



# Oregon

Kate Brown, 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

May 15, 2020

***Via Electronic Filing & upload to Huddle Workspace***

OREGON PUBLIC UTILITY COMMISSION  
ATTENTION: FILING CENTER  
PO BOX: 1088  
SALEM OR 97308-1088

**RE: Docket No. UE 370 – In the Matter of PORTLAND GENERAL  
ELECTRIC COMPANY, Renewable Resource Automatic Adjustment  
Clause.**

Enclosed for filing are Cover Letter, Certificate of Service, Service List and the following Rebuttal Testimony and Exhibits:

Exhibit 400 - Storm

- Confidential pages: 3, 18-20 and 23

Exhibit 401 – Storm

- Page 1 to 4 non-confidential
- Page 5 to 140 confidential

Exhibit 500 - Moore

As approved by PGE previously, this filing of both confidential and non-confidential will be uploaded to Huddle Workspace by close of business today.

*/s/ Kay Barnes*

Kay Barnes

PUC - Utility Program

(503) 378-5763

kay.barnes@state.or.us

**UE 370 – SERVICE LIST**

<b>AWEC</b>	
CORRINE MILINOVICH (c) DAVISON VAN CLEVE, P.C.	1750 SW HARBOR WAY, STE. 450 PORTLAND OR 97201 com@dvclaw.com
BRADLEY MULLINS (c) MOUNTAIN WEST ANALYTICS	1750 SW HARBOR WAY STE 450 PORTLAND OR 97201 brmullins@mwanalytics.com
TYLER C PEPPE (c) DAVISON VAN CLEVE, PC	1750 SW HARBOR WAY STE 450 PORTLAND OR 97201 tcp@dvclaw.com
<b>OREGON CITIZENS UTILITY BOARD</b>	
OREGON CITIZENS' UTILITY BOARD	610 SW BROADWAY, STE 400 PORTLAND OR 97205 dockets@oregoncub.org
WILLIAM GEHRKE (c) OREGON CITIZENS' UTILITY BOARD	610 SW BROADWAY STE 400 PORTLAND OR 97206 will@oregoncub.org
MICHAEL GOETZ (c) OREGON CITIZENS' UTILITY BOARD	610 SW BROADWAY STE 400 PORTLAND OR 97205 mike@oregoncub.org
<b>PGE</b>	
PORTLAND GENERAL ELECTRIC	pge.opuc.filings@pgn.com
DOUGLAS C TINGEY (c) PORTLAND GENERAL ELECTRIC	121 SW SALMON 1WTC1301 PORTLAND OR 97204 doug.tingey@pgn.com
<b>STAFF</b>	
SOMMER MOSER (c) PUC STAFF - DEPARTMENT OF JUSTICE	1162 COURT ST NE SALEM OR 97301 sommer.moser@doj.state.or.us
STEVE STORM (c) PUBLIC UTILITY COMMISSION OF OREGON	PO BOX 1088 SALEM OR 97308-1088 <a href="mailto:steve.storm@state.or.us">steve.storm@state.or.us</a>
JOHANNA RIEMENSCHNEIDER (c) PUC STAFF - DEPARTMENT OF JUSTICE	BUSINESS ACTIVITIES SECTION 1162 COURT ST NE SALEM OR 97301-4796 johanna.riemenschneider@doj.state.or.us

CERTIFICATE OF SERVICE

UE 370

I certify that I have, this day, served the foregoing document upon all parties 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, to the following parties or attorneys of parties.

Dated this 15th day of May, 2020 at Salem, Oregon

*Kay Barnes*

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Kay Barnes  
Public Utility Commission  
201 High Street SE Suite 100  
Salem, Oregon 97301-3612  
Telephone: (503) 378-5763

CASE: UE 370  
WITNESS: STEVE STORM

**PUBLIC UTILITY COMMISSION  
OF  
OREGON**

**STAFF EXHIBIT 400**

**Rebuttal Testimony**

**May 15, 2020**

1 **Q. Are you the individual who sponsored testimony appearing as Exhibit**  
2 **Staff/100 in this proceeding?**

3 A. Yes; I am.

4 **Q. What is the purpose of your testimony?**

5 A. I serve as the summary witness for the Public Utility Commission of Oregon  
6 Staff (Staff) in consolidated proceedings Docket Nos. UE 370 and UE 372.

7 My rebuttal testimony discusses the positions and recommendations for the  
8 Public Utility Commission of Oregon (Commission) in the opening testimonies  
9 of AWEC, CUB, and Staff regarding prudence and what Staff considers to be  
10 the intrinsically linked issue of customer protections of customer benefits, as  
11 forecast by Portland General Electric (PGE) in justification of the Company's  
12 investment on an economic basis.

13 **Q. Have Parties to this proceeding reached agreement in principle regarding**  
14 **issues arising in its testimony?**

15 A. Yes. This agreement in principle resolves all issues in this case except for the  
16 inclusion of customer benefits, PGE's REC monetization proposal, and AWEC's  
17 arguments regarding PGE's prudence related to its RFP process. Therefore  
18 Staff does not discuss the other issues raised in Staff and Intervenors'  
19 testimony in its Rebuttal Testimony, as those are resolved by the agreement in  
20 principle.

21 **Q. What other Staff witnesses are sponsoring testimony?**

22 Staff witness Caroline Moore addresses issues associated with PGE's  
23 proposal to sell Renewable Energy Credits (RECs) produced by the

1 Wheatridge facility to its retail subscribers of renewable portfolio options  
2 programs in Exhibit Staff/500.

3 **Q. Did you prepare any exhibits to accompany your rebuttal testimony?**

4 A. Yes. Exhibit Staff/401 includes Staff data request 54 and PGE’s confidential  
5 response to part “j” of data request 54.

6 **Q. How is your testimony organized?**

7 A. My testimony is organized as follows:

8	Part 1, Summary of Recommendations.....	3
9	Part 2, Prudency and Customer Protections .....	5

**PART 1, SUMMARY OF RECOMMENDATIONS**

**Q. Please summarize the recommendations included in Staff's rebuttal testimony.**

A. Staff's recommendations to the Commission are:

1. Find PGE's decision to invest in the Wheatridge Facility to be prudent, based on the assumptions and analysis performed by the Company in Docket No. LC 66, the Company's 2016 IRP, and Docket No. UM 1934, the Company's RFP proceeding associated with its revised renewable action item in its 2016 IRP.
2. In conjunction with the preceding recommendation, direct PGE to use the higher of a **[begin confidential]** [REDACTED] **[end confidential]** capacity factor and the capacity factor the Company has previously used in this proceeding, for ratemaking associated with the PGE-owned portion of the Wheatridge project's wind generation, for establishing the forecasted variable benefits of Wheatridge for the first ten years following the project's COD, as this duration is commensurate with the term for anticipated Production Tax Credit (PTC) benefits.
  - a. In the alternative, Staff supports use of a regulatory asset, as proposed by AWEC, which would allow for the recovery of costs relative to actual customer benefits realized.
3. Reject PGE's proposal to sell the RECs associated with Wheatridge generation prior to 2025 and that the Company retain these RECs for future RPS compliance.

- 1 4. Open an investigation of the mechanisms for returning REC value from RPS-  
2 eligible resources to customers, inclusive of issues related to the use of RPS-  
3 eligible resources and the voluntary renewable programs.
- 4 5. If the Commission authorizes PGE to monetize surplus RPS RECs through  
5 sale to voluntary customers, PGE should only do so under the following  
6 conditions:
  - 7 a. PGE should use 5-year RECs;
  - 8 b. PGE should reduce the proposed price to reflect the actual value to  
9 voluntary program participants; and
  - 10 c. PGE should transparently communicate this supply strategy to  
11 voluntary program participants in a Commission approved manner.



**PART 2, WHEATRIDGE PRUDENCY AND CUSTOMER PROTECTIONS**

1                   **Q. Please summarize PGE's request in Docket No. UE 370.**

2                   A. PGE requests cost recovery, through its Schedule 122, of costs for specific  
3                   facilities and shared facilities that represent the wind-related portions of the  
4                   Wheatridge Renewable Energy Facility (WREF). The Company requests an  
5                   incremental revenue requirement that includes recovery of the fixed costs,  
6                   operation and maintenance (O&M) costs, income taxes, property taxes, and  
7                   other fees and costs associated with the wind-related portions of Wheatridge,  
8                   including any Schedule 125 net variable power costs (NVPC), including PTC,  
9                   prior to 2021.<sup>1</sup> PGE, in the Company's opening testimony, based its rate  
10                  effective date on the December 31, 2020 date by which the wind-related  
11                  portions of Wheatridge are contractually obligated to be in-service.  
12

13                  **Q. Did PGE request a different rate effective date since filing the Company's**  
14                  **opening testimony?**

15                  A. Yes. PGE's response to Staff Data Request 25 provided an updated  
16                  Wheatridge in-service date of October 2, 2020, which date the Company  
17                  reaffirmed as the requested rate effective date in its reply testimony.<sup>2</sup>

18                  **Q. Has PGE provided other updates?**

19                  A. Yes. The revised revenue requirement in PGE's February 14, 2020  
20                  supplemental filing included "the annualized 2020 NVPC impacts of all

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<sup>1</sup> Exhibit PGE/100 Armstrong – Batzler/1-2.

<sup>2</sup> Exhibit PGE/300 Armstrong – Batzler/2.

1 300 MW of Wheatridge wind.”<sup>3</sup> The wind-related components of Wheatridge  
2 includes a 100 MW wind generation facility to be owned by PGE and an  
3 additional 200 MW of wind generation owned by a third party. PGE will  
4 purchase the latter’s entire Wheatridge output under two Power Purchase  
5 Agreements (PPAs).<sup>4</sup>

6 PGE’s reply testimony updated the 2020 annualized Wheatridge’s NVPC  
7 impacts from the approximate \$3.8 million reduction in the February 14, 2020  
8 supplemental filing to approximately \$9.3 million in its reply testimony. In its  
9 Opening Testimony, the Company proposed not including NVPC impacts in  
10 Schedule 122 rates because they were *de minimus*.<sup>5</sup> However, given the  
11 updated in-service date, PGE’s reply testimony proposed inclusion of 2020  
12 dispatch benefits in Schedule 122 rates.<sup>6</sup> The increased NVPC benefit reflects  
13 “a credit offset to Bonneville Power Administration’s (BPA’s) Point-to-Point  
14 transmission charge based on PGE’s contribution towards system upgrades  
15 necessary for wheeling Wheatridge energy to PGE customers.”<sup>7</sup>

16 **Q. Did PGE include in the Company’s reply testimony an updated**  
17 **Wheatridge revenue requirement?**

18 A. Yes. This update reflects the credit offset to BPA’s transmission charge as well  
19 as “changes [made]...in response to Parties’ arguments.”<sup>8</sup> The net result is

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<sup>3</sup> Exhibit PGE/300 Armstrong – Batzler/2.

<sup>4</sup> Exhibit PGE/100 Armstrong – Batzler/2.

<sup>5</sup> PGE/100, Armstrong – Batzler/16.

<sup>6</sup> PGE/300, Armstrong – Batzler/1-2.

<sup>7</sup> PGE/300, Armstrong – Batzler/2.

<sup>8</sup> *Ibid.*

1 that PGE now forecasts the annualized 2020 revenue requirement at  
2 approximately \$15.5 million. The Company states that” [t]his includes all costs  
3 and benefits related to placing the full 300 MW of Wheatridge into service on  
4 October 2, 2020.”<sup>9</sup> PGE’s confidential Exhibit 301 in the Company’s reply  
5 testimony includes this approximate amount.

6 **Q. What annualized revenue requirement did PGE request in the Company’s**  
7 **initial filing?**

8 A. Approximately \$26.5 million.<sup>10</sup>

9 **Q. Please summarize Staff’s testimony regarding the linked issues of**  
10 **prudency and customer protections.**

11 A. Staff’s position in opening testimony recommended the Commission find  
12 PGE’s decision to invest in the Wheatridge Facility to be prudent, based on the  
13 assumptions and analysis performed by the Company in Docket No. LC 66—  
14 including updates thereof—the Company’s 2016 IRP, and in Docket No.  
15 UM 1934, the Company’s RFP proceeding associated with its revised  
16 renewable action item in its 2016 IRP.<sup>11</sup>

17 To ensure that benefits materialize for customers, Staff also recommended  
18 the Commission “[c]onsider ratepayer protections in PGE’s Annual Update  
19 Tariff (AUT), which is the proceeding that addresses the Net Variable Power

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<sup>9</sup> Ibid.

<sup>10</sup> Exhibit PGE/100 Armstrong – Batzler/2.

<sup>11</sup> Exhibit Staff/100 Storm/5. See also Staff’s discussion of prudency at Exhibit Staff/100 Storm/27-28.

1 Costs (NVPC) impacts associated with Production Tax Credits (PTC), capacity  
2 factors, and other aspects of NVPC.”<sup>12</sup>

3 **Q. Why does Staff recommend customer protections associated with**  
4 **Wheatridge?**

5 A. Staff, in its opening testimony, concluded that PGE invested in Wheatridge at  
6 this time “primarily for economic reasons,”<sup>13</sup> and discussed the higher risk to  
7 customers of investments for economic reasons such as Wheatridge that have  
8 a “break-even time for PGE customers that is distant from today.”<sup>14</sup>

9 PGE’s 2016 IRP Update, filed March 8, 2018 in Docket LC 66, included that  
10 the Company’s “energy deficit for 2021 declined to approximately 4 MWa due  
11 primarily to the updated load forecast and the execution of additional QF  
12 contracts.”<sup>15</sup> Table 10 of the Update shows that PGE’s projected annual  
13 average energy load-resource balance deficit would not exceed 100 MWa until  
14 2025.<sup>16</sup> That the timing of PGE’s renewable resource acquisition (ultimately  
15 Wheatridge) was for economic reasons, and not to address near-term physical  
16 or RPS compliance needs, is reflected in Commission language in Order 17-  
17 386: “PGE states that the timing of its proposed near-term acquisition is  
18 intended to capture the maximum value of the Production Tax Credit...” and

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<sup>12</sup> Exhibit Staff/100 Storm/5, with emphasis added here. See also Staff’s discussion of customer protections at Exhibit Staff/100 Storm/28-29.

<sup>13</sup> Exhibit Staff/100 Storm/27.

<sup>14</sup> Exhibit Staff/100 Storm/26.

<sup>15</sup> Page 18 of PGE’s 2016 IRP Update. See also Staff’s discussion of “Issue 2, Compliance with PGE’s Integrated Resource Plan” in Staff’s opening testimony at pages 15-17.

<sup>16</sup> Ibid, page 106.

1 that “PGE concludes that...near-term RPS procurement capturing the full  
2 value of the PTC is lower cost than adopting a delayed or “just in time”  
3 approach...”<sup>17</sup>

4 **Q. Has the Commission discussed mitigating customer risk associated with**  
5 **projects having realization of PTC as the primary motivation for their**  
6 **timing?**

7 A. Yes. Commission Order No. 18-138 in Docket No. LC 67, PacifiCorp’s 2017  
8 IRP proceeding, acknowledged the Company’s action items related to its wind  
9 repowering projects and its new (EV 2020) wind projects subject to conditions  
10 and limitations, stating that:

11 “The risk of proceeding with the Energy Vision 2020 projects remains with  
12 PacifiCorp unless and until the Commission completes a prudence review  
13 and approves cost recovery of these resources in rates. Recovery may be  
14 conditioned or limited to ensure customer benefits remain at least as  
15 favorable as IRP planning assumptions.”<sup>18</sup>

16 The Commission included that:

17 “For uncertainties that may persist beyond project commercial operation date  
18 (post-COD risks), such as project performance, tax policy changes, and  
19 resource value relative to market, we will carefully scrutinize the net benefits  
20 during future shortlist acknowledgement, IRP Update filing, and rate recovery  
21 proceedings. We intend to ensure that customer risk exposure is mitigated

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<sup>17</sup> Page 5 of Order No. 17-386 in Docket No. LC 66. See also Exhibit Staff/100 Storm/27.

<sup>18</sup> Page 8 of Order No. 18-138 in Docket No. LC 67, with emphasis here added by Staff.

1 appropriately, and recovery may be structured to hold PacifiCorp to the cost  
2 and benefit projections in its analysis.”<sup>19</sup>

3 **Q. PGE is seeking recovery of Wheatridge NVPC impacts in this proceeding**  
4 **through Schedule 122 RAC rates. Did Staff include a recommendation**  
5 **regarding this in its initial testimony?**

6 A. Yes. Staff’s summary recommendation 14 was for the Commission to deny  
7 PGE’s request to include NVPC benefits in its Schedule 122 (RAC) rates, and  
8 to “direct PGE to reflect its anticipated NVPC impacts in its AUT rates...with  
9 [an AUT Update] rate effective date coincident with the RAC rate effective  
10 date.”<sup>20</sup> Staff also argued that ratepayer protections should be considered  
11 within the context of NVPC, which are established in PGE’s annual AUT  
12 proceeding.<sup>21</sup>

13 **Q. Regarding the issue of where 2020 NVPC benefits are to be reflected in**  
14 **customer rates, why did Staff recommend that Wheatridge’s NVPC be**  
15 **included in an AUT update, as opposed to RAC rates?**

16 A. Staff’s primary reason for including Wheatridge’s NVPC impacts in a PGE AUT  
17 update, rather than in RAC rates, was to ensure that PTC were reflected in  
18 annual power cost filings, in light of ORS 757.264. Wheatridge PTC were not  
19 included in PGE’s 2020 AUT due to the anticipated rate-effective date for the  
20 project at the time that rates were adopted in that proceeding. As PGE’s

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<sup>19</sup>Ibid, with emphasis here added by Staff.

<sup>20</sup> Exhibit Staff/100 Storm/8.

<sup>21</sup> Exhibit Staff/100, Storm/5.

1 opening testimony states, the anticipated online date of December 31, 2020  
2 resulted in *de minimus* 2020 NVPC benefits.<sup>22</sup>

3 This treatment is also consistent with the approach in two other recent RAC  
4 filings. These are PacifiCorp's 2019 and 2020 RAC filings in, respectively,  
5 Docket Nos. UE 352 and UE 359, which sought cost recovery of several wind  
6 repowering projects.<sup>23</sup>

7 **Q. Does the agreement in principle resolve where 2020 NVPC impacts will**  
8 **be reflected in customer rates?**

9 A. Yes, the agreement in principle resolves Staff's issue related to where 2020  
10 NVPC benefits should be reflected in rates.

11 **Q. Does the agreement in principle resolve how customers will realize 2020**  
12 **NVPC benefits, as well as on-going customer benefits, related to**  
13 **Wheatridge?**

14 A. No. The agreement in principle resolves the forum where 2020 NVPC benefits  
15 will be reflected in customer rates. For years 2021 and beyond, NVPC costs  
16 and benefits for Wheatridge will be included in PGE's annual AUT  
17 proceedings.<sup>24</sup> The agreement in principle does not resolve the methodology

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<sup>22</sup> Exhibit PGE/100 Armstrong – Batzler/2.

<sup>23</sup> See Paragraph 29 of the Stipulation regarding PTC on page 7 of Appendix A to Order No. 19-304 in Docket No. UE 352 (PacifiCorp's 2019 RAC proceeding) and, in Docket No. UE 356 (PacifiCorp's 2020 TAM proceeding), page 2 of Appendix A. See also, in Docket No. UE 356, PacifiCorp's discussion at Exhibit PAC/100 Wilding/6-8 regarding its inclusion in the Company's 2019 and 2020 TAM filings the benefits—such as PTC— associated with the 2019 wind repowering projects and one of the two 2020 wind repowering projects. These repowering projects are associated with Docket Nos. UE 352 (PacifiCorp's 2019 RAC proceeding) and UE 369 (PacifiCorp's 2020 RAC proceeding). PacifiCorp proposes here to reflect both the costs and benefits of the second 2020 repowering project (Dunlap) in its 2020 General Rate Case filing, as this project is expected to come online in December, 2020.

1 for ensuring customer benefits related to Wheatridge for the period beginning  
2 with the commercial online date of the project.

3 **Q. Did Staff make specific recommendations related to customer**  
4 **protections in its Opening Testimony?**

5 A. No. Staff did not make specific recommendations related to customer  
6 protections in Opening Testimony, other than to note it would make such  
7 recommendations in PGE's AUT docket.

8 **Q. Why did Staff refrain from making specific arguments related to**  
9 **customer protections in the AUT in its Opening Testimony?**

10 A. Staff refrained from making specific arguments in this proceeding about  
11 customer benefits and protection thereof in the AUT because a RAC  
12 proceeding does not typically address the on-going treatment of NVPC  
13 benefits related to capital projects, because RAC proceedings are focused on  
14 the recovery of capital costs related to RPS-compliant resources, not net  
15 variable power costs. This, in conjunction with Staff's litigation position that  
16 2020 NVPC benefits should be removed from the RAC and included in an  
17 update to Schedule 125 NVPC rates, led Staff to conclude that the appropriate  
18 venue to discuss on-going changes in how Wheatridge's NVPC benefits are to  
19 be calculated was more appropriately addressed in PGE's currently pending  
20 AUT proceeding.

21 **Q. Does Staff recommend the Commission make a determination regarding**  
22 **protections of Wheatridge customer benefits in this case, as opposed to**  
23 **reserving determination for a future AUT proceeding?**



1 A. Yes. The Commission should make a determination regarding how to ensure  
2 customer benefits related to the Wheatridge project in this proceeding, based  
3 upon consideration of Intervenor testimony in this case.

4 **Q. What positions did the Oregon Citizens' Utility Board (CUB) and the**  
5 **Alliance of Western Energy Consumers (AWEC) take in opening**  
6 **testimony regarding either the prudence of Wheatridge or customer**  
7 **protections of Wheatridge's benefits to customers?**

8 A. CUB found that "...PGE's decision to select the Wheatridge project was  
9 reasonable, given the facts of the case that CUB has reviewed at this time."  
10 CUB also reserved the right to continue to review information throughout the  
11 pendency of this proceeding, and asserted that testimony of other Parties may  
12 impact CUB's position on this issue. In other words, CUB had not—in its  
13 opening testimony—made a final determination of PGE's decision to move  
14 forward with Wheatridge.<sup>25</sup>

15 **Q. Did CUB, in its opening testimony, discuss specific customer**  
16 **protections associated with Wheatridge?**

17 A. No, CUB did not make specific recommendations related to customer benefits.

18 **Q. What was AWEC's position regarding prudence in its opening**  
19 **testimony?**

20 A. AWEC concluded that PGE did not act in its customers' interest with respect to  
21 the Company's 2018 RFP. AWEC asserted that PGE "made several

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<sup>25</sup> Exhibit CUB/100, Gerke/5.

1 unreasonable modeling decisions and assumptions when evaluating the  
2 bids”<sup>26</sup> and proposed a \$5.4 million reduction to Wheatridge’s revenue  
3 requirement as a result.<sup>27</sup> In essence, AWEC’s proposal is a \$5.4 million  
4 prudence disallowance for how PGE conducted the RFP process.

5 **Q. Does Staff agree with AWEC’s conclusion regarding PGE’s conduct of its**  
6 **RFP?**

7 A. No; Staff does not. AWEC’s argument is essentially that PGE should have re-  
8 opened the RFP for inclusion of one revised bid that was known to have a cost  
9 change. Staff believes re-opening in this circumstance would have increased  
10 the risk of Wheatridge failing to qualify for the full PTC value, as an RFP re-  
11 opening would increase the risk that Wheatridge’s Commercial Operation Date  
12 (COD) would be after December 31, 2020, and the project would therefore be  
13 ineligible for the full PTC value. Given the totality of the circumstances, it was  
14 reasonable for PGE to proceed.

15 **Q. What did AWEC include in its opening testimony regarding customer**  
16 **protections of Wheatridge’s benefits?**

17 A. AWEC concurred with Staff that PGE’s Wheatridge project was primarily for  
18 the project’s economic benefits, given the existence of PTC.<sup>28</sup>

19 In order to ensure that customers receive net benefits from the project, as  
20 PGE asserted would be the case, AWEC recommended the Commission

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<sup>26</sup> Exhibit AWEC/100 Mullins/18.

<sup>27</sup> Exhibit AWEC/100 Mullins/20.

<sup>28</sup> Exhibit AWEC/100 Mullins/21.

1 direct PGE to “include in a regulatory asset any costs of Wheatridge that  
2 exceed the benefits from the cost containment screen” used by the Company  
3 in its RFP. Once customers begin receiving net benefits, these would be used  
4 to “pay down the regulatory asset.” AWEC included that, “if customers do not  
5 begin seeing net benefits by 2024, recovery of a portion of the costs in the  
6 regulatory asset would be disallowed by the amount of benefits PGE had  
7 projected would materialize but did not” and that this process “would continue  
8 each year until the regulatory asset is fully recovered or disallowed.”<sup>29</sup> AWEC  
9 recommended capping the first-year revenue requirement at the \$12,804,000  
10 of first year cost included in the [RFP’s] cost containment screen, with the  
11 excess, excluding the AWEC-recommended disallowed amount of \$5,440,259,  
12 to “be applied to a regulatory asset that PGE may amortize if it can  
13 demonstrate that the costs of Wheatridge exceed the benefits in a future  
14 year.”<sup>30</sup>

15 AWEC summarized its recommendations with respect to Wheatridge’s  
16 benefits for customers in part by stating that “the Commission should hold  
17 PGE to its promise of economic net benefits for customers from Wheatridge”  
18 and that “[t]hose net benefits, based on PGE’s costs and modeling, will not  
19 accrue to customers until later, if they accrue at all.”<sup>31</sup>

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<sup>29</sup> Ibid.

<sup>30</sup> Exhibit AWEC/100 Mullins/22-23.

<sup>31</sup> Exhibit AWEC/100 Mullins/25.

1 **Q. What is Staff's opinion of AWEC's proposed customer protection of**  
2 **Wheatridge benefits?**

3 A. Staff fully concurs with AWEC's desire to ensure that customers benefit, as  
4 modeled, from PGE's decision to move forward with acquiring a resource  
5 ahead of demonstrated resource need, and also recommends the Commission  
6 hold PGE to the economic benefits to customers forecasted by PGE.<sup>32</sup>

7 While Staff finds AWEC's proposal interesting, and one that would serve  
8 to protect customer benefits as forecast by PGE, Staff is more supportive of  
9 customer protections such as those used in PacifiCorp's TAM proceeding.  
10 Staff will discuss these later in this testimony.

11 **Q. What did PGE's reply testimony include regarding Parties' positions on**  
12 **Wheatridge prudence and the protection of customer benefits?**

13 A. PGE summarized Staff's testimony regarding prudence, asserted that AWEC's  
14 position that the Company should have allowed inclusion of a changed bid did  
15 not seem reasonable, and that "AWEC's recommendation to allow for  
16 substitute bidding at the conclusion of the solicitation would reward bidder  
17 behavior at odds with Commission approved RFP rules, undermine future  
18 solicitations, and put at risk PGE's ability to secure resources prior to tax credit  
19 deadlines."<sup>33</sup> PGE devoted several additional pages of testimony to discussing

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<sup>32</sup> Staff does not here include any net customer benefits resulting from REC monetization of Wheatridge RECs which reduce the Wheatridge revenue requirement. Staff addresses REC monetization in Exhibit Staff/500.

<sup>33</sup> Exhibit PGE/300, Armstrong – Batzler/6-7.

1           AWEC's position, and asserted its decision to select the Wheatridge bid was  
2           reasonable.<sup>34</sup>

3           **Q. Did PGE's reply testimony address Staff's summary recommendation**  
4           **two, regarding customer protections that Staff advocated being included**  
5           **in PGE's AUT with other aspects of NVPC?**

6           A. No.

7           **Q. Did PGE's reply testimony address AWEC's testimony regarding**  
8           **customer protections and its recommendation for the Commission?**

9           A. No, PGE's testimony did not address AWEC's proposal for a regulatory asset  
10           that would seek to limit costs based on customer benefits realized.

11           **Q. Staff discussed above Commission language regarding customer**  
12           **protections with respect to the benefits to customers of PacifiCorp's**  
13           **economic investments in new and repowered wind. What customer**  
14           **protections are in place?**

15           A. Docket No. UE 356 concerned PacifiCorp's 2020 Transition Adjustment  
16           Mechanism (TAM). The Commission, in Order No. 19-351 in that proceeding,  
17           adopted Parties' stipulation as filed.<sup>35</sup> Additionally, the Commission noted that  
18           it "cautioned PacifiCorp that, for new wind post-commercial operation date  
19           (COD) risks, "recovery may be structured to hold PacifiCorp to the cost and  
20           benefit projections in its analysis."<sup>36</sup>

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<sup>34</sup> Exhibit PGE/300 Armstrong – Batzler/7-12.

<sup>35</sup> Page 5 of Order No. 19-351 in Docket No. UE 356.

<sup>36</sup> Ibid, page 6, citing Order No.18-138 in Docket No. LC 67, PacifiCorp's 2017 IRP proceeding.

1           The stipulation in Docket No. UE 356 included that PacifiCorp would “use  
2           the following wind capacity factors for its owned wind facilities in its TAM  
3           forecasts: ...c) and new owned wind facilities will be based on the economic  
4           analysis used to justify the investment...The Stipulating Parties expressly  
5           agree not to propose any changes to wind capacity factors until 2024, in the  
6           2025 TAM or other annual NPC filing which uses a 2025 test year. In NPC  
7           filings in 2024 and thereafter, the Stipulating Parties may propose different  
8           wind capacity factors be used in PacifiCorp’s power costs forecasts.”<sup>37</sup>

9           **Q. Does Staff view the inclusion of an analogous customer protection for**  
10           **Wheatridge benefits as appropriate?**

11           A. Yes, assuming that Wheatridge is in commercial operation prior to January 1,  
12           2021.

13           **Q. What is Staff’s recommendation regarding customers benefits?**

14           A. Staff recommends the Commission direct PGE to use the higher of a **[begin**  
15           **confidential]** [REDACTED] **[end confidential]** capacity factor and the capacity  
16           factor the Company has previously used in this proceeding, for ratemaking  
17           associated with the PGE-owned portion of the Wheatridge project’s wind  
18           generation, for establishing the forecasted variable benefits of Wheatridge for  
19           the first ten years following Wheatridge’s COD, as this duration is  
20           commensurate with the term for anticipated PTC benefits. This ensures that  
21           customers receive the modeled benefits assumed in the RFP.

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<sup>37</sup> Pages 8-9 of Appendix A to Order No. 19-352 in Docket No. UE 356.

1 **Q. What is the appropriate capacity factor to be used for the PGE-owned**  
2 **wind generation portion of Wheatridge?**

3 A. PGE's testimony described its use of net capacity factors (NCF) as adjusted  
4 by Vaisala, which PGE described as "an independent renewable energy  
5 expert," into the price scoring model for all initial short-listed bids in response  
6 to its RFP.<sup>38</sup>

7 Staff requested, in Staff Data Request 54 part "j," Vaisala's reports,<sup>39</sup>  
8 including its independent analysis and opinion on the energy estimates, for  
9 each final short list bid. PGE's confidential response included in Table 6 of  
10 Vaisala's report (Attachment 054-D) the Vaisala-adjusted NCF for Wheatridge  
11 – Wind of **[begin confidential]** [REDACTED] **[end confidential]**. Staff  
12 recommends the Commission direct PGE to use the higher of this capacity  
13 factor and the capacity factor PGE has previously used in this proceeding for  
14 ratemaking and associated with the PGE-owned 100 MW nameplate capacity  
15 of Wheatridge wind for establishing the forecasted variable benefits of  
16 Wheatridge for a 10-year period following Wheatridge's Commercial Online  
17 Date.

18 Staff believes, informed by its review of Vaisala's report, the applicable net  
19 capacity factor should change when the solar portion of Wheatridge goes into  
20 service. Based on Vaisala's adjusted NetP50 values in the report's Table 5,  
21 Staff believes this capacity factor, which should be included in a future

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<sup>38</sup> Exhibit PGE/1000 Armstrong – Batzler/9.

<sup>39</sup> Staff's rebuttal testimony includes Vaisala's report as confidential Exhibit Staff/401.

1 proceeding in which PGE seeks recovery of costs associated with  
2 Wheatridge's 50 MW solar facility, should be **[begin confidential]**

3 **[REDACTED]** **[end confidential]**.

4 **Q. Has PGE previously raised concerns about wind capacity factors in the**  
5 **AUT, as opposed to general ratemaking proceedings?**

6 A. Yes. In the 2020 AUT, PGE argued that Schedule 125 does not allow for  
7 modeling changes, which would include changes to how PGE models wind  
8 capacity factors.<sup>40</sup> In that proceeding, PGE argued that Staff's and AWEC's  
9 proposals to change PGE's modeling method for all of its wind generation  
10 were not appropriate because it was outside of a general ratemaking  
11 proceeding.<sup>41</sup> In that 2020 AUT proceeding the parties stipulated not to make  
12 changes to PGE's wind forecast methodology until PGE's next general rate  
13 case proceeding.<sup>42</sup>

14 **Q. Is Staff's proposal in this proceeding a modeling change for purposes of**  
15 **Schedule 125?**

16 A. No. Unlike its original litigation position in PGE's 2020 AUT, Staff is not  
17 advocating that PGE be required to change the way it models all of its wind  
18 generation facilities in the AUT; rather, Staff's recommendation is restricted to  
19 a single wind project, being evaluated for prudence and ratemaking treatment  
20 for the first time in the proceeding at hand, that was justified on substantially

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<sup>40</sup> Docket No. UE 359 Exhibit PGE/300 Niman – Kim – Batzler/14.

<sup>41</sup> Ibid.

<sup>42</sup> Docket No. UE 359 – Stipulation at 2.



1 different grounds than PGE's other generating resources, including its current  
2 wind resources.

3 A narrow reading of "modeling change" could effectively preclude ensuring  
4 ratepayers receive promised net benefits for resources that come online  
5 between general rate cases, even though PGE is able to obtain cost-recovery  
6 through the RAC between general rate cases. Furthermore, the Commission  
7 has traditionally defined the future rate recovery expectations for a resource at  
8 the point that rate recovery for the resource is sought. Doing so in this case is  
9 also appropriate.

10 Staff cautions that a narrow reading of PGE's AUT could also complicate  
11 Staff's and Intervenor's abilities to find a project prudent within the scope of a  
12 RAC filing, as opposed to a general rate case where both costs and benefits  
13 can be holistically addressed. A utility should not be insulated from a full  
14 prudence review and recommendations by virtue of rate recovery through a  
15 RAC as opposed to a general rate case.

16 **Q. Does including the value of customer benefits based on the Wheatridge**  
17 **– Wind capacity factor used in the RFP scoring change PGE's risk**  
18 **profile?**

19 A. No. In Docket No. UE 359 PGE seemed to argue that changing modeling for  
20 wind capacity factors outside of a general rate case would have implications  
21 for its risk profile.<sup>43</sup>

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<sup>43</sup> See, in Docket No. UE 359, Exhibit PGE/300 Niman – Kim – Batzler/22.

1 Staff's *ex ante* view regarding such a claim is that it is a red herring, as

- 2 • The Commission has previously communicated the potential of
- 3 including customer protections associated with the rate recovery of
- 4 investments made for economic purposes, as Staff discussed above;
- 5 • Such customer protections are in place for another jurisdictional
- 6 energy investor-owned utility;
- 7 • PGE and its shareholders and creditors currently benefit from
- 8 numerous risk reduction measures and regulatory practices; and
- 9 • The market for securities issued by, credit sought by, or commercial
- 10 transactions entered into by PGE is sophisticated.

11 **Q. What is Staff's response to AWEC's proposed used of a regulatory asset**  
12 **to ensure that net benefits accrue to customers?**

13 A. Staff's primary recommendation is to reflect benefits to customers through the  
14 use of the higher of the P50 Wheatridge capacity factor in Vaisala's report and  
15 the capacity factor PGE has previously used in this proceeding, for ratemaking  
16 associated with the PGE-owned portion of the Wheatridge project's wind  
17 generation, as discussed above. However, if the Commission determines that  
18 such contingent imputation is not permissible or appropriate given the  
19 limitations in Schedule 125's language, Staff supports the use of AWEC's  
20 regulatory asset proposal. Staff further notes that other regulatory  
21 mechanisms, such as deferrals, could also be utilized to ensure customer  
22 benefits are realized if the Commission is disinclined to adopt Staff's primary  
23 recommendation, which would have on-going implications in the AUT.

1 **Q. What are your recommendations to the Commission regarding this PGE**  
2 **RAC proceeding?**

3 A. Staff recommends the Commission take the following interrelated actions  
4 regarding the issues of Wheatridge prudence and customer protections:

5 1. Find PGE's decision to invest in the Wheatridge Facility to be prudent,  
6 based on the assumptions and analysis performed by the Company to  
7 reach its decision.

8 2. Hold PGE to its economic assumptions by directing PGE to use the higher  
9 of a **[begin confidential]** [REDACTED] **[end confidential]** capacity factor  
10 and the capacity factor PGE actually used in this proceeding for the PGE-  
11 owned portion of the Wheatridge project's wind generation for establishing  
12 the forecasted variable benefits of Wheatridge for the first ten years  
13 following the project's COD, commensurate with the term for anticipated  
14 PTC benefits.

15 a. In the alternative, Staff supports the use of a regulatory asset, as  
16 proposed by AWEC, which would allow for the recovery of costs  
17 relative to actual customer benefits realized.

18 **Q. Does this conclude your rebuttal testimony?**

19 A. Yes.

CASE: UE 370  
WITNESS: STEVE STORM

**PUBLIC UTILITY COMMISSION  
OF  
OREGON**

**STAFF EXHIBIT 401**

**Exhibits in Support  
Of Rebuttal Testimony**

**May 15, 2020**

March 5, 2020

TO: Steve Storm  
Public Utility Commission of Oregon

FROM: Jaki Ferchland  
Manager, Revenue Requirement

PORTLAND GENERAL ELECTRIC  
UE 370 / UE 372  
PGE Response to OPUC Data Request No. 054  
Dated February 20, 2020

**Request:**

Regarding PGE's RFP process, as described at PGE/100 Armstrong – Batzler/7-11, please provide:

- a. A short description of each submitted bid (proposal).
- b. A short description of each Benchmark bid (proposal).
- c. The financial model for each initial short list bid.
- d. The “lifecycle economic value” for each initial short list bid.
- e. The total real levelized cost[s] for each initial short list bid.
- f. The real levelized benefits of expected energy value, capacity value, and flexibility value for each initial short list bid.
- g. The term(s) over which costs and benefits were levelized for each initial short list bid.
- h. The “price” score value for each initial short list bid.
- i. The updated “price” score value for each initial short list bid (PGE/100 Armstrong – Batzler/9).
- j. Vaisala's reports, including its independent analysis and opinion on the energy estimates, for each final short list bid.
- k. The assigned “non-price” score value for each initial short list bid.
- l. The updated “non-price” score value for each initial short list bid (PGE/100 Armstrong – Batzler/9).
- m. The “refreshed” non-price score for each initial short list bid (PGE/100 Armstrong – Batzler/9-10).
- n. The materials submitted with each of the final short list bids.

- o. Documentation of all due diligence PGE performed, with respect to each final short list bid, including:
  - i. Identification of each component of PGE’s due diligence performed prior to the additional due diligence performed “to confirm conformance...” as such.
  - ii. Identification of each component of PGE’s “additional due diligence to confirm conformance...” as such (PGE/100 Armstrong – Batzler/9).
  - iii. Identification of each component of PGE’s final project due diligence as such (PGE/100 Armstrong – Batzler/9-10).
- p. A description of and results obtained from PGE’s portfolio analysis mentioned at PGE/100 Armstrong – Batzler/9.
- q. A narrative description of the cost-containment screen and how it works.
- r. All documents related to executing the contract(s) with NextEra Energy, LLC subsidiaries to build and operate “the entire Wheatridge facility.”

**Response:**

- a. A short summary of each bid received is included below:

- i. [Redacted]
- ii. [Redacted]
- iii. [Redacted]
- iv. [Redacted]
- v. [Redacted]
- vi. [Redacted]
- vii. [Redacted]
- viii. [Redacted]
- ix. [Redacted]
- x. [Redacted]
- xi. [Redacted]
- xii. [Redacted]
- xiii. [Redacted]
- xiv. [Redacted]

xv.	[REDACTED]
xvi.	[REDACTED]
xvii.	[REDACTED]
xviii.	[REDACTED]
xix.	[REDACTED]
xx.	[REDACTED]
xxi.	[REDACTED]
xxii.	[REDACTED]
xxiii.	[REDACTED]
xxiv.	[REDACTED]
xxv.	[REDACTED]
xxvi.	[REDACTED]

- b. Please refer to part i, ii, and iii of PGE’s response to part (a) above.
- c. See Attachment 054-A.
- d. Please refer to row 889 on the ‘Assump’ tab in Attachment 054-A.
- e. Please refer to row 888 on the ‘Assump’ tab in Attachment 054-A.
- f. Please refer to rows 903-907 on the ‘Assump’ tab in Attachment 054-A.
- g. Please refer to rows 54, 57, and 72 on the ‘Assump’ tab in Attachment 054-A. Please note that individual model columns may refer to individual bid components (i.e. solar PPA vs wind PPA).
- h. See Attachment 054-B.
- i. See Attachment 054-C. See PGE’s response to AWEC Data Request No. 002, confidential Attach D for additional information. Please also note that following additional due diligence, several bids on the initial shortlist were found to be non-conforming with PGE’s RFP thresholds and are not included in the final shortlist. Information included in Attachment 054-C is consistent with PGE’s response to AWEC Data Request 002, confidential Attachment 002-D.
- j. See Attachment 054-D.
- k. See Attachment 054-B.
- l. See Attachment 054-C.
- m. See Attachment 054-C. Please note, the non-price bid score was only updated once, therefore, PGE’s responses to part (l) and part (m) are the same.
- n. Please see PGE’s response to AWEC Data Request No. 014, confidential Attachment A.
- o. PGE objects to this request as it is vague and overly broad. Subject to and without waiving this objection PGE responds as follows:
  - i. PGE sent questions to each bidder to identify supporting material to substantiate claims made by bidders, to clarify inconsistent information or collect missing information. In total PGE sent 192 questions to bidders prior to identifying shortlisted bidders.

- ii. Please see Attachment 054-E for a list of questions that PGE sent to shortlisted bidders to confirm conformance with RFP requirements. PGE sent an additional 79 specific and detailed questions to initial shortlisted bidders to assist with additional due diligence.
- iii. In addition to the due diligence described above, PGE performed third-party owner's engineering analysis on utility ownership bids, additional permitting analysis, third-party variable energy resource energy assessment analysis, and portfolio analysis.
- p. For a description of PGE's portfolio modeling methodology please refer to page 5 of Appendix H within PGE's approved RFP available at <https://edocs.puc.state.or.us/efdocs/HAH/um1934hah163417.pdf>.
- q. For a description of PGE's cost-containment screen methodology please refer to page 6-7 of Appendix H within PGE's approved RFP available at <https://edocs.puc.state.or.us/efdocs/HAH/um1934hah163417.pdf>.
- r. PGE objects to this request on the basis that it is vague and unduly burdensome. Subject to and without waiving its objection, PGE responds as follows:  
Please refer to PGE's response and associated attachments to CUB Data Request Nos. 001 through 004.

Attachments 054-A through 054-E are protected information and subject to Protective Order No. 19-416.



Staff/401  
Storm/5-140

**PAGES 5 to PAGES 140  
ARE CONFIDENTIAL AND IS  
SUBJECT TO  
PROTECTIVE ORDER NO. 19-416**

CASE: UE 370  
WITNESS: CAROLINE MOORE

**PUBLIC UTILITY COMMISSION  
OF  
OREGON**

**STAFF EXHIBIT 500**

**Rebuttal Testimony**

**May 15, 2020**

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

2 A. My name is Caroline Moore and I am a Chief Analyst employed in the Energy  
3 Resources and Planning Division of the Public Utility Commission of Oregon  
4 (OPUC). My business address is 201 High Street SE., Suite 100, Salem,  
5 Oregon 97301.

6 **Q. Have you previously provided testimony in this case?**

7 A. Yes; I sponsored Staff Exhibit 200.

8 **Q. What is the purpose of your testimony?**

9 A. My testimony represents Staff's response to Portland General Electric's Reply  
10 Testimony. Additionally, it discusses a recommendation in the Opening  
11 Testimony of the Oregon Citizens' Utility Board (CUB).

12 **Q. Did you prepare an exhibit for this rebuttal testimony?**

13 A. No.

14 **Q. How is your testimony organized?**

15 A. My testimony is organized as follows:

16	Issue 1, Summary of Staff's Position .....	2
17	Issue 2, Monetizing Wheatridge RECs .....	4
18	Issue 3, Voluntary Program Supply.....	9
19	Issue 4, The Appropriate Docket to Consider REC Monetization .....	16

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**ISSUE 1, SUMMARY OF STAFF'S POSITION**

**Q. Please summarize PGE's proposal to monetize the renewable energy certificates (RECs) generated from Wheatridge prior to 2025?**

A. PGE proposes to sell the first five years of RECs associated with Wheatridge generation to residential and small commercial retail customers of PGE's Schedule 7 and Schedule 32 voluntary renewable portfolio options programs (voluntary programs). PGE proposes to sell these RECs to its voluntary program customers at what the Company determined to be a fair market rate.

**Q. What decisions has PGE asked the Commission to make related to this proposal?**

A. PGE's proposal requires the Commission to make a decision on three distinct issues:

1. Is it in the interest of all ratepayers for PGE to monetize the RECs generated by Wheatridge prior to 2025?
2. Is it in the interest of ratepayers that are also voluntary program participants to supply the voluntary programs with surplus RPS RECs as proposed by PGE?
3. Has PGE presented the previous two questions to the Commission in an appropriate manner?

**Q. Please summarize Staff's position on this proposal?**

A. Staff's position on the three issues is as follows:

1. It is not in the best interest of ratepayers to monetize the first five years of Wheatridge RECs. If PGE monetizes surplus RPS RECs to return

1 value to customers, the Company should not use its infinitely bankable  
2 RECs (infinite RECs).

3 2. It is not in the best interest of voluntary program customers to supply  
4 these programs with RECs from a facility PGE justified as a least  
5 cost/least risk resource for all ratepayers. If PGE supplies its voluntary  
6 renewable program with surplus RPS RECs, it should:

7 a. Use its 5-year RECs;

8 b. Reduce the price to reflect the lower value attributes of these  
9 RECs to voluntary program customers.

10 c. Transparently communicate this supply strategy to voluntary  
11 program participants in a Commission approved manner.

12 3. PGE has not presented the Commission with the previous two  
13 decisions in an appropriate manner by filing in this docket. The  
14 Commission may open an appropriate docket to investigate these  
15 issues.

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**ISSUE 2, MONETIZING WHEATRIDGE RECS**

**Q. Please summarize Staff’s position on monetizing the first five years of Wheatridge RECs.**

A. As stated in Opening Testimony, Staff finds that it is in the interest of ratepayers to retain these RECs because they provide a unique hedge against the long-term cost, risk, and uncertainty associated with future compliance obligations.<sup>1</sup>

**Q. What are other parties’ positions on this issue?**

A. The Alliance of Western Energy Consumers (AWEC) shares a similar position with Staff.<sup>2</sup> Oregon Citizens Utility Board (CUB) does not oppose monetization of these RECs in its Opening Testimony.<sup>3</sup>

**Q. How does PGE respond to Staff and AWEC’s position on the unique value of infinite RECs?**

A. In Reply Testimony, PGE disagrees that infinite RECs have a value above zero. PGE further argues that, if there is a unique value to retaining infinite RECs, the future benefits are unlikely to exceed the present value of monetizing the RECs at the price PGE proposes.<sup>4</sup>

**Q. Why does PGE believe infinite RECs have \$0 value when banked for future compliance?**

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<sup>1</sup> UE 370, Staff / 200, Moore/5.  
<sup>2</sup> UE 370, AWEC / 100, Mullins/26 - 27.  
<sup>3</sup> UE 370, CUB / 100, Gehrke/5-7.  
<sup>4</sup> UE 370, PGE / 300, Armstrong – Batzler/25 - 31.

1 A. PGE explains that roughly 63 percent of futures in the 2019 IRP add renewable  
2 resources within the 2050 planning horizon exclusively for economic reasons,  
3 not to fill an RPS compliance shortage. Therefore, no future resource  
4 investments can be deferred with banked RECs.<sup>5</sup> Further PGE argues that, in  
5 the roughly 37 percent of futures where PGE adds renewable resources to fill  
6 an RPS compliance shortage, the future nominal value of deferring an  
7 investment must exceed the present value of monetizing the RECs by a factor  
8 of 6.67 to net a benefit (i.e. if a REC can be sold for \$1 now, it needs to be able  
9 to defer more than \$6.67 of costs in the future).<sup>6,7</sup> The Company finds it  
10 unlikely that a future benefit could exceed the present value of monetizing  
11 these RECs.

12 **Q. Do infinite RECs have zero value?**

13 A. No. Infinite RECs are uniquely valuable as a hedge against compliance risk  
14 and uncertainty, and this value extends further than the current IRP planning  
15 horizon. In addition to deferring future investments, banked RECs hedge  
16 against the risk of poor performance by RPS resources and a range of  
17 planning uncertainties, such as load and DER growth, the renewables market  
18 (including tax incentives and access to internationally sourced equipment),  
19 future RPS policies, and the addition of any other federal, state, or local  
20 policies that involve the use of RECs for compliance. As PGE suggests in

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<sup>5</sup> UE 370, PGE / 300, Armstrong – Batzler/26-27.

<sup>6</sup> UE 370, PGE / 300, Armstrong – Batzler/28-29.

<sup>7</sup> PGE also notes that this analysis is specific to the IRP time horizons, and represents the average of discount rates and other conditions across all portfolios. For example, in some IRP futures it's a factor of 2. UE 370, PGE / 300, Armstrong – Batzler/28.

1 Reply Testimony, there is too much long-term uncertainty to quantify this  
2 value.<sup>8</sup>

3 **Q. How does this value compare to the other RECs PGE generates and**  
4 **procures each year?**

5 In the RPS Compliance Reports filed since Senate Bill (SB) 1547, PGE  
6 articulates a preference to use 5-year RECs over infinite RECs.<sup>9</sup> More  
7 significantly, PGE continues to use the maximum quantity of unbundled RECs  
8 for compliance annually.<sup>10</sup> This suggests that the value is not just about  
9 preventing 5-yr RECs from expiring. PGE would not incur this additional  
10 unbundled REC cost to ratepayers every year without finding a specific value in  
11 retaining infinite RECs in the bank.

12 **Q. Did Stakeholders raise this issue when PGE first presented its 2016 IRP**  
13 **Revised Renewable Action Plan?**

14 A. PGE's 2016 Revised Renewable Resource Action Plan, filed in Docket LC  
15 66, states that its ability to take advantage of infinite-life RECs that may be  
16 generated prior to 2025 was an area of concern for Stakeholders.<sup>11</sup>

17 **Q. How did PGE respond to these concerns at the time?**

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<sup>8</sup> UE 370, PGE / 300, Armstrong – Batzler/29.

<sup>9</sup> See Docket No. UM 2016, PGE's 2018 Renewable Portfolio Standard Compliance Filing, June 17, 2019, p. 6; Docket No. UM 1958, PGE's 2017 Renewable Portfolio Standard Compliance Filing, June 1, 2018, p. 7; Docket No. UM 2016, PGE's 2016 Renewable Portfolio Standard Compliance Filing, June 1, 2017, p. 5.

<sup>10</sup> Id.

<sup>11</sup> See Docket No. LC 66, PGE's 2016 IRP Addendum Revised Renewable Action Plan, November 11, 2019, p. 14.



1 A. PGE stated that, “[t]hese infinite-life RECs allow PGE more RPS compliance  
2 flexibility in future years, potentially reducing the cost of compliance in a  
3 given year,” and proposed that:

4 “this component of its proposal be considered with enough flexibility to  
5 allow the Company to take advantage of infinite-life RECs, should they be  
6 procured as part of the Revised Renewable Action Plan. By specifying that  
7 the value of an equivalent volume of RECs would be returned to customers  
8 (rather than the value of the specific generated RECs), PGE's proposal  
9 provides this flexibility.”<sup>12</sup>

10 **Q. Does Staff find this flexibility to use an equal quantity of 5-year RECs**  
11 **favorable?**

12 A. Yes. Monetizing an equal quantity of 5-year RECs would be more favorable  
13 because it preserves the unique value of infinite RECs while returning the  
14 same level of benefit to ratepayers from monetizing surplus RPS generation.  
15 If given the opportunity, Staff finds it valuable for PGE to monetize 5-year  
16 RECs first. If PGE finds infinite and 5-year RECs equally valuable in the  
17 bank, there is no reason PGE should not be amenable to using the one Staff  
18 recommends.

19 **Q. What value would monetizing an equal quantity of 5-year RECs provide**  
20 **ratepayers?**

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<sup>12</sup> See Docket No. LC 66, PGE's 2016 IRP Addendum Revised Renewable Action Plan, November 11, 2019, pp. 14-15.

- 1 A. The value of a REC is dependent on its end use. Staff discusses the value
- 2 of PGE's surplus RPS RECs to voluntary programs in the following section.

**ISSUE 3, VOLUNTARY PROGRAM SUPPLY****Q. How does PGE propose to monetize RECs from Wheatridge?**

A. PGE proposes to sell the RECs generated by the owned and contracted portions of Wheatridge prior to 2025 to its residential and small commercial voluntary program participants for **[begin confidential]** ■ **[end confidential]** per REC.<sup>13</sup> PGE estimates that this will represent roughly 900,000 RECs per year or approximately 40 percent of current voluntary program demand.<sup>14</sup> This is PGE's assessment of a fair market price based on brokers' quotes for Washington eligible RECs (registered with the Washington State Department of Commerce, located in the Pacific Northwest, and constructed after 1999<sup>15</sup>) and RECs from farther Western region states.<sup>16</sup>

**Q. Please summarize Staff's position on PGE's proposal.**

A. As stated in Opening Testimony, Staff disagrees with PGE's position that Wheatridge-generated REC attributes are highly valuable for use in supplying its voluntary programs.<sup>17</sup> PGE has not provided any evidence, including consultation with voluntary program stakeholders, that program participants would find these RECs highly valuable. Staff believes that Wheatridge RECs do not align with how the Company currently describes the additionality of voluntary programs to customers and that PGE has identified

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<sup>13</sup> UE 370, PGE / 100, Armstrong – Batzler/19.

<sup>14</sup> UE 370, PGE / 300, Armstrong – Batzler/33.

<sup>15</sup> Revised Code of Washington (RCW) 19.285.030(12). (definition of "eligible renewable resource").

<sup>16</sup> UE 370, PGE / 100, Armstrong – Batzler/21.

<sup>17</sup> UE 370, Staff / 200, Moore/8-12.

1 other ways to support local generation within PGE's service area. The  
2 purpose of these statements is to convey that, while these RECs would still  
3 allow voluntary program customers to claim a greater reduction in the  
4 environmental impact of their energy use, they are not above and beyond  
5 what ratepayers already paid for and had access to, and not worth the price  
6 proposed by PGE.<sup>18</sup>

7 **Q. Does Staff have any modifications to its analysis?**

8 A. Yes. PGE noted in its Reply Testimony that Staff misstated the cost of the  
9 RECs supplied to PGE's Green Future Solar Program and that program  
10 participants pay more than Staff's original estimate.<sup>19</sup> This information  
11 further reinforces the value that PGE's voluntary program participants place  
12 on supply strategies that truly bring incremental resources online in PGE's  
13 service area, that otherwise would not have been possible.

14 **Q. What are other parties' positions on the value of Wheatridge RECs for**  
15 **voluntary customers?**

16 A. CUB proposes that PGE reduce the price of Wheatridge RECs sold to  
17 voluntary program participants by 10 percent to **[begin confidential]** [REDACTED]  
18 **[end confidential]** per REC.<sup>20</sup> CUB recommends this reduction to reflect  
19 the large volume of the purchase. CUB also notes that this is similar to the  
20 **[begin confidential]** [REDACTED]  
21 [REDACTED] **[end confidential]**.

<sup>18</sup> UE 370, CUB / 100, Gehrke/5-7.

<sup>19</sup> UE 370, PGE / 300, Armstrong – Batzler/34.

<sup>20</sup> UE 370, CUB / 100, Gehrke/6.

1 **Q. How does Staff respond to CUB's proposal?**

2 A. Staff agrees with CUB about the need for a bulk discount, and notes that  
3 PGE's REC price should reflect the value of voluntary program participants  
4 providing a single offtaker for the full volume of Wheatridge RECs over a  
5 long term. In addition, the price should reflect that voluntary participants are  
6 not paying for REC provider profit margin and overhead. Considering that  
7 these RECs do not offer a high value to voluntary program participants, Staff  
8 believes that the appropriate discount is likely higher than the volumetric  
9 discount CUB proposes. It is difficult to establish specifics about this without  
10 further stakeholder input.

11 **Q. Are there other benefits for voluntary customers?**

12 A. A major benefit, and added challenge of this proposal, is that PGE is  
13 essentially selling these RECs to itself on behalf of different customer groups.  
14 This means that voluntary program participants are not required to bear full  
15 market price for Washington-eligible RECs to access these RECs. Instead,  
16 there is flexibility to set the price to reflect the value these RECs actually  
17 have to voluntary participants and recognize that these voluntary customers  
18 are being asked to twice bear the costs and risks of PGE's investment  
19 decisions. Otherwise, it would be cleaner and more straightforward to get the  
20 highest price for these RECs on the market (which PGE says are increasingly  
21 valuable) and continue to use the third-party RFP process to supply its  
22 voluntary programs until it can develop an earnest proposal to add value for  
23 its voluntary program customers.

1 **Q. Are these benefits exclusive to the use of Wheatridge RECs?**

2 A. No. The same benefits would be transferred to voluntary program customers  
3 if the Company used an equal amount of 5-year RECs. While Wheatridge is  
4 a newer resource than PGE's other RPS-eligible generators, the concerns  
5 over additionality-related distinction becomes less meaningful given the  
6 context of the customer – PGE's own voluntary customers – and as these  
7 RECs all come from resources that were brought on to serve all PGE  
8 ratepayers, including voluntary customers.

9 **Q. How does PGE respond to parties' positions?**

10 A. PGE's Reply Testimony expresses openness to CUB's proposal, but  
11 disagrees with Staff's assessment of the value of Wheatridge RECs to  
12 voluntary program customers. PGE states that Wheatridge RECs are among  
13 the most local RECs it has supplied to its programs and are highly impactful  
14 because PGE cannot assume monetizing the RECs wasn't a factor that  
15 allowed the Company to bring Wheatridge online.<sup>21</sup> PGE also notes that  
16 broker quotes for Washington eligible RECs are continuing to increase, but  
17 the Company is not proposing to change its proposed price.<sup>22</sup>

18 **Q. PGE's Reply Testimony expresses confusion that, "Staff appears to**  
19 **argue that while they believe Wheatridge RECs are too valuable to**  
20 **monetize, if PGE were to monetize them, they are not as valuable as**  
21 **PGE claims."**<sup>23</sup> **Can Staff explain this concept?**

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<sup>21</sup> UE 370, PGE / 300, Armstrong – Batzler/31-33.

<sup>22</sup> UE 370, PGE / 300, Armstrong – Batzler/34-35.

<sup>23</sup> UE 370, PGE / 300, Armstrong – Batzler/31.

1 A. The market value of an unbundled REC is driven by competition for various  
2 attributes by a variety of compliance and voluntary purchasers. For  
3 example, the existence of compliance obligations together with large  
4 voluntary demand drives higher prices for RECs from the Pacific Northwest  
5 compared to other Western states. This does not mean that every market  
6 participant will be willing to take the market price for a given REC's  
7 attributes. Wheatridge RECs can have the attributes that drive competition  
8 for Washington eligible RECs, while having attributes that make these RECs  
9 acutely less meaningful to PGE's voluntary customers (procuring voluntary  
10 program RECs from a facility that PGE brought online to serve all  
11 ratepayers.)

12 **Q. Why is voluntary program participant value a concern for Staff?**

13 A. Staff applauds PGE's creativity and responsiveness to concerns about the  
14 near-term cost of Wheatridge. However, PGE has created a regulatory  
15 dilemma by placing the protections and benefits of all ratepayers at odds  
16 with the protections and benefits of the subset of ratepayers that are also  
17 voluntary program participants. PGE's voluntary program participants  
18 represent roughly a quarter of the Company's ratepayers.<sup>24</sup> PGE does not  
19 have carte blanche to unload its resource planning risks on this large group  
20 of ratepayers at any cost. PGE's proposed price requires careful  
21 consideration with the right group of stakeholders.

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<sup>24</sup> NREL Top Ten Utility Green Pricing Programs (2018 data), accessed May 11, 2020 at:  
<https://www.nrel.gov/analysis/assets/pdfs/top-ten-utility-green-pricing.pdf>.

1 **Q. Are there additional implications of PGE's proposal?**

2 A: PGE supplies its voluntary renewable programs, in part, with RECs from  
3 independent power producers.<sup>25</sup> These independent power producers  
4 develop renewable resources that are incremental to what load serving  
5 entities construct for compliance and as part of a least cost/least risk  
6 resource portfolio. As the largest voluntary program in the country, this  
7 proposal opens the door to a REC supply strategy that could reduce  
8 demand for RECs that are incremental to the resources PGE acquires for all  
9 ratepayers.<sup>26</sup>

10 **Q. If the Commission authorizes PGE to move forward with its proposal,**  
11 **does Staff recommend modifications?**

12 A. Yes. Staff does not support REC monetization as proposed by PGE. In the  
13 event it is authorized, PGE should only monetize surplus RPS RECs  
14 through sale to its voluntary customers under the following conditions:

- 15 • PGE should arbitrage 5-year RECs for Wheatridge's infinite RECs. The 5-  
16 year RECs should be Green-e eligible and generated in the year that they  
17 are used to supply the voluntary program.
- 18 • PGE should reduce the proposed price to reflect the actual value to the  
19 program's participants. Staff finds this value should be determined with  
20 voluntary program stakeholders. Staff agrees with CUB's proposal for a

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<sup>25</sup> See RE 73 PGE's Product Claim Reconciliation in compliance with OAR 860-038-0300(10).

<sup>26</sup> Staff notes that PGE also supplies its voluntary renewable energy program with a portion of RECs from other utilities' renewable facilities, primarily PacifiCorp. While PacifiCorp only has an RPS or other greenhouse gas compliance obligation in three of its six states, Staff questions the additionality value of these RECs, as well.



1 volumetric discount. Staff finds that further reductions are likely justified  
2 because 1) PGE has not proven that RECs from facilities brought online  
3 to serve all customers provide superior value to voluntary program  
4 customers, 2) avoided REC supplier profit and overhead costs, 3)  
5 recognition of the costs and risks borne by voluntary participants, and 4)  
6 to reflect the ratepayer benefits of providing a long-term single offtaker for  
7 these RECs.

- 8 • PGE should provide detailed and transparent information to its voluntary  
9 customers about the use of surplus RPS RECs to supply the program,  
10 their source, its ownership, and the relative price PGE charged  
11 participants for these RECs. This should be in the form of Commission-  
12 approved communication(s).

13

1 **ISSUE 4, THE APPROPRIATE DOCKET TO CONSIDER REC MONETIZATION**

2 **Q. PGE states in Reply Testimony that by filing a revised RAC, it has**  
3 **opened a separate docket for considering a specific mechanism for**  
4 **returning to customers the value of Wheatridge RECs generated prior**  
5 **to 2025.<sup>27</sup> Does Staff agree this is the appropriate docket for an**  
6 **investigation?**

7 A. No. This docket is not the investigation of appropriate mechanisms to deliver  
8 value to customers that the Commission authorized Staff to request at a public  
9 meeting in Docket LC 66.<sup>28</sup> PGE has filed a revised Renewable Resource  
10 Automatic Adjustment Clause (RAC), requesting cost recovery for costs for  
11 specific facilities of the Wheatridge. The RAC was created to implement a  
12 provision of SB 838, establishing the RPS. SB 838 provides that “all prudently  
13 incurred costs associated with complying with [the RPS] are recoverable in the  
14 rates of an electric company.”<sup>29</sup> Specifically, under ORS 469A.120(2)(a), the  
15 Commission was required to establish an automatic adjustment clause, or  
16 other method that allows timely recovery of prudently incurred costs, which it  
17 has done for PGE in approving Schedule 122.<sup>30</sup>  
18 PGE has included in this advice filing a request for authorization to sell the first  
19 five years of Wheatridge-produced RECs and for use of these RECs to supply

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<sup>27</sup> UE 370, PGE / 300, Armstrong – Batzler/31.

<sup>28</sup> See LC 66 PGE 2016 Integrated Resource Plan, Commission Order No. 18-044, February 2, 2018, p. 6.

<sup>29</sup> ORS 469A.120(1).

<sup>30</sup> UM 1330, Investigation of Automatic Adjustment Clause Pursuant to SB 838, Commission Order No. 07-572, December 19, 2007.

1 the Company's voluntary programs. The Commission regulates portfolio  
2 options so that the rates for each option, including those that offer significant  
3 new renewable energy resources, reflect the costs and risks of serving each  
4 option.<sup>31</sup> To this end, the Commission has an established process for the  
5 development of portfolio options and rates, and for the acquisition of necessary  
6 renewable supply resources, set forth in OAR 860-038-0220. Further guidance  
7 for program development, metrics and oversight has been provided in  
8 subsequent Commission orders, such as Order Nos. 15-236, 16-188, and,  
9 most recently, 20-063.

10 Though Staff has offered testimony on the merits of PGE's proposal, it has  
11 become increasingly clear that this is not the appropriate docket for review of  
12 the Company's request. Introducing the review of a supply issue for the  
13 voluntary programs in a cost recovery proceeding for a qualifying resource  
14 under the RPS is unnecessary given the existing mechanisms for that issue  
15 and the difficulties it can present in either ensuring that the RPS resource is the  
16 least cost/least risk acquisition or in ensuring that the voluntary program  
17 reflects its own costs and risks and is not supported by other ratepayer funds.  
18 Staff does not find this docket to be an appropriate forum for review of the  
19 voluntary program supply issue.

20 **Q. Is PGE currently authorized to sell Wheatridge-produced RECs?**

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<sup>31</sup> ORS 757.603(3).

1 A. Yes. PGE has existing authorization from the Commission to sell as many as  
2 five million RECs in a single transaction.<sup>32</sup> This is sufficient authority for the  
3 sale of the number of RECs to be produced each year at the Wheatridge  
4 facilities.

5 **Q. If PGE is authorized to sell Wheatridge-produced RECs, why did it**  
6 **include the request in this advice filing?**

7 A. PGE requests authorization to sell Wheatridge-produced RECs for use in the  
8 Company's voluntary renewable programs. The Company seeks approval not  
9 for the sale, but approval to buy the Wheatridge-produced RECs for its own  
10 voluntary programs. As the Company acknowledges in its Opening Testimony,  
11 the Commission's administrative rule for the voluntary programs<sup>33</sup> requires that  
12 the utility "acquire the renewable supply resources necessary to provide the  
13 renewable energy resources product through a Commission-approved bidding  
14 process or other Commission-approved means." PGE, in this docket, requests  
15 that the Commission approve PGE's acquisition of RECs from Wheatridge as  
16 an alternative process to the RFP process it regularly uses to acquire voluntary  
17 program RECs from third-party contractors.

18 **Q. Does PGE explain why a direct purchase of RECs from PGE is an**  
19 **appropriate alternative to the RFP process?**

20 A. No. PGE does not specifically explain in Opening Testimony or Reply  
21 Testimony why an alternative procurement process is necessary or how PGE's

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<sup>32</sup> UP 236, *PGE Application for Approval to Sell Tradeable Renewable Energy Certificates*, Order Nos. 07-083 and 09-396.

<sup>33</sup> UE 370, PGE / 100, Armstrong – Batzler/24; OAR 860-038-0220(6).

1 proposal provides customer protections reasonably equivalent to the  
2 competitive bidding process it regularly engages in to supply the voluntary  
3 programs. PGE provides testimony that these RECs provide value to voluntary  
4 program participants<sup>34</sup>, which Staff addresses in the prior section of this  
5 testimony. Of additional concern to Staff is that PGE's request is not merely for  
6 approval of an alternate process, but for the approval of the sale at PGE's  
7 proposed price. As explained in Staff's Opening Testimony, current  
8 circumstances warrant a broader investigation to discuss mechanisms to return  
9 the value of RECs from RPS-eligible resources that are produced prior to their  
10 use for RPS compliance.<sup>35</sup> This investigation should be conducted before the  
11 Commission considers whether it is necessary to approve a specific  
12 transaction.

13 **Q. Has the Portfolio Options Committee reviewed the voluntary renewable**  
14 **programs that PGE proposes to supply with Wheatridge RECs?**

15 A. No. Although PGE had years to bring this concept to stakeholders, PGE had  
16 not done this at the time this advice was filed in December 2019. The Portfolio  
17 Options Committee (POC) was active during this time, and aside from its  
18 annual review of the rate options and supply contracts, its work plan included  
19 consideration of guidelines for the interaction of the RPS and green power

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<sup>34</sup> UE 370, PGE / 300, Armstrong – Batzler/31-32.

<sup>35</sup> UE 370, Staff / 200, Moore/12-13.

1 programs.<sup>36</sup> In Opening Testimony, PGE states that it would request input prior  
2 to the actual purchase.<sup>37</sup>

3 **Q. Does this lack of program review concern Staff?**

4 A. Yes. Aside from Staff's concerns about this particular mechanism of returning  
5 value to customers, which warrant a broader investigation of the mechanisms  
6 for returning REC value from RPS-eligible resources to customers, Staff notes  
7 that sales to the voluntary programs are a particular issue that merits inclusion  
8 of the stakeholders most affected and that have been involved in program  
9 reviews for the Commission through the Portfolio Options Committee for some  
10 time.<sup>38</sup> Though the meetings of the POC are on hold for an investigation of its  
11 continued scope, Staff has assumed the POC's oversight work in the interim,  
12 and can ensure an investigation is inclusive of all perspectives.<sup>39</sup>

13 **Q. Are there timing considerations for this separate docket?**

14 A. The Green-e standard states that, "A Green-e<sup>®</sup> Energy certified product may  
15 include only renewables that are generated in the calendar year in which the  
16 product is sold, the first three months of the following calendar year, or the last  
17 six months of the prior calendar year."<sup>40</sup> In other words, RECs generated by  
18 Wheatridge in 2020 can be sold until December 2021 and retain Green-e  
19 Energy eligibility.

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<sup>36</sup> UM 1020, Portfolio Options, Commission Order No. 19-317, Appendix A at 4, September 26, 2019.

<sup>37</sup> UE 370, PGE / 100, Armstrong – Batzler/24.

<sup>38</sup> See, e.g., OAR 860-038-0005(2).

<sup>39</sup> UM 1020, Portfolio Options, Commission Order No. 20-063, Appendix A at 7, March 3, 2020.

<sup>40</sup> Center for Resource Solutions, Green-e Standard, p. 11, accessed May 11 at: <https://www.green-e.org/docs/energy/Green-e%20Standard%20v3.4%20US.pdf>.

1 **Q. What are your recommendations regarding PGE's proposal?**

2 A. I recommend:

3 1. Reject PGE's proposal to sell the RECs associated with Wheatridge  
4 generation prior to 2025 and that the Company retain these RECs for future  
5 RPS compliance.

6 2. Open an investigation of the mechanisms for returning REC value from  
7 RPS-eligible resources to customers, inclusive of issues related to the use of  
8 RPS-eligible resources and the voluntary renewable programs.

9 3. If the Commission authorizes PGE to monetize surplus RPS RECs through  
10 sale to voluntary customers, PGE should only do so under the following  
11 conditions:

- 12 • PGE should use 5-year RECs;
- 13 • PGE should reduce the proposed price to reflect the actual value to  
14 voluntary program participants; and
- 15 • PGE should transparently communicate this supply strategy to  
16 voluntary program participants in a Commission approved manner.

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

18 A. Yes.