

objective of the Division 87 rules is to integrate the electric company's TE actions into one document and to act as a summary of the electric company's investments and activities.⁴ A TE Plan must include:⁵

- a) A description of current market conditions.
- b) A summary of programs and future concepts.
- c) A discussion of how the TE Plan advances certain performance area categories.
- d) Supporting data and analysis.
- e) A discussion of potential impact on competitive EV supply equipment market.
- f) Ratepayer impact.
- g) A TE Budget.
- h) Any new Program and Infrastructure Measure applications.

Commission acceptance of the TE Plan grants approval of the TE Budget.⁶

Analysis

Background

On July 18, 2025, PGE filed a draft 2026-2028 TE Plan. Staff hosted a workshop on August 12, 2025, in which the Company presented the Plan to stakeholders and answered questions. Staff, Oregon Department of Energy, It's Electric, SWITCH Energy, the Alliance for Transportation Electrification (ATE), Northwest Energy Coalition (NWECC), Green Energy Institute (GEI), Oregon Environmental Council (OEC), and WeaveGrid filed Comments on this Plan. GEI, NWECC, and OEC filed jointly as Joint Advocates.

This is the Company's third TE Plan. PGE filed its first TE Plan in September 2019 and second in August 2023. In its current Plan, PGE proposes a three-year budget of \$102.3 million, which is an increase of \$6.3 million from the prior 2023-2025 Plan. In this Plan, the Company is making a strategic decision to transition away from owning and operating public chargers to a third-party charging provider.⁷ PGE is responding to challenges from high operating costs and siting difficulties. In its last TE Plan, PGE had transitioned to building out pole and pedestal mounted chargers in the public right of way through partnerships with municipalities. While this strategy started off with a successful demonstration project in the City of Portland, working with city governments and finding suitable sites proved to be more difficult than expected.

⁴ OAR 860-087-0020(1).

⁵ OAR 860-087-0020(3)-(4).

⁶ OR Laws 2021, ch 95, § 2(3); OAR 860-087-0020(2)(a).

⁷ Plan at 14 (<https://edocs.puc.state.or.us/efdocs/HAH/um2033hah340974027.pdf>).

As context, PGE proposes to operate ten TE measures and demonstration projects:

- **Business Charging** – This measure has supported 730 level 2 (L2) ports, 233 L2 make-ready installations, and 27 direct current fast charger (DCFC) ports.⁸ PGE plans to increase the rebate such that this program will cover 100 percent of the project costs up to 12 ports and refocus the development of public DCFC charging for exclusively underserved communities.⁹
- **Charging Resiliency Hub** – This is a new demonstration project to support the development of public chargers with on-site generation.
- **Clean Fuels Program (CFP)** – This measure has mostly been a grant program called the Drive Change Fund and also funded outreach and education and school bus electrification. PGE plans to reduce the percentage devoted to grants by increasing funding for outreach and education for underserved communities and school bus projects with vehicle to grid capability.¹⁰
- **Affordable Housing Grants** – This measure provided rebates for low-income housing projects to meet new City of Portland make-ready mandates. PGE has discontinued this measure and redirected the funding due to a lack of applicants.
- **Fleet Partner** – This measure has support 453 private fleet charging ports.¹¹ PGE plans to move the energy commitment from five years to ten years, which will broaden the eligibility of program participants by calculating the incentives based on a longer-term load forecast.
- **Company-owned Public Chargers** – PGE acquired ownership in public chargers from three efforts: 1) Electric Avenue, built by PGE, 2) the purchase of sites from Ecotality, called Oregon Electric Byways, and 3) the Municipal Pole-Charging Collaboration. PGE plans to build no more public chargers, maintain these legacy chargers in this Plan, and find a partner to operate them in the next TE Plan.
- **Commercial Managed Charging Demonstration** – PGE plans to experiment with new charging products to find a means to help nonresidential EV load become more flexible.
- **Heavy-Duty Charging Pilot** – This measure supports distributed generation at Electric Island, PGE's partnership with Daimler Trucks North America on Swan Island. PGE plans to test and evaluate the battery electric storage systems (BESS) and distributed solar with megawatt chargers (MCS).¹²

⁸ Plan at 88.

⁹ Plan at 89.

¹⁰ Plan at 97.

¹¹ Plan at 100.

¹² Plan at 105.

- **Residential Smart Charging** – The measure provided rebates for approximately 7,500 L2 home chargers.¹³ PGE plans to grow the pilot to 12,495 cumulative vehicles and chargers by the end of 2028.¹⁴
- **Strategic Grid Investments** – PGE plans to make TE-driven distribution system investments in advance of TE load.
- **PGE Fleet and Workplace Charging** – PGE has included the O&M for PGE’s private chargers and the capital cost to purchase combustion engine bucket trucks that have electric booms.

TE Budget

PGE’s three-year TE budget of \$102.3 million is relatively similar in size to the previous budget, as shown in Table 1 below, which sums the Plan’s Tables 6 and 7.¹⁵ The budget proposes spending ratepayer funds in addition to the minimum statutory spending of 0.25 percent of retail sales under House Bill 2165 and Commission-ordered expenditures of residential CFP credits.

Table 1: Comparison of Proposed 2026-28 TE Budget with Previous 2023-25 in \$ Thousands

Program/Measure	2023-25 Budget	Proposed 2026-28 Budget	Change
Business Charging	5,336	14,146	165%
Charging Resiliency Hub	0	2,764	New
Clean Fuels Program	43,330	38,800	-11%
Affordable Housing Grants	1,000	0	-100%
Fleet Partner	18,117	5,658	-69%
Company-owned Public Chargers	15,649	5,274	-66%
Commercial Managed Charging	0	2,764	New
Heavy Duty Charging Pilot	3,620	773	-79%
Portfolio Support	2,487	5,596	125%
Residential Smart Charging	6,493	10,541	62%
Strategic Grid Initiatives	0	3,253	New
PGE’s Fleet and Workplace Charging	0	12,293	New
Total¹⁶	96,032	102,306	

Table 1 reflects the Company’s plans to reduce spending on Company-owned chargers while increasing spending on rebates to support third-party charger ownership.

¹³ Plan at 119.

¹⁴ Plan at 119.

¹⁵ Plan at pp 44, 45.

¹⁶ Due to rounding error, proposed 2026-28 Budget total does not reflect exact sum of Program/Measures as shown in Table 1.

Cost-Effectiveness

In this cycle of TE planning, Staff began to apply benefit/cost analysis (BCA) as a budget guardrail, per Order No. 25-028 in Docket No. UM 2165. The benefits of the electric company TE Budget are assessed at the portfolio level.

PGE presents a final TE Plan with benefit/cost ratio (BCR) of 1.33 for the Societal Cost Test (SCT). This follows some discussion between Staff and the Company in this proceeding on BCA best practices. After reviewing PGE's most recent BCA, Staff concludes the Company has provided sufficient evidence that the final Plan has a BCR above 1 using the SCT, meaning the benefits of this Plan exceed the costs from a societal perspective.

In its draft TE Plan, PGE presented a benefit/cost ratio (BCR) of 0.85 for the Ratepayer Impact Measure (RIM), 1.21 for the Total Resource Cost Test (TRC), and 1.52 for the Societal Cost Test. In Staff Comments, we flagged three areas in PGE's BCA for methodological improvement. These were to treat Monthly Meter Charge (MMC) expenditures as a cost; make PGE's forward-looking analysis consistent; and include participant charger O&M costs. PGE agreed to the first point and maintained the other two are inconsistent with the California Standard Practice Manual (CSPM). While Staff disagrees,^{17,18} ultimately these issues do not necessarily prevent Staff from concluding PGE's TE Budget is cost-effective.

In discussion with the Company, Staff heard PGE make two valid points about the means by which Staff adjusted PGE's analysis. **[BEGIN CONFIDENTIAL]**

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CONFIDENTIAL] In the absence of PGE implementing these changes in its final Plan, Staff performed this analysis and found PGE's forward-looking SCT BCR remained above 1.

Staff's notes its changes may have relevance for future analysis. **[BEGIN CONFIDENTIAL]**

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¹⁷ California Standard Practice Manual, October 2001, pp 13, 27, and 33.

¹⁸ California Standard Practice Manual, October 2001, p 18.

[END CONFIDENTIAL].

Rate Impact

PGE's rate impact analysis is consistent with the Company's RIM BCR. This Plan will put upward pressure on rates. The actual magnitude in percentage terms, however, is not certain, because PGE has excluded the MMC and base rate operating expenses from its calculations.

Portfolio Performance Areas

PGE has adequately addressed the performance areas established in Division 87 rules Section 20(3)(g) and specified with metrics in Order No. 25-028. Rules require the utility to specify how its portfolio TE Plan advances performance areas including:

- A. Environmental benefits including greenhouse gas emissions impacts;
- B. Electric vehicle adoption;
- C. Underserved community inclusion and engagement;
- D. Equity of program offerings to meet underserved communities;
- E. Distribution system impacts and grid integration benefits;
- F. Program participation and adoption; and
- G. Infrastructure performance including charging adequacy which considers, but is not limited to reliability, affordability, and accessibility.

Below Staff briefly highlights PGE's presentation of the Company's EV adoption forecast, engagement of underserved communities, and equity of program offerings.

PGE's EV adoption forecast has in past overestimated EV adoption in the Company's service territory. In developing this Plan, PGE has added some refinements to improve accuracy. The Company accounts for the elimination of Inflation Reduction Act EV tax credits, limited funding of Oregon's Clean Vehicle Rebate Program, and the State's delay in implementing the Advanced Clean Cars II and Advanced Clean Trucks rules. Additionally PGE recalibrates adoption trends from Department of Motor Vehicles historical data.¹⁹

With these changed assumptions, PGE's new EV adoption forecast is presented in Figure 1 below.

¹⁹ Plan at 128-130.

Figure 1: PGE's EV Adoption Forecast, Table 12 in the Plan

Vehicle Class	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light duty vehicle (LDV)	87,936	110,853	137,652	168,646	204,007	243,652	287,464	335,098	370,670	409,126
Medium duty vehicle (MDV)	913	1,457	2,433	3,755	5,324	7,126	9,062	11,185	13,612	16,112
Heavy duty vehicle (HDV)	126	222	355	495	723	1,060	1,450	1,936	2,430	3,017
Total	88,975	112,532	140,440	172,896	210,054	251,838	297,976	348,219	386,712	428,255

PGE stands out in the depth of the Company's engagement with underserved communities. Staff perceives PGE has reached authentic direct connections with members of underserved communities. These participants expressed a negative outlook toward EVs in survey research presented in Appendix D of the TE Plan Report.²⁰ This is consistent with published market research and suggests PGE is getting the programmatic feedback from the mass market customers PGE seeks to influence.²¹

PGE forecasts 86 percent of the program-enabled ports in the Company's service territory will be sited to provide access to underserved communities, as presented in Figure 2 below.

²⁰ 2025 TE Plan Report, Appendix D, at 44.

²¹ Bell, Lucas. *Americans are Growing Less Interested in Buying Electric Vehicles, Study Says* Road and Track, June 3, 2025.

Figure 2: Equity of Program Offerings, Table 15 from the Plan

Port Forecasts & Underserved Benefit %	Forecasted 2025 Ports	2026-2028 Gross Port Additions	Forecasted 2028 Gross Ports Excluding Attrition	Underserved Benefit %
Business EV Charging	761	727	1,488	88%
Charging Resiliency Hub	–	–	–	100%
Electric Avenue & OEB Public Charging	51	–	51	100%
Fleet Partner	590	310	900	70%
Heavy-Duty Charging Pilot	15	–	15	–
Municipal Pole Charging	180	–	180	100%
Residential Smart Charging	8,150	7,181	15,331	60%
Strategic Grid Initiatives	–	–	–	100%
PGE Fleet and Workplace	286	-	286	84%
Total Ports	10,033	8,218	18,251	86%

Analytic Issue for the Future

The program evaluations PGE presents in its TE Plan Report provide perspectives regarding observed charging behavior that a capacity factor (CF) itself cannot provide.²² Staff welcomes the Company’s third-party evaluators’ analysis of load factors, charger utilization, and port utilization in PGE’s TE Plan Report and highlights some areas for future application below. However, Staff highlights that these metrics, alone, also lack the insight needed to forecast a new charging site’s energy load when calculating a line extension allowance.

In contrast to the metrics below, the CF can forecast energy load as a function of nameplate capacity. Because PGE collects revenue volumetrically on a per kWh basis, CF provides more direct insight into revenue. The load factor, charger utilization, and port utilization will inherently be higher percentages than a CF, so they cannot provide an accurate substitution. However, they likely have a consistent relationship to the CF and these three metrics can be used to make assumptions about the CF if PGE has enough knowledge of the CF to map it to one or more of the other metrics.

Staff discusses the metrics and several findings highlighted in the TE Report below.

²² 2025 TE Plan Report, Appendix D at 2.

1. **Load Factor** – This is the average use divided by maximum use. This ratio of a customer’s capacity need relative to sales helps predict this customer’s parity cost ratio, the marginal revenue the customer contributes to meet the electric company’s revenue requirement relative to the marginal cost this customer imposes on PGE’s system. This traditional metric used to allocate the rate spread in rate cases identifies the relative cost of a customer with low load factors.

Charging data from PGE’s program participants shows very low load factors, however, this may have limited importance today, given that EVs’ maximum use can be timed when PGE has little system risk. As renewable energy becomes a greater share of PGE’s resource mix, traditionally peak hours like charging in the middle of the day no longer impose the same capacity cost when renewable energy is being curtailed for insufficient demand.

2. **Charger Utilization** – This metric identifies the percentage of time a port is charging an EV relative to the total time in the period analyzed. This metric functions like a CF, but, unlike a CF, it is calculated independent of the nameplate capacity of the charger. This independence of the nameplate capacity allows Charger Utilization to speak only to the available time a port is not charging, while the CF can have low utilization rates if the EVs charging do so at a significantly lower average speed than the port is capable of charging. PGE’s evaluators consistently found a low Charger Utilization which corroborates what Staff has seen tracking the CF from the interval data of separately metered charging sites.
3. **Port Utilization** – This metric identifies the percentage of time a port is plugged into a vehicle. This is generally higher than charger utilization, because it includes time when a port is plugged into a vehicle after it has finished charging. This metric can speak more to what prospective EV owners would see, looking for an open port. Taking the difference between charger utilization and port utilization can help identify if low charger utilization is being driven by idle time parked but not charging.

Regarding benefit-cost analysis methodology, Staff’s engagement with PGE surfaced questions for future proceedings. Staff sees value in further engagement through a public workshop in 2027 to discuss BCA best practices and methodological improvements. For greater public participation, that will likely require PGE designating most of the data and all the formulas in PGE’s workbooks be nonconfidential. Additional points from Staff Comments in this area of analysis are included below.

