BEFORE THE PUBLIC UTILITY COMMISSION

OF THE STATE OF OREGON

UE 423
PGE 2022 Annual Power Cost Adjustment Mechanism

PORTLAND GENERAL ELECTRIC

Direct Testimony of:

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I. Introduction

Q. Please state your names and positions with Portland General Electric Company (PGE).

A. My name is Greg Batzler. I am a Senior Regulatory Consultant at PGE.

My name is Stefan Cristea. I am a Regulatory Consultant at PGE.

Our qualifications appear at the end of this testimony.

Q. What is the purpose of your testimony?

A. The purpose of our testimony is two-fold. First, we describe the 2022 Power Cost Variance (PCV), including baseline, actual power costs, and applicable deadbands. Second, although there is no PCV for the 2022 because the Annual Variance falls within the deadbands, we describe how we would determine any deferred amount for power costs that would be collected from or refunded to customers using the Power Cost Adjustment Mechanism (PCAM) authorized by the Public Utility Commission of Oregon (OPUC or Commission) in Order No. 07-015 (Docket No. UE 180) and established in PGE Schedule 126. In summary, because the Annual Variance (the difference between actual power costs and forecasted power costs) of $23.2 million is entirely within the power cost deadbands, the 2022 PCV and deferral are zero.

Q. Please summarize the process used in the PCAM.

A. The first two steps in the process are to determine the baseline NVPC forecast and the actual NVPC cost. We describe these first two steps in Sections II.A and II.B. The third step, as described in Section II.C, is to calculate and compare PGE's actual unit Net Variable Power Costs (NVPC) with our baseline unit NVPC and then multiply the difference by actual load to determine an Annual Variance. We then apply asymmetrical power cost deadbands to the Annual Variance followed by a 90-10 percent sharing between customers and shareholders to determine whether there is any PCV and if so, the amount (PGE Exhibit 101 provides a summary of the PCV calculation). After this, we apply symmetrical Return on Equity (ROE) deadbands to an earnings review to determine how much, if any, of the final PCV should be collected from or refunded to customers. If there is a collection from or refund to customers, this amount is then posted to PGE's PCV account where it will accrue interest at PGE's authorized rate of return, until the Commission approves amortization. Finally, if there is a collection from or refund to customers, PGE will amortize the PCV balance through Schedule 126.

Q. Are there Minimum Filing Requirements (MFRs) associated with the PCAM?

A. Yes. In PGE's 2007 PCAM (Docket No. UE 201), parties agreed to MFRs for future PCAMs. The MFRs specify that work papers to PGE's PCAM filing should include the following:

- Monthly transaction-level detail by ledger number that is used to summarize actual power costs as provided in PGE Exhibit 103C; and
- Detail regarding PGE's out-of-period adjustments.

As specified, confidential work papers to this filing include the required documentation.

Q. How is your testimony organized?

A. We begin by describing in greater detail how PGE calculated whether there is any PCV as determined by comparing the Annual Variance and the power cost deadbands. This includes a high-level summary comparing the differences between PGE's 2022 final NVPC forecast and 2022 PCAM results, as required by the Commission in PGE's 2017 PCAM (Docket No. UE 346). We then briefly describe PGE's PCAM earnings review although it is not applicable for 2022. The last section contains our qualifications.

II. Calculation of PCV

A. Baseline Power Costs

Q. What is the first step in calculating any PCV?

A. The first step is to identify PGE's baseline NVPC, which is based on the final 2022 power cost forecast that PGE calculated in Docket No. UE 391 (UE 391), using our power cost forecasting model, MONET.[1] The MONET result established the unadjusted baseline NVPC of approximately $543.6 million for 2022.

Q. Did you apply any adjustments to derive these baseline costs?

A. Yes. First, from the unadjusted baseline NVPC, we reduced power costs by $1.8 million to recognize steam sales from our Coyote Springs plant (as forecasted in Docket Nos. UE 335 and UE 394, PGE's most recent general rate cases).[2] We applied this adjustment as directed by the Commission in Order No. 07-015 to achieve adjusted baseline power costs.

Q. Did you apply an adjustment for Ancillary Service Revenues as also directed by the Commission in Order No. 07-015?

A. No. Because this revenue was incorporated directly into the MONET baseline power costs as filed in UE 391, there is no Ancillary Service adjustment necessary to calculate the 2022 PCV.

Q. Did you apply an adjustment related to direct access and variable price option load?

A. Yes. PGE reduced power costs related to the additional 19.3 MWa of 2022 direct access and variable price option load that had not been identified at the time the final MONET forecast

[1] PGE has described the MONET model in numerous previous general rate proceedings (i.e., UE 115, UE 180, UE 188, UE 197, UE 215, UE 262, UE 283, UE 294, UE 319, and UE 335) as well as previous RVM filings (Resource Valuation Mechanism – UE 139, UE 149, UE 161, and UE 172) and AUT filings (Annual Update Tariff – UE 192, UE 208, UE 228, UE 250, UE 308, UE 359, and 377). Consequently, we incorporate those descriptions by reference.
[2] UE 335 amounts are included from January 1, 2022 through April 30, 2022, while UE 394 amounts are included from May 1, 2022 through December 31, 2022.

was prepared in November 2021. This reduced baseline power costs by another $9.8 million and, it also reduced the baseline loads used to determine baseline unit NVPC.

Q. Did you apply any other adjustments to the MONET output?

A. Yes. Similar to the treatment of steam sales, we increased baseline power costs by $0.6 million to recognize PGE's forecast of wind availability charges in UE 335 and UE 394. As wind availability damages/bonuses are included as an adjustment to actuals, to provide a comparable basis, we also include the UE 335/394 forecast as an adjustment to baseline NVPC.

Q. What was the final baseline NVPC estimate?

A. After the adjustments described above, baseline NVPC for 2022 were approximately $532.6 million.

B. Actual Power Costs

Q. What is the next step in calculating any PCV?

A. The next step is to calculate PGE's actual NVPC for 2022. We begin this step by identifying PGE's variable power costs as charged to the following FERC accounts: 501, 547, 555, and 565. We then include the amount of sales for resale, as charged to FERC 447. For 2022, this net amount is approximately $627.3 million. To this amount, we apply a number of adjustments as listed in Table 1 and described below.

Table 1
Adjustments to Actual 2022 Power Costs
($000)

Actual NVPC per financial statements (see Exhibit 103C)		$627,263
Items to Exclude:		
Out of period items	subtract	2,467
Direct access deferral amortization	subtract	(812)
Green power costs billed directly to customers	subtract	21,522
Solar Payment Option – Sch 205/206 avoided costs	subtract	1,204
Point-to-Point Line Loss Obligation	subtract	3,241
Items to Include:		
Coyote steam sales	add	(5,059)
Gas resale margin	add	(7,455)
Wind availability (credit)/charge	add	0
Energy revenues for variable price option customers	add	(7,620)
Transmission resale revenues	add	(4,000)
Chemical costs in O&M	add	4,498
Production Tax Credits in Taxes	add	(35,826)
North Mist Depreciation and Interest	add	14,767
Pelton Round Butte Depreciation and Interest	add	6,000
Wheatridge Solar Depreciation and Interest	add	1,574
Merchandise Processing Fee for Canadian Gas Imports	add	31
EIM-related imbalance credits/debits in other revenue	add	1,750
Adjusted Actual NVPC*		$568,301

*May not sum due to rounding

Q. Please describe the items PGE excluded from its actual NVPC.

A. PGE excluded the following costs from actual NVPC:

- A charge of approximately $2.5 million related to out of period items. This charge reflects the reversal of three items recorded in 2022 that pertain to prior years:
  - Approximately $0.9 million related to a 2021 duplicate entry correcting for the over accrual of benefits related to PGE's transmission agreement with EDF. This 2021 duplicate entry was reversed in March 2022.
  - Approximately ($0.5 million) for net amounts associated with third party point-to-point transmission customer line losses.
  - Approximately $2.1 million related to the reversal of certain 2021 adjustments associated with the outcome of PGE's 2021 PCAM (Docket No. UE 395).

- A credit of approximately ($0.8) million for the direct access deferral amortization. This credit was recorded to FERC account 447 and represents amortization of the deferral on the net gain on power costs associated with the large non-residential load shift true up. This credit is included in a supplemental schedule.
- A charge of approximately $21.5 million for green power expenses that are billed directly to customers through PGE Schedules 7, 32, and 54. Consequently, they should not be included when calculating the PCV.
- A charge of approximately $1.2 million for the avoided costs associated with PGE's Solar Payment Option (SPO – Schedules 215, 216, and 217).[3] To eliminate double counting, this entry removes the increase to power costs that is associated with the avoided cost benefit, which is applied to the SPO deferral.
- A credit of approximately ($3.2 million) to remove the cost of providing real power losses to PGE's 3rd party transmission point-to-point customers. It is appropriate to remove these costs, as they are financially settled through PGE's Open Access Transmission Tariff and not included in cost-of-service customer prices.

Q. What adjustments did PGE make to include items in actual NVPC?

A. PGE included the following items in actual NVPC:

- A credit of approximately ($5.1 million) for actual steam sales revenues from the Coyote Springs 1 plant.
- A credit of approximately ($7.5 million) for gas resale margin.
- A credit of approximately ($7.6 million) for energy revenues from variable price option customers.

[3] Previously known as the Solar Feed-in Tariff, Schedules 205 and 206.

- A credit of approximately ($4.0 million) for transmission resale revenues, net of lost transmission revenues from direct access customers.
- A charge of approximately $4.5 million for pollution control chemicals. In summary, these chemical costs are forecasted in the AUT, but recorded as operations and maintenance costs because the chemicals are injected after the fuel burn. Consequently, we add them to the PCAM to accurately match the components of actual and baseline power costs.
- A credit of approximately ($35.8 million) for production tax credits (PTCs). As PTCs are forecast in NVPC consistent with ORS 757.264, we add them to the PCAM to accurately match the components of actual and baseline power costs.
- A charge of approximately $14.8 million related to North Mist Gas Storage facility. North Mist Gas storage facility expenses are forecasted in the AUT but recorded as depreciation and interest expenses for SEC compliance. Consequently, we reclassify the depreciation and other interest expense related to the North Mist Gas Storage facility to net variable power cost, consistent with the recording of these costs for FERC regulatory accounting purposes and add them to the PCAM to accurately match the components of actual and baseline power costs.
- A charge of approximately $6.0 million related to Pelton-Round Butte (PRB) to reflect the extension in term length of PGE's power purchase agreement (PPA) with the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWS) for their share of PRB energy and capacity. PGE forecasts the full cost of this PPA in the AUT but must record a portion of the cost as depreciation and interest expense for SEC compliance. Consequently, we reclassify the depreciation and other interest expense

related to the PRB PPA to NVPC, consistent with the recording of these costs for FERC regulatory accounting purposes and add them to the PCAM to accurately match the components of actual and baseline power costs.

- A charge of approximately $1.6 million related to Wheatridge Solar PPA. Similar to the PRB PPA, PGE forecasts the full cost of Wheatridge Solar in the AUT but must record a portion of the cost as depreciation and interest expense for SEC compliance. Consequently, we reclassify the depreciation and other interest expense related to the Wheatridge PPA to NVPC, consistent with the recording of these costs for FERC regulatory accounting purposes and add them to the PCAM to accurately match the components of actual and baseline power costs.
- A charge of approximately $0.03 million for merchandise processing fees associated with gas imports from Canada. These fees are forecasted in the AUT but recorded as generation, transmission and distribution expenses for SEC compliance.
- A credit of approximately $1.8 million for EIM- related imbalance credits and debits that are recorded as other revenue for SEC compliance but are forecasted in the AUT as part of the EIM net benefits.

Q. Why did you include a credit for transmission resale revenues in actual power costs?

A. We did so because it is similar to gas and oil resales. In all these categories, the associated fuel and wheeling expense is in power costs, but the resale revenue is recorded in Other Revenue. To correctly reflect the <u>net</u> power costs associated with these categories, we adjust power costs to reflect the resale revenue.

Q. Are sales of ancillary services included in the actual NVPC?

A. No. In 2022, there was no opportunity for these sales. Consequently, there was no revenue from the sale of ancillary services in FERC account 447.

Q. What is the final actual NVPC?

A. After all the adjustments described above, the final actual NVPC total is approximately $568.3 million.

C. Unit Power Costs and Annual Variance

Q. What is the next step in calculating the PCV?

A. The next step is to unitize the baseline and actual NVPC so as to calculate a unit NVPC variance. To accomplish this, we divide the baseline NVPC and actual NVPC by baseline loads and actual loads, respectively. In both cases, we use retail cost of service loads. The unit NVPC variance is calculated by subtracting baseline unit NVPC from actual unit NVPC. We perform this step to eliminate the power cost variance that would arise from changes in load.

Q. What is the unit NVPC variance and how do you calculate the Annual Variance?

A. Although PGE Exhibit 101 lists the PCV on a monthly basis, the unit NVPC variance for purposes of the PCAM is based on annual amounts. For 2022, the unit NVPC variance is approximately $1.24 per MWh (i.e., actual unit NVPC is greater than baseline unit NVPC). We then calculate the Annual Variance by multiplying the unit NVPC variance times actual load. This produces an Annual Variance of approximately $23.2 million.

D. Summary of NVPC Differences

Q. Please restate PGE's 2022 final baseline NVPC estimate and PGE's actual 2022 NVPC?

A. After applying the adjustments described on pages 3 and 4 above, PGE's baseline adjusted NVPC forecast for 2022 is approximately $532.6 million. After normalizing for load, PGE's

2022 baseline is increased to $545.1 million. This compares to the final actual NVPC of approximately $568.3 million, after applying the adjustments described on pages 5 through 9 of this testimony.

Q. Has PGE compared the changes between actual and forecast NVPC that explain the variance?

A. Yes. Pursuant to Commission Order No. 18-466, issued in PGE's 2017 PCAM, PGE has compared its 2022 PCAM results with its baseline 2022 forecast in order to determine and explain significant power cost variations for 2022.

Q. Please describe the drivers of the variance between baseline and actual 2022 NVPC.

A. As shown in Table 2 below, PGE's actual 2022 NVPC is approximately $35.7 million above forecast, before normalizing for load. After normalizing for load, as described in Section II-C, the Annual Variance decreases to $23.2 million above forecast. The Annual Variance is primarily due to the following factors:

1. Lower than forecast wind generation, resulting in a decrease to PTC benefits.
2. Increased net market purchases and sales, which are partially offset by the fuel savings resulting from lower than forecast PGE-owned resource generation.
3. Slightly lower than forecast wheeling expense in 2022.
4. Lower NVPC forecast compared to actual NVPC due to a stipulated agreement adopted by Commission Order No. 21-380 (Docket No. UE 391, PGE's 2022 AUT).

Table 2
2022 NVPC Reconciliation
($millions)

2022 Baseline NVPC	**$532.6**
Increase / (Decrease) to NVPC	
Wind PTCs	$4.6
PGE-Owned Resources	($102.0)
Market Purchases and Sales	$126.9
Wheeling	($0.5)
Stipulated Adjustments	$6.7

Total Increase / (Decrease)[1]	**$35.7**
Adjusted Actual NVPC[2]	**$568.3**

[1]Prior to normalizing for load
[2] May not sum due to rounding

Q. Please describe the increase in NVPC related to wind PTCs.

A. PGE's 2022 wind generation was approximately 39%, or approximately 1,136 GWh, lower than forecast, resulting in decreased wind PTC benefits of approximately $4.6 million compared to baseline NVPC.

Q. Please describe the decrease in NVPC related to PGE-owned resource generation.

A. The ($102.0) million decrease to NVPC associated with PGE's resource generation is due to both lower than forecast gas total generation in 2022 and higher than forecast hydro total generation, resulting in reduced fuel costs. Gas generation volume was lower than forecast by approximately 1,937 GWh, or 19% compared to 2022 baseline NVPC, while hydro generation volume was higher than forecast by approximately 2,470 GWh, or 128% compared to 2022 baseline NVPC.

Q. Please describe the increase in NVPC related to market purchases and sales.

A. PGE experienced a $126.9 million increase in net market purchases and sales due primarily to increased energy purchases associated with replacement power for PGE's lower than forecast gas and wind generation.

E. PCV

Q. What is the final step in calculating any PCV?

A. The final step is to apply the deadbands and sharing percentages, if applicable, to the Annual Variance. Because we focus on the earnings review and return on equity (ROE) deadbands in the next section, we only discuss the power cost deadbands here.

Q. What are the power cost deadbands?

A. Beginning January 1, 2011, the power cost deadbands are calculated based on Commission Order No. 10-478 (Appendix D, page 3 of 11), which specifies the following:

- $30 million for a positive Annual Variance; and
- ($15 million) for a negative Annual Variance.

Q. What is the final PCV after application of the deadbands and sharing percentages?

A. Because PGE's Annual Variance of $23.2 million is within the deadband amount of $30 million, there is no PCV for 2022 and we do not apply sharing percentages to determine a final PCV.

III. Earnings Review

Q. Has PGE performed an earnings review with which to calculate the ROE deadbands?

A. Yes. We performed this review initially as part of our annual requirement to provide a Results of Operations (ROO) Report to the OPUC Staff, which we submitted on May 1, 2023. Because the ROO incorporates all aspects of the PCAM earnings review, PGE uses it as the basis for the ROE deadband. We include it as PGE Exhibit 102.

Q. What are the ROE deadbands?

A. The ROE deadbands are +/-100 basis points of PGE's authorized ROE, which for 2022 is 9.50% (see Commission Order No. 22-129). If PGE's earnings were below 8.50%, then we would collect any PCV up to the point where the ROE is 8.50%. Alternatively, if PGE's earnings were above 10.50%, then we would refund any PCV down to the point where the ROE is 10.50%.

Q. What was PGE's final 2022 ROE including the Annual Variance?

A. PGE's final 2022 Regulated Adjusted ROE is 9.02%,[4] which is within the 8.50% to 10.50% earnings deadbands. As noted in Section II. C above, the Annual Variance is within the power cost deadbands, so there is no PCV amount and therefore no application of an earnings review. Consequently, there is no customer collection (or refund) associated with the 2022 PCAM.

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[4] This is the earnings test result that includes the relevant adjustments from Commission Order No. 22-129 and the OPUC letter regarding the calculation of ROOs dated March 25, 1992.

Q. Does PGE provide earnings review ROE results that separately identify the impact of the PCAM amount as specified in item 4 of the UE 201 stipulation (see Commission Order No. 08-551)?

A. Yes. PGE Exhibit 104 provides the stipulated ROE results; however, because the final 2022 PCAM amount equals zero, there is no impact from this entry.

Q. What is the rate impact of the 2022 PCAM?

A. The 2021 PCAM resulted in a collection amount that is amortized over two years (2023 and 2024). Because of this and the fact that there is no refund or collection associated with the 2022 PCAM, there will be no rate impact to customers on January 1, 2024.

IV. Qualifications

Q. Mr. Batzler, please state your educational background and experience.

A. I received a Bachelor of Arts degree in Radio and Television from San Francisco State University in 1997 and a Master of Business Administration degree from Marylhurst University in 2011. I have been employed at PGE since 2006, working in various departments including Meter Reading and Human Resources. I have worked in the Rates and Regulatory Affairs department since 2012.

Q. Mr. Cristea, please state your educational background and experience.

A. I received a Bachelor of Arts degree in Regulatory Economics from the University of Calgary, Alberta, Canada. I have been employed at PGE in the Rates and Regulatory Affairs department since 2016. I have served as a witness to or lead regulatory analyst for numerous PGE ratemaking, rulemaking, and policy regulatory proceedings such as general rate cases (UE 319, UE 335, and UE 394), annual power cost updates (UE 359, UE 377, UE 391, and UE 402), and power cost adjustment mechanism filings (UE 346, UE 362, UE 381, UE 395, and UE 406).Previously, I worked as an Operations Coordinator for Enterprise Holdings in Calgary, Alberta, Canada, overseeing the operations of approximately 50 car-rental offices. Prior to that, I owned and managed a construction business in France.

Q. Does this complete your testimony?

A. Yes.

List of Exhibits

Exhibit	Description
101	Summary Calculation of 2022 PCV
102	2022 Results of Operations as filed May 1, 2023
103C	2022 Actual Power Costs by Month and FERC Account
104	2022 Results of Operations with segregated PCAM amount

Exhibit 100

Provided in Native Format

Exhibit 102

Provided in Native Format

Exhibit 103 contains confidential information and is subject to

General Protective Order

Information provided in electronic format only.

Exhibit 104

Provided in Native Format