ORDER NO. 21-380

ENTERED Nov 01 2021

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 391

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, 2022 Annual Power Cost Update Tariff (Schedule 125).	ORDER

DISPOSITION: STIPULATION ADOPTED; CLARIFICATION OF ORDER NO. 20-321 PROVIDED

I. SUMMARY

In this order, we adopt a stipulation of the parties regarding Portland General Electric Company's Annual Power Cost Update Tariff, and provide clarification of Order No. 20-321, as requested by parties to the stipulation.

PGE's initial net variable power costs (NVPC) forecast for 2022 is $511.8 million, which represents an increase of approximately $53.9 million relative to their final 2021 NVPC forecast. PGE's 2022 forecast according to the stipulation terms is now $505.3 million, which is a $47.4 million increase relative to their final 2021 NVPC forecast, but a $6 5 million decrease from the initial filing.

Estimated rate impacts are as follows: Schedule 7 Residential customers will see a 1.8 percent rate increase, Schedule 32 Small Non-residential customers will see a 1.7 percent rate increase, Schedule 83 Non-residential customers will see a 2.2 percent rate increase, Schedule 85 Secondary customers will see a 2.5 percent rate increase, Schedule 85 Primary customers will see a 2.6 percent rate increase, Schedule 89 Primary customers will see a 2.9 percent rate increase, Schedule 89 Subtransmission customers will see a 2.5 percent rate increase, and finally Schedule 90 customers will see a 3.1 percent rate increase. The overall cost of service will be 2.0 percent.

II. PROCEDURAL HISTORY

PGE filed an Annual Power Cost Update Tariff on April 1, 2021, for its 2022 NVPC. PGE also provided testimony and exhibits in support of its filing. On April 2, 2021, Oregon Citizens' Utility Board (CUB) filed a notice of intervention. Subsequently, on April 6, the Alliance of Western Energy Consumers (AWEC) filed a petition to intervene.

This was granted on April 19, 2021. On June 30, 2021, Staff, CUB, and AWEC filed their opening testimony. PGE filed reply testimony on July 26, 2021. On August 4, 2021, PGE filed a motion to suspend the procedural schedule, which was granted on August 10, 2021. The Stipulating Parties held settlement discussion on July 13, July 15, and August 2, 2021. At the August 2, 2021 settlement discussion, the Stipulating Parties reached a settlement of all issues in this docket. On August 30, 2021, PGE submitted a motion to admit stipulation, stipulation, and joint testimony in support of stipulation. Stipulating Parties filed joint testimony in support of stipulation on September 3, 2021. On September 7, 2021, AWEC filed a motion to admit testimony and exhibits, with supporting declarations. On October 1, 2021, PGE filled a Multi-area Optimization Network Energy Transaction power cost forecasting model (MONET) update.

III. DISCUSSION

The stipulation between PGE, Staff, CUB, and AWEC (collectively, the Stipulating Parties) settles issues arising in PGE's Annual Power Cost Update Tariff, and requests clarification of Order No. 20-321. Below, we summarize each element of the stipulation and review the positions of the parties. Following this, we provide clarification for Order No. 20-321.

A. Elements of the Settlement

1. Production Tax Credit (PTC)

AWEC proposed an adjustment based on the assumption that the 2022 PTC rate will increase to 2.6 cents/kWh due to projected inflation. The Stipulating Parties agree with a PTC rate of 2.6 cents/kWh for PGE's 2022 NVPC forecast.

2. Energy Storage Systems in Multi-area Optimization Network Energy Transaction power cost forecasting model (MONET)

Stipulating Parties agree that PGE will include the energy benefits associated with the Anderson Readiness Center Battery Storage and the PW2 Generation Kickstart Battery Storage in the 2022 NVPC forecast. Additionally, Stipulating Parties also agreed that PGE will create new Minimum Filing Requirements (MFR) specific to energy storage projects and will include language in Schedule 125 to allow for the dispatch of energy storage systems within annual NVPC forecast filings.

3. Schedule 125

Stipulating Parties agreed that make a few adjustments regarding Schedule 125. 1) PGE will update Schedule 125 language from "costs associated with wind integration" to "costs associated with wind and solar integration. The battery portion of wind and solar projects that have a battery storage component may be included if the battery is charged solely by wind and solar generation." [1] 2) PGE will include the following language regarding the first November MONET update: *"On or before November 6th of each*

[1] Stipulation at 2 (Aug 30, 2021).

calendar year, the Company will file estimates with the final planned maintenance outages from the October 1st filing, load forecasts from the October 1st filings, load reductions from the October update resulting from additional participation in the Company's Long Term Cost of Service Opt-out that occurs in September, updated projections of gas and electric prices, power, and fuel contracts."[2] 3) PGE will be able to update the Faraday Repowering Project online date, the facility's expected generation, and PTCs up to the final November filing for the 2022 Annual Update Tariff (AUT). 4) PGE will add "the dispatch of energy storage systems" as an annual update to Schedule 125.[3]

4. *Wheatridge Performance Report and CUB's Request for Commission clarification regarding Order No. 20-321*

Staff recommended that PGE make two additions to the Wheatridge Report: 1) Include the initial forecast of Wheatridge benefits for PTC and NVPC that is filed contemporaneously with the reports; and 2) Include a short narrative description of any large deviations between forecasts and actuals in the preceding calendar year. Stipulating parties agreed that PGE will include additional information starting with the 2023 AUT filing. CUB requests, and the Stipulating Parties agree, that the Commission should clarify Order No. 20-321 issued in docket UE 370. This is discussed in detail in the final section of this order. CUB specifically seeks clarification regarding parties' ability to propose modifications to Wheatridge facility performance parameters in an AUT or other proceeding during a non-general-rate-case (GRC) year, should circumstances arise where the facility's actual performance departs significantly from forecast benefits.

5. *Day-Ahead Forecast Error Escalation*

AWEC raised concerns regarding the escalation factor applied to the day-ahead forecast error escalation in the NVPC forecast. AWEC recommended removing the escalator because the day-ahead forecast error "does not necessarily change in relationship with inflation."[4] Stipulating Parties agreed that PGE will remove the day-ahead forecast error escalator from the 2022 NVPC forecast.

6. *Energy Imbalance Market (EIM)*

Both Staff and AWEC raised concerns regarding PGE's method to forecast benefits resulting from participation in the EIM. AWEC was concerned that PGE excluded data outside of a certain range, and that it "offset increments with decrements."[5] PGE disagreed with these concerns, stating the interquartile method they employed was standard in the industry. Staff was concerned PGE used data from only the past few years to inform the greenhouse gas (GHG) forecast and wanted PGE to consider expanding the date range. Staff also requested PGE use the max California Carbon Offsets (CCO) for California Air Resource Board (CARB) compliance. Staff further

---

[22] *Id.*
[3] *Id*. at 3.
[4] Stipulating Parties/100, Enright-Gehrke-Mullins0Batzler/9.
[5] *Id*. at 4.

requested that PGE consider removing the escalation factor for Grid Management Charges (GMC). Finally, Staff asked that PGE adjust their costs associated with CARB compliance. Stipulating Parties agreed that PGE will forecast 2022 GHG revenues based on the weighted average of 2019 and 2020 historical results. Additionally, Stipulating Parties agreed that PGE will update the CCO use for its 2022 forecast GHG cost obligation from two percent to four percent if PGE executes a CCO exchange agreement before the November MONET updates. Stipulating Parties also agree that the EIM GMC issue be resolved as part of the other items discussed in the remaining issues section. Also, Stipulating Parties agreed that no adjustment will be applied in this proceeding regarding Staff's recommendation that PGE adjust its 2022 expected costs associated with CARB compliance obligations based on historical data analysis of actual energy transfers to California or AWEC's EIM recommendations.

7. Wheatridge Battery Storage

AWEC argued that PGE's approach to modeling the Wheatridge Battery Storage is suboptimal. AWEC argued that the approach does not, for example, fully consider timing and market prices. Stipulating Parties agree that PGE will reduce its 2022 NVPC forecast by $116,407 to reflect more economic dispatch of the Wheatridge Battery Storage. Additionally, Stipulating Parties agreed that any party can propose modeling changes for the Wheatridge Battery Storage dispatch in the 2023 AUT and that PGE and parties will discuss the Wheatridge Battery Storage modeling in a workshop to be held prior to the 2023 AUT.

8. California-Oregon Border (COB) Trading Margin, Transmission Resales, Colstrip Forced Outage Rate, Carty Forced Outage Rate, Beaver Forced Outage Rate, Day-Ahead Forecast Error Modeling, Avangrid Capacity Contract, Lydia 2.0, EIM Grid Management Charges, and any remaining NVPC issues not separately identified

For the remaining issues, Stipulating Parties agreed that PGE will reduce its 2022 NVPC forecast by $6.25 million related to the remaining issues reviewed below. Additionally, PGE will convene a workshop and the following conditions will apply: 1) PGE will send a workshop agenda to parties four weeks prior to the workshop. 2) Parties will provide comments on the agenda and can propose NVPC-related items to be discussed. 3) Parties will finalize the agenda two weeks prior to the workshop. Initial items to be discussed at the workshop include Transmission Resale Revenues Forecast Methodology, Wheatridge Battery Storage dispatch modeling, and Lydia 2.0 methodology. Further, Stipulating Parties agree that any party can propose changes to the Lydia 2.0 methodology in the 2023 AUT, any party can propose changes to the modeling of the day-ahead forecast error in the 2023 AUT, and PGE will propose, while Stipulating Parties may propose, an updated transmission resale forecast methodology in the 2023 AUT. Stipulating Parties agreed that the $6.25 million reduction to PGE's 2022 NVPC forecast and other agreed items above represent appropriate and reasonable resolutions of these issues.

a. California-Oregon Border Trading Margin

AWEC argued that PGE's COB trading margin forecast method understates the margins because it restricts the volume of transactions relative to the historical average, and that it limits the price spread. PGE explained that the current method provides for a normalized and forecasted value that recognizes both seasonal and hourly variability. PGE also noted that AWEC's method is using trading volumes greater than PGE's firm rights, given they primarily transact in the day-ahead market.

b. Transmission Resales

Staff testified that because PGE had under-forecasted transmission resale values in every AUT since 2016, that they should adjust their methodology to be based on a five-year average of historical short-term transmission resale volumes. PGE explained in reply testimony that PGE has neither excess transmission nor a secured firm transmission resale agreement to support the assumption that historical volumes can be met on an ongoing basis. Additionally, PGE argued that the adjustment and method proposed by Staff looks at one item in isolation, whereas PGE's forecast and actual operations are managed at the portfolio level. Stipulating parties agreed to revisit this issue in the 2023 AUT.

c. Colstrip Forced Outage Rate (FOR)

Staff recommended that PGE remove the 2018 Colstrip FOR from the four year-average calculation of the Colstrip 2022 FOR forecast due to the June and July 2018 outages that occurred because the plant's emissions exceeded compliance limits. Staff based their recommendation on the fact that this issue was not resolved in PGE's 2021 AUT (Docket No. UE 377) when it was raised by AWEC. PGE responded that Staff had no evidence that PGE acted imprudently with regard to the outages.

d. Carty Forced Outage Rate

Staff recommended that PGE use three years and eight months of actual forced outage data to calculate the 2022 Carty FOR forecast. Similar to the Colstrip FOR recommendation, Staff based this proposed adjustment on AWEC's concern raised in PGE's 2021 AUT. PGE did not agree with Staff's recommendation and argued that Staff's proposed change comes only one cycle before the plant will have four years of actual data. PGE also noted that Staff's recommendation is inconsistent with the clear application of the FOR methodology outlined in Commission Order No. 10-414 and followed by PGE for over 10 years, including for prior resource additions, such as Port Westward 2.

e. Beaver Forced Outage Rate

Staff did not propose specific modeling changes but raised concerns regarding the impact of the Beaver Unit 6 upgrade on the calculation of the plant FOR. PGE provided that for the 2022 test year, the upgrade is performed on a single unit and it does not change the way Beaver currently operates other than removing the Beaver Unit 6 capability to run on fuel oil. Therefore, PGE argued that it is not necessary at this time to propose a modification to the FOR methodology.

f. Day-Ahead Forecast Error Modeling

In AWEC's view, the MONET already includes the cost associated with moving from a day-ahead to hour-ahead wind forecast, negating the need to include a day-ahead forecast error within the MONET. PGE did not agree with AWEC's proposed adjustment. PGE explained in reply testimony that the MONET is a single-stage, hourly NVPC model that does not account for the dynamic changes within the portfolio due to wind variability between day-ahead, hour-ahead, and real time. Additionally, PGE explained that reserves modeled in the MONET to support wind integration only address the moment-to-moment, hour-to-hour, and within-hour changes to wind forecast generation and the day-ahead forecast error cost ensures that the MONET also captures the impact of wind variability between the day-ahead and hour-ahead stages. Stipulating Parties agreed that any party may propose changes to the modeling of the day-ahead forecast error in the 2023 AUT.

g. Avangrid Capacity Contract

AWEC recommended that PGE calculate the dispatch benefits of the Avangrid capacity contract in a manner that is consistent with the hourly market prices in MONET. PGE did not agree with AWEC's recommendation because it was based on analysis that used an hourly shaped Mid-C energy price forecast against a monthly, flat natural gas price forecast, with no hourly or daily shape. PGE argued that the analysis did not provide proper support for the proposed adjustment because it is not an apples-to-apples comparison, and it is inconsistent with the contract parameters.

h. Lydia 2.0

AWEC argued that in accordance with the MFRs set forth in Commission Order No. 08-505, PGE is not allowed to propose modeling changes if the initial AUT filing is not submitted prior to February 28 of a GRC year, and therefore, the Commission should reject PGE's proposed update to Lydia 2.0. AWEC further argued that the Lydia 2.0 methodology update should be rejected because it overestimates the relationship between wind and energy market prices. PGE argued it may make these proposed changes, as they filed the 2022 AUT filing prior to the 2022 GRC filing in Docket No. UE 394. Stipulating Parties agreed that any party can propose changes to the modeling of Lydia 2.0 methodology in the 2023 AUT.

i. EIM Grid Management Charges

Staff argued that GMCs should not be escalated because they are set based on trading volumes in the entire EIM market, and the GMCs both increase and decrease over time. Therefore, Staff recommended that PGE remove the escalation factor applied to historical GMC when determining the GMC forecast for 2022. PGE argued that although GMCs do change year-to-year (and in some instances within a year), that is not an argument for no escalation. Moreover, PGE showed that California Independent System Operator's

(CAISO's)annual update from 2020 to 2021 was an increase in the GMC of approximately 2.8 percent. Therefore, PGE continued to propose the use of the standard escalator (2.05 percent) in its GMC forecast.

j. Other issues

i. Unwarranted Modeling Changes

AWEC argued that PGE did not comply with the MFRs established in Docket No. UE 198, Order No. 08-505 when including modeling enhancements in the initial April 1, 2021, AUT filing. AWEC argued that to be allowed to propose modeling enhancements, PGE should have filed this year's AUT prior to February 28, 2021. As such, AWEC recommended that the Commission reject the NVPC modeling enhancements proposed by PGE in this proceeding. PGE disagreed with AWEC's recommendation and arguments that the modeling enhancements should be rejected. PGE provided MFRs in support of proposed modeling enhancements with the AUT initial filing in a GRC year, as provided in Commission Order No. 08-505. Moreover, PGE argued that workshops and presentations were held with parties before making the filing to ensure parties received timely information regarding the modeling enhancements and other major items that impact the 2022 NVPC forecast. Also, PGE noted that parties pursued thorough discovery in this proceeding, issuing 189 data requests with many of them containing numerous subparts. PGE submitted timely responses to all data requests.

ii. Major Outage at Pelton-Round Butte (PRB)

Staff argued that the forecasted spill associated with the planned plant outage at PRB may not be necessary and recommended removing the forecasted power cost increase associated with spilling water at the facility. PGE did not agree with Staff's recommendation and arguments. PGE noted it is necessary to spill water during full plant outages, and has done so in the past, with the last occurring in 2009. Additionally, FERC license requirements at the facility are such that there will be very little additional storage available pre-outage and very little ability to utilize stored water to increase generation at the facility post-outage. Finally, PGE argued that should the reservoir be managed to the edges of what it's allowed to do under the governing FERC license, there could be impacts to PGE's ancillary services capabilities at the facility pre- and post-outage, creating additional strains and costs elsewhere in PGE's supply stack.

iii. Gas Optimization

Staff reviewed the gas storage optimization model included in the MONET and concluded that PGE failed to reflect the expected benefit within its initial 2022 NVPC forecast. PGE did not agree. PGE argued that compared to the 2021 NVPC forecast, PGE enhanced the model to be embedded in the MONET via reduced costs for PGE's PW/Beaver complex. PGE notes they provided the MONET 2022 forecast with and without gas storage optimization modeling in PGE Exhibit 303, demonstrating that the gas storage optimization benefits are included in the forecast.

9. Resolution of Stipulated Terms

We find that the stipulation is supported by sufficient evidence in the record and that it appropriately and reasonably resolves identified issues. The parties to this proceeding conducted a thorough investigation of the company's testimony and exhibits, served numerous data requests, participated in settlement conferences, and filed informative testimony. The stipulation is not opposed by any party, represents a just and reasonable resolution of the issues, and should be adopted in its entirety.

We note that the stipulation includes a number of commitments of future action on behalf of PGE to address Staff or party concerns, to provide more information, and to facilitate conversation and review of complex issues. We emphasize that these commitments for future action, analysis, and conversation and the provision of additional information are important elements to the stipulation and support our finding that it should be adopted.

B. CUB's Request for Commission clarification regarding Order No. 20-321

Parties request guidance on any future process which might be utilized to review Wheatridge performance and develop associated adjustments. In making this request, the parties specifically point to the following sentence, from the summary section of Order No. 20-321:

> "We find that PGE's decision to proceed with Wheatridge over other facilities was prudent, and conclude that the performance of the Wheatridge facility is best reviewed on an ongoing basis in future proceedings where we have actual data upon which to determine just and reasonable rates, such as in PGE's future power cost filings."[6]

CUB would like input from the Commission regarding how Wheatridge performance may be incorporated into rates. Parties would like to consider proposing modifications to Wheatridge facility performance parameters in an AUT proceeding, or an alternative proceeding, during a non-general rate case year. Parties indicate that the trigger for taking such action would be where Wheatridge performance significantly departs from forecast benefits.

1. Background

In Order No. 20-321, the Commission made clear that recovery for the Wheatridge facility could be tied to performance in the future. Though we found the investment prudent, we noted that "this does not preclude further ratemaking adjustments related to

---

[6] *In the Matter of Portland General Electric Company Renewable Resource Automatic Adjustment Clause (Schedule 122) (Wheatridge Renewable Energy Farm* and *In the Matter of Portland General Electric Company Renewable Resource Automatic Adjustment Clause (Schedule 122) (BPSC Energy Storage Microgrid and ARC Energy Storage)*, Docket Nos. UE 370 and UE 372, respectively, Order No. 20-321 at 1.

the recovery of project costs for Wheatridge to appropriately allocate performance risks."[7]

In this same docket, Staff, AWEC, and CUB had requested that the Commission adopt some mechanism to ensure promised customer benefits were partially guaranteed. We ultimately decided not to adopt any mechanism. We explained that throughout the process leading to resource acquisition, beginning with the IRP, PGE, stakeholders, and the Commission struggled with risk allocation in the context of an acquisition that was driven by multiple factors beyond pure near-term energy or capacity needs. We determined that PGE was responsive to Commission direction to take action to mitigate risks throughout the IRP and RFP process, acting with good faith under time constraints. Because of this, we did not take action to adjust risk allocation in the initial incorporation into rates for the project.

However, we also clarified that close monitoring of the performance and economics of Wheatridge was appropriate going forward, and that the Commission reserved the authority "to make adjustments to rates that are necessary in order to ensure that customer rates are just and reasonable."[8] We explained that rather than developing a forward-looking mechanism, an adjustment could be appropriate in the future once performance was more established and performance data in hand.

Order No. 20-321 states: "In the future, if circumstances were to arise that pointed to performance that did not realize PGE's forecasted customer benefits, however, we could impose an appropriate adjustment at that time, with the benefit of a review of the facts associated with that deviation."[9]

To ensure that performance could be readily assessed in the future, we ordered that PGE file a report with its annual power cost filings detailing the performance of the Wheatridge facility, compared to the estimated performance that was used to justify the project. The report was required to include the following information: 1) data that allows transparency into whether the expected benefits and costs to customers over time are similar to those originally projected; and 2) an evaluation of expected and realized production tax credits, project output and capacity, revenue requirements including ongoing maintenance and operating costs.

Now, CUB and stipulating parties ask the question as to where and how this performance can be assessed, and where and how if determined appropriate, incorporation into rates of performance based adjustments may be made. CUB proposes that these adjustments be considered during an AUT proceeding, or a similar annual proceeding.

[7] *Id.* 20-321 at 5.
[8] *Id.* at 11.
[9] *Id.*

2. Resolution

We determine that either the AUT or the Power Cost Adjustment Mechanism (PCAM) dockets are the appropriate forums in which to review Wheatridge performance. The AUT is the regular annual proceeding where power costs are reviewed, and the AUT proceeding is where PGE must file its annual updates on Wheatridge performance. Accordingly, review of performance during the AUT proceeding is appropriate.

Additionally, Wheatridge performance review could also be appropriate during the PCAM's true-up process because this is where past deferred costs are potentially added to rates. During this proceeding, a party could demonstrate a Wheatridge-related deviation should be challenged in the PCAM true-up process, and through this review a party may propose adjustments where warranted.

We emphasize here that through this order we clarify, at the request of the parties, where and in what manner performance related Wheatridge adjustments may be proposed. We are not explicitly calling for proposed adjustments as part of the next AUT or PCAM proceedings, nor in any future proceedings. Consistent with Order No. 20-321, we would expect to see such proposals only where a party believes that there are developments or performance issues that arise to such a level that an adjustment or alternative mechanism is warranted.

IV. ORDER

IT IS ORDERED that:

1. The stipulation between Portland General Electric Company, Staff of the Public Utility Commission of Oregon, the Oregon Citizens' Utility Board, and the Alliance of Western Energy Consumers, attached as Appendix A, is adopted.

2. Portland General Electric Company must file its final MONET run on or before November 15, 2021, producing the final Annual Update Tariff adjustment for 2021.

3. Portland General Electric Company must file revised rate schedules consistent with this order to be effective no earlier than January 1, 2022.

Made, entered, and effective Nov 01 2021.

Megan W. Decker
Chair

Letha Tawney
Commissioner

Mark R. Thompson
Commissioner

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Court of Appeals in compliance with ORS 183.480 through 183.484.