

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

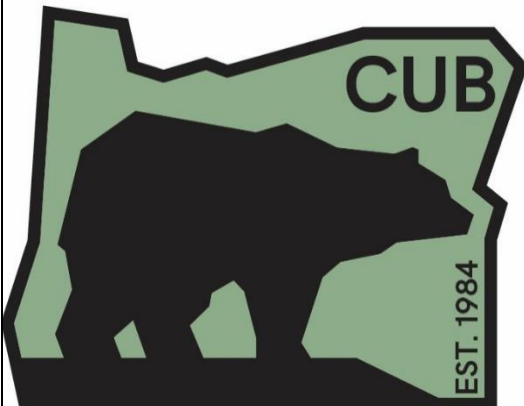
**UE 370**

In the Matter of )  
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PORTLAND GENERAL ELECTRIC )  
COMPANY, )  
 )  
Renewable Resources Automatic )  
Adjustment Clause (Schedule 122) )  
(Wheatridge Renewable Energy Farm). )  
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**REBUTTAL TESTIMONY  
OF THE  
OREGON CITIZENS' UTILITY BOARD**

May 15, 2020



(Redacted Version)

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UE 370**

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PORTLAND GENERAL ELECTRIC ) REBUTTAL TESTIMONY OF THE  
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(Wheatridge Renewable Energy Farm). )  
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**I. INTRODUCTION**

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

2 A. My name is William Gehrke. I am an Economist employed by Oregon Citizens'  
3 Utility Board (CUB). My business address is 610 SW Broadway, Ste. 400 Portland,  
4 Oregon 97205.

5 **Q. Please describe your educational background and work experience.**

6 A. My witness qualification statement is found in exhibit CUB/101.

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

8 A. In my testimony, I address the three remaining issues in the case. Under the Partial  
9 Stipulation that will be filled after May 15th, 2020, the remaining issues are:

- 10 • The inclusion of customer benefits associated with the wind portion of  
11 Wheatridge;  
12 • Issues raised by the Alliance of Western Energy Consumers (AWEC)  
13 regarding project selection; and

- 1           • Portland General Electric Company’s (PGE) renewable energy credit (REC)  
2           monetization proposal.

3           My testimony will first respond to AWEC’s proposal to create a regulatory asset  
4           that includes any Wheatridge costs that exceed the benefits from the cost  
5           containment screens.<sup>1</sup> I will then address PGE’s REC monetization proposal.

6           **II.     WHEATRIDGE WIND PRUDENCE AND CUSTOMER BENEFITS**

7           **Q. What did AWEC propose regarding the prudence of the Wheatridge energy**  
8           **facility?**

9           **A.** AWEC believes that PGE did not act in customers’ interest when conducting the  
10          2018 RFP and that PGE was imprudent in selecting the Wheatridge bid.<sup>2</sup> As a  
11          disallowance, AWEC proposes that the Company cap the revenue requirement for  
12          Wheatridge at 50% of the difference of the MWh cost of the [REDACTED] and  
13          the Wheatridge project.<sup>3</sup>

14          **Q. What is CUB position on PGE’s decision to select Wheatridge?**

15          **A.** In opening testimony, CUB found PGE’s decision to select Wheatridge to be  
16          reasonable, but reserved the right to continue to review information in this  
17          proceeding.<sup>4</sup> After further review, CUB finds PGE’s selection of the Wheatridge  
18          project from the shortlist to be prudent. Therefore, CUB does not agree with  
19          AWEC’s recommendation to disallow 50% of the difference of the MWh cost of  
20          the Avangrid project to be reasonable. CUB does not believe PGE should be  
21          penalized from a cost recovery standpoint [REDACTED]

<sup>1</sup> UE 370 – AWEC/100/Mullins/21, lines 6-8.

<sup>2</sup> UE 370 – AWEC/100/Mullins/2, lines 6-10.

<sup>3</sup> UE 370 – AWEC/100/Mullins/19, lines 4-5.

<sup>4</sup> UE 370 – CUB/100/Gehrke/4-5.

1 [REDACTED]. CUB finds the wind portion of Wheatridge to be prudent, and will review  
2 the Wheatridge solar and storage PPAs when the Company seeks cost recovery in a  
3 later proceeding. Since CUB finds the selection of Wheatridge to be prudent, we  
4 believe PGE should be able to receive cost recovery for costs associated with the  
5 project that were prudently incurred. However, CUB believes that even though the  
6 Company may be eligible for cost recovery, it should bear some of the risk that the  
7 level of customer benefits from the project are met. CUB will expand upon this  
8 issue later in this testimony.

9 **Q. What did AWEC propose with regards to the benefits and costs of the**  
10 **Wheatridge facility?**

11 **A.** AWEC proposed to establish a regulatory asset for the Wheatridge facility. This  
12 approach would create a regulatory asset for any Wheatridge costs that exceed the  
13 benefits from the cost containment screen.<sup>5</sup> Once net benefits are received from  
14 Wheatridge, the regulatory asset would credit the benefits to the rate base of the  
15 regulatory asset. AWEC recommended to the Commission that PGE be held to its  
16 promise of economic net benefits from the purchase of Wheatridge.<sup>6</sup> For the  
17 Commission's part, it required that PGE include the cost containment screen in the  
18 RFP to assure the Commission that "procurement following from the RFP will be  
19 limited to high value resources."<sup>7</sup>

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<sup>5</sup> UE 370 – AWEC/100/Mullins/21/Lines 7-8.

<sup>6</sup> UE 370 – AWEC/100/Mullins/25/Lines 18-19.

<sup>7</sup> *In re Portland General Electric Company's 2016 Integrated Resource Plan*, OPUC Docket No. LC 66, Order No. 18-044 at 6 (Feb. 2, 2018)



1 **Q. What is CUB response to AWEC’s proposal?**

2 **A.** AWEC’s proposal to create a regulatory asset for the costs and benefits of a utility  
3 owned generation asset is not standard ratemaking procedure. However, CUB is  
4 intrigued by the proposal as a means to capture customer benefits and would be  
5 interested in hearing the Commission’s guidance on AWEC’s proposal. CUB is  
6 supportive of AWEC’s objective of ensuring that customers benefit from this  
7 project. CUB has an alternative proposal.

8 **Q. How are the costs of a new generation resource recovered from customers**  
9 **in Oregon?**

10 **A.** The fixed costs of an electricity plant are recovered through a general rate case or a  
11 single-issue rate case such as the Renewable Adjustment Clause (RAC). There are  
12 two major fixed costs associated with an electricity generation plant: the capital  
13 cost of the generation plant and the Operations and Maintenance (O&M) expense.  
14 In this docket, PGE is purchasing wind turbines to produce 100MW from NextEra  
15 under a Build-Transfer Agreement (BTA).<sup>8</sup> The remaining 200MW is being  
16 procured through a power purchase agreement (PPA) with NextEra. While the  
17 capital costs associated with the BTA at issue in this proceeding enable PGE to  
18 earn a rate of return on its investment over the investment’s useful life, the costs  
19 associated with the PPA portion do not provide PGE with a rate of return.

20 **Q. How is production of a wind generation facility forecasted?**

21 **A.** [REDACTED]  
22 [REDACTED]

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<sup>8</sup> UE 370 – PGE/307/Armstrong – Batzler.

1 [REDACTED]

2 [REDACTED]

3 **Q. What is the P50 energy forecast?**

4 **A.** [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 **Q. What are the variable power costs associated with Wheatridge wind and**  
8 **how are these expenses recovered from ratepayers?**

9 **A.** Variable power costs are the costs that fluctuate with changes in the generation of  
10 the facility. Examples of variable power costs for the Wheatridge’s wind project are

11 [REDACTED]

12 [REDACTED]. Wheatridge’s benefits are also variable. For example, customers will  
13 realize a benefit from the generation of federal production tax credits (PTCs), but  
14 these benefits are tied to the production of the wind facility and therefore vary.  
15 Wheatridge’s wind turbines provide power to PGE’s customers, which are variable  
16 based on generation. In the first ten years of the Wheatridge wind’s operation, the  
17 wind projects will provide generate federal PTCs. Since the cost of the utilities  
18 taxes are embedded in rates, PTCs flow back to ratepayers as a credit.

19 **Q. What are net variable power costs?**

20 **A.** Net variable power costs are the sum of variable power costs and variable power  
21 benefits. PGE’s net variable power costs are recovered through Schedule 125 –  
22 Annual Power Cost Update. For Portland General Electric, Schedule 125 is  
23 forecasted each year in the AUT process.

1 **Q. How are variances between actual power expense and forecasted power**  
2 **expense handled in Oregon?**

3 **A.** Variances of net variable power costs are handled through Schedule 126 – Portland  
4 General’s Annual Power Cost Variance Mechanism (PCAM). The PCAM is  
5 subject to an asymmetric deadband, an earnings test, and a 90% sharing ratio. See  
6 CUB exhibit 201 which is a PGE slide to investors about the recovery of power  
7 costs.

8 **Q. What risk do customers face under the current regulatory framework**  
9 **regarding the variable benefits that a generating facility may produce?**

10 **A.** PGE’s ratepayers bear a significant portion of the quantity risk associated with  
11 wind projects. Quantity risk is the risk that actual wind generation capacity factors  
12 are lower than the assumed capacity factor used when planning the facility. For  
13 wind projects, quantity risk can be the result of curtailment due to avian impacts,  
14 blade degradation, wake losses, and unplanned outages. Quantity risk is also  
15 present due to the variability of wind over time.

16 **Q. Has PGE attempted to reduce quantity risk in its procurement of**  
17 **Wheatridge?**

18 **A.** Yes. The Company signed a 30-year fixed fee agreement that covers the day-to-day  
19 onsite operations and operational capital replacements at the PGE-owned 100 MW  
20 facility.<sup>9</sup> The agreement does not cover failures due to [REDACTED]<sup>10</sup> PGE’s  
21 BTA includes a wake impact agreement with NextEra.

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<sup>9</sup> UE 370 – PGE/100/Armstrong – Batzler /14, lines 2-5.

<sup>10</sup> UE 370 – PGE/100/Armstrong – Batzler /14, lines 4-5.



1 **Q. Under Oregon ratemaking scheme, who bears the risk of wind quantity**  
2 **risk?**

3 **A.** The Company does bear some quantity risk in the initial years of Wheatridge  
4 operations. If actual annual generation from Wheatridge is less than the P50  
5 forecast, the Company bears the difference in the cost of the Wheatridge facility in  
6 the PCAM. [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED], which would reduce the amount of PTC credits passed back to customers  
11 and zero fuel cost energy modeled in power cost rates. All things equal, when wind  
12 generation is lower than expected, PGE has to replace the energy with higher cost  
13 energy sources to meet load.

14 **Q. Does CUB believe that Wheatridge will underperform its expected**  
15 **generation?**

16 **A.** No. The initial generation forecast has been verified by a third party, Viasala, who  
17 ruled that the P50 forecast was reasonable based on utility standards.<sup>11</sup> However,  
18 based on PGE's experience with Biglow, CUB is concerned about customers  
19 bearing the quantity risk on Wheatridge. Below is table the forecasted Biglow's  
20 annual capacity factor in PGE's AUT.

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<sup>11</sup> CUB Exhibit 202.



	[REDACTED]
2021 AUT	[REDACTED]
2020 AUT	[REDACTED]
2019 AUT	[REDACTED]
Original Capacity Factor	[REDACTED] <sup>12</sup>

1 **Q. What is CUB’s proposal?**

2 **A.** CUB proposes that the Company forecast the non-PPA portion of Wheatridge using  
3 a 50% blend of a five-year rolling average and the P50 forecast for ten years past  
4 the commercial operation date of Wheatridge.

5 **Q. Why do you think this is reasonable?**

6 **A.** Under the current framework, CUB believes that PGE does not bear enough risk  
7 around the production of the wind portion of the Wheatridge facility. If allowed  
8 cost recovery for Wheatridge, PGE will earn millions of dollars of profit over the  
9 life of the project from the owned portion of Wheatridge. Customers, on the other  
10 hand, bear the risk that the benefits articulated in the Company’s cost containment  
11 screen may not materialize. [REDACTED]

12 [REDACTED]

13 [REDACTED]. CUB’s proposal seeks to more evenly share the production  
14 risk of Wheatridge between the Company and its customers.

<sup>12</sup> UE 335 – Staff/ 300/Kaufman/17, line 8.

### III. WHEATRIDGE REC MONETIZATION

1 **Q. Please summarize PGE's proposal concerning the monetization of RECs**  
2 **from Wheatridge.**

3 **A.** In its initial filing, PGE proposed sell the RECs generated between the project's  
4 commercial operation date and December 31, 2024 to the Company's renewable  
5 portfolio option customers. PGE proposed pricing the Wheatridge REC's at [REDACTED].<sup>13</sup>  
6 PGE restated and reaffirmed its position in its reply testimony.<sup>14</sup>

7 **Q. What was Oregon Public Utility Commission Staff's (Staff) response to**  
8 **PGE's proposal?**

9 **A.** Staff opposed the Company's proposal to sell the Wheatridge RECs to the  
10 Company's renewable portfolio option customers.<sup>15</sup> As an alternative, Staff  
11 proposed that the PGE retain the near-term RECs in a REC bank to defer the  
12 Company's need to acquire additional RPS resources.

13 **Q. Did AWEC make similar arguments to Staff?**

14 **A.** Yes. AWEC recommended that the Company bank the Wheatridge RECs for future  
15 use.<sup>16</sup>

16 **Q. Please summarize the Company's position on additionality.**

17 **A.** PGE believes the sale of Wheatridge RECs to its renewable portfolio option  
18 customers provides those customers renewable energy benefits beyond those that  
19 the Company is mandated to procure under the RPS. The Company believes that  
20 the Wheatridge REC's are of superior quality to RECs that would otherwise be

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<sup>13</sup> UE 370 – PGE/100/Armstrong – Batzler/21.

<sup>14</sup> UE 370 – PGE/300/Armstrong – Batzler/24.

<sup>15</sup> UE 370 – Staff/200/Moore/ 7, lines 8-10.

<sup>16</sup> UE 370 – AWEC/100/Mullins/26, lines 9.

1 purchased.<sup>17</sup> The Company also argues that Wheatridge is a resource that will be  
2 generating RECs currently not available, which creates additionality.<sup>18</sup> The  
3 Company also argues that the Wheatridge RECs are of similar quality to RECs  
4 from non-utility resources. Further, the Company believes sale of RECs provide  
5 additionality because the ability to generate revenues through REC sales is an  
6 important consideration for a project developer's decision to bring a new resource  
7 online.<sup>19</sup>

8 **Q. Please summarize the Staff's position on additionality.**

9 **A.** Staff argues that the Wheatridge RECs fail to provide the level of additionality with  
10 which the Company describes the renewable portfolio option products to  
11 customers.<sup>20</sup> Staff provides evidence that PGE's REC monetization proposal is not  
12 consistent with the Company's messaging around the portfolio options  
13 committee.<sup>21</sup>

14 **Q. What is CUB response to Staff's and the Company's arguments on**  
15 **additionality?**

16 **A.** It is CUB's understanding that PGE's REC monetization proposal would sell  
17 RECs from the commercial operation date of Wheatridge to 2024. These RECs will  
18 be sold to portfolio option customers and will not be used by the Company for  
19 compliance with the Oregon RPS. If the Wheatridge REC monetization program is  
20 approved, CUB believes that a change to Company's marketing practices may be

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<sup>17</sup> UE 370 – PGE/100/Armstrong –Batzler/20, lines 10-11.

<sup>18</sup> UE 370 – PGE/300/Armstrong – Batzler/32, lines 6-7.

<sup>19</sup> UE 370 – PGE/300/Armstrong – Batzler/32, lines 15-17.

<sup>20</sup> UE 370 – Staff/200/Moore/ 9, lines 8-10.

<sup>21</sup> UE 370 – Staff/200/Moore/ 9, lines 7-17.



1 warranted. To CUB’s knowledge, the Commission is going to investigate the role  
2 of Oregon Portfolio Option Committee in a generic investigation docket and CUB  
3 would be open to reviewing communications and advertising guidelines for  
4 portfolio option programs. CUB shares Staff’s concerns that the messaging and  
5 marketing to renewable portfolio options customers be transparent and fair. To  
6 CUB, the RECs sold to portfolio options customers must truly create additionality.  
7 That is, those RECs must be discrete and go beyond the RECs that the Company is  
8 using for RPS compliance. Through that lens, CUB does believe that the  
9 Wheatridge RECs sold to portfolio options customers for the first five years do  
10 create additionality, since they will not be double-counted for RPS compliance  
11 purposes.

12 **Q. What is different about Wheatridge REC’s under Oregon law?**

13 **A.** Staff notes that under ORS 469A.140(3)(c) allows RECs associated with the first  
14 five years of generation from facilities that become operational between March 8<sup>th</sup>,  
15 2016 and December 31<sup>st</sup>, 2022 to be banked and carried indefinitely for the purpose  
16 of complying with a renewable portfolio standard.<sup>22</sup> Since Wheatridge is expected  
17 to enter service in 2020, Wheatridge RECs would be allowed to banked and carried  
18 indefinitely. These are “golden RECs” as contemplated by SB 1547 and its statutes.

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<sup>22</sup> UE 370 – Staff/200/Moore/5, lines 17-21.

1 **Q. What is Staff's reasoning around banking the Wheatridge RECs?**

2 **A.** Staff argued that banking the Wheatridge RECs would likely save customers  
3 money in the long-term.<sup>23</sup> Staff also stated that the Wheatridge RECs provide a  
4 long-term hedge against long-term cost, risk, and higher RPS compliance targets.<sup>24</sup>

5 **Q. What are the options being presented to the Commission?**

6 **A.** There are two options being presented to Commission:

7 1. Monetize the Wheatridge REC created the first five years of commercial  
8 operation by selling the RECs to PGE's portfolio option customers.

9 2. Banking the REC's from Wheatridge and use the REC's as a hedge against  
10 future risks.

11 **Q. What is CUB recommendation about REC monetization?**

12 **A.** CUB recommends that the Commission approve the Company's proposal to sell the  
13 Wheatridge RECs to portfolio option customers. CUB believe that PGE's proposal  
14 should be modified to [REDACTED] per REC to account for the large volume of RECs that  
15 would be purchased by portfolio option customers. For its part, PGE indicated a  
16 willingness to discuss CUB's proposal further.<sup>25</sup>

17 **Q. Why does CUB recommend selling the Wheatridge's RECs to portfolio  
18 option customers?**

19 **A.** With CUB's modification, PGE's proposal would be mutually beneficial to  
20 portfolio option customers and PGE's ratepayers. Portfolio option customers will  
21 benefit from receiving REC's from Wheatridge which are at a [REDACTED]

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<sup>23</sup> UE 370 – Staff/200/ Moore/ 6/Lines 9-10.

<sup>24</sup> UE 370 – Staff/200/ Moore/ 6/Lines 10-13.

<sup>25</sup> UE 370 – PGE/300/Armstrong – Batzler/25, lines 15-17.

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Additionally, the REC monetization option will provide PGE's ratepayers value for

3

the REC sales through PGE's Property Sale Balancing Account. CUB's position is

4

also informed by PGE's analysis in the 2019 IRP around the expected value of

5

retaining additional RECs for future RPS obligations.<sup>26</sup>

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

7

**A. Yes.**

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<sup>26</sup> UE 370 – PGE/300/Armstrong –Batzler/27-28.

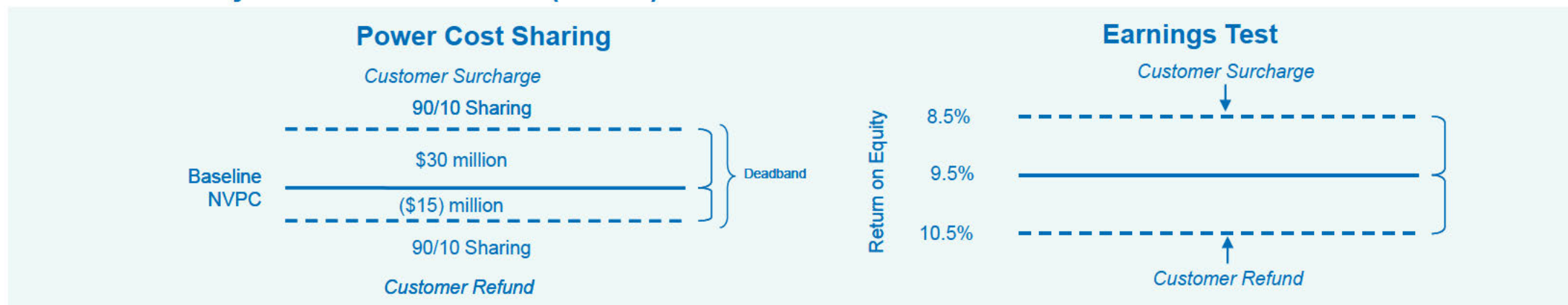


# Recovery of power costs

## Annual power cost update tariff

- Annual reset of prices based on forecast of net variable power costs (NVPC) for the coming year
- Subject to OPUC prudence review and approval, new prices go into effect on or around January 1 of the following year

## Power Cost Adjustment Mechanism (PCAM)



- PGE absorbs 100% of the costs/benefits within the deadband, and amounts outside the deadband are shared 90% with customers and 10% with PGE
- An annual earnings test is applied using the regulated ROE as a threshold
- Customer surcharge occurs if PGE's actual regulated ROE is below 8.5%; ROE will not exceed 8.5% with surcharge
- Customer refund occurs if PGE's actual regulated return is above 10.5%; regulated return will not decrease below 10.5% with refund

Exhibit 202 is confidential and will be provided to parties who have signed  
protective order 19-416.