elsewhere in this testimony and noted in my Opening Testimony, PGE is free to demonstrate a need for increased contract labor costs compared to historical trends. However, PGE has not made such a demonstration, instead arguing in favor of a methodology that seeks to blur the lines between distinct labor types and ignore the Commission's established precedent regarding the estimation of labor costs for rate case purposes.

[25] See Order No. 09-020 at 8.

Q. Does Staff agree with PGE's assertion that the adoption of Staff's recommendations would "have detrimental impacts on future rate cases and artificially restrict PGE's ability to directly employ and promote a right-sized workforce at the peril of customers and PGE."?

A. Staff disagrees. First, as described in my Opening Testimony, Staff's recommendations in this case are not new—previous rate cases have utilized Staff's W&S Model as well as the historical FTE growth rate to estimate appropriate in-house staffing levels.[26] The adoption of Staff's recommendations in this case would not represent a departure from past practice that would have major implications for future cases. Second, as discussed elsewhere in this testimony, the labor dollars included in PGE's revenue requirement are fungible—PGE is not restricted from using dollars included for in-house labor to pay for contract labor, or vice versa, to meet its actual labor needs. As described previously, Staff's proposed total wage recommendation—inclusive of straight-time, overtime, and contract labor—represents an increase of $5.89 million over 2023 actuals. As such, Staff's recommendation provides PGE sufficient resources to meet its labor needs.

Q. Please respond to PGE's assertion that Staff's Opening Testimony included duplicative adjustments related to FTEs.

A. PGE noted that, in addition to Staff's overall FTE adjustment, Staff's Opening Testimony included reductions for virtual power plant and electric vehicle field operations FTEs in exhibits 1700 and 2200, respectively. Those adjustments

[26] Staff/1200, Yamada/3-4 and Staff/1200, Yamada/14 at 1-3.

are removed from Staff's Rebuttal Testimony, as described in the testimony of Staff Witnesses Curtis Dlouhy and Eric Shierman, respectively. Since Staff's overall FTE recommendation establishes the Company's FTEs at an appropriate level on a company-wide basis, all necessary FTE adjustments are included in Staff's overall FTE reduction.

Q. Has Staff's FTE recommendation changed compared to its Opening Testimony?

A. No. Staff continues to recommend a total adjustment of ($28,057,324), which is allocated ($16,609,936) to O&M and ($11,447,388) to capital.

Q. Please summarize Staff's recommendations for labor.

A. Staff's recommendations, including adjustments to base salaries, FTEs, and the reversal of the $14 million straight time/contract labor shift, total ($31,866,262), as summarized in the following table.

FIGURE 6: STAFF'S TOTAL WAGE ADJUSTMENTS

Category	Base Salary	Overtime	Contract Labor	Total
PGE Proposed Total	**389,349,376**	**26,940,503**	**54,082,608**	**470,372,487**
Shift Reversal	14,000,000	-	(14,000,000)	-
Subtotal	**403,349,376**	**26,940,503**	**40,082,608**	**470,372,487**
Staff Adjustment - CPI	(3,808,938)	-	-	(3,808,938)
Staff Adjustment - FTEs	(28,057,324)			(28,057,324)
Staff Proposed Total	**371,483,114**	**26,940,503**	**40,082,608**	**438,506,225**
Net Staff Adjustment	**(17,866,262)**	**-**	**(14,000,000)**	**(31,866,262)**

This amount is allocated ($18,864,827) to O&M and ($13,001,435) to capital.

ISSUE 3. INCENTIVES

Q. Please summarize the Company's initial proposal for incentives.

A. The Company proposed to include incentives totaling $17.937 million in the Test Year, as summarized in the following table.[27]

FIGURE 7: COMPANY PROPOSED INCENTIVES

Total Incentives ($000)

Incentive Plans	2023 Actuals	2024 Budget	2025 Test Year(1)
Annual Cash Incentive (combined ACI/PIC)	$27,865	$31,124	$14,257
Stock (long-term incentive plan)	$16,908	$17,392	$3,668
One-time recognition and Miscellaneous	$57	$23	$12
Total Incentives(2)	**$44,830**	**$48,540**	**$17,937**

(1) *Amounts are net of PGE's pre-filing adjustments.*
(2) *Numbers may not sum due to rounding.*

The Company's proposal reflects the removal of 50 percent of the cost of non-officer incentives and 100 percent of officer incentives.[28]

Q. Please summarize Staff's analysis and recommendations as described in its Opening Testimony.

A. Staff agreed with PGE's proposal to exclude 100 percent of officer incentives and 50 percent of non-officer incentives. However, Staff argued that PGE's starting figure for calculating the incentives inclusion was too high and recommended calculating non-officer incentives based on the average of 2021-2023 actuals instead. Specifically, Staff recommended an incentives inclusion of $16.1 million rather than the $17.9 million proposed by PGE. Staff's recommendation resulted in an adjustment of ($1,796,270), which was

[27] PGE/300, Trpik-Mersereau-Batzler/22, Table 10, April 3, 2024, Errata filing.
[28] PGE/300, Trpik-Mersereau-Batzler/21-22.

allocated ($1,063,392) to O&M and ($732,878) to capital. Additionally, Staff recommended a rate base adjustment of ($1,872,052) to remove half of capitalized incentives from rate base.

Q. Did any intervenors make specific recommendations related to the Company's incentives costs?

A. Yes. Both AWEC and the Citizens' Utility Board (CUB) propose to remove the entirety of the $3.668 million attributable to stock incentives as shown in the previous table. Additionally, CUB proposes to reduce the inclusion for cash incentives from 50 percent to 25 percent.

Q. Please summarize PGE's Reply Testimony position.

A. PGE continues to argue in support of the initial request reflected in its Opening Testimony and recommends the Commission reject Staff's and other parties' proposed adjustments to incentives. PGE argues that Staff's adjustment "does not account for either inflation or changes in the employee headcount at PGE,"[29] and that incentives should be "based on a set percentage of employee pay."[30] With regard to Staff's proposed adjustment for capitalized incentives, PGE argues that it is "entirely erroneous," stating that "Staff mistakenly concluded that these incentives were not subject to a pre-filing adjustment, which is incorrect."[31]

Q. Does Staff agree with AWEC and CUB that removing the entirety of the $3.668 million attributable to stock incentives is appropriate?

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29 PGE/1400, Mersereau–Van Oostrum–Batzler/14 at 6-7.
30 PGE/1400, Mersereau–Van Oostrum–Batzler/14 at 9.
31 PGE/1400, Mersereau–Van Oostrum–Batzler/15 at 10-13.

A. Yes. While Staff did not include this adjustment in its Opening Testimony, Staff agrees that such an adjustment is appropriate. As discussed in my Opening Testimony, the Commission historically disallows incentives at levels of 100, 75, or 50 percent, depending on the degree to which the award of such incentives benefits shareholders as compared to customers. Officer incentives, for instance, are 100 percent disallowed because they depend entirely upon meeting shareholder expectations. In this case, when asked by Staff in DR 264 to provide documents explaining the metrics by which employees are awarded each type of incentive, PGE did not provide any information related to how employees earn stock incentives. However, PGE describes its stock incentives as incentivizing "senior leaders…to act in the long-term interest of PGE."[32]

Awarding Company stock to employees clearly incentivizes those employees to act in the interest of shareholders. Consequently, it is appropriate to remove the value of stock incentives from customer rates.

Q. Does Staff agree that CUB's proposal to reduce the inclusion for cash incentives from 50 percent to 25 percent is appropriate?

A. Yes. Although Staff initially agreed with PGE's proposed 50 percent inclusion, a 25 percent inclusion is appropriate. As discussed previously, the Commission typically disallows incentives costs at three tiers depending on the

32 PGE/1400, Mersereau–Van Oostrum–Batzler/17 at 7-8.

degree to which customers vs. shareholders benefit. The stated goals of PGE's Annual Cash Incentive (ACI) Plan are shown in the following figure.[33]

FIGURE 8: GOALS OF ANNUAL CASH INCENTIVE PLAN

[BEGIN CONFIDENTIAL]

[redacted]

[END CONFIDENTIAL]

As shown here, **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**, which primarily benefits shareholders.

[33] Staff/3301, PGE's Response to Staff's DR 264, CONFIDENTIAL Attachment C, "Annual Cash Incentive Plan FAQs."

Assuming the remaining categories benefit customers and shareholders equally, the overall effect of the ACI can be expected to provide more benefits to shareholders than to customers. Consequently, the ACI can be considered a “performance-based incentive,” which is subject to 75 percent exclusion from rates.

Q. Has Staff’s recommendation related to Test Year incentives changed since its Opening Testimony?

A. Yes. Compared to its Opening Testimony position, Staff recalculated the inclusions for incentives, removed the portion attributable to stock awards, and reduced the ACI inclusion from 50 percent to 25 percent. Staff’s revised proposal for incentives totals $6.576 million, as summarized in the following table.

FIGURE 9: STAFF’S REVISED INCENTIVES CALCULATION

PGE Salary Proposal:	Staff Salary Proposal:
$403,349	**$371,483**

Incentive Type	PGE Calculation (Prior to Adjustment)	% of Salaries	Staff Calculation	Staff Inclusion	Staff Proposal
ACI	$28,514	7.07%	$26,261	25%	$6,565
Stock	$7,336	1.82%	$6,756	0%	$0
One-Time, Misc.	$24	0.01%	$22	50%	$11
Total	**$35,874**	**8.89%**	**$33,040**		**$6,576**

Dollars in 000’s

This results in an adjustment of ($11.361) million compared to the Company's request. Staff allocates this adjustment to O&M and capital in the same manner described in its Opening Testimony.

Q. Does Staff agree with PGE's assertion that Staff's Opening Testimony position did not account for inflation or changes in employee headcount, and that incentives should be calculated based on a percentage of employee pay?

A. Staff agrees. Staff's revised proposal for incentives addresses these issues. As shown in the previous table, Staff first calculated the annual total attributable to each incentive category using the ratio of incentives to salaries reflected in PGE's filing. Staff then applied these percentages to Staff's wage proposal of $371.483 million, which incorporates CPI changes as well as Staff's recommendations regarding FTEs. Consequently, Staff's revised recommendation accounts for changes in inflation and employee headcount and is calculated based on a percentage of employee pay.

Q. Would Staff's proposed reductions prohibit the Company from continuing to offer employee incentives?

A. No. The point of Staff's adjustments is to align the amounts charged to customers with the benefits received. While PGE is free to continue offering incentives to employees, those costs should primarily be borne by shareholders as the incentives primarily benefit shareholders. Since the majority of PGE's incentives costs are simply ineligible for inclusion in customer rates, any future decision by PGE to reduce or eliminate incentives provided to employees can be attributed to the Company's unwillingness to recover those costs from shareholders.

Q. Please respond to PGE's assertion that Staff's adjustment for capitalized incentives is erroneous.

A. As noted by PGE, Staff's Opening Testimony position on capitalized incentives was based on PGE's response to Staff's DR 265. In that request, Staff asked the Company to identify any incentives included in the Test Year rate base, including whether the included amounts had been "adjusted in accordance with standard Commission practices."[34] In response, PGE stated that its rate base includes $3,744,103 in incentives, and that it only capitalizes merit-based incentives. PGE did not indicate that the stated total had already been adjusted to comply with Commission precedent. Consequently, Staff removed 50 percent of the stated total in line with the standard treatment for merit-based incentives.

Now, PGE accuses Staff of "mistakenly conclud[ing] that these incentives were not subject to a pre-filing adjustment, which is incorrect."[35] However, PGE offers no evidence to show that this statement is accurate, nor does it provide any details on the calculation of its alleged pre-filing adjustment. Consequently, Staff is not swayed to modify its Opening Testimony position regarding capitalized incentives. Staff continues to recommend a rate base adjustment of ($1,872,052) related to capitalized incentives.

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[34] Staff/1202, PGE's Response to Staff's DR 265.
[35] PGE/1400, Mersereau–Van Oostrum–Batzler/15 at 12-13.

ISSUE 4. DIRECTORS AND OFFICERS INSURANCE

Q. Please summarize the Company's initial proposal for Directors and Officers insurance.

A. PGE proposed to include $1,005,333 attributable to D&O insurance, reflecting the removal of 50 percent of these costs.[36]

Q. Please summarize Staff's analysis and recommendations as described in its Opening Testimony.

A. Staff recommended an adjustment of ($219,473) to align the included amount with recent actuals. Staff argued that PGE's starting figure prior to applying a 50 percent reduction seemed high, noting that PGE provided no justification for the proposed 21 percent increase over 2023 actuals.

Q. Please summarize PGE's Reply Testimony position.

A. PGE did not indicate that its position regarding D&O insurance has changed. However, PGE noted that its D&O insurance costs increased by 5.8 percent annually over 2021-2023, and that applying that percentage to 2023 actuals produces a figure of $1,854,076.[37]

Q. Did any intervenors provide recommendations with regard to D&O Insurance?

A. No.

Q. Has Staff's position changed since its Opening Testimony?

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[36] Staff/1202, PGE's Response to Staff's DR 276.
[37] PGE/1400, Mersereau–Van Oostrum–Batzler/36 at 15-17.

A. Yes. Staff finds the annual figure of $1,854,076 cited by PGE to be reasonable. Applying the 50 percent reduction to that amount results in a revised Staff adjustment of ($78,295).

ISSUE 5. OTHER ADJUSTMENTS & SUMMARY

Q. Do Staff's recommended adjustments to wages, incentives, FTEs, and D&O insurance, as discussed previously in this testimony, result in other related adjustments to the Test Year?

A. Yes. As discussed in my Opening Testimony, Staff's adjustments in these areas also result in associated reductions to depreciation expense and payroll tax. Figure 10 shows the result of Staff's revised recommendations on those items.

Q. Please summarize the adjustments described in your testimony.

A. The Oregon-allocated adjustments reflected in my testimony are summarized in the following table.

FIGURE 10: SUMMARY OF STAFF'S ADJUSTMENTS – OREGON

Description	O&M	Capital	Total
Salaries & Wages	($2,254,891)	($1,554,047)	($3,808,938)
Overtime	$0	$0	$0
FTE Adjustment	($16,609,936)	($11,447,388)	($28,057,324)
Incentives	($6,725,437)	($4,635,099)	($11,360,536)
Capitalized Incentives		($1,872,052)	($1,872,052)
D&O Insurance	($78,295)	$0	($78,295)
Depreciation Expense	($557,150)	$0	($557,150)
Payroll Taxes	($1,769,978)	$0	($1,769,978)
Total	**($27,995,687)**	**($19,508,585)**	**($47,504,272)**

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: STEPH YAMADA

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3301

CONFIDENTIAL
Exhibits in Support
Of Rebuttal Testimony

September 10, 2024

This exhibit is CONFIDENTIAL.

CASE: UE 435
WITNESS: Dustin Ball

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3400

REDACTED
Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Dustin Ball. I am a Senior Utility Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. I provided Opening Testimony in Staff/800, and my Witness Qualifications Statement can be found in Exhibit No. Staff/801.

Q. What is the purpose of your testimony?

A. In this testimony I reiterate my proposed adjustments and rebut Reply Testimonies of Anne Mersereau, Ryan Van Oostrum, and Greg Batzler in Exhibit No. PGE/1400, Kellie Cloud, Franco Albi, and Kevin Putnam in Exhibit No. PGE/1600, and Debbie Powell and Brian Clark in PGE/1700.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/3401, Exhibits in Support of Rebuttal Testimony, consisting of seven pages, and Staff/3402, Confidential Exhibits in support of Rebuttal Testimony, consisting of 14 pages.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. PROPERTY INSURANCE

Q. Please summarize Staff's position discussed in your Opening Testimony related to property insurance.

A. Staff's proposal in Opening Testimony was a downward adjustment to the Company's forecasted property insurance of $2,149,000, attributable to updating PGE's cost for 2024 to the actual cost as well as removing the escalation factor for 2025.

Q. How does PGE respond to Staff's proposed adjustment?

A. In Reply Testimony PGE objects to Staff's proposal to disallow an escalation rate for property insurance arguing that the cost of repairs to property will increase over time and that excess property insurance coverage as well as the deductible buy down program both remain in the secondary insurance markets for commercial insurance pricing.

Q. Did PGE object to Staff's proposed methodology to use actual costs rather than forecasted premiums?

A. Not directly. While the Company did not provide any direct objection or counter arguments to Staff's actual cost methodology, the Company is unsupportive of Staff's overall adjustments and asks the Commission to uphold PGE's original 2025 Test Year forecast.[1]

Q. Does Staff find the Company's proposal to be reasonable?

A. No. Staff does not believe PGE's proposal to maintain its original 2025 forecast is reasonable. In discovery, PGE reported that while it originally forecasted

[1] PGE/1400, Mersereau – Van Oostrum – Batzler/37, lines 10-15.

2024 property insurance premiums of **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**.[2] Staff does not believe it is reasonable to ignore the fact that the 2024 actual expenditure was below PGE's original forecast when determining the appropriate amount to include in customer rates when projecting costs for the 2025 test period. Although PGE apparently does not agree with respect to this particular cost; PGE itself specifically called out an instance Staff had not updated to the most recent Workers' Compensation premium amount, which renewed on July 1, 2024.[3]

Q. Please address PGE's objection to Staff's proposal to apply no escalation factor to the 2024 rate for purposes of forecasting costs for 2025.

A. Staff has not received any documentation from PGE to support the forecasted 9.4 percent increase other than an unverified statement indicating it received oral input from a third-party broker. While PGE states it disagrees with Staff's proposal, the Company has yet to provide adequate documentation to justify such growth under a post-loss property insurance model.[4]

Q. How does Staff respond to PGE's claims that, while it has moved to a post-loss insurance model, certain components of the program remain

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2 PGE Response to Standard Data Request (SDR) 68.
3 PGE/1400, Mersereau – Van Oostrum – Batzler/35, Lines 6-13.
4 PGE/1400, Mersereau – Van Oostrum – Batzler/31, lines 8-19.

in the commercial insurance market and are subject to inflationary factors.

A. Again, Staff has not received any documentation to support a 9.4 percent increase from the 2024 property insurance levels. While it may be true that certain elements of the newly structured post-loss model could be subject to inflationary factors and/or commercial insurance pressures, PGE did not provide adequate documentation to Staff when directly asked in discovery.[5]

Q. If the Commission decided to apply an escalation factor for property insurance, would it be appropriate to use PGE's proposed factor of 9.4 percent?

A. No. If the Commission were to apply an escalation factor Staff does not believe the 9.4 percent would be appropriate as there has been no documentation to support this factor.

Q. Is there an alternative factor Staff would suggest the Commission apply?

A. While Staff's position remains unchanged from Opening Testimony with a recommended reduction amount of $2,149,000, if the Commission desired to apply an escalation factor, Staff would recommend applying a factor of no greater than seven percent as indicated in the most recent MarketScout quarterly report of the industry's composite rate index for Commercial Property Insurance.[6]

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5 Staff/802, PGE Response to Staff DR 545.
6 Staff/3401, MarketScout Quarterly Report for the 2nd quarter.

Q. If a seven percent escalation factor were applied to the updated 2024 actual property insurance value, how would it impact Staff's proposed adjustment to property insurance as outlined in Opening Testimony?

A. If a seven percent escalation factor were to be applied to all elements of the 2024 property insurance program, Staff's adjustment would decrease from a reduction of $2,149,000 as outlined in Opening Testimony, to a reduction of $1,827,420.

ISSUE 2. CASUALTY INSURANCE

Q. Please summarize Staff's position discussed in your Opening Testimony related to casualty insurance.

A. Staff's proposal in Opening Testimony was a series of downward adjustments to the Company's forecasted casualty insurance as follows:

- General and Auto Liability -$4,637,841
- Workers' Compensation Insurance -$250,032
- Cyber Liability Insurance -$227,876
- Policy Holder Credits/Bonuses -$482,020

Much like Staff's adjustment to property insurance, the above adjustments were arrived at by updating PGE's 2024 forecasted costs with actual renewal costs (when information was available), and by applying growth factors from MarketScout for each policy line. For policy holder credit/bonus, Staff applied a three-year average of actual amounts received by PGE as an offset to casualty insurance costs.

Q. How does PGE respond to Staff's proposed adjustment?

A. PGE objects to Staff's use of growth rates in the MarketScout quarterly report, indicates that Staff did not use the most recent Workers' Compensation renewal in its calculation, and objects to applying any policy holder credits as an offset to casualty insurance costs on the basis that a credit is not guaranteed in any given year.[7]

[7] PGE/1400, Mersereau – Van Oostrum – Batzler/30-37.

Q. Did PGE object to Staff's proposal to use actual costs rather than forecasted premiums?

A. No, as with Staff's adjustment for property insurance, the Company did not express any direct objection to this proposal.[8] Notwithstanding, the Company asks the Commission to reject Staff's proposed adjustments in their entirety and to uphold PGE's original 2025 Test Year forecast.[9]

Q. How does Staff respond to PGE's objections to using escalation factors from the MarketScout quarterly report?

A. In Reply Testimony, PGE outlines three reasons it does not believe the use of the MarketScout data is appropriate. The Company points out the data in the report is market data and not specific to the utility industry; is backwards looking, examining trends from the prior quarter; is reflective of trends in one specific quarter as opposed to over a longer time period.[10] While Staff agrees that each of these statements is factually true, this does not inherently mean the data is unreliable or not reflective of market trends.

Q. Why does Staff believe continuing to use the MarketScout reports for forecasting 2025 costs is appropriate as opposed to relying on the escalation factors provided by PGE?

A. Staff believes using independent third-party data for U.S. Property and Casualty insurance provides an independent view of insurance premium trends as opposed to Company assumptions that do not appear to have been vetted

[8] PGE/1400, Mersereau – Van Oostrum – Batzler/35, Lines 6-13.
[9] PGE/1400, Mersereau – Van Oostrum – Batzler/37, lines 10-15.
[10] PGE/1400, Mersereau – Van Oostrum – Batzler/33, lines 1-13.

with third-party input. Through discovery, Staff requested documentation with references to source data supporting the factors provided by PGE.[11] In response, PGE directed Staff to the written narrative in the company's Opening Testimony, but provided no documentation or references to source data which would support such factors.

Q. How does Staff respond to the various pressures PGE identified in its Opening and Reply Testimony as reasons why the Company believes its originally forecasted premium increases for casualty insurance, workers' compensation insurance, and cyber liability insurance are more appropriate than Staff's proposal?

A. While PGE and the utility industry have unique exposures and are a unique business model as compared to the overall industry, PGE has not attempted to quantify the impacts of the Company's unique exposures or business model or provided documentation that would support its projected growth rates. Staff stands by the use of independent third-party data for purposes of forecasting future costs in absence of any evidence of how the circumstances PGE describes affect its costs.

Q. How did the actual premium renewals for these lines of coverage compare to PGE's originally forecasted amounts for 2024?

A. For casualty insurance, workers' compensation insurance, and cyber liability insurance, PGE originally estimated premiums for 2024 to be $18.52 million. Through discovery, Staff obtained actual renewal information for these lines of

[11] Staff/3401, PGE Response to Staff DR 256.

coverage indicating an actual cost of $16.85 million, or $1.67 million (roughly nine percent) below what PGE originally forecasted.[12]

Q. Has PGE updated its projections for the 2025 test period based on this updated information?

A. No. In Reply Testimony PGE has requested the Commission accept its original 2025 Test Year forecast.[13]

Q. How does Staff respond to PGE's objection to Staff not using the updated 2024 workers' compensation renewal in calculating its proposed adjustment?

A. Staff does believe it is appropriate to use the updated 2024 workers' compensation renewal data for purposes of projecting the 2025 test period and proposes a slightly smaller reduction as a result.

Q. Does Staff propose any additional modifications to the downward adjustments proposed in Opening Testimony for casualty insurance, workers' compensation insurance, and cyber liability insurance?

A. Yes. While Staff still recommends the use of the MarketScout quarterly report, Staff proposes to update the growth rate for each of these coverage lines to the rates shown in the updated report[14] for the second quarter of 2024.

Q. How do the growth rates from the updated MarketScout quarterly report for the second quarter compare to the first quarter report?

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[12] Staff/802, PGE Response to DR 255 & Staff/3401, PGE Response to DR 607.
[13] PGE/1400, Mersereau – Van Oostrum – Batzler/37, lines 10-15.
[14] Staff/3401, MarketScout Quarterly Report for the 2nd quarter.

A. In the second quarter report, the growth rate for general liability has increased from 3.25 percent to 4.7 percent, the growth rate for workers' compensation remains at 0.0 percent, and the growth rate for cyber liability has decreased from seven percent to 6.7 percent.

Q. What is the revised Staff proposal for casualty insurance, workers' compensation insurance, and cyber liability insurance when using the updated 2024 premium rate for workers' compensation along with the growth rates from the MarketScout quarterly report for the second quarter?

A. Staff's revised adjustments to the Company's forecasted casualty insurance are as follows:

- General and Auto Liability -$4,413,338
- Workers' Compensation Insurance -$222,020
- Cyber Liability Insurance -$230,316

Q. How does Staff respond to PGE's objection to applying any policy holder credits as an offset to casualty insurance costs on the basis that a credit is not guaranteed in any given year.

A. Staff acknowledges that receiving a particular policy holder credit/bonus is not guaranteed in any particular year, and that the amount of a credit in any particular year may vary. Staff's proposed methodology to use a three-year average in determining the offset is as an effort to recognize these fluctuations and to arrive at a reasonable forecast of what PGE may receive in the upcoming test period.

Q. PGE also states that it does not anticipate receiving a rebate from Energy Insurance Mutual Limited (EIM) as an example of why the Company believes the Staff proposed adjustment is unreasonable. How do you respond to this statement.

A. As shown in Table 5 of Staff's Opening Testimony, PGE has historically received numerous individual policy holder credits in each of the past three years.[15] That one of these individual credits may not be received in a particular year does not justify the Company's proposal to disregard the fact that PGE is very likely to continue receiving some level policy holder credits/bonuses in the 2025 test period.

Q. Does Staff propose any modifications to its Opening Testimony proposal regarding Policy Holder Credits/Bonuses?

A. No. Staff maintains its position and continues to support the amount of $482,020 be applied to offset forecasted casualty insurance costs for 2025.

[15] Staff/800, Ball/15.

ISSUE 3. TRANSMISSION AND DISTRIBUTION CAPITAL INVESTMENTS

Q. Please summarize Staff's position discussed in your Opening Testimony related to casualty insurance.

A. Staff proposed two adjustments in Opening Testimony. The first adjustment was a reduction of $8,610,215 related to updating costs of three projects that had closed to plant at a lower than originally forecasted amount. The second adjustment was a reduction of $29,203,451 to remove project contingency amounts from T&D Capital investments.

Q. How does PGE respond to Staff's proposed adjustment to update three projects that had closed to plant?

A. For the three discrete projects that had closed to plant, PGE indicated the Staff adjustment did not account for outstanding invoices and costs that were still being processed after the projects had entered service. PGE further provided updated project costs through July 2024 and proposes to adjust final plant costs for the projects with final values as of December 1, 2024.

Q. What is the impact to the Staff Opening Testimony position if the Commission were to adopt the updated project costs as of July 1, 2024?

A. As shown in Table 1 in PGE's Reply Testimony, actual costs for the three discrete projects identified by Staff as of July 2024 total $51,884,147, or roughly 12.2 percent below the $59,095,237 originally forecasted for plant additions in UE 435.[16] With the updated project costs for these three discrete

[16] PGE/1600, Cloud – Albi – Putnam/30, Table 1.

projects, the Staff adjustment would be ($7,212,092) rather than the ($8,610,215) originally proposed.

Q. How does Staff respond to PGE's proposal to update these three specific projects for the final in service amounts as of December 1, 2024?

A. Staff supports a consistent approach to allowing updates for actual prudently incurred project costs. If PGE is allowed to continually update costs for these three projects, the same treatment should be applied for other projects. At this time, Staff has identified that PGE included $29,203,451 in contingency funding as rate base additions for purposes of UE 435. Staff recommends removing the contingencies and allowing PGE to include only actually incurred costs in rate base.

Q. How does PGE respond to Staff's proposed adjustment to remove T&D capital project contingency amounts from rate base?

A. PGE disagrees with Staff's approach and explains project contingencies are necessary to plan in an uncertain environment to account for timing and cost risks inherent in large projects. PGE requests the Commission reject Staff's proposal to cut all T&D contingencies.[17]

Q. How does Staff respond to PGE's request to reject Staff's proposal related to T&D contingencies.

A. The request by PGE would allow all T&D capital project contingencies to be added to rate base in UE 435 regardless of whether the project encounters

[17] PGE/1600, Cloud – Albi – Putnam/31-33.

unanticipated project expenses. Staff does not support this approach and would maintain its position to remove T&D capital project contingencies from rate base.

Q. Does Staff propose an alternative approach for the Commission to consider?

A. Staff recommends the removal of $29,819,359 in project contingency funds from T&D capital projects with the stipulation that PGE can update rate base to include the actual costs incurred on these projects prior to the rate effective date up to the amount of the individual forecasts assumed for PGE's proposed Test Year. As Staff has identified in the three discrete T&D capital projects discussed above, actual costs appear to have closed to plant at a cost significantly below what PGE initially originally included as rate base additions for UE 435. PGE has acknowledged the cost recorded to date are below its initial estimates but would like to continue to update for any outstanding invoices or project costs through December 1, 2024.[18] It is not reasonable for the Company to pick and choose which projects to update, particularly given the large contingency amounts.

Staff does not intend by its proposal to prevent recovery of actual amounts that exceed the costs assumed in PGE's Test Year forecast. However, if the capital costs exceed those assumed in this rate case, Staff will not have the opportunity to assess the prudence of those costs. Accordingly, if the Commission adopts Staff's proposal to update to actual costs for plant closing

18 PGE/1600, Cloud – Albi – Putnam/30, Lines 8-14.

prior to the rate effective date, PGE should be required to wait until the next rate case to seek recovery of costs that exceed those assumed in revenue requirement in this case.

ISSUE 4. DIESEL PARTICULATE FILTER INSTALLATION PROJECT

Q. Please summarize Staff's position discussed in your Opening Testimony related to the diesel particulate filters (DPF) project.

A. Staff proposed reducing PGE's originally forecasted investments to include only the actual cost for DPF installations that had been completed to date and the project costs for additional DPF installations that were scheduled for completion by the end of 2024. This resulted in an allowable rate base addition of $19.7 million, a reduction of $17.8 million from the amount originally forecasted by PGE.

Q. How does PGE respond to Staff's proposed adjustment to the DPF project?

A. PGE responded by requesting the Commission reject Staff's proposal. PGE stated Staff should have used the May 1 capital project update for the DPF project, which would show a total project cost of $42.9 million and not the $37.5 million used by Staff. Additionally, the Company stated that two specific projects (AWO 1000013191 and 10000013939) shown in discovery with mid-2025 completion dates are now anticipated to be completed mid-December 2024. Finally, PGE objected to Staff's reliance on information provided by the Company in discovery for its adjustment and indicated these costs are not an accurate representation of final project costs due to the information containing unloaded actuals and not including the final amount for its labor placeholder that applies to no specific project.[19]

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[19] PGE/1700, Powell – Clark/20-23.

Q. How does Staff respond to PGE's request that the Commission reject the Staff proposal related to the DPF project.

A. Staff does not believe it would be appropriate to disregard the entirety of the Staff's adjustments related to the DPF program. The scope and cost of this program appears to have been modified by PGE at several points since it was initially included as a rate base addition in UE 435.

Q. Please explain further.

A. PGE initially filed UE 435 with the DPF program at $37.5 million, then on May 1, 2024, updated to what the Company claims is the up to date and correct project cost of $42.9 million. Subsequently on June 11, 2024, PGE responded to Staff's data request with information indicating several of the DPF projects included in Test Year rate base have projected completion dates in 2025 (Account Work Order's (AWO) 1000013919, 1000013937, 1000013939, 1000013954, 1000013885, 1000013897, 10000158207, and 1000013972).[20] In its Reply Testimony, PGE again indicated changing in-service dates for AWO 1000013919 and 100013939, stating the Company was now estimating they would be completed by December 31, 2024.

Q. How does Staff recommend the Commission address the changing nature of program costs and in-service dates for the various components of the DPF Program?

A. Staff recommends the Commission require PGE to provide an officer attestation for the DPF program that will only the allow actual costs for

[20] Staff/802, PGE Response to DR 567 & Staff/3401, PGE Response to DR 568.

completed DPF AWO's that are in service by the rate effective date. Staff recommends this officer attestation include the project completion date and actual project cost for each AWO.

ISSUE 5. IT CAPITAL INVESTMENTS

Q. Please summarize Staff's position discussed in your Opening Testimony related to IT Capital Investments.

A. Staff's proposal in Opening Testimony was to reduce PGE's proposed investments for both Network Fitness and CTO Desktop Fitness to an amount equal to the historical three-year average, this resulted in a proposed reduction amount of $3,662,911. Staff also recommended the Commission require an officer attestation for the Zero Trust and EMS upgrade projects and include the lesser of the actual project costs upon completion of the originally forecasted investment amount for each project.

Q. How does PGE respond to Staff's proposed use of a historical three-year average for purposes of forecasting Network Fitness and CTO Desktop Fitness?

A. PGE objects to this methodology on the basis that a three-year average does not account for different types of items being replaced or account for historical deviations or impacts of ongoing projects. Additionally, PGE indicates the three-year average does not account for inflationary factors.

Q. Given the objections outlined in PGE's Reply Testimony, does Staff believe it is appropriate to continue using a three-year average for purposes of forecasting investments for the 2025 test period?

A. Yes. The Staff position remains the same. The Company's actual investment amounts for Network Fitness have ranged from $3.0 million to $4.5 million annually while the investments for CTO Desktop Fitness have ranged from

$2.6 million to $3.6 million annually. PGE consistently makes management decisions to delay or increase funding for these types of projects in each year.

Q. Does Staff have an example of where PGE would have made a management decision impacting the investment amount in any given year?

A. Yes. As shown in the Project Justification form P37133 for CTO Network Fitness **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**.[21] Additionally, the Project Justification form P37131 CTO Desktop Fitness **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**.[22]

Q. How does Staff respond to PGE's claim that a historical three-year average does not account for inflationary factors.

A. Staff proposes to escalate the three-year average for both Network Fitness and CTO Desktop Fitness for two years of inflation using the 2.2 percent factor identified by Staff.[23]

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21 Funding Project Justification – P37133.
22 Funding Project Justification – P37131.
23 Staff/300, Chipanera/18.

Q. What is the impact to the Staff proposed reduction for Network Fitness and CTO Desktop Fitness after applying the inflationary factors described above?

A. Staffs proposed adjustment is reduced from ($3,662,991) to ($3,341,209).

Q. How does PGE respond to Staff's proposal to require officer attestations for the Zero Trust and EMS upgrade projects?

A. PGE proposes that a fair and balanced attestation approach would include projects with projected in-service dates between October 1 and December 31, with project budgets of $5 million or greater based on the May 1, 2024, capital update filing. PGE asserts a balanced attestation process would reflect a neutral over/under budget to actuals cost position.[24]

Q. How does Staff Respond to PGE's proposal?

A. Staffs position remains the same as in Opening Testimony. The Zero Trust program was forecasted at $5.7 million; the EMS upgrade project was forecasted at $4.3 million, and both projects have a scheduled completion date of December 2024. Staff recommends the Commission require an officer attestation for each project that includes the project completion date, actual project cost and a statement indicating that the investment is used and useful as of December 31, 2024. Staff recommends the Commission include the lesser of the actual project costs upon completion or the originally forecasted investment for each project.

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[24] PGE/1300, Batzler – Meeks/64.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: DUSTIN BALL

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3401

Exhibits in Support
Of Rebuttal Testimony

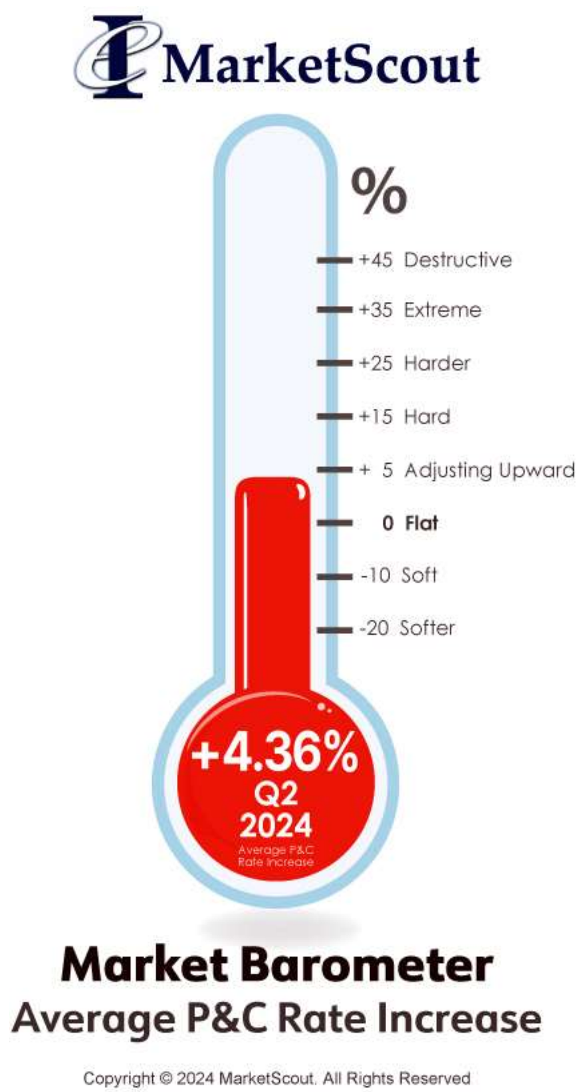
September 10, 2024

Staff/3401
Ball/1

US Property and Casualty Rates Increase Slightly in Second Quarter

Insurers confident in their pricing strategy

The composite rate for US property and casualty insurance increased slightly from 3.9% in the first quarter to 4.36% in the second quarter of 2024.



"Insurers are comfortable with their pricing, and as a result, there was no significant movement in rates for any coverage or industry group," said Richard Kerr, CEO of Novatae Risk Group. "We are at the beginning of hurricane and wildfire season, so property rates could change based on these potentially catastrophic events. But for now, all is steady," added Kerr.

The National Alliance for Insurance Education and Research conducted pricing surveys used in MarketScout's analysis of market conditions. These surveys help to further corroborate MarketScout's actual findings, mathematically driven by new and renewal placements across the United States.

A summary of the second quarter 2024 rates by coverage, cyber liability, industry class and account size is set forth below.

By Coverage Class

Commercial Property	Up 7%
Business Interruption	Up 5%
BOP	Up 5%
ine	Up 4.7%
ıbility	Up 4.7%

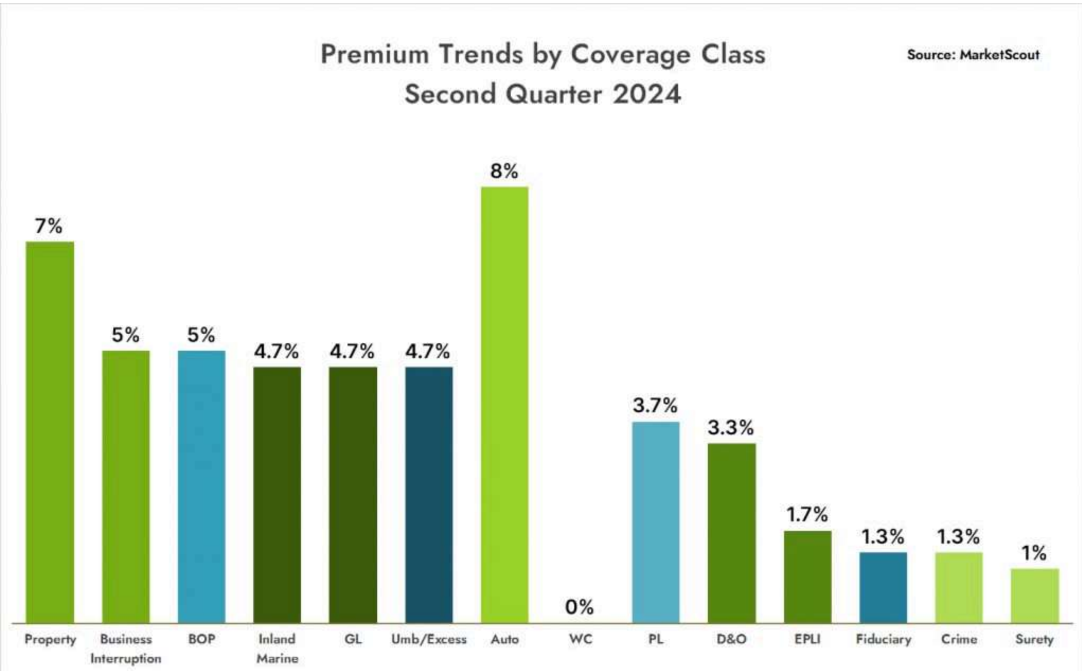
MarketScout's Market Barometer is a quarterly report of the industry's composite rate index for property/casualty and personal insurance. For access to future barometers pricing data please complete the survey.

Take The Market Barometer Survey

For more granular data contact Vilma Scott.
vscott@marketscout.com
Phone #: 972 934 4224

Staff/3401
Ball/2

Umbrella/Excess	Up 4.7%
Commercial Auto	Up 8%
Workers' Compensation	Flat 0%
Professional Liability	Up 3.7%
D&O Liability	Up 3.3%
EPLI	Up 1.7%
Fiduciary	Up 1.3%
Crime	Up 1.3%
Surety	Up 1%



Cyber Liability

Cyber	Up 6.7%

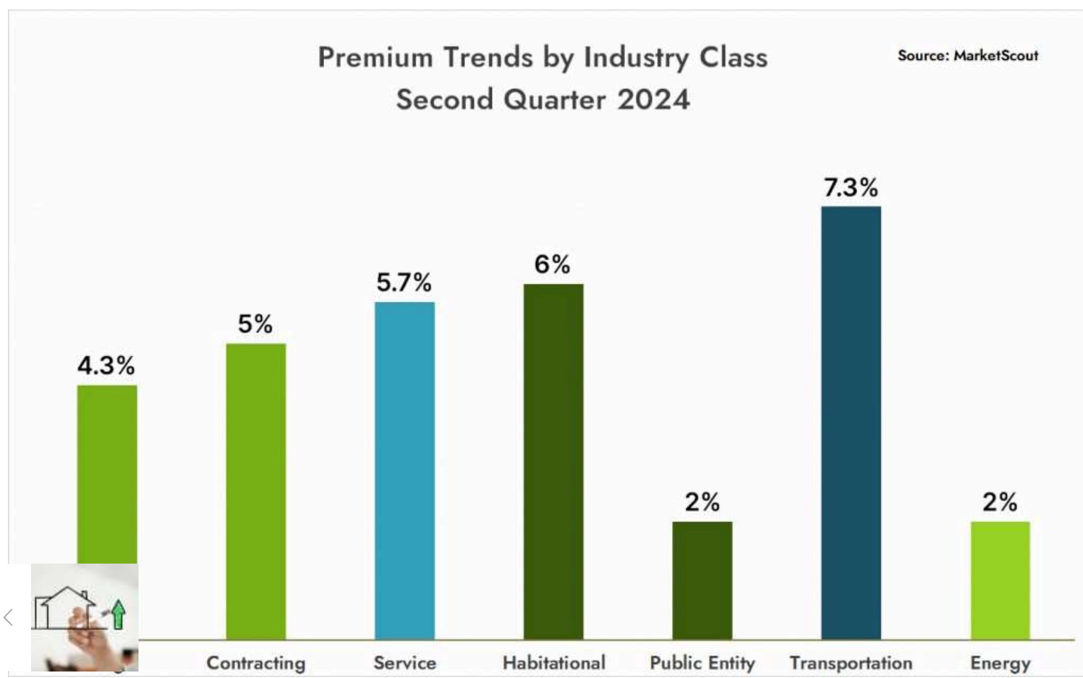
By Account Size

Small Accounts – Up to $25,000	Up 5.7%
Medium Accounts – $25,001 – $250,000	Up 5.3%
Large Accounts – $250,001 – $1 million	Up 4.3%
Jumbo Accounts – Over $1 million	Up 4.3%

Staff/3401
Ball/3

By Industry Class

Manufacturing	Up 4.3%
Contracting	Up 5%
Service	Up 5.7%
Habitational	Up 6%
Public Entity	Up 2%
Transportation	Up 7.3%
Energy	Up 2%



For detailed rating analysis or market projections by industry class, coverage or account size, contact Vilma Scott at vscott@marketscout.com.

About MarketScout, a Division of Novatae Risk Group

Founded in 2000, **MarketScout, a Division of Novatae Risk Group**, is an insurance distribution and underwriting company headquartered in Dallas, Texas. The company is a Lloyd's Coverholder and MGA for US insurers with specialty expertise in workers' compensation, private client solutions, energy, healthcare, fine art, equine, jewelry, professional liability, and many specialty programs. MarketScout's company culture and sense of community encourages growth, learning and collaboration. The company has been named as one of the Best Places to Work in Insurance by Business Insurance for ten consecutive years. In November 2022, MarketScout joined Novatae Risk Group and Richard Kerr was named the combined companies' CEO. California license #0D60423.

May 3, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 256
Dated April 19, 2024

Request:

For each line of Insurance identified in response to DR #68, please provide a detailed explanation on the forecasted change in premium between the 2023 actual, 2024 forecast, and 2025 budget amounts. Please also provide documentation and/or reference to the source date for the forecasted change in premiums.

Response:

For information related to the forecasted change in property insurance premium between 2023 actual, 2024 budget, and 2025 forecast amounts see Exhibit 300 - Corp Support & Compensation pgs. 7-8, as well as our response to OPUC Data Request No. 260.

For information related to the forecasted change in General & Auto insurance premium between 2023 actual, 2024 budget, and 2025 forecast amounts see Exhibit 300 – Corp Support and Compensation pg. 9, lines 11-19.

For information related to the forecasted change in Workers Compensation insurance premiums between 2023 actual, 2024 forecast, and 2025 forecast amounts see Exhibit 300 – Corp Support & Compensation pgs. 9-10, lines 20-3.

For information related to the forecasted change in Cyber Liability insurance premiums between 2023 actual, 2024 forecast, and 2025 forecast amounts see Exhibit 300 – Corp Support & Compensation pg. 10, lines 3-5.

For the remainder of the lines of Insurance identified (D&O, Fiduciary Liability, Nuclear Liability, and Aircraft Hull & Liability), as PGE's assumptions and coverage needs remain largely unchanged in these areas, PGE utilizes publicly available insurance market data to forecast these premiums.

June 11, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 568
Dated May 28, 2024

Request:

Does PGE anticipate any of the originally forecasted DPF installations to not be completed during 2024? If so, please identify the specific projects, and originally forecasted project costs.

Response:

The following DPF Installations may not be completed during 2024:

1. 1000013937-Oregon Health Science Univ – CHH2 and 1000013939-Oregon Health Science Univ – KCRB may be delayed due to site complexity and the necessity of designing new hardware.
   Please see PGE's response to Staff Data Request No. 567 regarding forecasted project costs.
   1000013919-Kaiser Westside Hospital may be delayed due to the necessity of significant hospital disturbance and complex customer negotiations.
   Please see PGE's May 1st plant update workpaper titled "UE 435_Attach 1_Plant Additions Detail - 2024 Additions - 4.29.24" for the originally forecasted project costs in UE 435.

July 5, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 607
Dated June 21, 2024

Request:

As a follow up to DR 549, please provide an update on the Workers Compensation policy renewal.

Response:

PGE's 2024 Workers' Compensations renewal premiums are $557,980.

CASE: UE 435
WITNESS: DUSTIN BALL

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3402

Confidential Exhibits in Support
Of Rebuttal Testimony

September 10, 2024

Exhibit 3402
is
CONFIDENTIAL

CASE: UE 435
WITNESS: LUZ MONDRAGON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3500

REDACTED
Rebuttal Testimony
Routine Vegetation Management
Utility Asset Management

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Luz Mondragon. I am a Senior Financial Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Exhibit No. Staff/1300, and my Witness Qualifications Statement is provided in Exhibit No. Staff/1301.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to PGE's Reply Testimony regarding:

- Routine Vegetation Management
- Utility Asset Management

Q. Did you prepare any exhibits for this docket?

A. Yes, I prepared the following exhibits:

- Exhibit No. Staff/3501: PGE's responses to Staff Data Requests (DR).
- Exhibit No. Staff/3502: 2023 OPUC Report No. E23-53R, Portland General Electric-Vegetation (Systemwide).

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. ROUTINE VEGETATION MANAGEMENT (RVM)

Q. Please summarize Staff's initial proposal regarding Routine Vegetation Management.

A. Staff proposed a reduction of $6.2 million to the Test Year heavily based on Staff recalculating the 2024 and 2025 outside crew costs with current contracts, reducing crew size, and the number of crews needed.

Q. How did the Company respond to the Staff's recommendation as it relates to additional crews and crew members?

A. **[BEGIN CONFIDENTIAL]** [redacted]

[1] PGE/1600, Cloud-Albi-Putnam/13-14.

[redacted] **[END CONFIDENTIAL]**

Q. What was PGE's response regarding Staff calculation of non-contract related Routine Vegetation Management (RVM) costs?

A. PGE took issue with the application of the All-Urban CPI escalator to extrapolate the 2023 non-contract RVM actual spend levels to Staff's recommended 2025 Test Year amount. The Company expressed that the application of an escalation factor for program O&M costs based on CPI is not an appropriate technique for setting Test Year rates—particularly where there

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[2] Id.

is available evidence concerning the Company's actual anticipated cost increases.[3]

Q. What is Staff's response to the Company's reply on this issue?

A. Staff requested the available escalation evidence of the Company's anticipated cost increases referenced in the Company's Reply Testimony. In response, PGE listed data responses previously provided to Staff as the basis and justification of the 2025 Test Year RVM projections.[4] Of the twenty-eight responses listed, half did not address information related to RVM calculations or escalations. Eight responses provided contract labor calculations but no non-contract labor calculations. Four of the data responses addressed Staff data requests asking for explanations of large differences between 2023 actuals and the Test Year forecast for specific Cost Elements, The Company provided responses such as, "may be accounted for in different cost element", "Cost Element is a budget category only" and "effort to more accurately track"[5] with no actual explanation of how items such as Materials & Equipment, Business Expenses, Rents and Leases and Other Taxes had been forecasted.

One of the 28 data request responses did provide information on a method PGE has used to calculate other non-contract crew expenses. In DR 342, PGE describes how RVM projected amounts are arrived at, explaining "RVM cost per mile targets for 2024 and 2025 were projected based on historical average cost per line mile by regions and escalated for contractor

[3] PGE/1600, Cloud-Albi-Putnam/15.
[4] Staff/3501, Company's response to DR 756.
[5] Staff/3501, Company's response to DR 347-350.

labor and equipment rates in 2024." The calculation of the average cost per line mile (CPLM) would include non-contract labor costs and would support the Company's statement. However, UE 416 was the last time this method was used.

For the UE 435 RVM calculation, PGE changed the method in order to calculate a more exact contract labor cost, using crew compliments and rates. PGE stated that "the more accurate way to forecast 2025 outsource crew expense is to use PGE's updated UE 435 crew compliment and updated crew rates…"[6] This method only provides a contract labor forecast and leaves out other RVM related expenses.

Staff did request the RVM cost per mile by region, however in the response the Company references the UE 435 RVM calculation spreadsheet, which no longer provides nor uses that information.[7]

Q. Did Staff complete other analysis of the contract labor forecast?

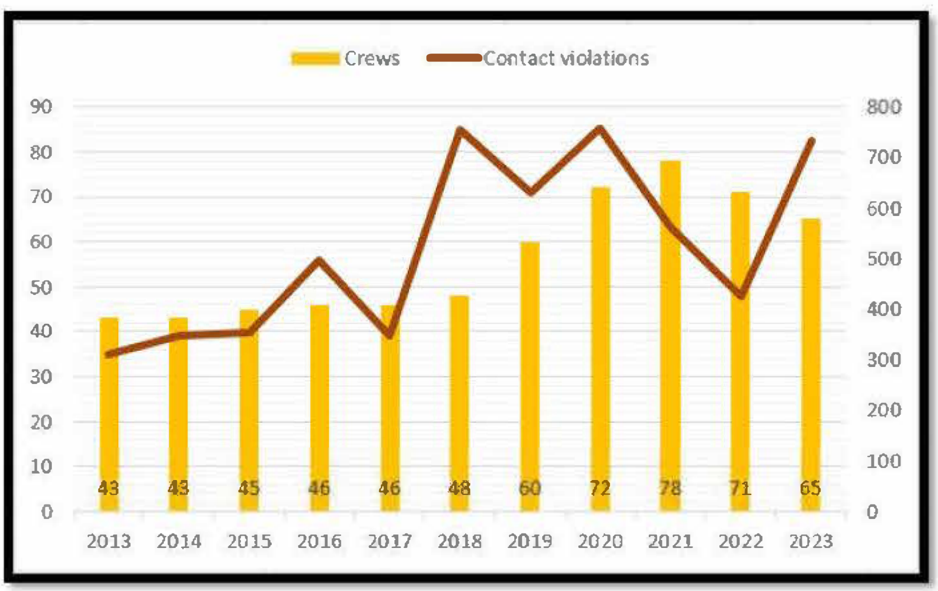
A. Yes. In Staff's attempt to assess whether certain aspects of PGE's outside labor budget are appropriately parameterized, Staff reviewed historical information regarding annual pruning targets, actual line miles completed and crew sizes. PGE's pruning cycle requires that 3,404 miles, or one-third, be completed annually in order to cover their service territory within a three-year period. In UE 435, PGE is targeting 4,700 annual line miles.[8] This is 1,296 more annual line miles than would be required to keep pace and achieve

[6] PGE/1600, Cloud-Albi-Putnam/15.
[7] Staff/3501, Company's response to DR 342.
[8] PGE/1600, Cloud-Albi-Putnam/16. Figure 1.

targets set to meet Division 24 Safety Standards. Additionally, in 2021 and 2022 PGE was able to exceed the 3,404 annual miles with fewer crews; while in 2020, the Company was just forty-two line miles short of meeting that same target. On average, from 2020 to 2023 the Company has been able to complete 3,633 line miles annually using 72 crews.[9]

Staff also reviewed PGE's performance in OPUC's annual vegetation management audit from 2013-2023. First, Staff compared contact violations to spend and number of crews to evaluate if a correlation can be observed. As seen in Figure 1 and 2, a direct correlation between spend and contact violations is not established. 2016 and 2017 as well as 2022 and 2023 illustrate this point. For example, in 2016 and 2017 the same number of crews were employed, yet contact violations decreased by thirty percent in 2017.

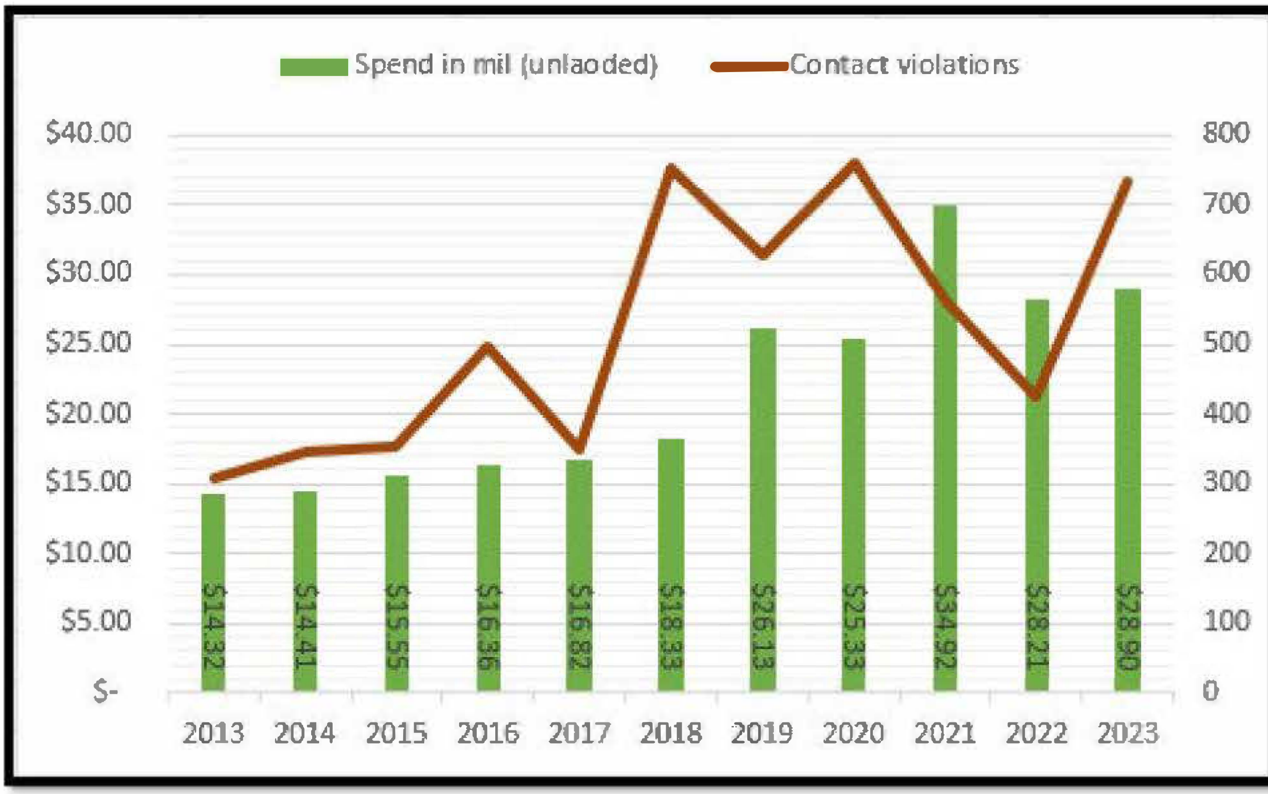
Figure 1: Contract Crews Employed vs Contact Violations



[9] Id.

In 2022 and 2023, PGE's actual RVM spend was similar, but the contact violations increase by forty-two percent in 2023.

Figure 2: Actual Spend vs Contact Violations



Second, Staff reviewed the vegetation management audit reports for remarks from the Safety Staff to take into consideration any concerns resulting from the audits. In the most recent OPUC vegetation management audit, which concluded on August 15, 2023, Safety Staff made the following remarks:

> Staff's analysis concludes that PGE's vegetation program has not demonstrated improvement…Many of the incidental contact violations involved multiple trees across the span suggesting that the cycle or clearance distance may not be properly

> established for the conditions at the location. In response to the substantial quantity of violations found, Staff is issuing a WARNING to the program and requiring additional analysis of both OPUC Staff findings in addition to detailing more comprehensive analysis of the program results that PGE internally measures.[10]

Q. Did PGE have additional remarks regarding Staff Opening Testimony?

A. Yes, PGE suggested Staff lacked discussion regarding the recommendation to disallow the additional four Forestry positions proposed, testifying "PGE has not been provided a basis as to why Staff proposes their removal in this case."[11]

Q. What is Staff's response to the Company's reply on this issue?

A. Staff prefaced its recommendation to disallow the four Forestry positions with the following statements in Opening Testimony: "Staff also inquired about the additional positions the Company is requesting. The Company is currently working to fill the positions, however the Company acknowledged that these positions were already included in UE 416 rates."[12] As the Company is currently collecting for these positions, Staff finds an adjustment is necessary to avoid funding these positions twice.

Q. Does Staff wish to address any other issue related to this topic?

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[10] OPUC Safety Report No. E23-53R. Portland General Electric-Vegetation (Systemwide).
[11] PGE/1400, Mersereau-Van Oostrum-Batzler/11-12.
[12] Staff/1300, Mondragon/13.

A. Yes, in Reply Testimony PGE summarized their recent and projected RVM efforts and stated the following:

> Vegetation management efforts are most effectively conducted utilizing a cyclical operational schedule. The operational plan provided as part of UE 416 includes a 3-year program with consistent funding and support… Deviating from this plan puts dedicated resources at risk, jeopardizing PGE actions supporting compliance, system safety, and reliability… Considering the increased frequency of extreme weather events and rapid climate change, failure to support PGE's vegetation management efforts would introduce a number of risks that would negatively impact customers, including wildfire and ignition risk, reliability impacts, and public safety concerns.[13]

Staff would like to be clear that Staff's recommendation is not to be taken as a disagreement with the Company's efforts nor the importance of RVM. In support of the Company's efforts in UE 416, Staff advocated for, and the Commission approved, the establishment of a balancing account for RVM expenses. The balancing account allows for the Company to effectively implement its RVM plan and defer incremental costs to be recovered after a prudence review. PGE shouldn't lack funding nor support as long as expenditures are prudently incurred, but the Company can't expect to avoid

[13] PGE/1600, Cloud-Albi-Putnam/16.

any scrutiny on behalf of ratepayers because costs are incurred for important activities.

Q. Did any intervenors propose adjustments on this topic?

A. Yes. The Alliance of Western Energy Consumers (AWEC) recommended that PGE hold its non-labor routine vegetation management budget flat between 2024 and 2025, a reduction of $4.3 million. AWEC states that PGE is already earning revenues to cover a major increase in this spending category and before approving further increases to the budget, an evaluation into the effectiveness of the heightened spending should occur.[14]

Q. What is Staff's position to AWEC's proposal?

A. Although the recommended adjustments differ, Staff agrees with AWEC's statement that PGE has already received a major increase for RVM and supports the conclusion that before another increase is approved, PGE's performance should be measured.

Q. Does Staff have an update to the original adjustment?

A. No. Staff continues to recommend no increase to what is currently in rates. As mentioned above, an increase in spend does not guarantee an increase in performance. Staff cannot support a 12 percent increase over the last increase to fund a program that has demonstrated no improvement in audits without first establishing performance metrics and completing a performance review. At this time, it is unclear what the current level of funding is producing to benefit

[14] AWEC/100, Mullin/30.

customers, let alone what the incremental value may be from PGE's proposed increases.

Second, as provided in Staff's Opening Testimony, PGE's proposed Test Year expense is an increase of 94 percent, from $29.9 million to $58.1 million, from the last full year of historical, provable data from calendar year 2023.[15] This, coupled with the increase in forecasted target line miles over what's necessary, leading to an increase in crews, asks the Commission to draw conclusions based on currently unsupportable information. This is risky and a disservice to customers.

Staff continues to advocate for the usage of the balancing account as the best mechanism to balance the Company's needs and Staff's concerns.

[15] Staff/1300, Mondragon/12.

ISSUE 2. UTILITY ASSET MANAGEMENT

Q. Please summarize Staff's initial proposal regarding Utility Asset Management (UAM).

A. Staff proposed a reduction of the UAM Test Year amount of $5.9 million from $31.8 million to $25.9 million. Staff's recommendation was based on a lack of evidence provided to support the increase. Although PGE stated that the FITNES program and cost of labor are driving the increase, no evidence was provided to support this assertion. PGE mentions an escalating rate of inspection but provides no reasoning for it. No evidence was provided on how PGE arrived at any of their other UAM program numbers. The cost of non-PGE labor and outside services is not supported by any escalation factor or calculation of how PGE arrived at the Test Year amount. Without this Staff cannot determine if the Company proposed amounts are reasonable or prudent.

Q. How did the Company respond to the Staff's recommendation?

A. PGE disagrees with the following in Staff's opening testimony: [16]

- Staff's use of 2023 actuals instead of 2024 budgets in the analysis. PGE testifies "We see this in part as an attempt to relitigate Docket UE 416 (UE 416). The final order in UE 416 established customer prices for 2024, and PGE appropriately uses that as the basis for comparison in this case."[17]

[16] PGE/1600, Cloud-Albi-Putnam/8-11.
[17] PGE/1600, Cloud-Albi-Putnam/8.

- Staff's use of the All-Urban Consumer Price Index as an escalator of the 2023 actuals to arrive at Staff's recommendation.
- Staff not considering the actual 2023 ROE in the analysis.
- Staff's perspective that insufficient evidence was provided in support of the 2025 forecast. The Company states it provided evidence by outlining the specific drivers and cost increases for their FITNES inspection and correction programs, bargaining efforts, status of inspection and correction cycles, as well as historical and projected FITNES work. Furthermore, PGE testifies that in response to Data Requests (DR), PGE provided additional evidence supporting the increase to the UAM.[18]

Q. What is Staff's response to the Company's claim that Staff's recommendation is in part as an attempt to relitigate Docket No. UE 416 (UE 416)?

A. Staff disagrees with this statement. To complete an accurate analysis of forecasted expenditures Staff used the most recent set of verifiable historical numbers, which in this case are 2023 actuals. Staff could not use 2024 budgetary numbers as a reliable source of information as they are not audited, nor are they verifiable. PGE's position to start with an escalated version of UE 416 approved amounts sets up rate cases as a one-sided proposition as the only way costs can move is in the upward direction. It fails to account for

[18] PGE/1600, Cloud-Albi-Putnam/8-9.

increases in efficiency, cost decreases, market changes, and most importantly new data.

Furthermore, Staff's analysis supported a larger disallowance.[19] If in fact Staff was trying to relitigate UE 416 Staff's recommendation would compare the values in rates to the base year used in UE 416. Instead, Staff recommended to maintain the current amount collected for UAM using the long-standing Commission practice of comparing the requested rate increase to the most recent, *actual* spending.

Q. What is Staff's response to the Company's concerns regarding the use of the All-Urban CPI?

A. It is long-standing Staff policy to use the Consumer Price Index – All Urban Consumers for the U.S. (CPI, Urban U.S.) as published by the State of Oregon Office of Economic Analysis (OEA) for year over year escalation.[20] The All-Urban CPI measures price changes in a fixed market basket of goods and services in categories, generally including housing, apparel, transportation, medical care, recreation, education, and others to urban consumers. Staff has consistently found the All-Urban CPI is a reliable and appropriate source for escalation and believes consistently using this methodology eliminates "forum shopping" for the most favorable inflation escalator on a case-by-case basis.

Q. What is Staff's response to the Company's claim that Staff did not consider the 2023 Return on Equity (ROE) in the analysis?

[19] Staff/1300, Mondragon/21.
[20] Oregon Economic and Revenue Forecast, https://www.oregon.gov/das/oea/pages/index.aspx

A. PGE's assertion it earned well below ROE in 2023 does not in and of itself show that the amounts it spent in 2023 are an inappropriate place to start for determining a reasonable forecast of Test Year expense.

Q. What is Staff's response to the Company's statement that sufficient evidence was provided?

A. In Opening Testimony PGE provided plenty of written explanation for why the Company is requesting an increase, which included some numeric figures. However, Staff's statement regarding insufficient evidence is based on the lack of mathematic evidence in support of the numeric figures and percentages mentioned at the time that Staff published Opening Testimony. Staff agrees that PGE provided additional information as part of a response to Staff's data request, however, the response arrived after Staff's Opening Testimony was filed and therefore was not included.

Q. What is Staff's analysis now that the responses to Data Requests are in?

A. Staff requested additional information from PGE regarding the UAM Test Year calculation. Staff requested a narrative explaining the forecast development process, as well as the workpapers used during the development process.[21] In their response, PGE provided a narrative explanation, again including numeric figures and percentages, but failed to provide workpapers that supported the narrative or gave any quantitative reason for the budget escalation. Instead, PGE pointed to their 2025 GRC T&D O&M workbook, submitted along with

[21] Staff/3501, Company's response to DR 654.

their Opening Testimony, which Staff had already reviewed and found lacked the details needed to determine if the proposed Test Year is reasonable.[22] The workbook, although providing Base Year and Test Year values, lacks details regarding how these values were arrived at, nor identifies the escalators or factors applied to arrive at the 2025 forecast. Staff issued an additional request asking the Company to provide support for the numeric values provided in the narrative and explaining that the 2025 GRC T&D O&M workbook did not provide such details. In response PGE, again, pointed to the 2025 GRC T&D O&M workbook.[23] The fact that the Company keeps pointing to, after repeated request for information, a workbook that does not provide the information, leads Staff to question whether the amounts requested were arrived at by actual calculation of supportable data or just target numbers of what the Company would like to recover in rates. Without the requested arithmetic information, Staff cannot confirm any of the narrative information the Company has provided, nor conclude that the Company's proposed Test Year is just and reasonable. Absent this, Staff does not believe that the Company has met the burden of proof to justify their requested increases.

Q. Does Staff have an update to the original adjustment?

A. No. Staff's recommended adjustment remains the same. Staff continues to propose a reduction of the UAM Test Year amount of $5.9 million from $31.8 million to $25.9 million.

[22] Staff/1300, Mondragon/20-21.
[23] Staff/3501, Company's CONF response to DR 758.

ISSUE 2. SUMMARY

Q. Please summarize your recommendations, identifying any adjustments you propose.

A. Staff recommends the following adjustments:

- Decrease Test Year amount for RVM by $6.2 million
- Decrease Test Year amount for UAM by $5.9 million

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: LUZ MONDRAGON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3501

REDACTED
Exhibits in Support
Of Rebuttal Testimony

September 10, 2024

May 15, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 342
Dated May 1, 2024

Request:

Please provide the RVM cost per mile for 2020, 2021, 2022, 2023, projected 2024 and 2025. For all projected amounts please:

a. Provide a narrative on how the projected amounts were arrived at;
b. Provide a spreadsheet demonstrating the narrative above; and
c. Reference and provide all contract(s) used in the Company's calculations.
d. Provide a breakdown of the regional cost per line mile between labor and non-labor costs for each of A) Transmission, B) Distribution, and C) Transmission and Distribution.

Response:

PGE's response to OPUC Data Request No. 340 provides RVM cost per line mile for historical and projected years.

a. RVM cost per mile targets for 2024 and 2025 were projected based on historical average cost per line mile by regions and escalated for contractor labor and equipment rates in 2024. An escalation of crew resources was used to forecast 2025 using the approximate 2024 crew makeup and adjusted for known rates in 2025 (PGE's response to OPUC Data Request No. 339, Attachment 339-A).
b. See PGE's response to OPUC Data Request No. 339, Attachment 339-A.
c. Confidential Attachments 342-A and 342-B provided this information.
d. See PGE's response to OPUC Data Request No. 339, Attachments 339-A for projected cost per mile by region. PGE does not project on a cost per mile basis between labor and non-labor. All outside service work is considered a non-labor cost.

Attachments 342-A and 342-B contain protected information subject to General Protective Order 23-132.

May 15, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 347
Dated May 1, 2024

Request:

Regarding CE 2110: Other Materials & Equipment, please provide:

a. A description of what expense are tracked in this Cost Element
b. A narrative description of the increase of $20,000 from the 2023 amount provided versus the 2025 amount projected.

Response:

a. Other materials & equipment expenses include supply and material costs for personal protective equipment (PPE), fire retardant PPE, and other safety equipment.
b. Actual costs in the CE 2110 category may be accounted for in different cost elements causing the 2023 to 2025 variance.

May 15, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 348
Dated May 1, 2024

Request:

Regarding CE 2400: Business Expenses please provide:

a. A description of what expenses are tracked in this Cost Element;
b. How transactions are determined to be part of RVM; and
c. An explanation of the increase of $6,000 from the 2023 amount provided versus the 2025 amount projected.

Response:

a. Business expenses include budgeted only costs for meals, lodging, and parking associated with Forestry Staff while doing company business.
b. This budget line-item would only apply to RVM Forestry Staff and their forecasted work.
c. Cost element (CE) 2400 is a budget only category. Actuals would be reflected in the specific project AWO and CE (i.e., CE 2401 through 2411 and 2450) for which the business expense is incurred. As such, the 2023 actual for CE 2400 would be zero and the budget is $6,000.

May 15, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 349
Dated May 1, 2024

Request:

Regarding CE 2600: Rents and Leases Expense, please provide:

a. Purpose or use of the rental/lease;
b. An explanation of the $10,000 increase from the 2023 amount provided versus the 2025 amount projected.

Response:

a. Rents and leases include budgeted only expenses for machinery, cell phones, copiers, computer hardware, mobile offices, and other equipment.
b. Cost element (CE) 2600 is a budget only category. Actuals would be reflected in a specific AWOs and CE (i.e., 2601, 2602, and 2650) for the business expense. As such, the 2023 actual for CE 2600 would be zero and the budget is $10,000.

May 15, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 350
Dated May 1, 2024

Request:

Regarding 2950: Other Taxes & Government Fees, please provide

a. How transactions are determined to be related to RVM;
b. A listing of what Taxes and Government Fees are included; and
c. An explanation of the $22,000 increase from the 2023 amount provided versus the 2025 amount projected.

Response:

a. Transactions in the other taxes and government fees would only apply to RVM Forestry Staff and their work. Internal accounting controls are in place to ensure costs are entered correctly.
b. Included in other Taxes and Government Fees are: tree permits, right of way payments, easements, traffic controls and parking fees, agency fees, and any other taxes and government fees that do not meet any of the other cost element criteria's within Taxes and Government Fees (CE 2950).
c. The $22,000 increase for 2025 reflects an effort to more accurately track and account for increasing actual government and agency fees.

July 26, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 654 - CONFIDENTIAL
Dated July 12, 2024

Request:

Please also provide:

a. A narrative explanation of how the UAM Test Year was forecasted.
b. Supporting workpapers of the UE 435 Test Year forecast, in an excel document with all formulas intact.
c. Workpapers used to forecast the UE 416 UAM Test Year amount, in an excel document with all formulas intact.

Response:

[redacted]

[redacted]

[redacted]

- [redacted]

[redacted]

[redacted]

[redacted] [redacted]

[redacted] [redacted]

This response provides protected information subject to General Protective Order No. 23-132.

September 5, 2024

To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 756
Dated August 28, 2024

Request:

Regarding PGE's following statement found in PGE/1600 Cloud- Albi-Putnam/15 "*the application of an escalation factor for program O&M costs based on CPI is not an appropriate technique for setting Test Year rates—particularly where there is available evidence concerning the Company's actual anticipated cost increases.*" Please provide all actual evidence of which the Company is referring to that does not include budget forecasts.

Response:

PGE provided extensive evidence supporting the Company's Test Year Routine Vegetation Management (RMV) anticipated expense amount.

The cost drivers for the Test Year RVM amount were detailed in PGE's Direct Testimony, PGE Exhibit 400 and historical and forecast cost element details were provided as part of the 2025 GRC T&D O&M workpaper.

PGE responded to multiple data requests from Staff regarding the basis and justification of our 2025 Test Year RVM projections. These requests included: OPUC DR # 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, and 400.

PGE also provided further justification around our 2025 Test Year projections in its Reply Testimony, PGE Exhibit 1600.

September 6, 2024

To: Scott Gibbons
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 758 - CONFIDENTIAL
Dated August 29, 2024

Request:

In regarding to the Company's response to DR 654, please provide an excel spreadsheet supporting the numeric values in the narrative response. For example, for the **[BEGIN** [redacted]" **[END CONFIDENTIAL]**, please provide a spreadsheet that demonstrates, at a minimum, the

a. Starting value,
b. Identification and application of the escalation factor, and
c. Resulting amount.

In doing so, provide arithmetic evidence of how the Company calculated the Test Year.

Although PGE's workpaper 2025 GRC T&D O&M provided some information, Staff had originally issued DR 654 after the review of the workpaper because the workpaper provided only values without any detail on how those values were arrived at.

Response:

Confidential Attachment 758-A, contains a numeric breakout of the Company's response to OPUC DR 654.

This responses and Attachment 758-A contains protected information subject to General Protective Order 23-132.

CASE: UE 435
WITNESS: LUZ MONDRAGON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3502

Exhibits in Support
Of Rebuttal Testimony
2023 OPUC Report No. E23-53R, Portland General Electric-Vegetation (Systemwide)

September 10, 2024

Oregon

Tina Kotek, Governor

Public Utility Commission
201 High St SE Suite 100
Salem, OR 97301
Mailing Address: PO Box 1088
Salem, OR 97308-1088
Consumer Services
1-800-522-2404
Local: 503-378-6600
Administrative Services
503-373-7394

September 22, 2023

MARIA POPE
PRESIDENT & CEO
PORTLAND GENERAL ELECTRIC
121 SW SALMON STREET
PORTLAND, OR 97204

RE: OPUC Report No. E23-53R, Portland General Electric-Vegetation (Systemwide)

Enclosed is a copy of OPUC Safety Report No. E23-53R, which cites probable violations of the National Electrical Safety Code (NESC) and Oregon Administrative Rule (OAR) 860-024-0016.

OPUC Safety Staff recently performed the annual review of the PGE vegetation management program. This occurred between June 13 and August 15, 2023, in the communities and rural areas listed within the body of the report.

Each electric supply and telecommunication operator in Oregon, (defined in OAR 860-024-0001(5)), is responsible to construct, operate, and maintain its line facilities in compliance with the NESC. Refer to ORS 757.035 and OARs 860-024-0010 and 860-023-0005 for Oregon laws and rules regarding minimum OPUC safety standards. Particular focus should be given to NESC Rules 090,110 121, 214, 313, and OAR 860-024-0011, which address ongoing inspection and maintenance responsibilities.

Failure to comply with the OPUC safety regulations or NESC rules can result in Commission orders and/or civil penalties. Refer to ORS 757.990(1) for penalty amounts.

If you have any questions regarding this letter or report, please contact, Leon Grumbo at (503) 881-7707, Alex Chaney at (503) 559-4011, Justin Ward at (503) 881-6739, or Robb Robinson at (503) 551-5638. Please reply to OPUC.NESCSafety@puc.oregon.gov for report updates, time extensions, or to close the report in the OPUC enforcement log.

Leon Grumbo
Electric Safety Program Manager
Utility Safety Reliability & Security Division
(503) 881-7707
leon.grumbo@puc.oregon.gov
OPUC.NESCSafety@puc.oregon.gov

OREGON PUBLIC UTILITY COMMISSION
UTILITY SAFETY REPORT

DATES OF REVIEW: June 13 - August 15, 2023 REPORT NO. E23-53R
UTILITY OPERATOR: Portland General Electric
LOCATION OF REVIEW: Systemwide
OPUC REPRESENTATIVES: Leon Grumbo, Justin Ward, Alex Chaney, Robb Robison

COVERAGE: It should not be assumed that this review discovered all violations, or that the recommendations, if followed would ensure compliance with the National Electrical Safety Code (NESC). Any included "remarks" or "recommendations" should not be construed as OPUC Orders. The reader is referred to the latest edition of the NESC adopted in OAR 860-024-0010 for the minimum safety requirements for electric supply and telecommunication lines.

The vegetation program reviewed during this inspection relates to the NESC and Oregon Administrative Rule (OAR) 860-024-0016 Minimum Vegetation Clearance Requirements for the construction, inspection, testing, repair, and quality control of line facilities to assure ongoing safety compliance. For general maintenance requirements refer to NESC Rules 121, 214, and 313. Also, see OAR 860-024-0011 for inspection requirements of utility facilities.

OAR 860-024-0016
Under reasonably anticipated operational conditions, an operator of electric supply facilities must maintain the following minimum clearances from conductors:
(a) Ten feet for conductors above 200,000 volts.
(b) Seven and one-half feet for conductors energized at 50,001 through 200,000 volts.
(c) Five feet for conductors energized at 600 through 50,000 volts.
(A) Clearances may be reduced to three feet if the vegetation is not readily climbable.
(B) Intrusion of limited small branches and new tree growth into this minimum clearance area is acceptable provided the vegetation does not come closer than six inches to the conductor.

Staff's report primarily identifies locations where contact between vegetation and a primary conductor has been observed. Additionally, Staff observed vegetation which appears closer to primary conductors than the minimum clearances established by Oregon Administrative Rule 860-024-0016. Staff notes these as observations because direct measurement is not possible or feasible during the review. Additionally, OPUC has provided a secure link to the recipients addressed here which accesses a File GeoDatabase that should allow the results and photographs of the audit to be viewed in a GIS environment, providing additional locational and photographic precision.

REMARKS

OPUC Safety Staff recently performed an annual review of vegetation management program inspecting feeders in the communities and districts listed within the body of the report. The review began on June 13, 2023, concluding on August 15, 2023. The duration of the audit process was protracted due to staffing limitations, however comprised approximately the same manhours as those conducted in prior years.

In summary, Staff's analysis concludes that PGE's vegetation program has not demonstrated improvement. This finding is supported by the attached document with locations and pictures, which show a large amount of both incidental contacts as well as climbable trees with contact. During the audit, Staff observed a very limited numbers of crews performing work throughout the service territory despite the audit being conducted during a time when vegetation work is often at its peak. Many of the incidental contact violations involved multiple trees across the span suggesting that the cycle or clearance distance may not be properly established for the conditions at the location. In response to the substantial quantity of violations found, Staff is issuing a WARNING to the program and requiring additional analysis of both OPUC Staff findings in addition to detailing more comprehensive analysis of the program results that PGE internally measures.

Staff observed five hundred and seventy-seven locations where evidence existed of contact between vegetation and primary conductors. The identified locations resulted in at least seven hundred and thirty-four primary conductor vegetation contacts.

Fifty-seven are readily climbable trees noted as **hazardous conditions** in Citation: A. Seventeen of the fifty-seven readily climbable tree locations involve two or more trees contacting primary conductors.

Of five hundred and thirteen locations identified in Citation: B., eighty-six locations involve two or more trees contacting primary conductors.

Thirty-two locations in Citation: C involve vines or trees that have engulfed poles **creating climbing hazards,** while seven locations in Citation: C involve vines that have grown up a pole and guy wires until they are contacting, or about to contact, energized primary conductors. These violations are **hazardous conditions.**

One location within Citations: A and B was located within a designated **High Fire Risk Zone.**

One location in Citation: D involved abandoned power conductors that are in contact with vegetation.

One location in Citation: E involved 600 volt and below conductors under strain or abrasion from vegetation.

In response to this report:

1. On or before October 27, 2023, submit documentation confirming correction of the probable violations related to **readily climbable trees**, as well as those listed specifically as **hazardous conditions.** For each location, provide photographic evidence of the correction, in addition to detailing when the work was last completed and the type of vegetation work performed (i.e. cycle trimming, mid-cycle patrol or annual ignition patrol), as well as whether it was performed through RVM or AWRR funding.

2. On or before October 27, 2023, submit documentation confirming correction of the probable violations in a high fire risk zone. For each location, provide photographic evidence of the correction, in addition to detailing when the work was last completed and the type of vegetation work performed (i.e. cycle trimming, mid-cycle patrol or annual ignition patrol), as well as whether it was performed through RVM or AWRR funding.

3. On or before March 22, 2024, submit written correspondence confirming correction of the remaining probable violations cited in this report. For each location, provide photographic evidence of the correction, in addition to detailing when the work was last completed and the type of vegetation work performed (i.e. cycle trimming, mid-cycle patrol or annual ignition patrol), as well as whether it was performed through RVM or AWRR funding.

4. On or before March 22, 2024, provide analysis comparing violations discovered versus cycle ages, work previously performed, vegetation types at the location and other parameters to reconcile its failure to maintain clearance at the given location relative to when it last treated the location. Additionally, during the second quarterly OPUC/PGE periodic meeting (expected during May/June timeframe), present findings from this analysis and any potential modifications to the vegetation program resulting from this study. This should also include any changes to contracted scopes of work, cycle periodicity, treatment types, etc. and the intended implementation dates for any program modifications.

If you have any questions regarding this letter or report, please contact, Leon Grumbo at (503) 881-7707, Alex Chaney at (503) 559-4011, Justin Ward at (503) 881-6739, or Robb Robinson at (503) 551-5638. Please reply to NESC.Safety@puc.oregon.gov for report updates, time extensions, or to close the report in the OPUC enforcement log.

Prepared by: ______________________ ______________________

Attachments: E23-53R Portland General Electric - Attachment A

CASE: UE 435
WITNESS: JULIE DYCK

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3600

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Julie Dyck. I am a Senior Economist/Utility Analyst employed in the Energy Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Staff/1400 and my Witness Qualifications Statement is provided in Staff/1401.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the arguments around the fuel stock forecast brought up in PGE's Reply Testimony.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared Exhibit Staff/3601, consisting of PGE's non-confidential responses to DR requests.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. FUEL STOCK

Q. Please provide an overview of the Company's fuel stock and its Opening Testimony request.

A. In the Company's Initial Filing, it forecasted a fuel stock value of $24,173,421.[1] North Mist gas storage accounted for 60 percent ($14.5 million), oil accounted for 31 percent ($7.5 million), and CO_2 allowances accounted for nine percent ($2.1 million).[2]

Q. Please state the Company's updated request as stated in its Reply Testimony.

A. The Company updated its fuel stock request to $22,065,070, with the only adjustment in its Reply Testimony being the removal of $2,108,351 for CO_2 allowances.[3] Therefore, the Company's Reply request is comprised of only natural gas in storage at North Mist for use at PGE's Westside thermal plants[4] and oil for the Beaver Plant.[5]

Q. Did other intervenors comment on fuel stock?

A. Not to my knowledge, although intervenors did submit testimony on general rate base recommendations. This includes Staff's recommendation[6] to use an

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1 Staff/1402, PGE Response to DR 153 (pdf). This is included as part of PGE's Operating Materials & Fuel balance, as provided in PGE Exhibit 200, which totals $103.7 million. This amount can be isolated in the PGE Exhibit 200 work paper, "Unbundled ROO_Base," tab "Unbundled" by filtering on account 1510001. Staff is also aware that fuel stock is found in account 1510008. See UE 416, Staff/2700, Ankum-Fischer/49. However, there are no expenses associated with account 1510008 in this rate case, UE 435.

2 See Figure 2: Test Year Fuel Stock Composition in Staff/1400, Dyck/9.

3 See PGE's workpaper titled Integrated PGE RevReq_PGE_Reply. This resulted in an adjustment to the revenue requirement of $(194,986).

4 Port Westward I, Port Westward II, and Beaver.

5 As coal and oil at the Colstrip plant are handled in a separate schedule as Staff noted in Staff/1400, Dyck/5.

6 Staff/900, Stevens/28.

Average of Monthly Averages (AMA) method with a 13-month average calculation and AWECs recommendation[7] to use an AMA method with a 12-month average. While fuel stock is a part of rate base, it is distinct in many ways. Fuel stock used to fuel plants in service is not the same as the plant being built for service; it is treated differently in both accounting and rate regulation contexts. While a plant being built to go in service would depreciate over the course of the year, fuel stock would not. Fuel stock is consumed relatively quickly in the course of operations; thus it is treated as inventory rather than a capital asset. In addition, when fuel is used, Staff assumes that there are accounting entries that show the movement of fuel stock from rate base to an expense account, which represents that when fuel is consumed, its cost is transferred from inventory (a current asset) to an expense account (like cost of goods sold) in the income statement.[8] In addition, fuel stock is and should be more of an operational consideration (i.e. the operations of the plant to ensure reliability) while the valuation of rate base is an economic issue (i.e. adding or reducing plant to ensure a proper base on which investors earn a return).

Q. What are points that the Company brings up that Staff does not dispute regarding fuel stock?

---

[7] AWEC/100, Mullins/14.

[8] Staff makes this assumption based on the distinction between fuel in rate base versus fuel being used as an expense. In addition, the Company discusses in its Reply Testimony the benefits to NVPC that fuel stock has in PGE/1300, Batzler-Meeks/48.

A. The Company devotes some of its Reply Testimony to discussing points that are not refuted by Staff. Some of its points are as follows:

1. PGE's fuel stock balances provide customers economic benefits within PGE's net variable power cost (NVPC) forecast.[9]
2. North Mist was the least-cost fuel option as part of the winning RFP bid for flexible capacity needs.[10]
3. Gas is held, both from a forecast and from an operational perspective, for system reliability purposes.[11]

In this testimony, Staff does not recommend an adjustment to the volumes of gas in storage at North Mist nor dispute its importance. However, in one of Staff's recommendations, Staff does ask the Company to perform a financial analysis that justifies the 1.2 million dth minimum storage level being used at North Mist in an effort to better understand operational decisions.

Q. Please restate Staff's Opening Testimony position and recommendations regarding fuel stock.

A. Staff had four monetary adjustments totaling ($8.78 million)[12] and two recommendations in its Opening Testimony, as follows:

1. Use an average balance of fuel stock for the Test Year rather than a

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9 PGE/1300, Batzler-Meeks/6. This statement excludes the part where the Company stated that the balances are correctly calculated and that it provides effective insurance against market disruptions and/or reliability contingency events.

10 PGE/1300, Batzler-Meeks/48.

11 PGE/1300, Batzler-Meeks/49.

12 See footnote 13 for additional context on why this was stated in Opening Testimony as highly confidential but is stated as non-confidential in Rebuttal Testimony.

year-end balance, which resulted in an adjustment of ($2,121,786).[13]

2. Perform a financial analysis showing the volume of natural gas held is a prudent business decision.[14]
3. Value natural gas stock at the price that it was purchased for reserve in stock instead of valuing at forward prices.[15]
4. Use the market price of oil, which resulted in adjustment of ($1,592,698).[16]
5. Recognize that fewer barrels of oil are going to be used and useful during the time of Beaver conversion, which resulted in an adjustment of ($2,964,020).[17]
6. Remove CO_2 allowances from fuel stock, which resulted in an adjustment of ($2,108,351).[18]

Q. Does Staff change its six recommended adjustments as a result of the Company's Reply Testimony?

13 See Staff/1400, Dyck/15, which states this value as highly confidential. However, see also Batzler-Meeks/47, which states this value as non-confidential. In addition, Staff has confirmed with the Company in writing on August 19 and in a meeting on August 22 that this value and some of the information included in the DR response from where it was derived is in fact non-confidential, despite being labeled as highly confidential. See Staff/3601, PGE's supplemental non-confidential response to AWEC DR 48 (excel), which provides a non-confidential version of the original response used to calculate this value. Thus, our total recommended adjustment is also non-confidential in this case.

14 Staff/1400, Dyck/27.

15 Staff/1400, Dyck/18. At the time, Staff did not have a further dollar value adjustment related to the prices used or volume held, and this recommendation was not labeled with a subheading as there was no monetary adjustment at the time. In this Rebuttal Testimony, I label it as recommendation number three, and I provide additional support for this recommendation but still do not have a related monetary adjustment. This was also the position that Staff took in UE 416, Staff/2700, Ankum-Fischer/52 and at the time, Staff had a monetary adjustment.

16 Staff/1400, Dyck/22.

17 Staff/1400, Dyck/23.

18 Staff/1400, Dyck/24.

A. For the most part, no. However, I do make some slight modifications that I will describe below and in the latter parts of my testimony. As a general overview, I maintain my original monetary adjustments, I add additional context to one of my qualitative recommendations, and I recognize that the Company removed CO_2 allowances in its Reply Testimony revenue requirement. As an overview, Staff's approach to NG and oil fuel stock is consistent in that it is reflective of the expected use of the fuel stock and the amounts paid by investors that rate payers are paying a return on.

Q. Does Staff wish to make a statement on confidentiality and the over-designation by the Company in UE 435?

A. Yes. Staff's first recommendation in Opening Testimony was based on a highly confidential DR response. In the Company's Reply Testimony, it listed this value and subsequently, my total adjustment value, as non-confidential. As a result of this, Staff's revenue requirement recommendation from Opening Testimony had to be designated as highly confidential. This imposed hurdles such as the inability to share information via email and discuss total revenue requirement values in groups with people that had not signed the modified protective order to receive highly confidential information. The Company clarified that not all of the information included in the DR response was highly confidential despite the entire response being labeled as highly confidential and portions of it being highlighted green. The Company is able to submit redacted versions of any DR response at either the confidential or non-confidential level, which it chose not to do in this case, even after reviewing Staff's Opening Testimony.

In addition, Staff relied on much of the same information from UE 416, yet it was presented as highly confidential in this docket but was only presented as non-confidential or confidential in UE 416. As such, Staff thinks it is important to recognize this over-designation and point out a few other instances where this has happened in recent dockets.

Q. What are other examples of over-designation have occurred in recent dockets?

A. There are many recent examples of issues with confidentiality aside from UE 435.

1. Starting with the October Update in UE 416, the Company's reply updates for power costs in the MONET model, began to be filed as highly confidential. Looking back to UE 402, these updates and corresponding excel files were only listed as confidential. These highly confidential files also include the total value by which net variable power costs increase. Staff does not understand what circumstances led the need to designate the total increase as highly confidential. In some instances, the total update value is subsequently provided as non-confidential, Staff is left to decipher whether it should follow the highly confidential designation that is listed in one excel sheet or the non-confidential designation listed in another. Similarly to the instance in UE 435, although PGE has designated entire documents or

workbooks as highly confidential, PGE has made no effort to clarify that some of the information provided is not highly confidential.

2. Another similar instance occurred in UE 416 when a series of bench requests were issued to the Company. One of those bench requests asked the Company to show the overall increase to customer rates. In the Company's first reply, it labeled this information as confidential. It was only weeks later that the Company made supplemental responses that provided this information as non-confidential.[19] Staff and intervenors expressed concern at the time given that expected and known increases to customer rates should be publicly available.
3. In UE 436, there were two occasions of issues with confidentiality. First, in AWEC's Opening Testimony, AWEC recommended that the Company begin modeling delivered gas in March and November and recommended a subsequent downward adjustment to NVPC. AWEC listed its value as confidential, but PGE shared it as non-confidential.[20] In the other instance, the Company continued to list its Monet model files in updates as highly confidential. This is especially strange given that the Company's Reply Testimony in UE 436 expressed complaints about the Monet model and in UE 416, the Company expressed that they were looking into other models for the purposes of power cost forecasting. So, it would not make sense that

[19] Microsoft Word – UE 416 PGE's Supplemental Responses to Bench Requests 5-8, 6-1 and 6-2_12_21_23 (state.or.us).

[20] See UE 436, PGE/200, Schwartz-Outama-Batzler/16 and AWEC/100, Mullins/5-8.

now the Company chooses to increase the confidentiality protection for a model that it has been using for many years.

NATURAL GAS

Q. What points does PGE provide to rebut Staff's first recommendation that the Company should use an average balance of fuel stock for the Test Year?

A. The Company states that the value of gas on December 31, 2024, is consistent with how all other rate base amounts are established. In addition, this is what customers will benefit from beginning on January 1, 2025, which aligns with the NVPC benefits provided to customers.[21] Lastly, the Company states that, "Staff neither aligns with the benefits provided to customers in 2025 nor the used and useful amount of gas within PGE's Test Year."[22]

Q. Does Staff maintain its first recommendation that the Company should use an average balance of fuel stock for the Test Year rather than a year-end balance and make a resulting adjustment to fuel stock of ($2,121,786)?

A. Yes, Staff maintains its recommendation for the following reasons:

1. As is seen in Staff's Opening Testimony, the value of natural gas stock fluctuates largely from month to month over the year. Therefore, choosing

[21] Staff/3601, PGE's Response to DR 684 (pdf). As stated by the Company, "PGE's gas reserve balance included in rate base matches the gas reserve balance forecast in PGE's 2024 AUT." Therefore, Staff understands the possibility that a lower value of reserves in rate base would be reflected in a future PCAM/AUT filing as well.

[22] PGE/1300, Batzler-Meeks/48.

one point in time, especially a point where the value is near its highest, as being reflective of investor's investment in the Test Year is inaccurate.

2. The Company does not provide a substantive explanation of why an average of natural gas fuel stock is not representative of what is considered used and useful in the Test Year, but a single point in time is. Staff points out that the used and useful standard can be viewed differently when looking at fuel stock because while it is useful as an asset, the moment that it is used up, there is no justification for continuing to keep its value in the total fuel stock that is in rate base. The average of the fuel stock is the amount that can be relied upon for contingencies throughout the year and thus should be the basis for what customers pay for in rate base.
3. To the Company's second point that they are linking customer benefits in the GRC and the AUT, Staff points out that the power cost forecast and the fuel stock serve two different purposes. The fuel stock in rate base is capitalized and the utility is allowed to earn a return on it. The fuel used in the NVPC forecast in the Company's AUT is a pass-through cost that the Company does not earn a return on. Also, Staff is not aware that the Company focuses on one specific point in time to describe the natural gas that is needed to meet load in the forecast for power costs.[23]
4. Staff also notes that a purported benefit of maintaining this fuel stock is to hedge against Reliability Contingency Events (RCEs). Following the

[23] Staff makes a similar argument in its Testimony on rate base and details the importance of using an average rather than relying on a single point in time.

conclusion of UE 416, the Company was not only allowed to create an RCE forecast in the AUT, but also allowed to pass through 80 percent of RCE costs that exceed the RCE forecast.[24] It is Staff's view that allowing a pass-through of RCE costs that favors shareholders *in addition to* allowing the Company to earn a return on assets used to respond to RCEs is an inherently one-sided proposal that increases both rate base *and* risk to customers.

5. Staff does not dispute the importance of storage at North Mist. However, even PGE confirms that it seeks a variety of solutions during the rare instances where there have been issues in acquiring gas.[25] Therefore, a reduction to the total natural gas dollar value in fuel stock is not at odds with recognizing the value that it brings to the system.
6. It seems the Company modified its forecast methodology for this proceeding, for the stated reason to more accurately and directly link the gas storage amounts included and utilized within PGE's gas storage optimization model. This leaves Staff to believe that PGE would also not characterize its own past calculations as aligning the gas forecasted between the AUT and the GRC filings.[26]

Q. In addition, the Company states the Staff recommendation is not in line with how rate base is calculated. How does Staff respond?

[24] UE 416, Order No. 23-386.
[25] PGE/1300, Batzler-Meeks/50.
[26] Staff/3601, PGE's Response to DR 689 (pdf). See also PGE/1300, Batzler-Meeks/48, lines 20-21.

A. While my recommendation may not be consistent with how the Company proposes to value rate base, my recommendation here is consistent with the recommendation of other Staff members in this proceeding and past recommendations made by Staff in previous GRC proceedings.[27]

Q. What did PGE say with regards to Staff's second recommendation that the Company perform a financial analysis showing that the volume of natural gas held is a prudent business decision?

A. The Company stated, "PGE is not opposed to reviewing the economics associated with gas reserves. However, our gas reserve balance, which has been discussed and modeled within net variable power costs for many years, is not a simple case of economics…."[28]

Q. Why does Staff believe a financial analysis should be performed?

A. Staff believes that the justification for keeping a minimum balance of 1.2 million dth in reserve should be explained and established, especially given that the Company is already allowed to create an RCE forecast in the AUT and to pass through 80 percent of RCE costs that exceed the RCE forecast. Furthermore, the Company has other options for ensuring that it has enough fuel for generation to meet load other than holding a large amount of natural gas in reserve. The Company uses the analogy that although most homeowners never experience a devastating event to their home, most homeowners still maintain insurance coverage to protect them against this

[27] Staff/900, Opening Testimony of Staff Witness Bret Stevens and his Reply Testimony in Staff/3100.
[28] PGE/1300, Batzler-Meeks/49.

possibility. As Staff stated in UE 416, PGE greatly understates the costs of self-generation in case of an emergency and the cost of holding these reserves.[29]

Staff gave its own analogy which is still applicable here, a person would be unlikely to hire an in-house electrician for emergencies even though contracting with one may be very expensive on an incidental basis if the likelihood of electrical problems is low. The same dynamics hold here where PGE is unable to demonstrate the instances which justify holding such a large amount in reserve when other options have been identified that may be cheaper over time even when those emergencies do occur, and very high natural gas costs may be incurred.

Q. Does Staff maintain its recommendation that the Company should perform a financial analysis showing the prudence of natural gas volumes in fuel stock?

A. Yes. This analysis should also include the connection to NVPC, any benefits associated with the storage as well as possible alternatives and their associated costs, and the usefulness of the reserves in mitigating RCE costs.

Q. What points does PGE provide to rebut Staff's third recommendation that the Company use the price at which natural gas is purchased in order to assess its fuel stock value?

A. The Company claims that all of PGE's fuel stock is valued at the purchase price.[30] However, as Staff explains below, this cannot be true if the Company is

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[29] Staff/4000, Ankum/21.
[30] PGE/1300, Batzler-Meeks/51.

using forward price curves to value all natural gas purchases while at the same time not depleting its gas storage balance every year. This is not to suggest that the Company deplete the gas storage to zero every year, but instead to bring up concerns with the dollar value (which is multiplied with the volumes to arrive at a total Test Year forecast) for natural gas fuel stock.

Q. Can Staff provide clarification on its third recommendation, which in Opening Testimony did not have a monetary adjustment?

A. Yes. It is worth noting that a similar recommendation was made in UE 416 that had a monetary adjustment to accompany it. However, Staff has been unable to calculate a monetary adjustment at this time due to the limitation of data in Staff's possession. For example, Staff does not have access to the number of dth of gas purchased during different years and the price at which that gas was purchased. That said, Staff can provide more support for and clarification of its recommendation.

Staff understands that some gas that is bought and injected during the Test Year would need to be valued by incorporating future price curves as that gas has yet to be purchased. However, there is a reserve portion of gas that is not used and is not intended to be used except in the case of emergencies. For this subset of gas, it makes sense to use historic values because that is representative of the price that PGE paid when it was purchased. Once the investment is made, the gas sits in storage. There is no reason to value it at anything but historic prices as it provides investors the precise level of return to which they are entitled.

This would mean that the Company would need to change a subset of gas to reflect the $/dth that it was purchased at. Instead, the Company uses the WACOG, which incorporates forward price curves to value all natural gas.[31] This should not be the case with all natural gas in fuel stock. Therefore, Staff continues to recommend that fuel stock be valued at the actual purchase price at the time of purchase.

Q. What additional support does Staff have that the WACOG is not an accurate price for a subset of the gas in storage used to value fuel stock?

A. In addition to the reasons stated above, Staff points out the distinction between gas in fuel stock versus gas in power costs. One is supposed to represent an investment (which has happened) and one is looking at the cost of generation in the future.

1. Investors should only be allowed to earn a return on the monies they have permanently invested in fixed gas stock (given it is used and useful). The theoretical usage of this gas (in emergencies for example) should not drive how it is valued.
2. Natural gas fuel stock represents reserves that are never depleted.[32] The Company has stated that the minimum amount of gas kept in storage is

[31] See Staff/3601, PGE's response to DR 683 (pdf). The WACOG for December 31, 2024, uses PGE's final gas optimization modeling workbook from the November 15, 2023, final net variable power cost update filing for 2024 forecast power costs. The balance is valued at actual WACOG through September 30, 2023, with forecast purchases and forecast usage through December 31, 2024.

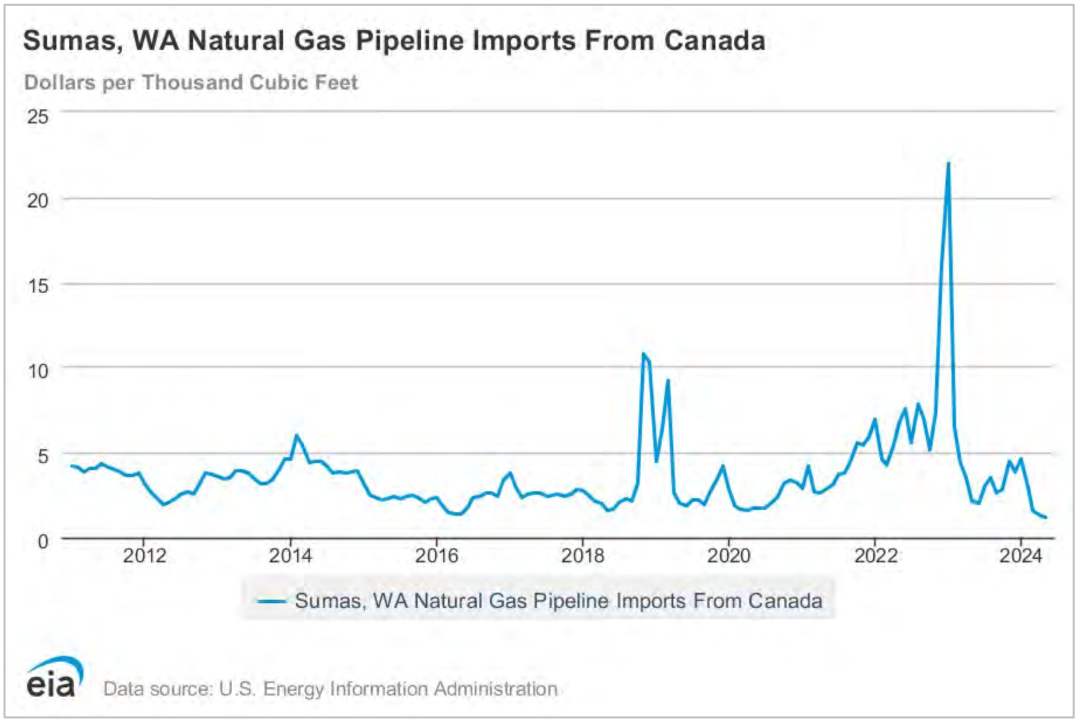
[32] Staff/3601, PGE's Reply to OPUC DR 685 (pdf). This response states, "In 2023, PGE had a starting balance of 2,637,030 dekatherms (dth) of gas at North Mist, with 6,752,765 dth purchased during the year and 5,263,082 dth burned during the year." This furthers Staff's point that there is a certain amount of reserves that do not seem to be used each year.

1.2 million dth and that this amount gives the Company more than adequate supply to meet its benchmark of funding Port Westward for seven days. Given that these are considered reserves that are not depleted, Staff reasonably regards the subset of gas to hold the same value throughout its perpetual storage, thus warranting the use of historical prices for valuation. Notwithstanding this logical assumption, the Company values the gas using its WACOG, which is continually updated.

3. WACOG is predicated on the notion that gas flows in and out of storage and that WACOG captures what the weighted average cost (price) would be. But again, a subset of this component of PGE's gas stock is fixed, so this rationale is not applicable.
4. The purpose of fuel stock ideally is to buy gas during periods when prices are low; however, the Company does not explain how these lower prices would be reflected in the calculation that it uses. As the Company pointed out, they are not starting with a storage balance of zero each year, far from it.
5. The values that the EIA published for Sumas show that gas prices in 2023 and 2024 have come down significantly from the highs observed in 2022. This is due to many reasons including high production levels nationwide. Staff assumes that some of the natural gas for use in fuel stock in the Test Year forecast was purchased in 2023 and 2024. Unfortunately, without the Company incorporating this into its model and showing the distinction needed between WACOG for power cost forecasting and prices used in

fuel stock, Staff is left with a large unknown. See Figure 1 below that shows the change in natural gas prices over time.

<u>FIGURE 1: SUMAS, WA NATURAL GAS IMPORTS FROM CANADA</u>[33]



33 Sumas, WA Natural Gas Pipeline Imports From Canada (Dollars per Thousand Cubic Feet) (eia.gov).

OIL

Q. What points does PGE provide to rebut Staff's fourth recommendation that the Company should use the market price for valuing oil?

A. The Company says that "[w]hile [PGE] does compare existing balances to lower of cost or market (LCM), unless that indicates that PGE's Weighted Average Cost (WAC) valuation is materially above a current market value. Instead, the WAC is how PGE values its oil."[34] In addition, the Company claims that Staff's oil proposal is in direct conflict with its recommendation to value gas at its actual purchase price and that GAAP requires consistency of inventory costing.[35]

Q. Does Staff maintain its fourth recommendation that the Company use the market price of oil and make a resulting adjustment to fuel stock of ($1,592,608)?

A. Yes, as Staff confirmed in its Opening Testimony, PGE's WAC valuation is materially above the current market value.

1. In testimony, the Company simply pointed to one example where it compared its oil WAC to NYMEX heating oil futures contracts and claimed PGE's value was lower. However, PGE did not recognize Staff's example showing that PGE's cost per barrel was higher than spot prices in every year since 2018. Even the quote that the Company received for its oil stock is

[34] PGE/1300, Batzler-Meeks/51.
[35] PGE/1300, Batzler-Meeks/52.

below the Company's current WAC, which is another reason that Staff believes it is overvalued.[36]

2. To the Company's second point, Staff's natural gas and oil recommendations are not contradictory. In the Company's own DR responses, it describes the calculations of natural gas and oil as materially different from one another. PGE describes the calculations as follows:
   - For gas inventories, the December 2023 balance was used as a starting point and adjusted on a monthly basis using (i) a forecast percent change in inventory multiplied against (ii) a forecast weighted average cost of gas to adjust the monthly balances.[37] This was used to arrive at the 2024 forecast and year-end balance, which PGE claims is representative of the 2025 Test Year investment.
   - For oil, the Company made no adjustments to December 31, 2023, balances. PGE makes two statements on the valuations of oil that appear at odds with one another. One, the Company claims it uses the weight average cost method. Two, the Company says that oil is valued at the lower of cost or market.
3. In addition, if PGE is purchasing its oil for the value that it claims, it is purchasing it at a much higher cost than market. Due to the asymmetry of information on the price of oil actually purchased, Staff recommends the

[36] See Staff/3601, PGE's Redacted Response to DR 691 (pdf), which states non-confidentiality that if they chose to sell the oil, that it would be sold at a loss, according to the Company.
[37] Staff/1402, PGE's Response to DR 206 (pdf).

Company use the lower of cost or market. Staff has identified the market value with publicly available information. This is also information that PGE has access to and the calculation that it claims to do. Therefore, Staff requests that the Company explain how it can value its oil at either of the methods its claiming to use when the assigned value has been constantly over the market price of oil both in the last decade and in the forward market.

4. GAAP reporting is different than ratemaking, and there's no possible way to know what the actual price is when we're forecasting a year out for oil that will be purchased in the Test Year. The Company should shoulder some of the risk in the price of the oil rather than using consistently higher-than-market prices for forecasted oil stock.

In the end, both Staff's natural gas proposal and oil proposal are intended to find the exact value that investors invested into fuel stock so that ratepayers are not overpaying a return that is not reflective of what investors invested.

Q. What points does PGE provide to rebut Staff's fifth recommendation that the Company reduce its oil stock barrels by half to reflect the upcoming Beaver conversion?

A. The Company points out that oil at Beaver will be phased out in 2026 and that all oil at Beaver is currently and will be used and useful through the entirety of 2024 and 2025.[38] The Company also adds that Staff was relying on outdated information in its Opening Testimony.

[38] PGE/1300, Batzler-Meeks/52.

Q. Does Staff maintain its fifth adjustment that as a presumption of fewer barrels of oil being used and useful at Beaver during the Test Year, the Company should make a resulting adjustment of ($2,964,020)?

A. Yes, for the following reasons:

1. The Company recognized that it is already exploring options to generate electricity with the oil or to sell the oil. In fact, in UE 416, the Company explained then, in 2023, that it was "evaluating options for Beaver oil and expects to either burn Beaver oil for power generation or sell the oil at some point in 2025 or later."[39]
2. If these oil reserves are not for contingencies and can simply be used up every year, there is no justification for putting them in rate base as a fixed amount.
3. PGE's assumption that the oil would be at a fixed value at the end of 2025, despite the phase out in 2026, appears to be an unrealistic one. Even in PGE's Reply Testimony from its last GRC, the Company recognized that a reduced number of units can utilize oil.[40] Therefore, why does it follow that the Company's value of oil in fuel stock should be maintained at near the same level seen in 2018-2023?[41]

PGE's argument that Staff is relying on outdated information does not make sense as Staff is relying on information provided by the Company in response

[39] UE 416, PGE/1700, Batzler-Ferchland//43.
[40] UE 416, PGE/1700, Batzler-Ferchland//44.
[41] See Figure 5 in Staff/1400, Dyck/20.

to a data request focused on obtaining recent information (since the Company's last GRC, UE 416).[42]

[42] See Staff/1400, Dyck/23 for additional details.

CO_2 ALLOWANCES

Q. What did PGE say with regards to Staff's sixth recommendation that the Company remove CO_2 allowances entirely from its forecast?

A. The Company agrees to remove the rate base amounts for CO_2 allowances and states, "While we disagree with the basis of Staff's argument, PGE agrees to remove the rate base amount associated with CO_2 allowances, as our current expected balance at December 31, 2024 will be at or close to zero."[43] As such, my total recommended adjustment to fuel stock, if based on the Company's Reply Testimony would be reflective of this updated value.

[43] PGE/1300, Batzler-Meeks/5.

Q. Please restate Staff's recommendations.

A. Staff continues to recommend a total adjustment to the Company's Opening Testimony position of ($8.78) million.[44] Staff continues to recommend that the Company (1) perform a financial analysis showing the prudence of natural gas held in fuel stock and (2) use the price at which gas was purchased for reserve in fuel stock to value those dekatherms of gas.

Q. Does this conclude your testimony?

A. Yes.

[44] However, if juxtaposed to the Company's revised revenue requirement request in its Reply Testimony, my recommended adjustment is ($6.7) million, because the Company removed $2.1 million in CO_2 allowances in its Reply Testimony.

CASE: UE 435
WITNESS: JULIE DYCK

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3601

PGE's Non-Confidential and Redacted Data Request (DR) Responses in Support Of Rebuttal Testimony

September 10, 2024

PGE's Response to OPUC AWEC DR 048 Attach A nonconf to OPUC_GB is available in electronic spreadsheet format only.

August 27, 2024
To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 684
Dated August 20, 2024

Request:

See PGE/1300, Batzler-Meeks/49.

a. Explain how the gas reserve balance is modeled within net variable power costs and where this is usually included in workpapers.
b. Explain why the Company believes that it is important to align benefits from natural gas reserves to NVPC forecasts in the Company's AUT filing.
c. Explain how the Company's proposal aligns benefits whereas the Company claims that Staff's proposal does not.
d. State how the volume and price of gas used in the NVPC is calculated differently than the volume and price of gas used in the Company's fuel stock.
e. Confirm Staff's understanding that a gas reserve balance modeled in NVPC would influence the additional fuel needed for generation and would indirectly impact power costs through the higher reserves held.

Response:

a. Information regarding the gas storage optimization in net variable power costs is provided within PGE's minimum filing requirements (MFR) for the AUT. Attachment 684-A provides the MFR white paper describing gas storage optimization modeling. Attachment 684-B provides non-confidential supporting detail and Highly Confidential Attachment 684-C provides confidential supporting detail.
b. PGE's balance of gas stock follows the matching principle of aligning costs and benefits. As customers receive the benefits both from a reliability perspective in actual operations and from a financial perspective via reduced NVPC collected in customer prices, customers should also have the costs of fuel reserves reflected in customer prices. PGE's gas reserve balance included in rate base matches the gas reserve balance forecast in PGE's 2024 AUT.
c. See response to subpart (b) above.

d. PGE is unclear on the meaning of "volume and price of gas used in the NVPC" and "volume and price of gas used in the Company's fuel stock." It is unclear if Staff is referring to actuals or forecast. NVPC both forecast and actual use gas from North Mist (i.e., PGE's fuel stock) and gas from a variety of pipelines to fuel natural gas plants. North Mist gas is valued at weighted average cost and volume fluctuates based upon gas injected and gas withdrawn. There is no difference.
e. If PGE were to modify the level of fuel reserves held at North Mist, as modeled in PGE's NVPC forecast, it would impact power costs.

August 27, 2024
To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 689
Dated August 20, 2024

Request:

Please refer to PGE/1300, Batzler-Meeks/48, lines 14-21.

a. Explain further the importance or the need to align the value of gas in fuel stock with the NVPC benefits provided to customers.
b. Explain why Staff's recommendation of using an average of natural gas fuel stock over the course of the test year would not be reflective of the used and useful amounts of gas within PGE's test year.
c. When did PGE start to modify the way its gas stock is forecasted.

Response:

a. Refer to PGE's response to OPUC Data Request No. 684, part (b).
b. See PGE/1300, Batzler-Meeks, 48, lines 12-13.
c. PGE understands this sub-part as referring to PGE/1300, Batzler-Meeks/48, lines 20-21. With this understanding, PGE responds as follows: PGE modified its forecast methodology for this proceeding to more accurately and directly link the gas storage amounts included and utilized within PGE's gas storage optimization model.

August 27, 2024
To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 683
Dated August 20, 2024

Request:

Please see PGE/1300, Batzler-Meeks/49. Please identify what customer benefits the Company referring to?

a. Confirm staff's presumption that PGE seeks to purchase gas during periods of low prices for reserves.
b. Are any forward price curves used in the valuing of natural gas? If so, explain how this fuel stock would be valued at the purchase price if the purchase has not yet occurred.
c. If forward gas prices are used in the calculation of gas reserves, explain how customers are benefiting from a reduced price for gas reserves.

Response:

PGE is referring to the gas optimization benefits provided to customers through the AUT.
Please see PGE/1300, Batzler-Meeks/49, note 49

a. In both the modeling of gas reserves at North Mist and in actual operations, PGE typically injects gas during months/periods that have a reduced need for thermal generation, which generally coincides with lower gas prices.
b. Yes. The WACOG for December 31, 2024 uses PGE's final gas optimization modeling workbook from the November 15, 2023 final net variable power cost update filing for 2024 forecast power costs. The balance is valued at actual WACOG through September 30, 2023, with forecast purchases and forecast usage through December 31, 2024.
c. Customers benefit from reduced prices for gas reserves through lower net variable power costs.

August 27, 2024
To: Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 685
Dated August 20, 2024

Request:

Confirm whether the Company maintains a minimum of gas reserves and does not deplete the balance to zero in any given month.

a. What percent of PGEs gas is not used during the year and kept in long term storage/reserves?
b. Is this gas still valued at the Company's WACOG?

Response:

All of PGE's gas reserves are available to be used. However, as PGE is a provider of last resort, simply using all of PGE's fuel reserve at North Mist as a matter of course would likely be imprudent unless very extreme circumstances warranted such a need. These reserves are held to ensure PGE has some ability to generate power for customers, when all other means have been exhausted.

a. In 2023, PGE had a starting balance of 2,637,030 dekatherms (Dth) of gas at North Mist, with 6,752,765 Dth purchased during the year and 5,263,082 Dth burned during the year.
b. All gas included in storage and burned from storage is valued at WACOG.

August 27, 2024

Caroline Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Redacted Response to OPUC Data
Request 691 Dated August 20, 2024

Reauest:

See PGE/1300, Batzler-Meeks/53. How would the selling of the oil at Beaver impact the Company's costs and customer rates.

Resvonse:

The financial result of selling the oil at Beaver would flow through Net Variable Power Cost. The most recent quote that PGE received for its oil stock is [BEGIN CONFIDENTIAL] [redacted] [END CONFIDENTIAL] which is below PGE's current WAC, meaning that the oil would be sold at a loss. Since PGE has not yet made a final decision on whether or at what price to sell this oil stock, since it will be used and useful through 2025, the impact on costs and customer rates is currently unknown.

CASE: UE 435
WITNESS: LAUREL ANDERSON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3700

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Laurel Anderson. I am a Senior Telecommunications Analyst employed in the Water, Telecom, Safety, and Consumers Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Please describe your educational background and work experience.

A. My Witness Qualifications Statement is found in Exhibit Anderson/1001.

Q. What is the purpose of your testimony?

A. My Rebuttal Testimony addresses non-labor generation overhead and maintenance (O&M) expenses (non-labor accounts).

GENERATION EXPENSES (NON-LABOR)

Q. What is driving the changes in non-labor generation O&M expenses?

A. According to Portland General Electric (PGE or the Company), the primary driver for the change is an increase in costs associated with PGE's Clearwater project. Specifically, PGE is obligated to pay $6 million in Custer County impact fees ($2 million annually) from 2024 to 2026. The 2024 $2 million fee was capitalized while the subsequent annual $2 million fee is defined as O&M expense.

Q. What was Staff's recommendation in Opening Testimony?

A. Staff proposed an adjustment to remove the $2 million Custer County impact fee associated with PGE's Clearwater project from revenue requirement.

Q. Did any intervenors find similar issues?

A. Yes. AWEC had a similar adjustment.[1] AWEC proposes a decrease of $5.8 million in O&M expenses, which would include Staff's $2 million adjustment.

Q. Does PGE agree with Staff's adjustment?

A. Yes. PGE has determined that the fee is a capital expenditure and should not be included in O&M expenses. They agree to reduce O&M by the $2.0 million.[2] PGE states that "the Clearwater-related Custer County fee was determined to be capital and is included in the close-to-plant amounts for Clearwater."

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[1] AWEC/100, Mullins/32.
[2] PGE/1700, Powell-Clark/2.

Q. Does PGE make any other statements about the Custer County impact fee that Staff would like to address?

A. Yes. Staff believes that the entire $6.0 million of the Custer County fee is currently included within the close-to-plant amounts for Clearwater and no adjustment to plant is suggested.[3]

Q. Does this conclude your testimony?

A. Yes.

[3] PGE/1700 Powell-Clark/2.

CASE: UE 435
WITNESS: NICOLA PETERSON

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3800

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Nicola Peterson. I am a Senior Telecoms Analyst employed in the Water, Telecom, Safety and Consumers Program of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony was provided in Exhibit Staff/1100 and my Witness Qualifications Statement was provided in Exhibit Staff/1101.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address any outstanding issues detailed in my and Scott Shearers' Opening Testimony and PGE's Reply Testimony in relation to Test Year expense for Customer Accounts and Services, Administrative & General (A&G), Employee Health Insurance and Benefits, Amazon Pay, and issues related to PGE's pursuit of Grants.

Q. Did you prepare any exhibits for this docket?

A. No.

Q. How is your testimony organized?

A. My testimony is organized as follows:

CUSTOMER ACCOUNTS AND SERVICE O&M EXPENSE

Q. What adjustment did you propose in your Opening Testimony for customer accounts and service expense?

A. I recommended a $2.0 million downward adjustment to FERC Account 903 (Customer records and collection expenses) and a $2.0 million downward adjustment to FERC Account 908 (Customer assistance expenses) to bring these expenses in line with a more reasonable estimate of expenses based on a three-year average.

Q. Did any intervenors recommend an adjustment to these accounts?

A. Yes, AWEC recommended a $2.6 million reduction to Customer Accounts non-labor O&M and a $5.3 million reduction to the Customer Service O&M.

Q. Staff based their adjustments on averages, whereas AWEC looked at growth rates, both compared the Test Year amounts to 2023 actuals, did PGE agree with these approaches?

A. No. PGE disagreed with both Staff's averages-based methodology and AWEC's growth rates-based approach, explaining that these methods run counter to a forward-looking Test Year and fail to recognize the impact of COVID 19, inflation, and shifts in customer expectations.[1] PGE also stated that the Company's 2024 budget contains amounts currently included in rates and agreed upon in UE 416 and therefore focusing on any movement in expenses from 2023 to 2024 is repetitious.

[1] PGE/1500, McFarland-Lawrence/6.

Q. Why did Staff use an average and compare the Test Year amounts to 2023 actuals?

A. Staff's focus when forming an opinion on the level of expenses in these accounts was on the overall amounts, not just the additional expenses added to a previous year's budget. Staff understands there may be additional expenses but is also aware that the current level of expense is not a given without considering cost savings, and the moving of funds from current projects to fund new projects. For example, PGE testifies the movement in Account 908 from 2023 to 2024 to the Test year is partially due to movement in budgeted dollars from the 2023 year to the 2024. This is a prime example of why averages are a good indication of a level of costs which are reasonable and justifiable. Focusing on the increase in PGE's budget from 2023 to 2024 and then the reduction from 2024 to the Test year is not representative of the annual level of expenditure.

Furthermore, Staff disagrees with the Company that its budget in 2024 is the appropriate baseline for measuring the reasonableness of the 2025 base year. Revenue requirement in PGE's last rate case was determined as the result of a black box settlement and dollar amounts for individual accounts were not specified nor agreed upon. This is why Staff believes starting the analysis with a comparison to actual expenses incurred in 2023 gives a more realistic and reasonable basis for the determination of Test Year expense.

Q. Did PGE address the movement in the individual FERC accounts?

A. Yes. According to PGE, the $3 million increase to the 2024 budgeted amounts for customer assistance expense (FERC Account 908), as compared to 2023 actuals, was due to (1) moving energy efficiency funding from Schedule 110 into base rates, which increased the Energy Efficiency Outreach department budget by $920 thousand; (2) increasing Communications and Outreach by $1.5 million to build awareness about actions customers can take related to energy management; and (3) two years of escalations.[2] PGE explains its 2025 Test Year forecast is less than its 2024 budget because PGE removed $0.55 million (5 percent) for one-time costs related to a special marketing push for customer energy management.[3]

With regards to customer records and collection expense (Account 903), which increased by $2.8 million (10.2 percent) over the 2024 budget and $4.9 million (18.6 percent) over 2023 actuals, PGE explained that the increase over the 2024 budget was mainly due to an additional $2.2 million of amortization relating to incremental Distribution Standby Generators (DSG). PGE went on to explain that the increase from 2023 to 2024 was due to normal cost escalations.

Q. What is PGE's conclusion regarding these accounts?

A. PGE believes the amounts included in these accounts are justified and accurately reflect expenses required in the Test Year and therefore they request the Commission deny Staff and AWECs recommendations.

[2] PGE/1500, MacFarland-Lawrence/11-12.
[3] PGE/1500, MacFarland-Lawrence/11.

Q. What is Staff's conclusion regarding expense in FERC Account 903 for customer records and collection?

A. Staff does not agree PGE's proposed Test Year expense is reasonable. FERC Account 903 is nearly $3 million over the 2024 budget, $2.2 million of this which is attributed to the incremental DSG amortization, a program that is part of the Company's Virtual Power Plant. Staff argues that the Company has not shown that the Virtual Power Plant has provided enough customer value to warrant the incremental costs that PGE requests. [4] Therefore, Staff continues to recommend a $2 million adjustment to this account.

With regards to customer assistance expense in FERC Account 908, PGE's 2025 Test Year expense for FERC Account 908 is $2.4 million higher than PGE's 2023 actuals. Staff does not think PGE has shown this spending is reasonable in current economic circumstances. Further, it is unknown whether the amount budgeted for 2024 is close to PGE's actual costs.

However, in light of the fact PGE's 2024 Budget includes amounts transferred from 2023, Staff has recalculated the 3-year averages included in Opening Testimony and will reduce its proposed adjustment from ($2.0) to ($1.5) million. With this adjustment, PGE's Test Year expense will be approximately $500,000 more than its actual expense for 2023, but below amounts budgeted for 2024.

[4] Staff/1700, Dlouhy/10.

ADMINISTRATIVE & GENERAL EXPENSE

Q. Did Staff propose an A&G adjustment in Opening Testimony?

A. Yes. Staff proposed an adjustment of ($1.78 million) to FERC Account 921 (office supplies), which had increased by $2.28 million (14 percent) over 2023 actuals.

Q. Did PGE agree with Staff's recommended adjustment to FERC account 921?

A. No. PGE rejected this recommendation stating that the single largest driver and incremental expense related to this increase is $0.75 million to support training and organizational change management for several of PGE's new software solutions (i.e. Maximo, IQGeo, and C2M).[5] Per the Company, implementing new software requires training and outside support to ensure their workforce is best equipped to take advantage of expanded capabilities and realize the full potential of these solutions.

Q. Has Staff changed its recommendation in light of this information?

A. No. After Staff reviewed the Company's Reply Testimony, Staff still did not find PGE's requested increase to be justified. Implementing new software does require training but this is usually a one-off event or non-incremental to normal operations, and the amount mentioned is more than covered by the requested increase over the 2024 budget. Accordingly, Staff recommends basing the

[5] PGE/1500, McFarland-Lawrence.

Test Year expense on PGE’s average expenditures since 2021, which Staff believes provides a more reasonable basis than setting rates.

Q. Were there any remaining questions in your Opening Testimony that have now been resolved?

A. Yes. In my Opening Testimony I had outstanding data requests and further analysis to complete prior to making a final recommendation on accounts 920 and 922. Staff has since received the relevant responses.

Q. Having received those data requests and completed the additional analysis, are there any additional adjustments that you recommend for these accounts?

A. No. Staff is not recommending any adjustments to these accounts.

EMPLOYEE HEALTH INSURANCE & BENEFITS

Q. Did Staff recommend an adjustment for Employee Health Insurance & Benefit adjustment in its Opening Testimony?

A. Yes. The Employee Health Insurance and Benefit adjustment in Staff's Opening Testimony was based on reducing the escalation of Medical and Dental benefit expense from 9.4 percent to 6 percent.

Q. Did PGE agree with Staff's adjustment?

A. No. PGE noted that after communication with their Health and Dental insurance broker, the near final escalation of expense was to be approximately 8.5 percent.[6] However, despite this PGE has not proposed reducing the Test year amounts and continues to request a 9.4 percent increase as initially filed in the Company's Opening Testimony.

Q. Has Staff's recommended adjustment changed?

A. Yes. After reviewing the Company's testimony Staff has reduced its adjustment from ($1.965 million) to ($0.485 million), which reflects an 8.5 percent increase over the 2024 budget.

[6] PGE/1400, Mersereau-Van Oostrum-Batzler/21.

GRANT EFFORTS

Q. Did Staff recommend adjustments regarding grant efforts?

A. Staff proposed two adjustments to O&M in regard to grants. The first was a removal of $600,000 in expense that PGE included in the Test Year for this rate case relating to its federal Grid Edge Computing Grant (Grid Edge), the second was a reduction to O&M of $100,000 to reflect 10 percent of the 2025 base for the four federal grants PGE has received thus far. Staff's opinion was that these expenses may be federally reimbursable and thus should not be charged to customers.

Q. What is PGE's position on Staff's recommendation?

A. PGE stated that although the Company is entitled to the reimbursement of indirect costs under the 10 percent de minimis rate, which will benefit customers, they will also incur non reimbursable costs that far exceed the adjustments that Staff is proposing. The Company goes on to explain that these non-reimbursable costs are not included in the revenue requirement, thus Staffs' recommendation should be rejected.[7]

Q. Does Staff agree with PGE's opinion?

A. Not entirely. Surely the purpose of applying for and receiving grants is to fund projects that will benefit the Company and its customers. These projects should be projects the Company was either considering regardless of the grant and therefore the grant monies would in the long run reduce revenue requirement, or projects that after a cost benefit analysis the Company considers worth the

[7] PGE/1300, Batzler-Meeks/6.

additional revenue requirement. If as PGE states, all the grants listed will have a detrimental effect on the revenue requirement because the Company will be forced to incur additional expenditures that will be over and above any additional revenues, then cost benefit analysis becomes imperative.

Staff's opinion of the reimbursement of indirect costs under the 10 percent de minimis rate was that these costs would be incurred regardless of whether a grant was received or not. Staff understands the Company's position; however, Staff is concerned that PGE is asking the Commission to assume that all the grants it listed in opening testimony will have no financial benefit whatsoever, and thus cannot offset any amount of customer revenues.

Q. Has Staff changed its recommended adjustment?

A. Yes. The Test year includes expenses of $0.6 million relating to the federal Grid Edge Computing Grant of which an unknown percentage is reimbursable. In the absence of any supporting information, Staff assumes that all the grants are reimbursable. Staff welcomes the Company to provide supporting information demonstrating whether this is the case. Staff has removed the adjustment of ($100,000), which reflected 10 percent of the 2025 base for the four federal grants PGE has received thus far.

AMAZON PAY

Q. Did Staff propose an adjustment related to Amazon Pay fees?

A. Yes. Staff proposed an adjustment of ($25.5 thousand) related to Amazon Pay payment processing fees and PGE addressed this recommendation.

Q. Did the Company agree with Staff's adjustment?

A. Yes. PGE agrees to remove the $25.5 thousand and will evaluate whether to offer this option to customers in the future.[8]

[8] PGE/1500, McFarland-Lawrence/3.

SUMMARY OF RECOMMENDATIONS AND ADJUSTMENTS

Q. Please summarize your recommendations and adjustments.

A. The following are my recommendations and adjustments.

1. Customer Accounts and Service expense: Adjustment of $4 million reduced to $3.5 million.
2. Administrative and General expenses: Adjustment of $1.78 million
3. Employee Health Insurance & Benefits: Adjustment of $1.965 million reduced to $0.485 million.
4. Grant Efforts: Adjustment of $0.7 million reduced to $0.6 million.
5. Amazon Pay: Opening testimony adjustment of $25.5 thousand agreed to by PGE.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 435
WITNESS: MITCHELL MOORE

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 3900

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Mitchell Moore. I am a Senior Utility Analyst employed in the Commission's Energy Program. My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. I provided Staff Opening Testimony in Exhibits Staff/1500-1502.

Q. What is the purpose of your testimony?

A. I rebut Portland General Electric' Company's (PGE or Company) Reply Testimony addressing my Opening Testimony positions concerning materials and supplies.

ISSUE 1. MATERIALS AND SUPPLIES

Q. Please summarize Staff's position on materials and supplies in Opening Testimony.

A. I proposed a materials and supplies rate base Test Year balance of $58,884,172. This resulted in an adjustment of ($19.81 million) to PGE's forecast balance. My adjustment was arrived at by using an average of monthly average balances for the years 2021-2023 and then escalating for inflation to the Test Year using the All-Urban CPI index for 2024.[1]

Q. What was PGE's response to Staff's proposal?

A. PGE rejected Staff's proposal. The Company argued the primary driver in its materials and supplies balance is growth and increasing complexity on its transmission and distribution (T&D) system that drives a need to have a greater amount of materials on hand. In addition, the Company pointed to inflation increases in recent years to further justify its proposed increases in expenses. Specifically, the Company points out an annual inflation rate for the cost of poles from July 2021 to June 2024 is 13.8 percent, and the annual inflation rate of transformers over this period is 13.4 percent.[2]

Q. Does Staff agree with PGE's response?

A. No. Staff's methodology for calculating Test Year materials and supplies rate base is consistent with how Staff has historically forecast this component of rate base. Taking into account the core rates of inflation, escalating each year

[1] Staff/1500, Moore.
[2] See UE 435 PGE/1300, Batzler-Meeks/55.

by the CPI index, using the 3-year historical average balance, and then escalating by the current rate of inflation produces a result that reasonably forecasts the projected need in operations and maintenance. The Company does not explain what methodology it uses to arrive at its forecast, nor does it provide evidence to substantiate that its forecast balance accurately anticipates future operational needs and procurement costs.

In addition, the Company's average balance over the 2021-2024 period has increased 75 percent, and annualized 18.8 percent, which is far higher than the actual inflation rate as illustrated by Table 1 below.

Table 1

Year	Avg balance	% Incr
2021	44,897,382	
2022	54,476,845	21.3
2023	69,325,667	27.3
2024	78,628,333	13.4

Q. What other issues does PGE address regarding Staff's materials and supplies recommendation?

A. The Company points out in rebuttal testimony that Staff's CPI escalation of 2.7 percent to 2024 conflicts with the escalation of 3.3 percent suggested in Staff Exhibit 300. Second, the Company notes an error in Staff's workpaper referencing the March 2024 forecast.

Q. How does Staff respond to these issues?

A. Staff concedes the Company's point about using the most recent CPI 2024 inflation projection of 3.3 percent instead of the 2.7 percent Staff used to calculate the forecast. Accordingly, I have adjusted my proposed adjustment to use the 3.3 percent escalator. With respect to the Staff workpaper, the error was due to an error in transcribing the reported amount in Company response to a data request.[3] I correct the error in my new adjustment.

Q. What is Staff's new adjustment?

A. Re-calculating the forecast Test Year balance by applying the all-urban CPI inflation factor of 3.3 percent, and correcting the transcription error that over forecasted March 2024 by $800 thousand, results in a Test Year forecast of $59,228,188. This amount corresponds with an adjustment of ($19.27 million) to PGE's proposed amount.

Staff maintains its original position that its practice of using an average of monthly average balances over a three-year historical period and escalating for inflation projects a reasonable Test Year amount. Using a three-year average minimizes the impact of anomalous events that may occur in a given year that wouldn't be reflective of the Test Year and also takes into account growth in the Company's actual material and supplies balance. Since PGE has not explained its forecast methodology, demonstrated the accuracy of its forecast, or shown why it is reasonable to require ratepayers to pay for an unsupported forecast of materials and supplies, the Commission should adopt Staff's recommended PGE's forecast Test Year for materials and supplies.

Q. Does this conclude your testimony?

A. Yes.

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[3] See Exhibit Staff/3901 - Company response to Staff DR No. 598.

CASE: UE 435
WITNESS: MITCHELL MOORE

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 3901

Exhibits in Support
Of Rebuttal Testimony

September 10, 2024

June 20, 2024

To: Bryan Conway
Public Utility Commission of Oregon

From: Jaki Ferchland
Senior Manager, Revenue Requirement

Portland General Electric Company
UE 435
PGE Response to OPUC Data Request 598
Dated June 6, 2024

Request:

Please provide monthly ending balances for non-fuel materials and supplies for each of the years 2022, 2021, 2020, and 2019.

Response:

PGE objects to this request on the basis that it is overly broad and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, PGE responds as follows:

	Materials and Supplies			
Monthly Ending Balances	2019	2020	2021	2022
January	$47,405,984	$50,039,201	$44,254,356	$47,970,429
February	$46,948,323	$50,603,012	$44,505,644	$47,811,191
March	$47,140,541	$50,553,524	$44,488,314	$48,346,990
April	$48,030,007	$53,707,695	$43,653,635	$49,719,480
May	$47,533,382	$54,659,654	$46,224,112	$51,777,096
June	$47,631,912	$55,299,343	$43,544,817	$54,527,187
July	$47,892,361	$54,891,085	$43,883,310	$56,551,119
August	$48,697,916	$54,505,648	$43,458,056	$57,374,908
September	$49,208,457	$54,510,920	$45,174,976	$58,955,133
October	$49,230,551	$53,564,411	$45,988,681	$60,858,576
November	$49,425,995	$53,024,204	$46,636,557	$61,146,010
December	$49,699,682	$44,354,842	$46,956,125	$58,684,025

CASE: UE 435
WITNESS: DAVID ABRAHAM

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 4000

REBUTTAL TESTIMONY
Miscellaneous Operating Revenue

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is David Abraham. I am a Senior Economist employed in the Energy Cost Section of the Public Utility Commission of Oregon (OPUC or Commission). My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is found in Exhibit No. Staff/2000 and my Witness Qualifications Statement is provided in Exhibit No. Staff/2001.

Q. What is the purpose of your testimony?

A. I discuss and review Portland General Electric (PGE or the Company) Rebuttal Testimony related to Other Operating Revenue.

Q. Did you prepare any exhibits for this docket in addition to Staff/2001?

A. No.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. JOINT POLE RENT REVENUE

Q. Please summarize your position on pole rent revenue from Opening Testimony.

A. PGE is estimating pole rent revenue to be $14.6 million for the Test Year in this filing. Staff analyzed the Company's 2022 Test Year estimate in UE 394 and discovered that the Company had underestimated joint pole rent revenue by approximately $1.0 million. Staff's Opening Testimony identified the Company's under forecasting of Other Operating Revenue in UE 394 by $12.8 million. Staff believes the Company is once again underestimating Other Operating Revenue in its current GRC filing. The Company's Test Year request for joint pole rent revenue in this filing is $14.6 million, which represents a $2.9 million reduction in revenue compared to the last known actuals from 2023. Staff recommends applying a three-year average of actual joint pole revenue (2021-2023), which would produce a Test Year estimate of $15.3 million, or an increase of $732 thousand compared to the Company's Test Year request.

Q. What is the Company's response to Staff's Opening Testimony regarding joint pole revenue?

A. The Company asserts that it is more appropriate to estimate Other Operating Revenue based on expectations of revenue informed by customer information.[1] The Company also asserts that the 2023 joint pole revenue amount is an outlier and should not be included in the three-year average. The Company

[1] PGE/1300, Batzler – Meeks/57.

attributes the increase in joint pole revenue in 2023 to greater than normal sanctions from joint pole occupants due to non-compliance issues.[2]

Q. Does Staff agree with the Company's rebuttal testimony regarding joint pole revenue?

A. Staff agrees that joint pole revenue in 2023 experienced a significant increase compared to the previous two years; however, Staff does not agree that 2023 should be completely discarded from the three-year average calculation. As PGE has testified in relation to other issues, a three-year average helps smooth out anomalous years.[3] Therefore, the Company is being inconsistent in recommending the use of a three-year average in some spaces while recommending against it when it hurts their bottom line. The Company's reluctance to incorporate a measured incremental relative to historical actuals may be part of the reason the Company has under-forecasted Other Revenue over the past three GRC's. Staff believes that non-compliance revenue is still probable for the Test Year and Staff's proposal for a three-year average is a reasonable increment relative to the historical actuals displayed in Figure 1.

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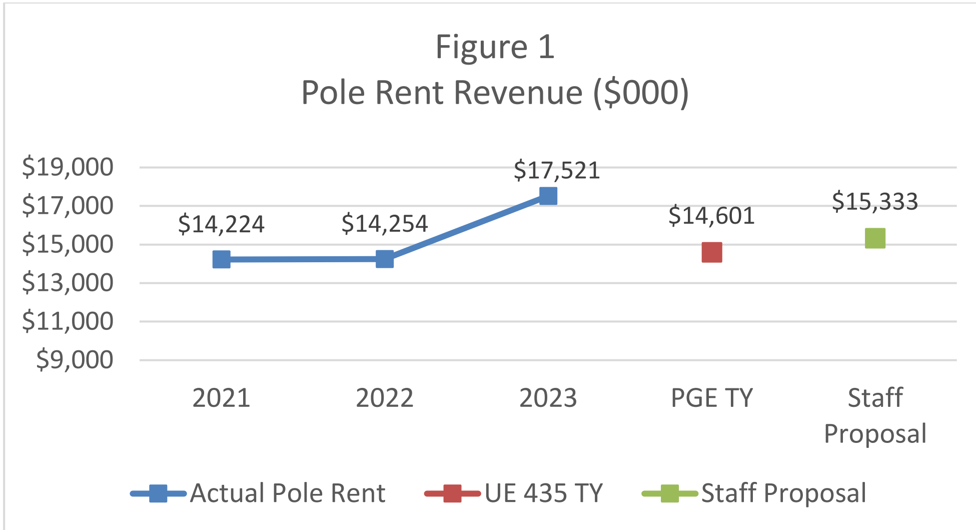
[2] PGE/1300. Batzler – Meeks/58.
[3] PGE/2000, Macfarlane – Pleasant/13.



Q. Did the Company consider a potential for a repeat of the sanctions leveled in 2023 to be included in the Test Year forecast?

A. Yes. The Company describes a certain level of sanctions revenue within the 2025 joint pole revenue forecast; however, the Company adds that it is not reasonable to expect the level from 2023 to be repeated.

Q. Is Staff recommending a repeat of the 2023 sanctions revenue to be included in the Test Year forecast?

A. No. Staff does not propose the same level of 2023 sanctions revenue should be included in the Test Year estimate. Staff only proposes that a reasonable portion of sanctions revenue should be included in the Test Year forecast and that the best option available for capturing that portion is by applying a three-year average to actual observed historical pole rent revenue.

Q. Has Staff's recommendation from Opening Testimony changed?

A. No. Staff continues to believe that the Company's methodology for estimating pole rent revenue to be inherently biased in a manner that consistently under-estimates pole rent revenue and PGE has not presented any compelling evidence to warrant a reconsideration of that determination.

ISSUE 2. STEAM SALES REVENUE

Q. Please summarize your position on steam sales revenue from Opening Testimony.

A. PGE is estimating steam sales revenue to be $2.3 million for the Test Year in this filing. Staff analyzed the Company's estimate for 2022 Test Year steam sales revenue in the Company's GRC filing (UE 394) and discovered that the Company had underestimated steam sales revenue by approximately $3.1 million. In this current GRC filing, PGE is once again underestimating steam sales revenue as the Company's Test Year request is less than any of the previous three years of actual steam sales revenue (2021-2023). In Opening Testimony, Staff recommended using the three-year average (2021-2023) as an alternative to PGE's Test Year request, which results in an increase of $1.7 million over the Company's Test Year estimate of $2.3 million.

Q. Briefly summarize how PGE responded to Staff's proposal in its Reply Testimony.

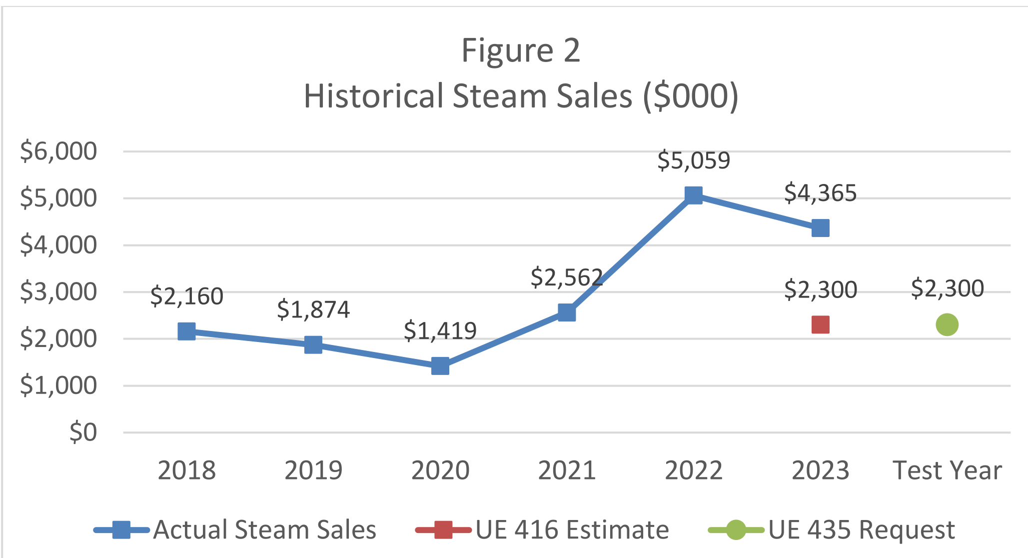
A. PGE rejects Staff's proposal based on its assertion that 2022 steam sales were atypical and should not be included within the average. The Company provides an example of a "Normalized Average" of steam sales by removing 2022 and replacing it with steam sales from 2020. Staff would like to point out that steam sales in 2022 were at their lowest level over a six-year period (2018-2023). PGE's "Normalized Average" of steam sales revenue is $2.8 million, which Staff notes is still $500 thousand above PGE's requested Test Year forecast included in this filing.

Q. What methodology does PGE propose for estimating steam sales revenue in this filing?

A. PGE describes its reliance upon forecasted expectations provided by third party food production facilities who purchase steam from the Company as a more appropriate option compared to Staff's three-average proposal.[4]

Q. Does Staff agree with the Company's claim regarding its steam sales forecast?

A. No. When PGE's forecasting methodology is compared to an average of actuals, it is evident how far off the Company's forecast was in UE 416, as displayed in Figure 2.



Staff points out that applying a three-year average of actual steam sales (2020–2022) would have produced a 2023 estimate of $3.0 million, or approximately $713,000 closer to actual steam sales compared the

4 PGE/1300, Batzler – Meeks/57.

Company's 2023 forecast. As previously pointed out, Staff finds it inconsistent and self-serving for the Company to object to anomalous years when calculating a three-year average in this space while simultaneously proposing to use a three-year average to smooth out anomalies in other spaces.

Q. Has Staff's recommendation from Opening Testimony changed?

A. No. Staff continues to believe the Company is applying a forecasting methodology that consistently under-estimates steam sales revenue and PGE's Rebuttal Testimony has not presented any evidence compelling enough to counter Staff's opening position.

Q. Please summarize your Rebuttal Testimony.

A. Other Operating Revenue comprises a substantive component of a rate case due to its treatment as an offset to expenses. Staff remains concerned with PGE's consistent under-estimation of Other Revenues, as it has in each of the last three GRC's displayed in Table 1.[5]

Table 1 - PGE Other Revenue Forecast vs. Actuals

Description	UE 319	UE 335	UE 394
Other Revenue Actuals	$ 31,877,530	$ 41,224,471	$ 42,155,091
PGE Forecast	$ 25,840,848	$ 25,327,395	$ 29,345,569
Amount Under-forecasted	$ 6,036,682	$ 15,897,076	$ 12,809,522
Percent Under-forecasted	23.4%	62.8%	43.7%

Staff also notes the Company's description of forecasting joint pole revenue and steam sales revenue as, "…unpredictable and variable for differing

5 See UE 416/Staff/1600/5.

reasons."[6] Staff questions PGE's practice of deferring to third party customer estimates as a basis to forecast variables that the Company describes as "unpredictable". Staff's adjustments, recommended in this filing, would increase the Company's Test Year request for Other Operating Revenue by $2.4 million.

Table 2 - Summary of Staff Adjustments

Description	PGE Request	Staff Recommendation	Staff Adjustment
Joint Pole Rent	$ 14,601,533	$ 15,333,543	$ 732,010
Steam Sales	$ 2,300,000	$ 3,995,911	$ 1,695,911
Total Adjustment	$ 16,901,533	$ 19,329,454	$ 2,427,921

Staff believes that applying a three-year average of historical actuals will improve the Company's forecast results for Other Operating Revenue.

Q. Does this conclude your testimony.

A. Yes.

6 PGE/1300, Batzler – Meeks/57.

CASE: UE 435
WITNESS: PAUL ROSSOW

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 4100

Rebuttal Testimony

September 10, 2024

Q. Please state your name, occupation, and business address.

A. My name is Paul Rossow. I am a Utility Analyst employed in the in the Accounting and Finance Section of the Commission's Energy Program. My business address is 201 High Street SE, Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes. My Opening Testimony is provided in Exhibit Staff/2100-2103.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to Portland General Electric Company's (PGE or Company) Reply Testimony regarding the Company's memberships, dues, donations, meals, entertainment, and awards expenses.

Q. Did you prepare any exhibits for this docket?

A. Yes. I prepared the following support exhibits.

Exhibit Staff/4101. Energy and Policy Institute's Edison Electric Institute Report

Q. How is your testimony organized?

A. My testimony is organized as follows:

SUMMARY FINDINGS AND RECOMMENDATIONS

Q. Please summarize your findings and recommendations.

A. Staff's recommendations are as follows:

- Issue 1 (Meals and Entertainment) – PGE accepts Staff's Oregon Test Year expense adjustment of ($142,608).
- Issue 2 (Memberships and Dues) – Staff continues to propose a total adjustment of ($301,984) to PGE's Test Year expense.

ISSUE 2. MEMBERSHIPS AND DUES

Q. What was Staff's recommendation as published in Opening Testimony for memberships and dues expenses?

A. In Opening Testimony, Staff explained that Commission practice is to exclude 100 percent of membership dues related to economic development and civic organizations and 25 percent of membership dues for trade organizations. With respect to other organizations, Staff recommends disallowing all memberships or dues unless the utility can present a convincing argument the membership is necessary for utility service or otherwise to benefit ratepayers.[1]

Staff identified membership expenses for trade organizations, economic development and civic organizations in PGE's Oregon allocated Base Year that fit within the categories above, as well as dues recorded for unidentifiable acronyms or with insufficient descriptions. Next, Staff applied an All-Urban CPI inflation factor of 2.2 percent to the Base Year amount, resulting in an Oregon escalated 2025 Test Year proposed adjustment of ($301,984).

Q. Does PGE believe any portion of Staff's adjustment is appropriate?

A. Yes. After further review, the Company agreed that ($47,347) of Staff's proposed membership adjustment is appropriate as it was for dues not appropriately recovered from ratepayers. The Company believes the remainder of the membership expense for various national trade groups and organizations directly supports its utility business and benefits customers with;[2]

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1 Staff/2100, Rossow/6.
2 PGE/1400, Mersereau – Van Oostrum – Batzler/38.

- Knowledge access and transfer;
- Collaborative industry wide forums;
- Continuing education and certification of individuals; and
- Access to certain conferences.

PGE argues that dues paid to these organizations should be recovered from ratepayers at 100 percent, not seventy-five percent as Staff proposes. PGE notes that the orders relied on by Staff support adjustments to dues for civic and community organizations, but do not support adjustments for dues to trade organizations, either because the orders did not address such organizations or were the result of a stipulation.[3] Also, PGE asserts Staff's adjustment is duplicative because PGE removes portions of memberships dues for lobbying.

Q. Is there precedent to support Staff's disallowance to dues for trade organizations?

A. Yes. For example, in a 1989 NW Natural Gas Company rate case, the Commission adopted Staff's proposed 25 percent disallowance of dues to the American Gas Association and the Pacific Coast Gas Association, concluding:

> Trade associations provide valuable research and other services to utilities. They also engage in promotional activities of a type that may not be recoverable from ratepayers. So an apportioning between ratepayers and stockholders is appropriate. The Commission has in the past generally allowed 75 percent of trade association dues to be passed on to ratepayers by Oregon utilities. The Commission will apply that policy in this case. However, Staff pointed out that significant expenditures by the AGA were related to promotional and marketing activities. The Commission is concerned about that and will

[3] PGE/1400, Mersereau – Van Oostrum – Batzler/39.

> disallow a greater portion of trade association dues in the future if an excessive proportion of an association's expenditures are for such activities.[4]

Staff recognizes this precedent is old. However, Staff applies this policy in every general rate case. The issue does not appear in more recent opinions because utilities rarely dispute the disallowance.

Q. Does Staff agree with PGE that it is inappropriate as a policy matter to require PGE shareholders to share 25 percent of the cost of memberships to trade organizations?

A. No. Staff recognizes many or most of the organizations at issue provide benefit to ratepayers; that is why ratepayers pay for 75 percent of the memberships. However, Staff is not aware of trade organizations that benefit only ratepayers. PGE provides a list of organizations that it believes ratepayers should pay for at 100 percent. The list includes organizations such as the Mortgage Bankers Association, Certified Property Managers, Harvard, Oregon Women Lawyers, Center for Energy Workforce Development, the Latino Corporate Directors Association, and SHRM in addition to energy trade organizations such as EEI. Staff does not see how these organizations could benefit only ratepayers. In fact, some of the organizations appears to be for personal development or unrelated to utility regulation, i.e., Oregon Women Lawyers and “Harvard”.

However, it is not an efficient use of Staff’s time to carefully consider the activities of each such organization to determine a particular cost allocation for

[4] *In the Matter of Revised Tariff Schedules filed by NW Natural Gas Company for a General Rate Increase*, UG 81, Order No. 89-1372 (October 19, 1989).

each one. Instead, Staff employs the policy used by the Commission since before 1989 of sharing the costs of these organizations 75 percent to ratepayers and 25 percent to the Company.

Q. Did PGE provide new information in its Rebuttal Testimony relating to Edison Energy Institute (EEI) membership dues that needs to be resolved?

A. Yes. As PGE notes in its testimony, Staff proposes to disallow $178,209 for dues paid to EEI, which is one quarter of the EEI dues recorded in PGE's FERC Accounts in 2023, escalated for the 2025 Test Year. Company witnesses Mersereau, Van Oostrum, and Batzler argue the adjustment is unnecessary because "…each year EEI provides a percentage of membership dues that are spent on lobbying and each year PGE performs an adjustment to ensure that customers do not pay for this expense. That is, these amounts are recorded and budgeted below the line."[5]

Q. Was Staff able to confirm that PGE excluded a portion of EEI membership dues from its Test Year Revenue Requirement?

A. No. Staff issued Data Request No. 671 requesting a copy of PGE's EEI invoice. Staff's review of the invoice shows that the dues recorded in FERC Account match those invoiced by EEI, which means Staff's adjustment is to the full cost of EEI membership, not a cost already adjusted by PGE to remove lobbying fees that are recorded below the line.

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[5] PGE/1400, Mersereau – Van Oostrum – Batzler/39, Lines 18-20.

In any event, Staff notes that the 25 percent adjustment is for more than lobbying. EEI also pays for activities of law firms hired by the industry to litigate environmental laws and participates in but not limited to the following categories:[6]

- Legislative advocacy;
- Regulatory advocacy;
- Public relations;
- Promotional activity;
- Legislative policy research; and
- Regulatory policy research.

All of these are expenditures that should not be paid for by ratepayers and supports existing policy to exclude 25 percent for trade organization expenditures.

Q. Does this conclude your testimony?

A. Yes.

[6] See Staff/4101, David Anderson, Matt Kasper, and David Pomerantz, "Paying for Utility Politics," Energy and Policy Institute, May 2017, p. 10.

CASE: UE 435
WITNESS: PAUL ROSSOW

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 4101

Exhibits in Support
Of Rebuttal Testimony

September 10, 2024

Paying for Utility Politics

How utility ratepayers are forced to fund the Edison Electric Institute and other political organizations

May 2017

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May 2017

The Energy and Policy Institute is a watchdog organization working to expose attacks on renewable energy and counter misinformation by fossil fuel and utility interests. It does not receive funding from for-profit corporations or grants from government agencies.

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Matt Kasper
David Pomerantz

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Executive Summary

This report explores how regulated utility companies are including their Edison Electric Institute (EEI) annual payments, along with payments to other trade associations, in their operating expenses. The widespread practice forces ratepayers to pay for political and public relations activities with which they may not agree, and from which they do not benefit. It also has the effect of ratepayers subsidizing the political activities of EEI and other trade associations. Utility commissions have a responsibility to protect ratepayers from paying for industry groups and their political work along with public relations activities. But utilities have become adroit at using EEI, and other organizations, to effectively and quietly influence policy while sheltering their shareholders from the bulk of the associated costs. Almost no other political organizations have the luxury of subsidization enjoyed by EEI and other representatives of the regulated utility industry.

EEI's Revenue, Expenses, Actions - and Why Ratepayers Shouldn't Be Paying for it

EEI is an inherently political organization, and a powerful one. At $90 million in 2015, EEI's budget is the highest it has been in over a decade, an increase which the nation's electric ratepayers have funded. President Thomas Kuhn made $4.1 million in 2015 and is one of the highest paid industry association executives. The association's budget is primarily spent on staff, many of whom spend a considerable amount of their time working to help member utilities achieve desired policy and regulatory outcomes; not all of these activities are considered lobbying under the definition EEI uses from the Internal Revenue Code, but their actions are still political in nature.

In EEI's own words, in 2015 it "rebalanced the public conversation through extensive earned media efforts at the national and state levels" to address fixed-cost recovery, "educated regulators and consumers advocates on key industry issues, including capital expenditures that highlight the record-high investments in the grid"; and spent time to make sure that the Federal Energy Regulatory Commission (FERC) "provides compensatory returns on equity that recognize the risks associated with transmission construction."[1]

These activities are intended to benefit utilities' bottom line, and it is likely that none would count in EEI's definition of lobbying, which many utility commissions use to determine which fees should not be borne by ratepayers.

1 EEI 2015 Results In Review available at http://big.assets.huffingtonpost.com/eeibooklet.pdf; EEI's 2016 Wall Street Briefing available at http://web.archive.org/web/20160715202904/http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/Documents/Wall_Street_Briefing.pdf.

Utility Companies Charging Ratepayers for EEI Dues

Electric utility ratepayers are paying for EEI's activities when an investor-owned utility includes payments to EEI (and other industry trade associations) as part of the company's cost of service in rate requests. Public utility commissioners generally approve a substantial portion of these dues with only minimal oversight, with some notable exceptions. Utility ratepayers are usually unaware that a portion of their electricity bill is going to subsidize EEI. In Florida Power & Light's 2016 rate request, for example, the utility revealed that its ratepayers are on tap to pay more than $9.5 million in EEI dues from 2015 to 2018.[2] These EEI dues went unchallenged during the Florida Public Service Commission's consideration of the utility's request to raise rates on ratepayers. A table listing examples of more than two dozen companies recovering their EEI dues from ratepayers is included in an appendix of this report.

Other Political Organizations Beyond EEI Receive Utility Ratepayers Money

EEI is not the only political organization that receives money from utility ratepayers. The American Gas Association, Nuclear Energy Institute, and the U.S. Chamber of Commerce, for example, are all groups that are often included in rate requests so that ratepayers pay for the utility's annual membership fees. Given how these organizations promote fracking and natural gas infrastructure,[3] propose bailouts for nuclear power plants,[4] and spread misinformation regarding the science of climate change,[5] they are also all political in nature. An examination of Wisconsin Public Service Corporation classification of industry association dues, for example, reveals that the utility proposed that its ratepayers help pay for not only the American Gas Association and the U.S. Chamber of Commerce membership fees, but also both the Republican and Democratic Governors Associations, and the Republican State Leadership Committee.[6]

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[2] Florida Power & Light Industry Association Dues (MFR C-15 draft) available at https://drive.google.com/file/d/0B-0ZwtRThY3LVjRjSVVPTjZ6N28/view

[3] American Gas Association, "Responsible Natural Gas Development" available at https://www.aga.org/environment/responsible-natural-gas-development

[4] Nuclear Energy Institute, "Incentives for Energy Production" available at https://www.nei.org/Issues-Policy/Economics/Incentives-for-Energy-Production

[5] Union of Concerned Scientists, "Who Stands with the U.S. Chamber of Commerce on Climate Change? New Data Says Few (Still)" available at http://blog.ucsusa.org/gretchen-goldman/who-stands-with-the-u-s-chamber-of-commerce-on-climate-change-new-data-says-few-still-788

[6] Wisconsin Public Service Corporation Governmental Relations/Memberships (Docket 6690-UR-124) available at https://www.documentcloud.org/documents/3227546-Wisconsin-Public-Service-Corporation-Dues.html

Often these payments are tucked in among industry association dues payments to less political institutions that have been recognized as providing beneficial services, such as the Electric Power Research Institute or North American Electric Reliability Corporation.

Utility Companies Push Back Against Oversight of Their EEI Dues

When third-party organizations or public service commission staffs have attempted to protect ratepayers from funding political organizations in recent years, their attempts have met with fierce resistance from the utility companies. Nevertheless, some auditors at public utility commissions and some consumer advocates either have successfully asked that the burden of proof be placed on a utility company to show how EEI dues benefit ratepayers, or have asked for more financial information regarding EEI's spending in attempts to show commissioners that EEI's spending is intended to benefit shareholders.

Waning Regulatory Oversight of Ratepayers' Paying for Political Memberships

For a time between the 1980's and early 2000's, the National Association of Regulatory Utility Commissioners (NARUC) investigated EEI's misuse of utility customer money for lobbying and public relations. This led to NARUC conducting annual audits of EEI's financial records.[7] The result was a system of compromise where, based on NARUC's annual audits, regulators ruled that utilities could collect a significantly smaller portion of their EEI dues from ratepayers. For example, the Florida Public Service Commission increased the lobbying portion of EEI dues that utilities were not allowed to recover from ratepayers from 2% in 1982 to roughly 33% in 1984.[8] The commission also barred utilities from charging ratepayers for payments to EEI's "Media Communications Program."

Over a decade ago, the NARUC audits stopped and consumer advocates have since had difficulty in fully understanding how EEI spends ratepayer money. In 2013, however, The Utility Reform Network had success getting 43.3% of the EEI dues paid by Pacific Gas & Electric' shareholders during that utility's rate request and not ratepayers as the utility originally requested.[9] Successful oversight of EEI dues has faded away in other states. The independent review of industry association dues that was once provided by NARUC has

[7] New York Times, "Utility Group Criticized on Funds for Lobbying" available at http://www.nytimes.com/1984/07/21/business/utility-group-criticized-on-funds-for-lobbying.html

[8] Florida Public Service Commission Order (No. 10306, 1981) available at https://www.documentcloud.org/documents/3141815-Florida-Public-Service-Orders-on-Industry.html#document/p27/a322247; (No. 13537, 1984) available at https://www.documentcloud.org/documents/3141815-Florida-Public-Service-Orders-on-Industry.html#document/p158/a327132

[9] Proposed Decision before the Public Utilities Commission of the State of California (Docket 14-08-032) available at https://www.documentcloud.org/documents/3239245-COMPENSATION-to-TURN-for-SUBSTANTIAL.html#document/p8/a331970

been replaced by an unreliable system of self-reporting by EEI and its utility members, both of whom have an obvious self-interest in maximizing the amount of their dues that will be paid by ratepayers.

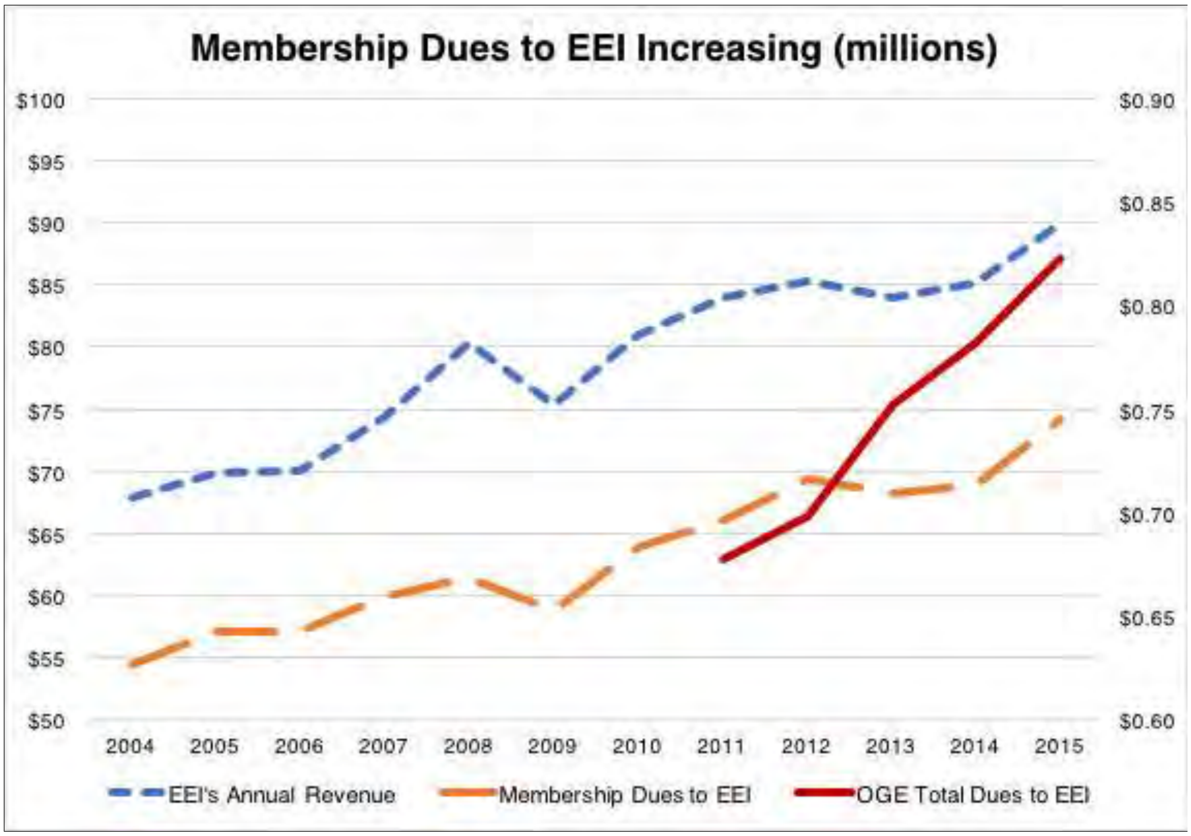
Recommendations

Precedent exists for public officials to determine the percentage of EEI's work that is benefiting ratepayers or utility company shareholders. The following recommendations would help protect ratepayers from funding utilities' political association memberships:

1. Public utility commissioners and their staff should place the burden of proof on utilities to demonstrate the exact percentage of customer money provided to industry groups and other political organizations, including EEI, that benefits their own ratepayers. This is not a recommendation for commissioners to indiscriminately disallow all EEI dues, as certain EEI programs such as storm response coordination may indeed benefit ratepayers. However, utilities should have to disclose the exact benefits that their political industry associations confer to ratepayers for each of their activities in detail. It is insufficient for utilities to only file an annual invoice from an organization that notes the self-determined lobbying percentage as guidance for commissions to determine the appropriate amount charged to ratepayers.
2. Consumer advocates and other parties whose mission is to protect ratepayers, such as attorneys general, should file for discovery in order to receive additional documents to have a better understanding of how a utility company works with their trade associations, and whether that work benefits ratepayers.
3. The National Association of Regulatory Utility Commissioners (NARUC) should revive the Committee on Utility Association Oversight and audit EEI, NEI, and AGA to determine the percentage of their operations which are political in nature and therefore ought not to be funded by ratepayers.
4. NARUC should compile a survey that shows the percentages of dues utility ratepayers are paying to industry organizations and political party focused groups; particularly (though not limited to) EEI; American Gas Association (AGA); Nuclear Energy Institute (NEI); U.S. Chamber of Commerce; Democratic Governors Association; and Republican Governors Association. Once completed and then published, this manual can help utility accounting staff across the country manage the challenges associated with determining industry association dues during rate requests. This report reveals only examples and is not exhaustive.

I. EEI’s Revenue, Expenses, Actions - and Why Ratepayers Shouldn’t Be Paying for It

Regulated utilities are subject to federal and state rules that are supposed to protect ratepayers from paying for efforts to influence policy and legislation, either by the utilities or their trade associations. However, independent and regulatory oversight of EEI’s budget and activities has declined over time and it’s worth renewing the question of what exactly ratepayers are paying for when they fund EEI’s political and public relations machine.



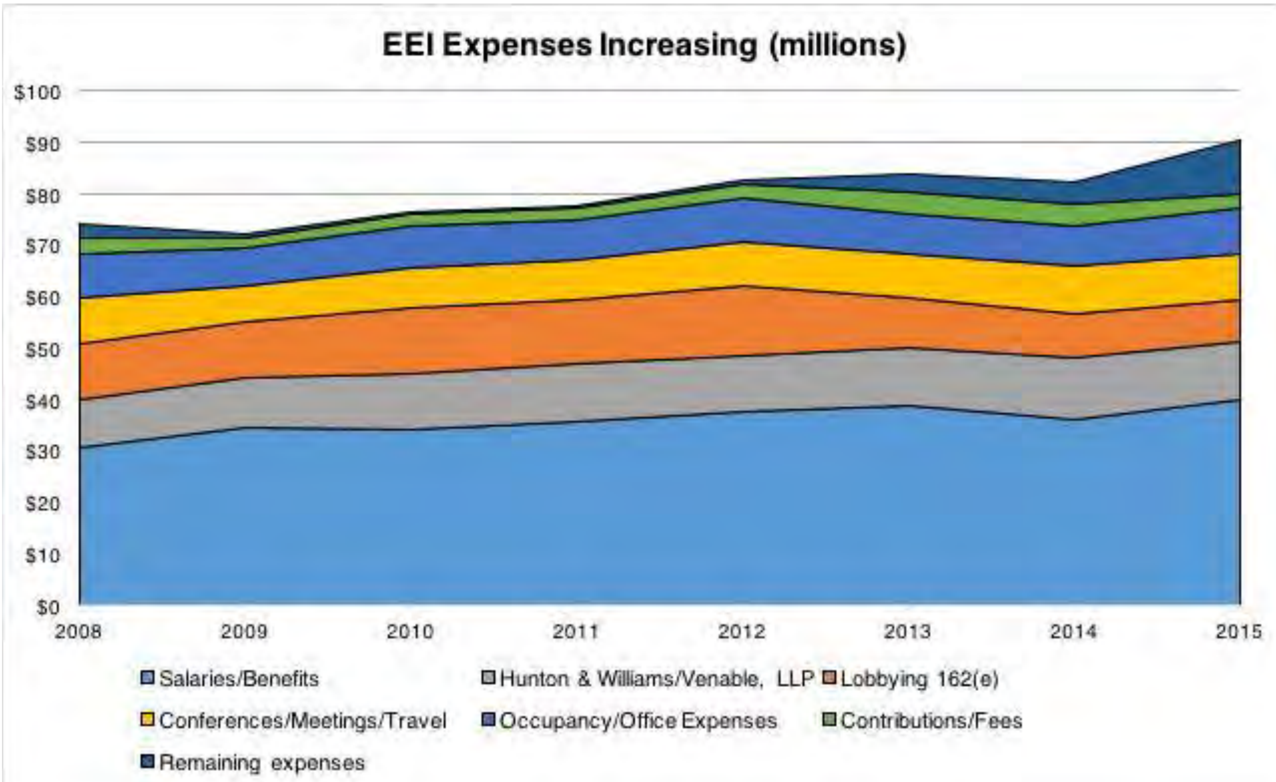
The latest IRS Form 990 filed by EEI reveals that the trade association received a total of $90 million in revenue and spent that amount as well.[10] Membership dues comprise $74 million of EEI’s revenue, or 82%, the highest percentage since 2004, which suggests that the amount of EEI dues utility companies recover from their ratepayers has also grown over the past decade. For example, invoices from EEI to Oklahoma Gas and Electric Energy Company that were submitted to the Arkansas Public Service Commission reveal member dues increasing every year from 2011 to 2016 - a total of 26% over that timespan.[11] Additionally, Florida

[10] Edison Electric Institute 2015 Form 990 available at https://www.documentcloud.org/documents/3226570-2015-EEI-990.html

[11] Edison Electric Institute invoices to OGE Energy Corp available at https://www.documentcloud.org/documents/3380957-OGE-Energy-2011-to-2016-EEI-Dues.html

Power & Light recovered about $1,450,000 in annual EEI dues from ratepayers in 2008 and is on track to recover more than $2,450,000 in 2018 - a million dollar annual increase.[12]

With the increase in revenue, EEI's expenditures have grown. Salaries and benefits for employees at the trade association make up $40 million, 44% of all expenses, and up from $30 million in 2008. The uptick in salary expenditures could be the result of an increase in executive salaries.



The most recent notable executive hire is former Federal Energy Regulatory Commissioner (FERC) Philip Moeller as a senior vice president. Because Moeller was hired at the beginning of 2016, his salary is not listed in the latest 990.[13] President Thomas Kuhn made $4.1 million in 2015, up from $1.2 million in 2004, and is ranked among the nation's highest paid industry association executives.[14] David Owens, the executive vice president for business operations and regulatory affairs who recently retired, and Brian Wolff, executive vice president for public

[12] Florida Power & Light New Operating Income Schedules and Cost of Capital Schedules (Docket No. 080677-EI) available at http://www.psc.state.fl.us/library/filings/09/02333-09/02333-09.pdf; Florida Power & Light Industry Association Dues (MFR C-15 draft) available at https://drive.google.com/file/d/0B-0ZwtRThY3LVjRjSVVPTjZ6N28/view

[13] Edison Electric Institute, "Phil Moeller Joins EEI as Senior Vice President" available at http://www.prnewswire.com/news-releases/phil-moeller-joins-eei-as-senior-vice-president-300200725.html

[14] CEO Update, "Inside Compensation: CEO salaries at large associations 2016" available at https://www.ceoupdate.com/articles/compensation/inside-compensation-ceo-salaries-large-associations-2016-top-paid

policy and external affairs, made $1.5 and $1.2 million in 2015, respectively, each having received a raise of over $300,000 since 2010.[15]

As a registered 501(c)(6) business league, EEI must detail on its annual IRS Form 990 its highest paid consultants, expenses for travel, meetings and conferences, and contributions to other organizations including Section 527 political groups such as the Democratic Governors Association or the Republican Attorneys General Association. Also because it is a 501(c)(6), EEI must report an annual aggregate amount of lobbying and political expenditures, which is all nondeductible, and notify all members of the nondeductible portion of those dues.[16] During rate cases, utilities sometimes produce EEI invoices that self-report the portion of their payments for dues and various programs that go toward the nondeductible portion of lobbying and political expenditures. At the beginning of 2015, for example, EEI told member companies that it estimated lobbying expenses for the year to be only 13% of membership dues and 25% for a significantly smaller requested amount of money that went toward an "Industry Issues" line item separate from general dues.[17] Usually this sort of disclosure occurs when a utility is required by another party in the case to provide evidence that it is not charging ratepayers for EEI's lobbying. In other cases, utilities are not required to provide even this minimal form of transparency, which puts their ratepayers at risk of being charged for lobbying as EEI itself defines it to the IRS.[18] Nevertheless, the data on the 990s reveal that from 2004 through 2015 EEI expensed a total of $130.6 million for nondeductible lobbying and political expenditures, which is an average of just 14% of its total expenses during that time period ($909.8 million), and an average of 17% of total dues from its members ($759.4 million).

However, EEI engages in and incurs expenses for a host of other political activities that are beyond the set of costs that are categorized as nondeductible section 162(e) dues. In fact, as detailed later in the report, the National Association of Regulatory Utility Commissioners had been auditing EEI data until the early-2000s. One of the final audits from NARUC revealed that 50% of EEI's expenditures went to the following categories: legislative advocacy; regulatory advocacy; advertising; marketing; public relations; legislative policy research; regulatory policy research. All of these are expenditures that should not be paid for by customers.

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[15] Edison Electric Institute 2010 Form 990 available at https://www.documentcloud.org/documents/1375241-2010-eei-990.html

[16] IRS, "Nondeductible Lobbying and Political Expenditures" available at https://www.irs.gov/pub/irs-tege/notice_1333.pdf

[17] Northern Indiana Public Service Company, Edison Electric Institute Dues, (MSFR1-5-8(a)(2)(A) available at https://www.documentcloud.org/documents/3111262-Northern-Indiana-Public-Service-Company-Invoices.html#document/p204/a318825

[18] Appalachian Power Company and Wheeling Power Company Cost of Service (CAD 1 J-03) available at https://www.documentcloud.org/documents/3224308-Appalachian-Power-AEP-Membership-Dues.html#document/p42/a330971

Despite the relatively small amounts documented as "political expenditures and lobbying" in its 990, EEI annual reports provided to members boast of the "results" the trade association says it achieved, almost all of which appear entirely political in nature. The objectives include working to increase utilities' returns on equity, providing more venues for lobbyists to gain access to regulators, weakening EPA regulations under the Clean Air and Water Acts, and undermining policies supportive of distributed renewable energy resources, among other explicitly political endeavors. In fact, documents handed out at the 2016 annual EEI CEO meeting revealed some of the specifics of what the trade association tells its members it has achieved in 2015 and its goals for 2016.[19] The objectives include reforming electric rates and advocacy for increased fixed and demand charges, while other priorities deal with EPA regulations, tax issues, litigation efforts, and outreach activities to "minority and community organizations." Some of these expenses might fall under what EEI self-reports as lobbying to its members, but many of them likely would not.

More examples of EEI's achievements from internal documents

- "EEI engaged in extensive advocacy and outreach to EPA and other stakeholders throughout EPA's Clean Power Plan rulemaking" that included a "phase-in of emission reductions over the entire length of the program … two-year delay in implementation … ability for states to shape their own glide paths … and a less stringent standard for new coal-based units."
- EEI continued its "multi-state effort and in coordination with member companies" to increase fixed charges and roll back net metering. Among the efforts, EEI:
    - "Engaged with state policymakers, consumer advocates, and other key stakeholders"
    - "Rebalanced the public conversation through extensive earned media efforts at the national and state levels"
    - "Convened member companies, state policymakers, and consumer advocates through the Critical Consumer Issues Forum to develop consensus principles on the evolving distribution system"
    - "Deployed a team of EEI and third-party experts to engage in state proceedings, forums, earned media, policy conversations, and earned media"
    - "Partnered with First Solar and The Brattle Group to conduct and promote a study highlighting the economic and environmental benefits of utility-scale solar compared to rooftop solar"
    - "Focused on increasing awareness of consumer education and protection issues"

[19] Edison Electric Institute 2015 Results In Review available at http://big.assets.huffingtonpost.com/eeibooklet.pdf; 2016 EEI Corporate Goals available at http://big.assets.huffingtonpost.com/eeigoal.pdf

    - “Advocated for a reduction in aggregate rate subsidies to DG solar and for residential rate reform to encourage rate designs that are based on cost-of-service”
- “Advocated that any new ozone standard” be at the “top range” of the proposal from EPA
- “Participated in Supreme Court litigation to help clarify the line between federal and state jurisdiction over electric rate matters”
- “Through We Stand For Energy, EEI continues to educate and unite more than 250,000 electricity consumers and stakeholders across the country and to advocate for smart energy solutions that ensure electricity remains safe, reliable, affordable, and increasingly clean”
- “EEI continued to educate lawmakers about industry priorities for comprehensive tax reform, including normalization, the treatment of excess deferred taxes, corporate and dividend tax rates, the phase-down of subsidies, and the deductibility of interest on corporate debt”
- “EEI successfully advocated for the inclusion of several end-user protections in the House-passed version of the Commodity Exchange Act reauthorization bill and continued to educate the Senate on these issues”
- “EEI supported provisions” in the House passed broad energy bill, including language that:
    - “Make incremental reforms to the federal permitting and licensing process for natural gas pipelines and hydro facilities”
    - “Repeal the ban on the use of fossil-fueled energy in federal buildings”
- “EEI’s PowerPAC continues to create opportunities to educate members of Congress on key industry issues. In 2015, PowerPAC hosted or co-hosted more than 120 political events for federal elected officials and candidates, and raised more than $2 million for their campaigns”
- “Engaged in congressional efforts to require the EPA and the Army Corps of Engineers to withdraw, narrow, and re-propose the final waters of the U.S. rule. EEI also supported UWAG participation in litigation over the rule”
- “EEI provided support to Western Electricity Coordinating Council stakeholders for developing a contract-based funding mechanism for Peak Reliability, which was approved in June”
- “EEI educated NARUC on key industry issues, and conducted educational dialogues for state regulators with Northwestern, Tulane, and New Mexico State Universities”
- “EEI’s ongoing Wall Street/Regulator Dialogues educated regulators and consumer advocates on key industry issues, including capital expenditures that highlight record-high investments in the grid”
- “EEI-sponsored dialogues and forums brought together FERC commissioners, state policymakers, consumers, Wall Street analysts, and industry leaders to discuss key issues facing the industry”

- "EEI established new strategic partnerships with key state- and community-based organizations to further educate stakeholders and elected officials on the value of the grid and other industry and consumer priorities"
- "Launch of a national education and advocacy strategic initiative to highlight the industry's transformative leadership and to create a heightened awareness of and appreciation for member company initiatives"
- Develop "industry positions on the regulatory treatment of energy storage"
- "Expand collaboration and outreach to achieve enhanced support for utility-sponsored programs, products, and services on both sides of the meter"
- "Continued advocacy at the CFTC and Congress that builds on efforts to reduce the regulatory burden of the Dodd Frank Act on derivative end users"
- "Ongoing focus on wholesale energy market price formation issues"
- "Continued advocacy for industry priorities in comprehensive tax reform"
- "Continued work with Congress and the IRS related to the implementation of the Cadillac Tax"
- "Ongoing advocacy for compensatory returns on equity"
- Engage FERC with regards to PURPA implementation
- "Continued Growth and effective use of We Stand For Energy"
- "Development of a 2016 Political Party Convention Program and voter education effort"
- "Expand outreach to regional and state forums, minority and community organizations, regulatory staffs, and academic institutions"

Additionally, a recent filing by NV Energy details the years 2012 and 2013 accomplishments that EEI achieved for its members, and what it was hoping to attain and spend time pursuing during those years[20]:

- "Through the multi-faceted Defend My Dividend campaign, secured permanent parity between the tax rates for dividends and capital gains"
- "Advocated that coal ash be regulated as non-hazardous"
- "Secured favorable pension funding stabilization provision in legislation"
- "Secured a FERC policy statement that continues the favorable incentives policy for qualifying transmission projects, including ROE adders"
- "Continued outreach to state-level policymakers and consumers through the Critical Consumers Issues Forum and other forums"
- "EEI continues to advocate for equitable distributed generation and net metering policies that end cost shifting and ensure all electricity customers pay their fair share toward the cost of the grid. Among our efforts, EEI:

[20] NV Energy Response to Data Requests, Public Utilities Commission of Nevada, available at https://www.documentcloud.org/documents/3242975-NV-Energy-Dues-with-EEI-Letter-to-CEOs.html#document/p7/a332460

  - “Launched a multi-faceted industry-wide campaign calling for net metering updates in the states”
  - “Conducted national public opinion research and polling to guide messaging and collateral development”
  - “Published A Policy Framework for Designing Distributed Generation Tariffs to advocate for appropriate DG resources”
  - “Commissioned third-party studies and assembled experts to engage in state proceedings/forums”
  - “Worked to educate member companies and key constituents through Webinars, meetings, and forums”
  - “Released, through IEE, an issue brief: The Value of the Grid to DG Customers”
  - “Convened three regional summits and participated in the Critical Consumer Issues Forum consisting of state commissioners, consumer advocates, and EEI member companies”
  - “Created a members-only Internet workroom and online toolkit of research and advocacy resources”
  - “Worked to secure favorable resolutions or statements from several national and state policy organizations”
- “EEI is educating lawmakers about industry priorities for comprehensive tax reform, including normalization, the treatment of excess deferred taxes, corporate and dividend tax rates, and the deductibility of interest on corporate debt”
- “Through a new white paper and outreach to FERC, NARUC, and the media, EEI is seeking compensatory returns on equity (ROEs) that reflect the risks of development and the long asset life of transmission facilities”
- “EEI continues to deploy its smart grid third-party experts to assist member companies in addressing data privacy, radio frequency, and opt-out issues”
- “EEI’s ongoing Wall Street regulatory dialogues educated regulators and consumer advocates on DG and net metering issues, as well as the importance of full rate recovery and reasonable ROEs to support the capital expenditures involved in the build-out of utility infrastructure and environmental compliance”
- “In support of APS, achieved a fixed charge for rooftop solar customers in Arizona to support the grid”
- “EEI led the development of industry comments on EPA’s proposed effluent limitations guidelines rule, advocating for flexibility and the use of cost-effective and feasible technologies”
- “EEI hosted an October External Affairs Conference for member company federal, state, and local government affairs representatives to discuss advocacy tools and strategies”
- “EEI educated NARUC on key industry issues; this outreach culminated in several positive resolutions”

- “Fundamental corporate tax reform, including the treatment of normalization, excess deferred taxes, deductibility of debt interest, and corporate and dividend tax rates”
- “Regulatory pushback on authorized returns and CAPEX programs”

Many of the industry’s achievements are results of EEI staff doing work that is not technically considered nondeductible, but is certainly political in nature by any reasonable definition. Furthermore, the intended benefit of these actions is to benefit the shareholders of its members and to assist members with their own efforts to benefit shareholders. In fact, when EEI began its multi-state effort and coordination with member companies to address declining sales and the increase usage of distributed generation, it is clear that its members leapt into action. EEI gave a presentation to member CEOs in 2012 regarding the threats to the industry’s earnings, and what groups to target to achieve favorable policies.[21] Then in 2013, EEI released a report that said threats to the business model can be “partially addressed” by implementing fixed or demand charges.[22] Utility companies have subsequently filed requests to increase fixed charges and implement demand charges at alarming rates, despite the fact that these charges harm low-income ratepayers.[23] The latest data, compiled by the N.C. Clean Energy Technology Center, shows that in 2016, utilities made 71 requests in 35 states plus D.C. to increase fixed charges on all residential ratepayers by at least 10%.[24]

In addition to its political activities, EEI funds domestic organizations, consultants, and lawyers that are also conducting work that benefits utility company shareholders. Consistent beneficiaries of EEI money over the years have been Hunton & Williams LLP and Venable LLP. Hunton & Williams is the counsel for the Utility Air Regulatory Group (UARG), Utility Water Act Group (UWAG), and Waters Advocacy Coalition (WAC). Venable represents the Utilities Solid Waste and Activities Group (USWAG). Since 2008, Hunton & Williams has received $64.7 million from EEI and Venable has received $21.5 million.

In a comment to the EPA, UARG described itself as a “not-for-profit association of individual electric generating companies and national trade associations that participate on behalf of its members collectively in administrative proceedings under the Clean Air Act (“CAA”), and in

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[21] Washington Post, “Utilities wage campaign against rooftop solar” available at https://www.washingtonpost.com/national/health-science/utilities-sensing-threat-put-squeeze-on-booming-solar-roof-industry/2015/03/07/2d916f88-c1c9-11e4-ad5c-3b8ce89f1b89_story.html?utm_term=.4e1f3778a566

[22] Edison Electric Institute, “Disruptive Challenges” available at http://www.eei.org/ourissues/finance/documents/disruptivechallenges.pdf

[23] Synapse Energy Economy, “Caught in a Fix” available at http://consumersunion.org/wp-content/uploads/2016/02/Caught-in-a-Fix-FINAL-REPORT-20160208-2.pdf

[24] NC Clean Energy Technology Center, “The 50 States of Solar Report: 2016 Annual Review and Q4 Update” available at https://nccleantech.ncsu.edu/the-50-states-of-solar-report-2016-annual-review-and-q4-update/

litigation arising from those proceedings, that affect electric generators."[25] However, UARG does not have a website and it is not clear what this organization does besides lobbying the EPA, suing the EPA or researching and preparing for suits against the EPA. UARG rejects inquiries about its membership and operation activity from the media.

USWAG does have a website. It describes itself as "the trade association of over 110 utility operating companies, energy companies and industry associations, including the Edison Electric Institute, the National Rural Electric Cooperative Association, the American Public Power Association, and the American Gas Association."[26] Its stated mission is to engage in regulatory advocacy pertaining to the Resource Conservation and Recovery Act, Toxic Substances Control Act, and Hazardous Materials Transportation Act.

An examination of UARG, UWAG, WAC, and USWAG actions reveals that these collective bodies were involved with rules to reduce mercury, pollution affecting regional haze, and carbon dioxide, the Clean Water Act, and EPA's classification that coal ash is non-hazardous.

A 2015 letter from EEI to member CEOs stated that only 6.2% of USWAG expenditures was used to influence legislation for the 2014 calendar year while 68.8% of WAC expenses was devoted to nondeductible actions. The EEI letter did not detail any UARG or UWAG expenditures.[27] Yet, Northern Indiana Public Service Company (NIPSCO) adjusted all 2014-2015 UARG payments through their EEI dues to reflect that they were used for lobbying purposes.[28] The decision by NIPSCO follows an adjustment by Tucson Electric Power (TEP) from 2008 when it also noted that 100% of UARG dues were devoted to nondeductible activities. The Arizona Corporation Commission staff recommended that these expenditures not be borne by ratepayers.[29] However, in November 2016, Kentucky Utilities Company allocated $148,785 for "EEI UARG" as a general expense to be paid for by its ratepayers, as did Wisconsin Electric Power Company for its 2015 UARG dues through EEI.[30]

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[25] Comment submitted by Lucinda Minton Langworthy, Counsel, Hunton & Williams on behalf of the Utility Air Regulatory Group, available at https://www.regulations.gov/document?D=EPA-HQ-OAR-2013-0572-0161

[26] About USWAG, available at http://www.uswag.org/About/Pages/default.aspx

[27] Edison Electric Institute March 15, 2015 letter available at https://www.documentcloud.org/documents/3244482-Centerpoint-Energy-Dues.html#document/p35/a332623

[28] Northern Indiana Public Service Company Edison Electric Institute Dues, (No.44688) available at https://www.documentcloud.org/documents/3111258-Northern-Indiana-Public-Service-Company-Dues.html#document/p107/a331762

[29] Arizona Corporation Commission Application of Tucson Electric Power Company (No.E-01933A-07-0402) available at https://www.documentcloud.org/documents/3284782-ACC-Transcript-EEI-Dues-2008.html#document/p117/a334770.

[30] Kentucky Utilities Company Miscellaneous General Expenses (No.2016-00370) available at https://www.documentcloud.org/documents/3284802-Kentucky-Utilities-Company-Rate-Request-Response.html#document/p566/a334597; Wisconsin Electric Power Company Industry Association Dues available at https://www.documentcloud.org/documents/3290885-Wisconisn-Electric-Power-Company-2012-2013-2015.html.

Besides Hunton & Williams and Venable, some of the largest and some of the most controversial recipients of EEI money over the years include:

Sample of EEI's Contributions to Consultants and Organizations (2008-2015)

Daniel J. Edelman (Edelman PR)	$1,774,305	American Legislative Exchange Council	$142,667
NetCommunications	$750,599	National Conference of State Legislators	$125,931
Thomas Alva Edison Foundation	$630,604	Third Way	$100,000
Republican State Leadership Committee	$255,000	Americans For Tax Reform	$75,000
Democratic Governors Association	$205,000	National Black Chamber of Commerce	$25,000
National Labor and Management Public Affairs Committee	$185,400	State Policy Network	$10,000
Congressional Black Caucus/Foundation	$185,400	Committee for a Constructive Tomorrow	$8,000
U.S. Chamber of Commerce	$180,050	Americans For Prosperity	$7,500

Several of the groups listed in the table are controversial because of their work to influence decision makers and the public. For instance, the Republican State Leadership Committee uses its resources to get more Republicans elected to state legislatures and utility commissions, while the Democratic Governors Association is dedicated to helping Democrats win gubernatorial races. These contributions are likely considered nondeductible, but donations to 501(c)(3) groups are likely getting expensed by ratepayers through their utilities. The American Legislative Exchange Council (ALEC), a 501(c)(3), provides state legislators with so called "model policies" used in attempts to roll-back state laws requiring utilities to increase their use of renewable energy and reduce their carbon dioxide emissions.[31] EEI has continued to fund ALEC even as some of its member utilities have quit over ALEC's controversial attacks on clean energy policies. Meanwhile, the National Black Chamber of Commerce President and CEO Harry Alford, another (c)(3) group, regularly testifies or writes

[31] Mother Jones, "ALEC's Campaign Against Renewable Energy," available at http://www.motherjones.com/environment/2013/12/alec-calls-penalties-freerider-homeowners-assault-clean-energy; PBS Newshour, "Has Exxon Mobil misled the public about its climate change research?" available at http://www.pbs.org/newshour/bb/exxon-mobil-mislead-public-climate-change-research/

columns advocating against environmental regulations, and Americans For Prosperity actively runs political campaigns to build opposition against climate change and renewable energy legislation.[32]

Some of EEI's contributions fund conference sponsorship, which helps EEI buy influence and access to decision makers or to organizations that can sway decision makers. In fact, audio released in March 2017 revealed EEI's director of external affairs, Todd Wynn, speaking on a panel at the State Policy Network conference, another (c)(3), enlisting third-parties to help the industry implement more fixed charges.[33] These conferences and events are also opportunities for EEI to make sure its objectives are achieved. Emails between EEI and New Mexico State University Center for Public Utilities reveal that EEI's Elizabeth Stipnieks, director of regulatory relations, helped choose speakers and the agenda for conferences attended by regulators and agency staffers.[34]

In April 2016, documents surfaced showing that EEI had hired a public relations/crisis communications firm, Maslansky + Partners (also listed as an EEI Associate Member) to rebrand the electric utility industry and overcome the negative perceptions consumers have about the lack of progress utilities have made on renewable energy and environmental issues.[35] Thomas Fanning, the CEO of Southern Company and chairman of EEI, hailed the resulting "Lexicon Project" as an opportunity for utilities to assume an "offensive posture" on energy policy.[36] A presentation and discussion occurred at the January 2016 CEO Board Meeting in Arizona. This event is an example of a public relations expense that is aimed primarily at helping member companies achieve their political goals at all levels of government, and simultaneously counter the negative publicity that occurs when companies file for rate increases or propose new fees.

Utilities are already incorporating the recommendations that Maslansky + Partners made to the CEOs into company statements in an effort to change the public's attitude; one element of the Lexicon advised rebranding utility-scale solar as "universal solar." Rooftop solar would be

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[32] Congressional Hearing "Reality Check: The Impact and Achievability on EPA's Proposed Ozone Standard" Presented by Harry Alford available at http://docs.house.gov/meetings/SY/SY00/20150317/103159/HHRG-114-SY00-Wstate-AlfordH-20150317.pdf; Environment America, "Blocking the Sun" available at http://www.environmentamerica.org/reports/ame/blocking-sun

[33] UtilitySecrets "Audio: Edison Electric Institute Director of External Affairs Enlists Third-Parties To Help Attack Rooftop Solar" available at http://www.utilitysecrets.org/edison-electric-institute-state-policy-network-attack-rooftop-solar/

[34] Energy and Policy Institute, New Mexico State University Center for Public Utilities, available at http://www.energyandpolicy.org/utility-industry-influence-at-universities/new-mexico-state-university-center-for-public-utilities/

[35] Huffington Post, "This Messaging Guru Is Helping Utilities Clean Up Their Appearance" available at http://www.huffingtonpost.com/entry/messaging-utilities-solar-power_us_56f45cd6e4b014d3fe22b572

[36] E&E News "Southern's Fanning sees his industry driving U.S. economic success" available at http://www.eenews.net/stories/1060040248

reframed with the term “private solar.” The new vocabulary is trickling into EEI member utilities’ statements:

- Eric Silagy, president and CEO of Florida Power & Light, used the term “private solar” when endorsing a controversial ballot initiative in Florida, which would have opened the door to rolling back net metering incentives for rooftop solar if it had passed.[37]
- American Electric Power Chairman, President and CEO, Nick Akins, used the term “universal solar” in an interview; AEP has also staked out a position that “large-scale universal solar is a better alternative to private solar.”[38]
- Public Service Electric and Gas Renewables and Energy Solutions Vice-President Courtney McCormick, used the term “universal solar” in an article about the utility constructing 33 megawatts of solar over the next three years;[39]
- Rocky Mountain Power External Communications Director, Paul Murphy, used the term “universal solar” in a letter to the editor about how the company embraces solar energy.[40]

All of these examples demonstrate the need for more oversight in order to better understand whether or not the portion of utilities’ payments to EEI that are ultimately paid by ratepayers are used to pay for political and public relations activities that provide no clear customer benefit.

II. Utility Companies Charging Ratepayers for EEI Dues

Each state utility commission determines whether ratepayers or shareholders should pay for membership dues differently, and each utility, including utilities in the same state, follows different procedures for reporting.

[37] Florida Politics, “Eric Silagy: Florida Power & Light endorses solar amendments; urges optimism about clean energy in Florida” available at http://floridapolitics.com/archives/220533-eric-silagy-florida-power-light-endorses-solar-amendments-highlights-floridas-clean-energy-progress

[38] The Columbus Dispatch, “AEP wants to lead Oho solar-power development” available at http://www.dispatch.com/content/stories/business/2016/04/26/aep-wants-to-lead-ohio-solar-power-development.html; AEP Universal Solar available at https://www.aepsustainability.com/business/innovation/solar.aspx

[39] Power-Technology “PSE&G receives approval from NK BPU to extend Solar 4 All program” available at http://www.power-technology.com/news/newspseg-gets-approval-from-nk-bpu-to-extend-solar-4-all-programme-5685927

[40] The Salt Lake Tribune, “Letter: Rocky Mountain Power moves ahead on solar power” available at http://www.sltrib.com/opinion/4248822-155/letter-rocky-mountain-power-moves-ahead

For instance, a document filed by Southern Company's subsidiary Georgia Power details its 2016 dues to EEI.[41] The filing reveals that the amounts that are coded to "426.4" and "930.2." The codes are from the Federal Energy Regulatory Commission (FERC) accounting code. The appendix of this report explains in more detail the different FERC codes. In short, 426.4 is used for expenditures that are for lobbying and influencing public opinion and public officials. These amounts should be charged to shareholders. Account 930.2 is used for miscellaneous general expenses and typically includes industry association dues. Amounts coded to 930.2 are generally charged to ratepayers. In this instance, Georgia Power proposed $698,521 of EEI dues to be charged to its ratepayers, and $290,481 to shareholders - a 71% to 29% split.

Allocation of Southern Company 2016 EEI Dues to Georgia Power Company

	2016
Minimum Dues	$0
Remainder of Regular Dues	$881,534
Total Regular Dues	$881,534
Industry Structure Assessment	$92,705
Mutual Assistance Program	$2,109
The Edison Foundation - Contribution	$12,653
Total EEI Dues Allocated to Georgia Power	$989,002

Industry Structure Assessment Related to Lobbying	35.00%	426-40000	Lobbying and Related Expenses - BTL	$32,447
Remaining Industry Structure Assessment	65.00%	426-50000	Other Miscellaneous Business Expenses - BTL	$60,259
The Edison Foundation - Contribution	100.00%	426-10030	Donations - BTL	$12,653
Portion of Regular Dues allocated to Lobbying	21.00%	426-40000	Lobbying and Related Expenses - BTL	$185,122
Portion of Regular Dues allocated to Advertising*	2.30%	930-10180	Industry Sponsored Advertising Costs - ECAP - ATL	$20,275
Remaining Regular Dues and Mutual Assistance Program	76.70%	930-20200	Association Dues and Assessments - ATL	$678,246
				$989,002

*Estimate based on actual advertising expenditures.

A document filed in March 2016 by a public utility auditor for the Oklahoma Corporation Commission (OCC) shows the EEI dues Oklahoma Gas and Electric proposed to have its ratepayers in Oklahoma pay: $670,609.[42] The OCC auditor appears to have allowed 100% of that amount.

[41] Georgia Power Company Allocation of EEI Dues available at https://www.documentcloud.org/documents/3237843-Georgia-Power-Dues-to-Edison-Electric-Institute.html#document/p7/a331581

[42] Oklahoma Gas and Electric Disallowance in Civic Dues & Community Activities Expenses available at https://www.documentcloud.org/documents/3111578-Sharhonda-Dodoo-PUD-Testimony-OGE-Dues.html#document/p6/a318911

Table 1: Disallowance in Civic Dues & Community Activities Expense

Dues And Donation Description	Allocated Amount after Pro-Forma	Disallowed Percentage	Allowed Percentage	Disallowed Amount	Allowed Amount
Chambers Of Commerce Memberships	$140,161	50%	50%	$70,080.50	$70,080.50
Chambers Of Commerce Others	$14,167	50%	50%	$7,083.50	$7,083.50
Economic Development (proforma)	$0	N/A	N/A	$0	$0
EEI Membership	$670,609	0%	100%	$0	$670,609
Other Membership	$77,019	50%	50%	$38,509.50	$38,509.50
Professional Membership	$373,809	0%	100%	$0	$373,809
Sponsorship (Proforma)	$0	N/A	N/A	$0	$0
Grand Total	$1,275,765.00			$115,673.50	$1,160,091.50

Similarly, a Florida Power & Light spreadsheet submitted to the PSC shows the utility charged $2,290,051 for its EEI expenses under FERC "930" in 2015.[43] FPL also refers to its policy of recording expenses for lobbying, civic, political and related activities as "below the line" expenses, which means it is claiming that those expenses should be charged to shareholders. Because FPL does not disclose these expenses, the claim is impossible to verify.

Madison Gas & Electric (MGE) summarizes all of the association dues and corporate memberships by amount and FERC code. MGE asks for half of the total EEI dues for test year 2017 to be recovered in rates.[44] It appears the 50% charge to shareholders is a result of a 1985 decision that required the utilities to include only 50% of EEI dues in the test year income statement.[45] The memo also details what should be allocated for the American Gas Association and EEI's "U Groups."

[43] Florida Power & Light Rate Case Industry Association Dues available at https://drive.google.com/file/d/0B-0ZwtRThY3LVjRjSVVPTjZ6N28/view

[44] Madison Gas and Electric Company Detail Summary of All Industrial Association Dues, Corporate Memberships available at https://www.documentcloud.org/documents/3100475-Madison-Gas-and-Electric-Industrial-Association.html

[45] Public Service Commission of Wisconsin Departmental Correspondence available at https://www.documentcloud.org/documents/3459194-1985-Wisconsin-PSC-Memo-Association-Dues.html

Madison Gas and Electric Company
Information for Docket 3270-UR-121
Initial Data Request #61
Detail Summary of all Industrial Association Dues, Corporate Memberships, etc

Work Activity	Expensed in FERC	Description	Actual 2013	Actual 2014	Actual 2015	Test Year 2017 In case	Test Year 2017 *NRR	Test Year 2017 Total
2013	930	EEI dues	126,972	129,071	135,992	67,500	67,500	135,000
2045	930	Industry Organization Dues	175,253	204,599	264,985	70,000	-	70,000
2147	930	AGA dues	111,846	107,652	110,450	87,030	29,010	116,040
2024	930	WUA dues	57,546	44,266	41,585	25,000	25,000	50,000
2026	930	Various dues	32,779	59,260	43,585	3,480	40,500	43,980
2027	930	Various dues	25,287	16,377	18,570	-	15,000	15,000

* - NRR - Not Recoverable in Rates

PUBLIC SERVICE COMMISSION OF WISCONSIN

)EPARTMENTAL CORRESPONDENCE FILE NO.

February 11, 1985

TO: Accounts and Finance Audit Staff

FROM: Conrad A. Oleson, Administrator

SUBJECT: ASSOCIATION DUES - SUPERSEDES MY MEMO OF AUGUST 22, 1984 AND AUGUST 30, 1984

All dues listed below should be included in your test year income statements at the following levels:

USTA - 0%
WSTA - 90%
EEI - 50%
EPRI -100% - w/two conditions: 1) payment made directly to EPRI 2) payment made no earlier than when due
AGA - 50%
GRI -100%
WUA - 50%
EEI "U Groups" - 50%
AIF - 0%
Chamber of Commerce & Like Groups - 0%

However, Wisconsin Electric Power Company recently proposed to charge $728,712 to EEI (along with $223,804 to EEI for the Utility Air Regulatory Group) to its ratepayers, and allocated only $217,668 of the total amount to EEI, 22.8%, to FERC Account 426.[46] The filing also shows a 30% increase of dues to EEI from 2012 to 2015 at the expense of Wisconsin Electric Power Company ratepayers.

WISCONSIN ELECTRIC POWER COMPANY

	2015	2013	2012
Industry Association Dues			
930.2 Miscellaneous General Expense			
Edison Electric Institute	728,712	643,001	561,175
Edison Electric Institute-UARG	223,804	253,166	193,151
Michigan Electric & Gas Association	19,958	21,148	18,541
AGA	137,571	137,569	141,610
	1,110,045	1,054,884	914,476

In other dockets, utilities do not make clear what FERC accounts they are using for their trade association dues, such as in CenterPoint Energy's 2014 request of $606,847 for EEI.[47]

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
INDUSTRY DUES - SUMMARY
For the Year Ending December 31, 2014

DESCRIPTION	AMOUNT
E SOURCE COMPANIES LLC	$ 33,600
EDISON ELECTRIC INSTITUTE	606,847
EPRI	3,093,892
INDUSTRY COUNCIL ON THE ENVIRONMENT	500
SMART GRID CONSUMER COLLABORATIVE	10,000
SOUTHEASTERN ELECTRIC EXCHANGE INC	11,246
TEXAS A&M UNIVERSITY	10,000
UTILITIES TELECOM COUNCIL	20,000
Misc Items Under $500	495
TOTAL 2014 INDUSTRY DUES	**$ 3,786,580**

46 Wisconsin Electric Power Company Industry Association Dues available at https://www.documentcloud.org/documents/3290885-Wisconisn-Electric-Power-Company-2012-2013-2015.html#document/p1/a334773

47 CenterPoint Energy Houston Electric Charitable Contributions and Donations available at https://www.documentcloud.org/documents/3244482-Centerpoint-Energy-Dues.html

Filings by Indianapolis Power & Light and NV Energy reveal the total amount sent to EEI from the utility holding companies AES Corporation and Berkshire Hathaway Energy. The documents reveal the percentages the utility subsidiaries add to their operating expenses. In 2015, NV Energy's EEI dues were $661,673, of which 84% ($556,593) was allocated in FERC account 930 for ratepayers to pay. A total of $2.28 million was billed to Berkshire Hathaway Corporation by EEI.[48]

MEC, PacifiCorp, and NV Energy
2015 EEI Dues Calculation (NV Energy Portion)

Customers (excludes non-regulated)				
160,634	@	0.243 =	39,034	
385,522	@	0.095 =	36,625	
640,196	@	0.087 =	55,697	
1,186,352				131,356
Revenues				
580,008	@	0.142287 =	82,528	
580,008	@	0.083 =	48,141	
1,867,739	@	0.061 =	113,932	
3,027,755				244,601
Owned Generating Capacity				
801,381	@	0.037 =	29,651	
1,869,889	@	0.032 =	59,836	
4,600,729	@	0.013 =	59,809	
7,272,000				149,297

			Lobbying a/c# 426411	Balance a/c# 930264	Contributions a/c# 426131	Total
Total Dues (Fully Merged)	525,253					
Adjustment for Merger Phase In	59,131					
Regular Activities of EEI	584,385	13% lobbying	75,970	508,415		584,385
Industry Issues	58,438	25% lobbying	14,610	43,828		58,438
Restoration, Operations, and Crisis Management Program	4,350	0% lobbying		4,350		4,350
2015 Contribution to the Edison Foundation	14,500	charitable contribution			14,500	14,500
	661,673		90,580	556,593	14,500	661,673

Corporate Accounting
12/5/2014 10:45 AM

Page 4 of 4

w:\corpacct\int\2015 EEI Dues Calculation Check.xls

In 2014, the total invoice to AES Corporation was $1.077 million. The filing shows that AES removed 22% of EEI dues as legislative and charitable contributions, and then allocated 31.9% of the remaining funds to its Indiana subsidiary.[49]

[48] Sierra Pacific Power Company Edison Electric Institute dues available at https://www.documentcloud.org/documents/3235953-NV-Energy-Dues.html#document/p140/a331435

[49] Indianapolis Power & Light Edison Electric and Indiana Energy Association Dues available at https://www.documentcloud.org/documents/3100472-Indianapolis-Power-and-Light-Industry.html#document/p46/a318422

INDIANAPOLIS POWER & LIGHT COMPANY
Pro Forma Adjustment to Total Electric for EEI and IEA Dues
(Thousands of Dollars)

The following adjustment reflects a pro forma net decrease in dues expense for the Edison Electric Institute (EEI) and the Indiana Energy Association (IEA).

Line No.		(Col. 1)	(Col. 2)	Line No.
1	Total 2014 EEI dues for all AES U.S. utility subsidiaries	$ 1,077		1
2	Less: Portion attributable to legislative activities	(208)		2
3	Less: Portion attributable to charitable contribution	(30)		3
4	Net total EEI dues, excluding legislative and charitable portion	839		4
5	IPL's portion of 2014 EEI dues	31.90%		5
6	Pro forma 2014 EEI dues for IPL only		$ 268	6
7	Pro forma IEA dues (1)		-	7
8	Total pro forma EEI and IEA dues		268	8
9	Total EEI and IEA dues charged to electric operating expense for the twelve months ended June 30, 2014		661	9
10	Pro forma adjustment (See Schedule OM1)		$ (393)	10

(1) Recovery is not sought due to legislative activities.

In summary, utilities routinely recovery the majority of their EEI membership dues and program payments from ratepayers, even though EEI documents demonstrate that the organization's work is inherently political. The evidence warrants a thorough and independent review of EEI's budget and expenditures to ensure that ratepayers are not funding the utility industry's political agenda.

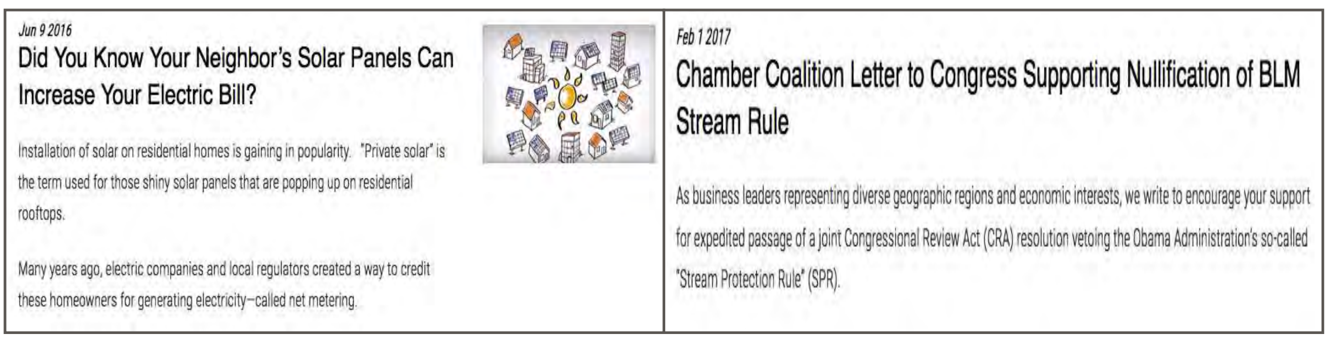
III. Other Political Organizations Receiving Ratepayer Money

Beyond EEI, utilities are charging ratepayers for their memberships in other inherently political organizations:

- Dominion and Duke Energy attempted to have ratepayers subsidize a portion of American Legislative Exchange Council dues and political party organizations in rate requests.

- Wisconsin Public Service also included political party organizations in a rate request.
- American Electric Power subsidiaries requested that ratepayers fund the American Coalition for Clean Coal Electricity and the Emerging Issues Policy Forum.
- Florida Power & Light, FirstEnergy, Oklahoma Gas & Electric, and Wisconsin Public Service added portions of U.S. Chamber of Commerce membership fees and asked for ratepayers to foot the bill.
- Pacific Gas & Electric, Madison Gas and Electric, Southern California Edison, and Wisconsin Public Service requested ratepayers pay for all or some of their American Gas Association dues.
- Dominion, Duke Energy, and Florida Power & Light requested ratepayers pay for Nuclear Energy Institute dues.

The FPL spreadsheet in the utility's rate request revealed that it included $63,000 to the U.S. Chamber of Commerce and an additional $157,000 earmarked to the U.S. Chamber of Commerce's Institute of 21st Century Energy in operating expenses.[50] The Chamber, which has also received EEI money, has been a leading voice against the EPA's Clean Power Plan and greenhouse gas emission regulations, ozone and fine particle regulations, vehicle emission standards, and rooftop solar policies.[51] The political powerhouse is also involved in political debates over health care, tax rates, labor policies, and immigration.



Jun 9 2016

Did You Know Your Neighbor's Solar Panels Can Increase Your Electric Bill?

Installation of solar on residential homes is gaining in popularity. "Private solar" is the term used for those shiny solar panels that are popping up on residential rooftops.

Many years ago, electric companies and local regulators created a way to credit these homeowners for generating electricity—called net metering.

Feb 1 2017

Chamber Coalition Letter to Congress Supporting Nullification of BLM Stream Rule

As business leaders representing diverse geographic regions and economic interests, we write to encourage your support for expedited passage of a joint Congressional Review Act (CRA) resolution vetoing the Obama Administration's so-called "Stream Protection Rule" (SPR).

The requests from Madison Gas and Electric and Wisconsin Electric Power Company also included "AGA," which is the American Gas Association, a leading voice for continued and increased use of fracking, and construction of natural gas infrastructure and power plants.

Dominion filed a rate request to the Virginia State Corporation Commission that included many political organizations, including the American Legislative Exchange Council (ALEC),

[50] Florida Power & Light Industry Association Dues available at https://drive.google.com/file/d/0B-0ZwtRThY3LVjRjSVVPTjZ6N28/view

[51] Institute for 21st Century Energy Policy Center available at http://www.energyxxi.org/issues

while noting what was below-the-line.[52] The amounts Dominion requested to be above and below-the-line defied logical explanation, because nearly all of the amounts to the Democratic Legislative Campaign Committee were listed below-the-line, while all of the money for the Republican Governors Association Board Membership was above-the-line. It's not clear why Dominion felt ratepayers should fund Republican political organizations but not Democrat organizations. Virginia Corporation Commission staff noted the incongruence and routed the ALEC and Republican party organization dues to shareholders.

VIRGINIA ELECTRIC AND POWER COMPANY
CASE NO. PUE-2015-00027
FOR THE TEST YEAR ENDED DECEMBER 31, 2014
ADJUSTMENT TO REMOVE LOBBYING AND OTHER MISCELLANEOUS UNRECOVERABLE EXPENSES
STAFF ADJUSTMENT NO. ET-13

SUPPORTING DOCUMENTATION

ing Date	Vendor	Total DRS Amount	Pct to VP	Bill to VP	Narrative Description	Total Bill to VP	Amounts Booked Below-the-line	Difference
6/02/2014	AMERICAN COUNCIL OF YOUNG POLITICAL	10,000	51.68%	5,168	ACYPL CORP. PTNRSHIP PROG	5,168		5,168
5/29/2014	AMERICAN LEGISLATIVE EXCHANGE	7,000	51.68%	3,618	Private Sector - Washington Club			-
8/05/2014	AMERICAN LEGISLATIVE EXCHANGE	7,500	51.68%	3,876	VA Delegation Night Sponsorship	7,494	6,987	507
5/16/2014	COUNCIL OF STATE GOVERNMENTS	3,500	51.68%	1,809	2014 Annual Meeting in MD	1,809	1,687	122
6/10/2014	DEMOCRATIC ATTORNEYS GENERAL ASSN	15,000	51.68%	7,752	2014 Leadership Circle Membership	7,752		7,752
6/05/2014	DEMOCRATIC GOVERNORS ASSN	25,000	51.68%	12,920	DGA Virginia Policy Conference Sponsor			-
5/29/2014	DEMOCRATIC LEGISLATIVE CAMPAIGN	25,000	51.68%	12,920	DLCC 2014 Leadership Council Membership	12,920	12,048	872
5/20/2014	DEMOCRATIC MUNICIPAL OFFICIALS	10,000	51.68%	5,168	2014 DMO Advisory Board Membership	5,168	4,819	349
6/19/2014	REPUBLICAN ATTORNEYS GENERAL ASSN	15,000	51.68%	7,752	2014 Attorneys General Committee	7,752		7,752
6/02/2014	REPUBLICAN GOVERNORS ASSN	50,000	51.68%	25,840	2014 RGA Governors Board Membership	25,840		25,840
5/6/2014	VA CHAMBER OF COMMERCE	65	58.76%	38	VA Chamber Board Meeting May 2014	38	6	32
	Subtotal DRS to DVP							48,394

Meanwhile, in North Carolina, Duke Energy filed requests to also include ALEC along with the Democratic Governors Association, the National Republican Club of Capitol Hill, and other political entities to be paid by ratepayers.[53] Consumer advocates and utility commission staff caught the effort. Duke Energy testified that this was an error and said "the filing was performed by human beings and no human being is perfect."[54]

[52] Virginia Electric and Power Company Adjustment to Remove Lobbying available at https://www.documentcloud.org/documents/3104630-Dominion-Dues-Appendix-B.html#document/p6/a320801

[53] Application of Duke Energy Carolinas for Adjustment of Rates, NC WARN testimony available at https://www.documentcloud.org/documents/3459599-NC-WARN-Testimony-Before-NCUC-2013.html#document/p10/a338017

[54] Application of Duke Energy Carolinas for Adjustment of Rates, Duke Energy testimony available at https://www.documentcloud.org/documents/3459595-Duke-Energy-Testimony-2013-Rate-Request.html#document/p83/a338018

Table 1: Partisan Political Sponsorships and Donations

Acct.	Partisan Political Sponsorships/Donations		DEC Direct
921200	SOUTH CAROLINA SENATE DEMOCRATIC CAUCUS		$2,500
923000	SOUTH CAROLINA SENATE DEMOCRATIC CAUCUS		$5,000
921200	SOUTH CAROLINA SENATE REPUBLICAN CAUCUS		$2,500
921200	REPUBLICAN STATE LEADERSHIP COMMITTEE		$25,000
921200	SC BUSINESS AND INDUSTRY POLITICAL		$5,000
921200	SC HOUSE REPUBLICAN CAUCUS		$2,500
921200	SC SPORTSMENS CAUCUS		$1,250
921200	SOUTH CAROLINA HOUSE DEMOCRATIC CAUCUS		$2,500
921200	SOUTH CAROLINA LEGISLATIVE BLACK CAUCUS		$1,750
921200	PALMETTO LEADERSHIP COUNCIL *		$2,500
921200	NORTH CAROLINA LEGISLATIVE BLACK CAUCUS		$10,000
		Duke Donations	Allocation from Duke
921200	DEMOCRATIC GOVERNORS ASSOCIATION	$100,000	$55,650
921200	DEMOCRATIC GOVERNORS ASSOCIATION	$200,000	$112,600
921200	CONGRESSIONAL BLACK CAUCUS FOUNDATION	$50,000	$27,825
921200	CONGRESSIONAL HISPANIC CAUCUS INSTITUTE	$20,000	$11,130
921200	NATIONAL REPUBLICAN CLUB OF CAPITOL HILL	$10,000	$5,630
	Total DEC:		**$273,335**

* Political Action Committee associated with the Republican House Speaker in in South Carolina

Table 2: Lobbying and Public Policy Organizations

Acct.	Lobbying and Public Policy Organizations		DEC Direct
921200	CAROLINA BUSINESS COALITION INC		$100,000
921100	AMERICAN LEGISLATIVE EXCHANGE COUNCIL		$2,500
921200	AMERICAN LEGISLATIVE EXCHANGE COUNCIL		$5,000
921200	AMERICAN LEGISLATIVE EXCHANGE COUNCIL		$12,500
921200	SOUTH CAROLINA MANUFACTURERS ALLIANCE		$4,000
921200	SOUTH CAROLINA MANUFACTURERS ALLIANCE		$3,133
921200	NORTH CAROLINA CHAMBER		$3,000
921200	NORTH CAROLINA CHAMBER		$10,000
921200	SC SPORTSMENS CAUCUS		$1,250
921200	SC BUSINESS AND INDUSTRY POLITICAL		$5,000
921200	SOUTH CAROLINA MANUFACTURERS ALLIANCE		$2,610
923000	NATIONAL FEDERATION OF INDEPENDENT BUSINESS		$5,000
923000	NATIONAL FEDERATION OF INDEPENDENT BUSINESS		$5,000
		Duke Donations	Allocation from Duke
	BUSINESS INSTITUTE FOR POLITICAL ANALYSIS	$5,000	$2,783
	BUSINESS INSTITUTE FOR POLITICAL ANALYSIS	$5,000	$2,783
	Total DEC:		**$164,557**

Wisconsin Public Service included several political party organizations, the U.S. Chamber of Commerce, and the American Gas Association in Account 930.[55]

WPSC Response:

Government Relations (HC A15) is the name of the department/home center that forecasts the industry association dues and memberships in account 930200 listed below:

2016 Test Year	Governmental Relations (A15)/ Memberships (RT 443)
$ 399,000	Edison Electric Institute
$ 8,085	Association of Edison Illuminating Companies
$ 12,360	Midwest Energy Association (electric portion)
$ 66,900	Wisconsin Utilities Association
$ 500	State Bar of Wisconsin
$ 4,100	Wisconsin Paper Council
$ 15,900	North Central Electric Association
$ 13,000	Wisconsin Manufacturers Association
$ 8,339	Midwest Energy Association (gas portion)
$ 92,392	American Gas Association
$ 12,544	Republican Governors Association
$ 5,376	Republican State Leadership
$ 3,584	Democratic Governors Association
$ 1,886	US Chamber of Commerce
$ 720	Michigan Chamber of Commerce
$ 644,686	**FERC Account 930200**

55 Wisconsin Public Service Corporation Government Relations/Memberships available at https://www.documentcloud.org/documents/3227546-Wisconsin-Public-Service-Corporation-Dues.html

Minnesota Power (Allete) included in its corporate dues several pro-coal entities and its UWAG membership.[56]

Corporate Membership Dues:	Actual 2015		Code:
EDISON ELECTRIC 2015 MEMBERSHIP DUES (EEI)	263,770	C	4
WESTERN COAL TRAFFIC	55,000	C	4
CLIMATE REGISTRY	6,600	C	4
BLOOMBERG	25,039	C	4
MONTANA COAL COUNCIL	4,000	C	4
MIDWEST RURAL ENERGY COUNCIL MREC	1,500	C	4
MINNESOTA PESTICIDE INFORMATION AND EDUCATION ORGANIZ/	1,000	C	4
MINNESOTA LOGGER EDUCATION PROGRAM	1,000	C	4
CEATI INTERNATIONAL INC - Utility Operations and Planning	27,300	C	4
CENTER FOR ENERGY WORKFORCE DEVELOPMENT	3,500	C	4
MINNESOTA ENVIRONMENTAL INITIATIVE	8,000	C	4
UWAG Membership Dues	17,668	C	4
MINING MINNESOTA	15,000	C	4
MINNESOTA FOREST INDUSTRIES	13,669	C	4
MINNESOTA HIGH TECH ASSOCIATION	10,000	C	4
MINNESOTA TIMBER PRODUCER ASSOCIATION	250	C	4
NORTH AMERICAN ENERGY MARKETS ASSOCIATION (NAEMA)	3,000	C	4
CORNET GOBAL MIDWEST	800	C	4
NATIONAL ASSOCIATION OF MANUFACTUERS	1,000	C	4
AMERICAN WOOD PROTECTION ASSOCIATION	250	C	4
NATIONAL COAL TRANSPORTATION ASSOCIATION	625	C	4

A request filed by Appalachian Power Company and Wheeling Power Company (American Electric Power companies) reveals money going to many organizations working to increase the use of coal and prevent EPA regulations, but also the wind energy trade association.[57]

AMERICAN COAL ASH ASSOCIATION	3,971
AMERICAN COAL COUNCIL	667
AMERICAN COALITION FOR CLEAN	177,476
AMERICAN INDUSTRIAL HYGIENE ASSOC	175
AMERICAN WIND ENERGY ASSOC	5,965
ARIZONA STATE UNIVERSITY	9,672
ASSOCIATION OF EDISON	4,239
ASSOCIATION OF ENERGY SERVICES	940
BETTER INVESTING	2,222
BLOOMBERG BNA	1,149
BOARD OF ENVIRONMENTAL	37
BUSINESS COUNCIL	533
BUSINESS GOVERNMENT RELATIONS COUNCIL	490
BUSINESS ROUNDTABLE	14,560

EDISON ELECTRIC INSTITUTE	6,334
EMERGING ISSUES POLICY FORUM	4,020

EASTERN COAL COUNCIL	4,500
EDISON ELECTRIC INSTITUTE	345,465

NATIONAL ASSOCIATION FOR ENVIRONMENTAL	2,654
NATIONAL ASSOCIATION OF MANUFACTURERS	35,601
NATIONAL COAL COUNCIL	3,451
NATIONAL COAL TRANSPORTATION ASSOCIATION	400
NATIONAL INVESTOR RELATIONS INSTITUTE	352
NATIONAL MINING ASSOCIATION	6,505

[56] Minnesota Power Organization Dues available at https://www.documentcloud.org/documents/3224119-Minnesota-Power-Allete-Organization-Dues.html#document/p518/a329515

[57] Appalachian Power Company and Wheeling Power Company response to discovery re questions available at https://www.documentcloud.org/documents/3224308-Appalachian-Power-AEP-Membership-Dues.html

While the amounts highlighted in this report pale in comparison to the ratepayer money that utilities seek to build infrastructure, customers are nevertheless funding political activities which which they may not agree, and from which they do not benefit.

III. Utility Pushback Against Oversight of Their EEI Dues

Regulatory oversight of requests by utilities to recover EEI dues from ratepayers has lapsed in many states. For example, longstanding Florida Public Service Commission precedent requires utilities to provide “adequate segregation” of EEI dues, or commissioners would disallow the utility from recovering one-third of those dues as lobbying.[58] However, FPL reported in 2016 more than $9.5 million in EEI dues for 2015-2018 as part of its latest rate request before the Florida PSC. The utility’s request to include its EEI dues went unchallenged despite a lack of transparency or segregation, and its request was approved.

Many utility companies simply include an annual EEI invoice that footnotes the percentage EEI deems to be lobbying in the rate request as justification for the amounts charged to ratepayers and shareholders. That lobbying percentage has often been enough for a commission staff and commissioners. In fact, several of the utilities that EPI reviewed, including Dominion, El Paso Electric, Monongahela Power Company and the Potomac Edison Company, NV Energy, and NIPSCO, either submitted the EEI invoice as evidence or noted an amount based on percentages that EEI deemed lobbying in Account 426.4.

However, public utility commissions in a number of states have required utilities to provide evidence that any EEI payments benefit ratepayers. If the utility fails to do so, then commissioners have disallowed all of EEI dues from general operating expenses. In other cases, a utility must demonstrate that it has not only disallowed expenditures for lobbying but also all types political activities such as regulatory or legislative activities - and an EEI invoice is insufficient. Decision makers have disallowed nearly 50% of EEI dues based on detailed budget information that had previously been published for decades under guidance provided by the National Association of Regulatory Utility Commissioners (NARUC). But when regulatory staff have questioned EEI dues, utilities have been quick to respond and push back against staff testimony or discovery requests with rebuttals that show EEI invoices and/or prior precedents to allow for the recovery of EEI dues.

[58] Energy and Policy Institute, “The Real Cost Shift: Utilities Force Customers to Subsidize Attacks on Rooftop Solar” available at http://www.energyandpolicy.org/real-solar-cost-shift-subsidized-attacks-on-rooftop-solar/

EEI membership "appears to primarily benefit the Company"

In 2015, Missouri Public Service Commission utility regulatory auditors presented testimony to support the staff's proposal to disallow the entire amount of EEI dues in the rate request of Union Electric Company (Ameren).[59] While staff said that the ratepayers may receive some benefit from Ameren Missouri's membership in EEI, they noted that "the membership appears to primarily benefit the Company and its shareholders." The Minnesota Office of Attorney General similarly recommended that ratepayers not pay for EEI dues using the same reasoning: dues should not be recovered because EEI is primarily a lobbying organization.[60]

Missouri PSC staff cited a previous rate case, No.ER-82-66, that ordered all of Kansas City Power and Light's EEI dues in Missouri to be disallowed because the utility has not quantified the benefit to ratepayers.[61] Staff also cited Arkansas Power and Light Case, No.ER-85-265, in which the PSC "reaffirms its previously stated position that a utility company must properly assign EEI dues based upon the respective benefit to the ratepayers and the shareholders."[62] Staff further cited Union Electric Company Case No. EC-87-114, in which the commission stated that it has consistently excluded EEI dues from the cost of service "on the ground that these payments have not been shown to produce any direct benefit to the ratepayers."[63]

Ameren, despite established state precedent, still requested its ratepayers shoulder EEI contributions of $483,138 along with $235,455 to UARG, $96,010 to UWAG, and $47,163 to USWAG.[64] After negotiations between staff, Ameren, and several signatories, a settlement was reached to allow the utility to recover $11 million for various revenue issues, including

[59] Surrebuttal Testimony in Union Electric Company d/b/a Ameren Missouri case available at https://www.documentcloud.org/documents/3320628-MO-PSC-Surrebuttal-Testimony-Dues.html

[60] Minnesota Public Utilities Commission Staff Briefing Papers, Otter Tail Power Company GR-15-1033 available at https://www.documentcloud.org/documents/3675289-Otter-Tail-Power-MN-PUC-Staff-Briefing-Papers.html#document/p71/a351343

[61] Report and Order in Kansas City Power & Light Company case available at https://www.documentcloud.org/documents/3461052-Missouri-PSC-ER8266-EEI-Dues.html#document/p26/a338197; Surrebutal Testimony in Union Electric Company case available at https://www.documentcloud.org/documents/3320628-MO-PSC-Surrebuttal-Testimony-Dues.html#document/p4/a334933

[62] Surrebuttal Testimony in Arkansas Power and Light case available at https://www.documentcloud.org/documents/3320628-MO-PSC-Surrebuttal-Testimony-Dues.html#document/p5/a334932

[63] Report and Order in Union Electric Company case available at https://www.documentcloud.org/documents/3461051-Missouri-PSC-EC87114-EEI-Dues.html#document/p33/a338198; Surrebuttal Testimony in Union Electric Company case available at https://www.documentcloud.org/documents/3320628-MO-PSC-Surrebuttal-Testimony-Dues.html#document/p5/a334931

[64] Ameren Position of Statement of Dues, Including EEI and Environmental Working Groups Dues available at https://www.documentcloud.org/documents/3461233-MO-PSC-Statement-of-Positions-EEI-Dues.html#document/p3/a338293

EEI dues.[65] It is unclear from the settlement order what amount Ameren was allowed to charge its ratepayers.

In the Kansas City Power and Light Greater Missouri Operations Company rate request filed in December 2015, commission staff once again recommended that all EEI dues be disallowed. The utility said that it recorded approximately 21% of its dues to EEI below the line based on the invoice it received from the trade association.[66] However, commission staff, in a filing of limited issues, continued to recommend that the commissioners not force ratepayers to pay for EEI dues simply because the utility's membership "does not benefit ratepayers."[67] The rate case was settled and the issue of EEI dues was not mentioned.

"EEI ceased its earlier practice of issuing detailed information on its budget"

William Marcus, on behalf of the Office of Attorney General, testified in Oklahoma Gas & Electric's rate request before the Arkansas PSC in 2009.[68] Marcus said that OG&E has used the itemized invoice that EEI submitted to the utility to note that it is not seeking recovery for the 20% of Regular Activities and 40% of the fee for industry structure, which are all based on percentages footnoted on the invoice. However, Marcus recommended that the PSC disallow a total of 49.93% of the Regular Activities dues for ratemaking purposes as it did in the Entergy case, docket 06-101-U. Marcus cited the table below to justify its recommendation. The 49.93% is a result of adding Legislative Advocacy (20.38%), Regulatory Advocacy (16.49%), Advertising (1.67%), Marketing (3.68%), and Public Relations (7.71%). Marcus did not advocate for it, but commissioners could go further and disallow both Legislative Policy Research (6.02%) and Regulatory Policy Research (13.99%), since those categories support EEI's advocacy. The table comes from the last available audited data of EEI spending by NARUC categories, in 2005.

[65] Nonunimous stipulation and agreement regarding certain revenue and requirement issues available at https://www.documentcloud.org/documents/3519637-Settlement-Between-Ameren-and-PSC-Staff.html

[66] KCP&L Greater Missouri Operations Testimony available at https://www.documentcloud.org/documents/3320624-KCPL-Rebuttal-Testimony-2016-Dues.html#document/p25/a334971

[67] Missouri Public Service Commission Staff Positions on Listed Issues available at available at https://www.documentcloud.org/documents/3324311-MO-PSC-Rebuttal-to-KCPL.html#document/p8/a334973

[68] Application of Oklahoma Gas and Electric Corporation, Arkansas Attorney General testimony available at https://www.documentcloud.org/documents/3239426-Arkansas-AG-Office-2009-OGE-Rate-Request.html#document/p64/a332104

Table 11: EEI Spending

Edison Electric Institute
Schedule of Expenses by NARUC Category
For Core Dues Activities
For the Year Ended December 31, 2005

NARUC Operating Expense Category	% of Dues
Legislative Advocacy	20.38%
Legislative Policy Research	6.02%
Regulatory Advocacy	16.49%
Regulatory Policy Research	13.99%
Advertising	1.67%
Marketing	3.68%
Utility Operations and Engineering	11.31%
Finance, Legal, Planning and Customer Service	18.75%
Public Relations	7.71%
Total Expenses	100.00%

In Entergy Texas Inc.'s (ETI's) rate case, the utility filed a motion to strike parts of testimony given by Marcus that specifically dealt with the NARUC audit and EEI dues. Sheri Givens, then-attorney for the Texas Office of Public Utility Counsel, filed a defense of Marcus' testimony. Givens stated (emphasis added):

> ETI over-reaches in its claim and its Motion should be denied. **First, it is not speculation that EEI ceased its earlier practice of issuing detailed information on its budget that have previously been published. This fact is stated on lines 12 through 15 (EEI has decided on its own to stop issuing detailed information on its budget that had previously been published for decades under the auspices of NARUC)** … These are factual statements backed up by the response of the Kentucky Utilities Company to a discovery request by the Kentucky Public Service Commission

> … Kentucky Utilities expressly states, "Beginning in 2007, EEI is no longer preparing the breakout of activities by NARUC category as provided in the last rate case." ETI itself provided a letter from EEI that shows that of the former "breakout categories," only legislative advocacy is broken out and that is because it is required by the IRS because lobbying activities are not tax deductible for its members.[69]

In other words, Givens stated that because of the fact that EEI no longer provides its member companies breakouts of spending as defined by NARUC, instead providing only its lobbying percentages, it is acceptable for commissioners to use the latest audit by NARUC to understand EEI spending with greater precision.

"EEI spends money on many other things that do not fit the narrow definition of lobbying"

In California, Marcus, on behalf of The Utility Reform Network (TURN) proposed allocating 43.3% of EEI dues below the line rather than the 25% proposed by Pacific Gas & Electric (PG&E) for the utility's 2014 general rate case. In testimony, Marcus stated what this report argues, which is that "EEI spends money on many other things that do not fit the narrow definition of lobbying. The Commission has in the past specifically rejected all EEI spending for lobbying, legislative advocacy, regulatory advocacy, marketing, public relations, advertising, donations, and club dues."[70] TURN cited D. 96-01-011 as precedent.

The testimony further explained that "after a series of regulatory disallowances of significant parts of EEI dues across the country, EEI has decided on its own to stop issuing detailed information on its budget that had previously been published for decades under the auspices of NARUC." TURN then presented the 2005 audited schedule of expenses defined by NARUC (page 33 of this report) and another table that shows unaudited EEI expense categories for 2005 to 2009 obtained from a prior rate case in Arkansas.[71]

[69] Application of Entergy Texas Inc., Office of Public Utility Counsel response available at https://www.documentcloud.org/documents/3288545-Texas-PUC-Response-to-Entergy-Texas.html#document/p11/a334904

[70] Electric Generation and Other Results of Operations Issues for Pacific Gas and Electric Company, The Utility Reform Network William Marcus testimony available at https://www.documentcloud.org/documents/3382426-TURN-PGE-Testimony-2014-Rate-Request.html#document/p72/a335205

[71] Ibid.

Table 32: EEI Spending Data 2005-2009 Arkansas PSC Staff DR 52-03 in Docket No. 10-067-U

Edison Electric Institute Schedule of Expenses

For Core Dues Activities

For the years Ended December 31, 2005 - 2009

(Unaudited)

% of Dues

Operating Expense Category	2005	2006	2007	2008	2009
Legislative Advocacy and Policy Research	26.4%	25.7%	16.2%	14.4%	21.9%
Public Relations	7.7%	8.8%	2.2%	2.0%	2.4%
Advertising	1.7%	1.3%	0.9%	2.3%	2.3%
Marketing	3.7%	3.9%	0.0%	0.0%	0.0%

The 43% that TURN proposes is a result of adding - at the time - the latest available information of Legislative Advocacy and Policy Research (21.9%), Public Relations (2.4%), Advertising (2.3%), and the spending on Regulatory Advocacy (16.5%) from the 2005 audited table.

The Commission agreed with TURN; thus preventing utility ratepayers from paying $300,000 of EEI dues.[72]

Southern California Edison "has not shown it has removed all political or lobbying costs"

TURN went a step further and proposed that EEI dues be completely disallowed from Southern California Edison's (SCE's) 2015 general rate case.[73] According to the proposed decision of Administrative Law Judge Kevin Dudney, SCE proposed to charge ratepayers for $1.463 million for EEI dues (the total EEI invoice to SCE was $1.922 million).[74] TURN contended that the money paid to EEI, in Account 930, was political. TURN stated, "SCE has

[72] Proposed Decision before the Public Utilities Commission of the State of California, Pacific Gas and Electric Company application available at https://www.documentcloud.org/documents/3239245-COMPENSATION-to-TURN-for-SUBSTANTIAL.html#document/p8/a331970

[73] Southern California Edison 2015 General Rate Case Rebuttal Testimony available at https://www.documentcloud.org/documents/3239584-Southern-California-Edison-2015-rebuttal.html#document/p25/a335207

[74] Proposed Decision Public Utilities Commission of the State of California, Southern California Edison application available at https://www.documentcloud.org/documents/2998283-Southern-California-Edison-revenues-for-2015.html#document/p376/a331987

not removed all of the NARUC categories that the Commission previously identified as inappropriate for ratepayer funding because of their inherently political nature."

TURN further claimed that EEI,

> waged an aggressive campaign in Arizona against net energy metering for distributed solar photovoltaic energy (solar PV), and SCE has not demonstrated that EEI dues to be recovered from California ratepayers excluded these or similar activities … TURN argues that if SCE is willing to fund EEI's efforts to fend off distributed PV through intervention in out-of-state utility regulatory proceedings and television advertising (including prime spots like during NFL games), then SCE's shareholders alone should fund those activities.

SCE called TURN's recommended disallowance "baseless and unreasonable." It recommended that the commissioners allow SCE's forecast for EEI membership dues of $1.462 million.[75] SCE also stated in its rebuttal testimony that it asked EEI to review TURN's testimony. EEI provided the following:

> TURN claims that "the world changed dramatically in 2013" as "EEI embarked upon a political advertising campaign" to "fight solar." Further TURN claims that EEI utilized "massive television advertising," spending "huge, undisclosed sums of money…" and "blanketing the airwaves." This is clearly not true. While EEI did run an ad on TV in Arizona, it was only limited markets for a limited period of time. In face [sic], the … data shows that the percentage of dues used for Lobbying, Public and Media Relations, Advertising, and Marketing was 20.5 percent in 2013, less than the 21.2 percent in 2012.
>
> While NARUC no longer requires EEI to provide detailed information, EEI has continued to use the NARUC definitions to compute the percentage of member dues used for Lobbying, Public and Media Relations, Advertising, and Marketing. These percentages are compiled through a careful accounting of the time spent by EEI lobbyists and staff as well as expenditures on programs, consultants, and other expenses.

Despite SCE's rebuttal plus the fact that EEI involved itself in the rate case to defend and explain its spending - **while admitting it no longer provides detailed information to NARUC** - Judge Dudney agreed with TURN. Judge Dudney stated that "SCE has not shown it has removed all political or lobbying costs from its forecast." However, Judge Dudney declined to disallow all of SCE's EEI dues outright, but adopted TURN's methodology from

[75] Southern California Edison 2015 Genera Rate Case Rebuttal Testimony available at https://www.documentcloud.org/documents/3239584-Southern-California-Edison-2015-rebuttal.html#document/p25/a332133

the PG&E 2014 general rate case and reduced SCE's forecast of EEI dues to $1 million from the total $1.922, a disallowance of 47.9%.[76]

"EEI no longer publishes this information on a routine basis, having stopped NARUC audits in the vicinity of 2006"

In September 2015, Marcus testified again on behalf of the Arkansas Office of Attorney General during Entergy Arkansas Inc.'s (EAI's) rate request. EAI requested that ratepayers pay $293,398, or 81.5%, of EEI dues after adjusting out $66,362. Marcus recommended increasing the disallowance to $145,294 - a 40% charge to shareholders. Marcus justified this recommendation by stating that there has been a framework established for commissions to disallow EEI's political expenses aside from lobbying and specifically cited SCE's 2015 general rate case. Marcus proposed to use the 2012 information that revealed EEI spent 21% of its budget on lobbying, public and media relations, advertising, and marketing. Marcus then added 6% for legislative policy research, 16% that was regulatory advocacy, and rounded down "for conservatism."[77]

He also stated that despite the information he has been able to compile, very little is known about EEI expenses, though not for lack of trying:

> EEI no longer publishes this information on a routine basis, having stopped NARUC audits in the vicinity of 2006.[78] EEI hands out information that it feels like giving utilities when they ask for it, but never provides complete information in the same format that it used to provide.

This fact was brought up by the Arizona Residential Utility Consumer Office (RUCO) during Arizona Public Service's rate case. In December 2016, RUCO proposed a 49.93% disallowance of EEI dues determined by the 2005 NARUC operating expense breakdown table. The consumer advocate office said that this figure cannot be updated because EEI stopped providing this information after 2006. "RUCO believes after a series of regulatory

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[76] Proposed Decision Public Utilities Commission of the State of California, Southern California Edison application available at https://www.documentcloud.org/documents/2998283-Southern-California-Edison-revenues-for-2015.html#document/p378/a310066

[77] Entergy Arkansas, Inc. Rate Request, Arkansas Attorney General William Marcus testimony available at https://www.documentcloud.org/documents/3239429-Arkansas-AG-Office-2015-Entergy-Rate-Request.html#document/p32/a335208

[78] Footnote used by Marcus: Response to Initial Requests for Information (Question 65) of the Kentucky Attorney General (August 27, 2008) from Kentucky Public Service Commission Case No. 2008-00251 and 2007-00565 for Kentucky Utilities Company, found at http://psc.ky.gov/pscscf/2008%20cases/2008-00251/KU_Response%20to%20AG's%20Requests%20dated%20082708%20(Vol%201of3)_091108.pdf

partial disallowances of EEI dues by Commissions across the nation, EEI decided not to provide this information to NARUC, which it had previously done for at least a decade."[79]

RUCO proposed that of the $1,188,411 charged to APS for EEI dues, shareholders should pay for $593,373, 49.93%, of that amount instead of $211,748, 20%, as proposed by the utility. This left $946,663 to be paid for by APS ratepayers to help fund EEI, including UARG and USWAG - RUCO noted. The consumer advocacy group further noted, "These groups represent the interest of electric generations such as APS, TEP and UNS donations and membership is purely voluntary, many of which are political in nature, and may not be necessary for the provision of utility services."[80]

"Staff removed amounts associated with industry dues that appear to be political or lobbying in nature"

In Virginia, in 2015, the Associated Press revealed that Dominion was charging ratepayers for charitable contributions, including for payments to overtly political groups like the Virginia Chamber of Commerce that have supported the utility's agenda in the state legislature.[81] Then-Attorney General Ken Cuccinelli said, "Why should captive ratepayers, who have no option to get electricity from another company, be compelled to fund the charitable choices of a company? Leave the ratepayers their money, and let them make their own charitable choices."[82]

Dominion initially said it was following established State Corporation Commission precedent, and eventually agreed to end the practice and use shareholder money for all of its charitable giving, but pushed back against the proposal to remove EEI dues.[83] Indeed, a Virginia Corporation Commission public utility accountant proposed to remove more EEI dues than Dominion had originally allocated in their cost of service. In pre-filed testimony, staff said that the dues removed "appear to be political or lobbying in nature." Yet, Dominion disagreed and

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[79] Direct Testimony of Frank Radigan, RUCO, Docket No. E-01345A-16-0036 available at https://www.documentcloud.org/documents/3625848-RUCO-Filing-APS-EEI-Dues.html

[80] Ibid.

[81] Associated Press, "Dominion Power's donations partially subsidized by its customers" available at http://wavy.com/2015/08/22/dominion-powers-donations-partially-subsidized-by-its-customers/

[82] Associated Press, "Dominion won't include charity donations in customers' bill" available at http://www.richmond.com/business/article_b08eb8da-2b65-5b52-88af-f1d52032c2c9.html

[83] Pre-filed Staff Testimony in Virginia Electric and Power Company case, Adjustment to Remove Lobbying Expenses from Industry Dues available at https://www.documentcloud.org/documents/3461043-EEI-and-Dominion-Rate-Case-Documents.html#document/p16/a338180

cited EEI invoices to note that it had charged the correct amounts to the FERC codes.[84] Staff, in rebuttal testimony, still disagreed with Dominion over EEI charges to ratepayers.[85]

Dominion charged to shareholders the dues to other organizations that "appear political in nature," including the American Legislative Exchange Council, and all of the Republican and Democratic party organizations even after staff objected.[86]

IV. Waning Regulatory Oversight of Ratepayers Paying for Political Membership Dues

In 1984, according to the *New York Times*, the National Association of Regulatory Utility Commissioners (NARUC) conducted a 20-month investigation into EEI's misuse of money collected from ratepayers of the nation's electric utilities for lobbying and public relations.[87] At the time, EEI's budget was about $30 million.

"It's a small amount of money in the context of utility rates, but it's a large amount in a political context," said Peter A. Bradford, chairman of the Maine Public Utilities Commission, at the time. "It can support a national media or lobbying campaign that can have a substantial impact on public consciousness or policies."[88]

The article revealed that during the time of NARUC's investigation, at least a dozen states (it noted Texas, California, Colorado, Florida, Massachusetts, and Missouri) started to disallow part or all of dues and advertising money paid to EEI from ratepayers' bills.

In 1985, the *Washington Post* reported that NARUC's director of financial analysis had been conducting on-site investigation of EEI's books on behalf of NARUC. Michael Foley, the director, said, "It is clear to us, based on a rather probing analysis of their expenditures, that the principal thrust of the Edison Electric Institute's activities is that of attempting to influence

[84] Rebuttal Testimony in Virginia Electric and Power Company case, Industry and Professional Dues available at https://www.documentcloud.org/documents/3461043-EEI-and-Dominion-Rate-Case-Documents.html#document/p128/a338184

[85] Supplemental Testimony in Virginia Electric and Power Company case available at https://www.documentcloud.org/documents/3461043-EEI-and-Dominion-Rate-Case-Documents.html#document/p216/a338187

[86] Virginia Electric and Power Company Reclass Certain Industry Dues to Other Income/Expenses available at https://www.documentcloud.org/documents/3461043-EEI-and-Dominion-Rate-Case-Documents.html#document/p256/a338192

[87] New York Times, "Utility Group Criticized on Funds for Lobbying" available at http://www.nytimes.com/1984/07/21/business/utility-group-criticized-on-funds-for-lobbying.html

[88] Ibid.

the affairs of the federal government … The majority of the dues received from utilities are directed toward that goal."[89]

The NARUC investigation was not just focused on EEI, but also groups EEI funds, specifically that Utility Air Regulatory Group (UARG) and the Utility Solid Wast Activity Group (USWAG).[90]

Ultimately, the initial investigation into EEI's lobbying figures led to NARUC concluding that an audit of financial records must be made and that there must be definitions that categorizes EEI's budget - those are the categories that William Marcus has presented in testimony (page 33 of this report).

A few years after the investigation, NARUC formed a "Committee on Utility Association Oversight" to provide rigorous oversight of any annual EEI dues to be paid by utility ratepayers; the National Association of State Utility Consumer Advocates (NASUCA) endorsed that approach via a resolution passed in 1988.[91] The NASUCA resolution warned that "attempts are being made to dilute the effectiveness of the committee's efforts…"[92]

In addition to providing oversight, NARUC's Committee on Utility Association Oversight was also charged with developing appropriate audit definitions and audit procedures for EEI, AGA, the Committee for Energy Awareness (now the U.S. Council for Energy Awareness) and the United States Telephone Association.[93]

NARUC officially disbanded the committee in 2000, but suggested that "random" reviews of industry associations by the group's Staff Subcommittee on Accounts would continue under the purview of the Committee on Finance and Technology.[94] It is unclear if any such "random" reviews have occurred since, although William Marcus has been able to present EEI's budget categorized using NARUC codes as late as 2005.

[89] Washington Post, "Ratepayers Said to Fuel Utility Lobby" available at https://www.washingtonpost.com/archive/business/1985/11/18/ratepayers-said-to-fuel-utility-lobby/92d0aa17-9cd0-426e-810e-265d303321ee/?utm_term=.4996c08bbf86

[90] Ibid.

[91] National Association of State Utility Consumer Advocates Resolution available at https://www.documentcloud.org/documents/3213696-National-Association-of-State-Utility-Consumer.html#document/p15/a327118

[92] Ibid.

[93] Ibid.

[94] NARUC Resolution available at http://pubs.naruc.org/pub/53A13CA7-2354-D714-513A-A44A35A37CAF; Entergy Arkansas, Inc. approval of changes in rates, Entergy Arkansas sur-surrebuttal testimony available at https://www.documentcloud.org/documents/3519952-Entergy-Arkansas-Sur-Surrebuttal-Testimony-NARUC.html

Regulators must now rely solely on information provided by utilities and industry associations that have an obvious self-interest in maximizing the amount of their dues that will be paid by utility ratepayers.

Recommendations

The evidence in this report reveals that EEI is primarily and inherently a political organization, and that much of its work targets policymakers throughout all levels of government to build influence, specifically for their member companies but also for the industry at large. While many states have their established practices of how to code trade association dues, they should revisit outdated guidelines due to the nature of EEI's modern activities to ensure that they are adequately protecting ratepayers. Throughout the past three decades, some regulators and consumer advocates have acted to protect ratepayers, but scrutiny has waned dramatically. Precedent exists for public officials to act in every state to investigate whether or not EEI's inherently political work ought to be funded by ratepayers.

EPI recommends that:

1. Public utility commissioners and their staff should place the burden of proof on utilities to demonstrate the exact percentage of customer money provided to industry groups and other political organizations, including EEI, that actually benefits their ratepayers. This is not a recommendation for commissioners to indiscriminately disallow all EEI dues, as certain EEI programs such as storm response coordination may indeed be apolitical and provide a benefit to ratepayers. However, utilities should have to disclose the exact benefits that their political industry associations confer to ratepayers for each of their activities in detail; it is insufficient for utilities to file an annual invoice from an organization that notes the lobbying percentage, defined narrowly for tax purposes, as the only guidance for commissions to determine what should be charged to ratepayers.
2. Consumer advocates and other parties whose mission is to protect ratepayers, such as attorneys general, should file for discovery in order to receive additional documents to have a better understanding how a utility company works with EEI, and whether that work benefits ratepayers.
3. The National Association of Regulatory Utility Commissioners (NARUC) should revive the Committee on Utility Association Oversight and audit the books of EEI, NEI, and AGA to determine the percentage of their operations which are political in nature and therefore ought not to be funded by ratepayers.

4. NARUC should compile an extensive survey that shows the percentages of dues utility ratepayers are paying to industry organizations and political party focused groups; particularly (though not limited to) EEI; American Gas Association (AGA); Nuclear Energy Institute (NEI); U.S. Chamber of Commerce; Democratic Governors Association; and Republican Governors Association. Such a manual could help utility accounting staff across the country manage the challenges associated with determining industry association dues during rate requests. This report reveals only several instances and is not exhaustive.

Appendix I: Tables of Selected Utilities' Requests for Ratepayer Money to Fund EEI Dues, and Challenges to Requests

An initial, non-comprehensive review by the Energy and Policy Institute using state public utility commission docket systems identified millions of dollars in annual utility payments to EEI that utility ratepayers are funding. The table below provides a sample of EEI payments that utilities have proposed to recover from ratepayers.

Utility	Amount requested to be paid to EEI above-the-line	Docket	Utility	Amount requested to be paid to EEI above-the-line	Docket
Centerpoint Energy (TX)	$606,847	Schedule B.6	Monongahela Power (WV)	$125,362	14-0702-E-42T, J-5 of Eighth RFI, CAD J-3 CAD E-36
Dominion (VA)	$1,162,690.66	PUE-2015-00027	Northern Indiana Public Service Company (IN)	$181,112	MSFR-15-8(a)(23)
Duke Energy (NC)	$1,351,218	E-7, Sub 1026	NV Energy (NV)	$556,593	Docket 16-06XXX; Data Request 94E Attach 03
El Paso Electric (TX)	$240,363	SOAH 473-15-5257; PUC 44941, Schedule-4.3a, Staff 10-9 Attachment 1	Oklahoma Gas & Electric (OK)	$670,609	201500273
Florida Power & Light (FL)	$2,290,051	160021	Pennsylvania Electric Company	$132,000	R-2016-2537352; Vol1 RAD-26
Georgia Power (GA)	$698,521	Document Filing # 149710 Docket: 36989	Potomac Edison (WV)	$82,447	14-0702-E-42T, J-5 of Eighth RFI, CAD J-3 CAD E-36
Indianapolis Power & Light (IN)	$268,000	44576, OM14	Wisconsin Electric Power Company (WI)	$728,712	Docket 05-UR-107
Kentucky Utilities Company (KY)	$366,645.57	2016-00370, Q 52b	Wisconsin Public Service Corporation (WI)	$399,000	6690-UR-124; 12-MK
Minnesota Power (MN)	$263,770	E015/GR-16-664; Schedule G-3	Union Electric Company (MO)	$483,000	ER-2014-0258

The second table highlights proposals and decisions where advocates or commissions proposed that all or a significant amount of EEI dues be disallowed from being paid by utility ratepayers.

Utility	Total amount requested to be paid to EEI	Amount requested below-the-line	Percentage requested below-the-line	Staff/Intervenors request for percentage disallowed	Commission decision of percentage disallowed	Docket
Arizona Public Service (AZ)	$1,188,411	$211,748	20%	49.93%	Settlement agreement	E.01345A-16-0036
Entergy (AR)	$359,761	$66,362	18%	40%	Settlement agreement	15-015-U
Kansas City Power & Light GMO (MO)	Unclear from filings	Unclear from filings	21%	100%	Settlement agreement	ER-2016-0156
Kansas City Power & Light (MO)	$107,100	$2,100	2%	100%	100%	ER-82-66
Pacific Gas & Electric (CA)	$1,620,720	$405,180	25%	43.3%	43.3%	12-11-009
Southern California Edison (CA)	$1,922,000	$459,000	24%	100%	47.9%	13-11-003
Union Electric Company (MO)	$336,000	$56,000	20%	100%	100%	EC-87-114

Appendix II: Sample Discovery Questions

While the decisions ultimately lie in the hands of commissioners, staff and intervenors generally have the ability to compel utilities to disclose or document further details about their EEI dues.

Below are sample questions regarding cost recovery of utility dues to EEI or other trade associations:

- Provide a copy of the Annual Report of EEI and every other organization of which the Company was a dues-paying member during the years in question.
- What amount of EEI dues is the Company is asking to be recovered from customers, and are the company's shareholders paying for any of these dues?
- Provide a copy of the formula used to compute, and the actual calculation of the Company's EEI dues for the years in question. Also, provide a complete copy of invoices received from EEI for dues for these years.
- Provide any documents in the Company's possession that show how EEI spends the dues it collects, including the percentage that goes to the following categories previously provided by NARUC: legislative advocacy; legislative policy research; regulatory advocacy; regulatory policy research; advertising; marketing; utility operations and engineering; finance, legal, planning and customer service, and public relations.
- Provide a detailed description of the services provided by EEI to the Company during the years in question. Of these services or benefits, please provide what benefits accrue to ratepayers, and how.
- Provide copies of all work product which EEI provided to the Company during the years in question, including (but not limited to): presentations, webinar recordings, briefing books, meeting minutes, policy memos, white papers, etc.
- Has the Company included in operating expenses any amount for EEI Media Communications? If so, state the amount, indicate in which account this has been recorded, and provide a citation to any and all Commission Orders or other authority upon which the Company is relying for the inclusion of such expense in the test period. If not, can the Company provide an estimate of how much of its dues is being spent on media or public relations work?
- Regarding the EEI invoice provided by the Company declaring that [a specific percentage] of EEI's dues are "relating to influencing legislation", please say whether the Company knows if the following expenditures made by EEI are classified as "relating to legislation": [relevant assuming this invoice has been provided.]
    - A ten-day, $520,000 television advertising campaign in Arizona backing Arizona Public Service's position on net metering in 2013.
    - Payments to the law firm Hunton & Williams or Edison Electric Institute related to the Utility Air Regulatory Group.
    - Payments for the Utility Solid Waste and Activities Group
    - Expenditures on "We Stand For Energy," or "Defend My Dividend," public relations and advocacy efforts.
    - Contributions from EEI to third-party organizations and contractors including (though not limited to):
        - Democratic Governors Association

    - Democratic Attorneys General Association
    - Democratic Leadership Council
    - Democratic Legislative Campaign Committee
    - Republican Governors Association
    - Republican Attorneys General Association
    - Republican State Leadership Committee
    - National Conference of State Legislators
    - American Legislative Exchange Council
    - National Black Chamber of Commerce
    - Americans For Prosperity
    - State Policy Network
    - U.S. Chamber of Commerce
    - Congressional Black Chamber of Commerce
    - NetCommunications
- How much has EEI paid, during the years in question, for its effort to “rebrand” the utility industry. Please include payments to external PR firms as well as the associated salary to any EEI staff involved in contracting, coordinating with, or promulgating internally or externally the rebranding campaign effort?[95]
- Does the Company’s dues to EEI contribute to the salary, benefits and expenses of EEI Executive Vice President for Public Policy and External Affairs Brian Wolff, who has led an effort undertaken by EEI to rebrand the utility industry?[96]
- List all travel and entertainment expenses incurred in the test period by Company employees in relation to EEI and other industry association activities. Show accounts, amounts, descriptions, person, job title and reason for the expense. Provide a copy of employee time and expense reports and invoices documenting such expenses.
- Is the Company relying upon any NARUC reports or other studies for the exclusion from or inclusion in rates of a portion of its EEI dues? If so, please provide a copy of such report and indicate how the report's recommendations have been included in its filing.
- Do any of the Company's personnel actively participate on Committees and/or do any other work for any industry organization to which the Company belongs? a. If so, state specifically which employees participate, how they are compensated for their time (amount and source of compensation), and the purpose and accomplishments of any such association related work. b. List any and all reimbursements received from industry associations, for work performed for such organizations by Company employees.

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[95] The Huffington Post, “This Messaging Guru Is Helping Utilities Clean Up Their Appearance” available at http://www.huffingtonpost.com/entry/messaging-utilities-solar-power_us_56f45cd6e4b014d3fe22b572

[96] The Huffington Post, “This Messaging Guru Is Helping Utilities Clean Up Their Appearance” available at http://www.huffingtonpost.com/entry/messaging-utilities-solar-power_us_56f45cd6e4b014d3fe22b572