



August 22, 2023

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Public Utility Commission of Oregon  
Attn: Filing Center  
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Salem, OR 97301

Re: In the Matter of PORTLAND GENERAL ELECTRIC COMPANY,  
Request for a General Rate Revision.  
**Docket No. UE 416**

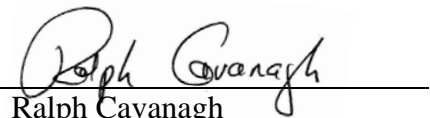
Dear Filing Center:

Please find enclosed the Rebuttal Testimony of Ralph Cavanagh on behalf of the Natural Resources Defense Council (NRDC) and the NW Energy Coalition (NWECC) in the above-referenced docket.

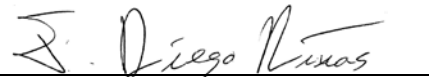
It has been served on all parties of record.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,



Ralph Cavanagh  
NRDC  
415-875-6100



F. Diego Rivas  
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Enclosure

**NATURAL RESOURCES DEFENSE COUNCIL**

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**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**UE 416**

In the Matter of )  
 )  
PORTLAND GENERAL ELECTRIC )  
COMPANY, )  
 )  
Request for a General Rate Revision. )  
\_\_\_\_\_ )

**REBUTTAL TESTIMONY OF**

**RALPH CAVANAGH**

**ON BEHALF OF THE**

**NATURAL RESOURCES DEFENSE COUNCIL**

**AND THE**

**NW ENERGY COALITION**

**August 22, 2023**

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1 **I. INTRODUCTION AND SUMMARY OF REBUTTAL TESTIMONY**

2  
3 **Q. Please state your name, employer, and business address.**

4 A. My name is Ralph Cavanagh. I am Energy Program Co-Director for the Natural Resources  
5 Defense Council, and my business address is 111 Sutter Street, 21<sup>st</sup> Floor, San Francisco, CA  
6 94104.

7 **Q. Have you previously filed testimony in this docket?**

8 A. Yes. I previously filed opening testimony supporting reinstatement of the revenue decoupling  
9 mechanism that was suspended last year in UE 394, with an adjustment (a “soft cap” on  
10 annual true-ups in electricity rates) that would restore a key feature of the mechanism that the  
11 Commission originally approved in 2009.<sup>1</sup> This “soft cap” is needed to ensure that revenue  
12 decoupling achieves the objective of breaking the linkage between PGE’s financial health  
13 and its retail electricity sales volumes.

14 **Q. Please summarize your rebuttal testimony.**

15 A. My opening testimony responded at length to the Commission’s invitation last year in UE 394  
16 for a reassessment of the need for revenue decoupling in an era of economy-wide  
17 electrification and decarbonization. PGE and Staff witnesses weighed in as well, and  
18 although both of these parties supported elimination of PGE’s decoupling mechanism in UE  
19 394, their positions have evolved significantly.

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<sup>1</sup> NRDC-NWEC Exh. 100 (for discussion of the “soft cap” specifically, see pp. 21-23).

1 PGE now says that revenue decoupling mechanisms “are useful tools when used in  
2 combination with other regulatory frameworks and policies to support the achievement of  
3 important goals such as cost-effective decarbonization.”<sup>2</sup>

4 Staff’s opening submission includes welcome shifts from testimony that it joined in UE  
5 394.<sup>3</sup> Staff now “agrees with NRDC and NWEC that PGE has incentive . . . to invest in  
6 electrification even with a decoupling mechanism in place.”<sup>4</sup> Staff also agrees that after  
7 “eliminating decoupling PGE will have an incentive to sell more electricity,”<sup>5</sup> and that  
8 without decoupling errors in load forecasts once again will inappropriately become factors in  
9 driving PGE’s profitability.<sup>6</sup> Staff opposes reinstating decoupling, however, invoking as the  
10 “main benefit” of rescission that “general economic risk will be returned to PGE as it was  
11 before the decoupling mechanisms were adopted.”<sup>7</sup> But my rebuttal testimony shows that  
12 revenue decoupling never in fact freed PGE from “general economic risk,” nor would the  
13 reinstatement proposed by NRDC and NWEC have that effect. I also rebut staff’s contentions  
14 that electricity prices by themselves provide all the impetus needed to optimize energy  
15 efficiency in the transportation sector, that PGE has no capacity to influence the efficiency of  
16 mass-produced electric vehicles, and that increased electricity use by itself can advance  
17 environmental goals.

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<sup>2</sup> PGE Exh. 2600 (Macfarlane), p. 18: 9-12. PGE contends, however, that revival of revenue decoupling should be linked to changes in its current Power Cost Adjustment Mechanism (PCAM). See PGE Exh. 1300 (Macfarlane), pp. 39-40. My response appears in the concluding section of this testimony.

<sup>3</sup> Docket UE 394, Stipulating Parties Exh. x00 (Supplemental Joint Testimony in Support of a Partial Stipulation, March 2, 2022).

<sup>4</sup> Staff Exh. 2000 (Stevens), p. 62: 10-11. In support of that important conclusion, Staff, NRDC and NWEC all cite the transportation electrification incentives authorized in Oregon’s S.B. 1547, enacted in 2016. See id. and NRDC-NWEC Exh. 100, p. 18: 10-19.

<sup>5</sup> Id., p. 60:22-23.

<sup>6</sup> Id., p. 63: 17-19. Under revenue decoupling, by contrast, forecast errors are irrelevant to recovery of PGE’s authorized costs, as demonstrated in NRDC-NWEC Exh. 100 (Cavanagh), pp. 21 – 22 & note 51.

<sup>7</sup> Staff Exh. 2000 (Stevens), p. 61: 2-3.

1 Finally, as to PGE's testimony on the relationship between revenue decoupling and the  
2 company's Power Cost Adjustment Mechanism (PCAM), I agree that increasingly extreme  
3 weather exposes PGE to greater wholesale market volatility and revenue losses that  
4 decoupling without PCAM reform could exacerbate. On balance, given both the increasing  
5 importance of these wholesale markets to reliable decarbonization of the electricity sector  
6 and the urgent need to reinstitute revenue decoupling, I agree that the Commission should  
7 reconsider the current PCAM risk allocation mechanism. However, given this proceeding's  
8 record and the lack of progress in resolving significant differences on the issue, I am not yet  
9 prepared to support any of the parties' specific proposals for adjustments in the current  
10 PCAM risk allocation formula.

## 11 12 **II. DECOUPLING AND TRANSPORTATION ELECTRIFICATION**

13  
14 **Q. In UE 394, just last year, the parties supporting elimination of revenue decoupling**  
15 **argued that it would impede transportation electrification in Oregon; what does the**  
16 **record show in this proceeding?**

17 A. No party's opening testimony revived this contention from that joint submission in UE 394,<sup>8</sup>  
18 or suggested that revenue decoupling was somehow inconsistent with "policy-driven  
19 electrification," an issue that the Commission framed in its final UE 394 order for  
20 consideration in this proceeding.<sup>9</sup> PGE's reply testimony says that now the company's "view  
21 is generally consistent with those expressed by NRDC/NWEC's opening testimony regarding

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<sup>8</sup> UE 394, Exh. x00, pp. 6-7.

<sup>9</sup> UE 394, Order No. 22-129 (April 25, 2022), p. 17. I address this issue at length in my opening testimony, NRDC-NWEC Exh. 100, at pp. 18-21.

1 the benefits of revenue decoupling and its potential to further decarbonization goals.”<sup>10</sup> Staff  
2 now “agrees with NRDC and NWEC that PGE has incentive, through the language of SB  
3 1547, to invest in electrification even with a decoupling mechanism in place.”<sup>11</sup>  
4

### 5 **III. STAFF’S OBJECTIONS TO REVENUE DECOUPLING**

6

7 **Q. Have you reviewed the direct testimony by other parties in this case?**

8 A. Yes.

9 **Q. Did any of the other parties provide testimony opposing the revenue decoupling**  
10 **mechanism described in PGE’s testimony?**

11 A. Yes, Staff witness Stevens provided testimony in opposition to revenue decoupling.<sup>12</sup>

12 **Q. Why does Staff still object to reinstating revenue decoupling for PGE?**

13 A. Staff gives three principal reasons: (1) decoupling inappropriately shields PGE investors from  
14 “general economic risk”; (2) the Energy Trust of Oregon’s role makes revenue decoupling  
15 unnecessary for Oregon’s investor-owned utilities; and (3) promoting increased electricity  
16 use can advance environmental goals.<sup>13</sup>

17 **Q. What is your response to Staff’s contentions?**

18 A. I disagree with each of them, as explained more fully below.

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<sup>10</sup> PGE Exh. 2600 (Macfarlane), p. 12: 13-15. PGE also acknowledges, without contesting, NRDC’s estimate that in the absence of decoupling it will suffer at least \$127.5 in cumulative lost recovery of authorized revenues if its customers achieve conservatively projected end-use efficiency gains over just the next five years. Id at 18:1-6.

<sup>11</sup> Staff Exh. 2000 (Stevens), p. 62: 10-11.

<sup>12</sup> See Staff Exh. 2000 (Stevens), pp. 58-63.

<sup>13</sup> See id., pp. 60-63.

1 **Q. Does revenue decoupling inappropriately shield PGE investors from “general economic**  
2 **risk?”**

3 A. No. NRDC’s and NWEC’s proposed decoupling mechanism (like its PGE predecessor and  
4 most others in the U.S.) is framed in terms of authorized revenues per customer rather than  
5 total authorized revenues. During recessions, “general economic risk” yields fewer utility  
6 customers, resulting in lower utility revenues.<sup>14</sup> Caps on annual true-ups further “limit effects  
7 from extraordinary economic downturns,” as the Arizona Corporations Commission  
8 concluded in rejecting an identical objection in a comprehensive policy statement on revenue  
9 decoupling.<sup>15</sup> It is worth noting that “general economic risk” in an era of transportation and  
10 building electrification will not necessarily yield reduced electricity sales when the economy  
11 cools. In fact, revenue decoupling will shield PGE customers from underwriting windfall  
12 utility gains as electrification accelerates, regardless of “general economic” conditions. My  
13 opening testimony reinforced this point:

14 PGE and other utilities justify their transportation electrification initiatives partly on the  
15 grounds that widespread EV charging will put downward pressure on everyone’s rates  
16 and bills, regardless of whether they own EVs, and NRDC and NWEC agree.<sup>16</sup> But  
17 decoupling is crucial to making that promise come true, by automatically returning

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<sup>14</sup> See PGE Exh. 1300 (Macfarlane), p. 38: 8-9 (economic risks that PGE bears under per customer decoupling).

<sup>15</sup> Arizona Corporations Commission, Policy Statement Regarding Utility Disincentives to Energy Efficiency and Decoupling Rate Structures, p. 29 (December 2010) (Docket Nos. E-00000J-08-0314 and G-00000C-08-0314).

<sup>16</sup> See, e.g., <https://www.nrdc.org/bio/miles-muller/electric-vehicles-are-driving-rates-down> (documenting that “[b]etween 2012 and 2021, in three of the utility service territories with the most EVs in the United States, EV customers have contributed more than \$1.7 billion in net-revenue to the body of utility customers”).



1 revenues in excess of authorized levels to all utility customers in the form of lower rates  
2 and bills when electricity sales grow as electrification advances.<sup>17</sup>

3 **Q. Why doesn't the role of the Energy Trust of Oregon (ETO) make revenue decoupling**  
4 **irrelevant for PGE?**

5 A. As my opening testimony pointed out the Commission expressly considered and rejected this  
6 Staff contention in its 2009 order instituting revenue decoupling for PGE. ,<sup>18</sup> The  
7 Commission outlined numerous ways in which PGE can influence not only energy efficiency  
8 progress, but also that of distributed resources, notwithstanding the ETO's (then and now)  
9 worthy efforts:

10 *We find this position unpersuasive, because PGE does have the ability to influence*  
11 *individual customers through direct contacts and referrals to the ETO. PGE is also able*  
12 *to affect usage in other ways, including how aggressively it pursues distributed*  
13 *generation and on-site solar installations; whether its supports improvements to building*  
14 *codes; or whether it provides timely, useful information to customers on energy efficiency*  
15 *programs. We expect energy efficiency and on-site power generation will have an*  
16 *increasing role in meeting energy needs, underscoring the need for appropriate*  
17 *incentives for PGE.*<sup>19</sup>

18 **Q. Why don't you agree with Staff that PGE actions are largely irrelevant to energy**  
19 **efficiency progress because "a private customer's [incentive] to invest in energy**  
20 **efficiency is largely driven by the volumetric price of energy"?**<sup>20</sup>

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<sup>17</sup> NRDC-NWEC Exh. 100, p. 19: 4-10.

<sup>18</sup> *Id.* at pp. 17-18.

<sup>19</sup> See Order No. 09-020 (Jan. 22, 2009), p. 27.

<sup>20</sup> Staff Exh. 2000 (Stevens), pp. 61: 21 - 62:1.

1 A. Certainly electricity prices give customers an incentive to save electricity, but literally  
2 decades of accumulated evidence show that these prices by themselves will not elicit  
3 anything close to all cost-effective energy efficiency. Although “[t]he efficiency of  
4 practically every end use of energy can be improved relatively inexpensively,”<sup>21</sup> “customers  
5 are generally not motivated to undertake investments in end-use efficiency unless the  
6 payback time is very short, six months to three years . . . The phenomenon is not only  
7 independent of the customer sector, but also is found irrespective of the particular end uses  
8 and technologies involved.”<sup>22</sup>

9 **Q. What accounts for these market barriers to cost-effective energy efficiency progress?**

10 A. There are many explanations for the almost universal reluctance to make long-term energy  
11 efficiency investments, regardless of electricity costs.<sup>23</sup> People who will not pay the  
12 electricity bills often make decisions about efficiency levels, such as landlords or developers  
13 of commercial office space. Many buildings are occupied sequentially by very temporary  
14 owners or renters, each unwilling to make long-term improvements that would mostly  
15 reward subsequent users. And sometimes what looks like apathy about efficiency merely  
16 reflects inadequate information or time to evaluate it, as everyone knows who has rushed to  
17 replace a broken water heater, furnace or refrigerator. Market failures like these mean that  
18 volumetric electricity prices alone are a grossly insufficient incentive to exploit even the

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<sup>21</sup> U.S. National Academy of Sciences Committee on Science, Engineering and Public Policy, Policy Implications of Greenhouse Warming, p. 74 (1991). Subsequent reviews of energy-efficiency opportunities and barriers appear in National Research Council, Energy Research at DOE: Was It Worth It? (September 2001) and World Business Council for Sustainable Development, Energy Efficiency in Buildings: Transforming the Market, pp. 12 & 20 (2010).

<sup>22</sup> National Association of Regulatory Utility Commissioners, Least Cost Utility Planning Handbook, Vol. II, p. II-9 (December 1988). This NARUC handbook was foundational for the early development of state policy on energy efficiency resource development, and its principles remain influential to this day.

<sup>23</sup> An extensive early assessment appears in U.S. Congress, Office of Technology Assessment, Building Energy Efficiency, at pp. 73-85 (1992).

1 most inexpensive savings. Energy policy in Oregon and nationally have recognized as much  
2 since the enactment of the Northwest Electric Power Planning and Conservation Act in  
3 1980.<sup>24</sup>

4 **Q. Do you agree with Staff that promoting increased electricity sales can “advance  
5 environmental goals – not hinder them”?**

6 A. No. An unfocused incentive for PGE to promote increased electricity sales will undercut  
7 environmental (and other societal) goals. Substituting decarbonized electricity for fossil fuels  
8 can advance environmental goals, but my opening testimony shows that energy efficiency is  
9 an essential complement to such substitutions, and that wasteful electricity use is a barrier to  
10 affordable decarbonization.<sup>25</sup> And crucially, as my opening testimony notes, “[i]t is not in  
11 the public interest automatically to penalize cost-effective utility investment in (and other  
12 support for) reduced customer electricity needs, or to reintroduce a utility incentive to resist  
13 progress in efficiency and distributed generation.”<sup>26</sup>

14 In a 2018 Report to the Legislature, this Commission cited the Regulatory Assistance  
15 Project on this point: “while electrification does present opportunities for utilities (primarily  
16 through the provision of new services to customers), a focus on load growth risks not  
17 achieving the significant benefits that are possible through beneficial electrification. ...  
18 [Decoupling] can help states ensure that as utilities propose electrification initiatives they are  
19 not being given an incentive to promote measures just for the purpose of growing load.”<sup>27</sup>

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<sup>24</sup> 16 USC section 839. Section 3(19) of the Act included the first statutory characterization of energy efficiency as a potential electricity system resource.

<sup>25</sup> NRDC-NWEC Exh. 100, pp. 11-14.

<sup>26</sup> *Id.* at p. 11: 13-16.

<sup>27</sup> See Oregon Public Utility Commission, SB 978: Actively Adapting to the Changing Electricity Sector, Appendix D, p. 41 (2018).

1 In sum, while electrification is indeed an important means to achieving environmental  
2 ends, Oregon cannot electrify its economy cleanly or affordably without doubling down on  
3 its progress in energy efficiency acquisition. Revenue decoupling remains fundamental to  
4 that objective.

5 **Q. Respond to staff’s contention that, without decoupling, PGE would still want electric**  
6 **vehicles to be efficient.**

7 A. Staff reasons that, without decoupling, “PGE has an incentive to increase sales. Whether this  
8 comes from an efficient compact or inefficient truck, PGE will be better off.”<sup>28</sup>

9 Unfortunately, however, in the absence of revenue decoupling, PGE will be *much* better off  
10 with the inefficient trucks, which on average use at least three times as much electricity per  
11 mile as efficient alternatives.<sup>29</sup>

12 There are also broader equity issues to consider here. The Commission should be mindful  
13 that, without decoupling, greater than anticipated increases in systemwide electricity use by  
14 EVs would create no rebates for those who cannot currently afford such vehicles – customers  
15 with low to moderate incomes. By contrast, rebates associated with electrification and  
16 decoupling ultimately could help these customers afford EVs of their own.

17 **Q. Staff says that “PGE has little to no control over the efficiency of mass-produced**  
18 **EVs.”<sup>30</sup> What is your response?**

19 A. Staff might, with the same apparent plausibility, contend that a utility of PGE’s size has little  
20 or no control over the efficiency of mass-produced electric appliances. Yet over the past four

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<sup>28</sup> Staff Exh.2000 (Stevens), p. 63:3-5.

<sup>29</sup>NRDC-NWEC Exh. 100, p. 13: 8-10 & n. 26. For data on the impact of cumulative efficiency gains or losses on PGE’s revenue recovery, see NRDC-NWEC Exh. 100, pp. 14 – 15 (absent revenue decoupling, five years of electricity savings equivalent to one percent of residential households’ annual consumption would generate \$127.5 million in losses to PGE).

<sup>30</sup> Staff Exh. 2000 (Stevens), p. 63:2.

1 decades, PGE has worked effectively with partners across the region (and nation) to  
2 transform the market for a wide spectrum of “mass-produced” devices, by incentivizing  
3 design improvements, promoting retail sales of efficient products, and supporting regularly  
4 updated state and federal efficiency standards.<sup>31</sup> As a result, cost-effective regionwide  
5 savings since 1978 now exceed 7,500 average megawatts, the equivalent consumption of five  
6 Seattle-sized cities.<sup>32</sup> That record is likely the strongest rebuttal to staff’s assertion.

7 **Q. Does revenue decoupling provide benefits beyond removing a barrier to utility**  
8 **investments in cost-effective energy efficiency?**

9 A. Yes. By eliminating what I have elsewhere called “throughput addiction,” revenue decoupling  
10 creates a transformational shift in the utility business model. This is important both to energy  
11 efficiency progress (in all its dimensions) and to the evolution of distributed electricity  
12 resources. The Commission recognized as much in 2009, highlighting the growing need for  
13 “distributed generation and on-site solar installations” as an important part of the rationale  
14 for revenue decoupling.<sup>33</sup>

15 **IV. PGE’S PROPOSED LINKAGE OF REVENUE DECOUPLING AND PCAM**  
16 **REFORM**

17 **Q. Do you have a recommendation on the need to address PCAM reform?**

18 A. I agree that increasingly extreme weather exposes PGE to greater wholesale market volatility  
19 and to revenue losses that decoupling without PCAM reform could exacerbate. On balance,

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<sup>31</sup> Two of the most important of those partners are the Energy Trust of Oregon (<https://www.energytrust.org/>) and the Northwest Energy Efficiency Alliance (<https://neea.org/>), which have helped PGE punch well above its weight in influencing product design, marketing, and efficiency progress more generally.

<sup>32</sup> This is the authoritative current estimate of the Northwest Power and Conservation Council: <https://www.nwcouncil.org/energy/energy-topics/energy-efficiency/>

<sup>33</sup> See Order No. 09-020 (Jan. 22, 2009), p. 27.

1 given both the increasing importance of these markets to reliable decarbonization of the  
2 electricity sector and the urgent need to reinstitute revenue decoupling, I agree that the  
3 Commission should reconsider the current PCAM risk allocation mechanism. However,  
4 given this proceeding's record and the lack of progress in resolving significant differences on  
5 the issue,<sup>34</sup> I am not yet prepared to support any of the parties' specific proposals for  
6 adjustments in the current PCAM risk allocation formula.

7 **Q. Does this conclude your testimony?**

8 A. Yes.

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<sup>34</sup> For a summary of the wide gulf separating the positions of PGE, Staff and CUB on this issue, see PGE Exh. 2600 (Macfarlane) at pp. 21-22.

**CERTIFICATE OF SERVICE**

**UE 416**

**I certify that I have, this day, served the foregoing document upon all parties of record in this proceeding by delivering a copy by electronic mail pursuant to OAR 860-001-0180, to the following parties or attorneys of parties.**

**Dated this 22nd day of August, 2023, at San Francisco, CA**



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