**ITEM NO. 1**

**PUBLIC UTILITY COMMISSION OF OREGON**
**STAFF REPORT**
**SPECIAL PUBLIC MEETING DATE: January 18, 2024**

**REGULAR** __X__ **CONSENT** ____ **EFFECTIVE DATE** ____N/A____

**DATE:** December 14, 2023

**TO:** Public Utility Commission

**FROM:** Sudeshna Pal

**THROUGH:** Caroline Moore

**SUBJECT:** PORTLAND GENERAL ELECTRIC:
(Docket No. LC 80)
Acknowledgement of 2023 Integrated Resource Plan and Clean Energy Plan.

**STAFF RECOMMENDATION:**

Acknowledge Portland General Electric's (PGE or Company) 2023 Integrated Resource Plan (IRP) subject to conditions, decline to acknowledge the Clean Energy Plan (CEP) and direct the Company to revise and resubmit certain elements of the CEP by the next IRP Update, and direct the Company to take additional actions.

The Public Utility Commission of Oregon Staff's (Staff) proposed conditions for acknowledgement, recommendations for PGE to revise and resubmit the CEP, and recommendations to direct the Company to take additional actions are outlined in Attachment 1 and discussed in detail in this memo.

**DISCUSSION:**

Issue

Whether the Public Utility Commission of Oregon (Commission) should acknowledge PGE's IRP with or without conditions, acknowledge specific portions of the IRP, with or without conditions, or decline to acknowledge the IRP.

Whether the Commission should acknowledge PGE's CEP or decline to acknowledge the CEP and direct the Company to revise and resubmit certain portions of the plan.

Whether the Commission should direct PGE to take any additional actions prior to filing its next IRP or IRP Update or CEP.

Applicable Law

The Commission adopted least-cost planning as the preferred approach to utility resource planning in 1989.[1] In 2007, the Commission updated its existing least-cost planning principles and established a comprehensive set of "IRP Guidelines" to govern the IRP process. The IRP Guidelines found in Order Nos. 07-002 (corrected by 07-047), and 08-339 clarify the procedural steps and substantive analysis required of Oregon's regulated utilities before the Commission considers acknowledgement of a utility's resource plan.[2] These orders are incorporated in OAR 860-027-0400(2), which requires any IRP to satisfy their requirements.

The IRP Guidelines and Commission rules require a utility to file an IRP with a planning horizon of at least 20 years within two years of its previous IRP acknowledgment order, or as otherwise directed by the Commission.[3] Further, the IRP must also include an "Action Plan" with resource activities that the utility intends to take over the next two to four years.[4] The utility's IRP should satisfy the IRP Guidelines and Commission rules for its determination of future long-term resource needs, its analysis of the expected costs and associated risks of the alternatives reviewed to meet its future resource needs, and its near-term Action Plan to achieve the IRP goal of selecting the "portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers."[5] This is often referred to as the "least cost/least risk portfolio."

The Commission reviews the utility's plan for adherence to the procedural and substantive IRP Guidelines and generally acknowledges the overall plan if it is reasonably based on the information available at the time.[6] However, the Commission explains: "We may also decline to acknowledge specific action items if we question whether the utility's proposed resource decision presents the least cost and risk option

[1] Order No. 89-507.
[2] Order Nos. 07-002 and 07-047. Additional refinements to the process have been adopted: See Order No. 08-339 (IRP Guideline 8 was later refined to specify how utilities should treat carbon dioxide (CO2) risk in their IRP analysis); Order No. 12-013 (guideline added directing utilities to evaluate their need and supply of flexible capacity in IRP filings).
[3] Order No. 07-002 (Guidelines 1(c) and 3(a)) and OAR 860-027-0400.
[4] Order No. 14-415 at 3.
[5] Order No. 07-002 at 1-2.
[6] *Id.* at 1.

for its customers."[7] The Commission may also provide direction on additional analysis or actions for the next IRP or IRP Update.[8]

In 2021, the legislature passed House Bill 2021 Oregon House Bill (HB) 2021, codified as ORS 469A.400 to 469A.475, which requires the state's large investor-owned electric utilities (IOUs) and electricity service suppliers (ESSs) to decarbonize their retail electricity sales with consideration for direct benefits to local communities.

ORS 469A.415 requires large electric IOUs to, "develop a clean energy plan for meeting the clean energy targets set forth in ORS 469A.410 concurrent with the development of each integrated resource plan," and file the plan with the Commission and Oregon Department of Environmental Quality (DEQ).

ORS 469A.420 outlines the requirements and considerations for the Commission to acknowledge the CEP "…if the commission finds the plan to be in the public interest and consistent with the clean energy targets..."

In addition, ORS 469A.415(6) requires the Commission to ensure that the utilities demonstrate continual progress within the CEP planning period toward meeting the clean energy targets and are taking actions as soon as practicable to reduce emissions at reasonable cost to retail electricity consumers.

Additional requirements for the filing, review, and update of IRPs and CEPs are provided in OAR 860-027-0400.

<u>Analysis</u>

*Background*
Portland General Electric Company (PGE or the Company) filed its combined 2023 Integrated Resource Plan and Clean Energy Plan (IRP/CEP or plan) with Oregon Public Utility Commission on March 31, 2023. PGE is the first electric utility in Oregon to file its long-term resource plan following the passage of Oregon House Bill 2021 (HB 2021). Three rounds of comments have been provided by Staff, interested parties, and the Company. Round 0 comments provided preliminary notes about improvements PGE could make in advance of participants' in-depth review of the IRP/CEP. Round 1 comments evaluated the reasonableness of the plan and explored acknowledgement considerations. Round 2 comments focused on Staff's recommendations for Commission acknowledgement of the IRP/CEP.

[7] *Id.*
[8] OAR 860-027-0400(7), (10).

Staff is grateful for the engagement and contributions made in this process, including written comments from Alliance of Western Energy Consumers (AWEC), Columbia River Inter-Tribal Fish Commission (CRITFC), Oregon Citizens' Utility Board (CUB), Deep Blue Pacific Wind, Elizabeth Graser-Lindsey, Energy Advocates, Green Energy Institute (GEI), Grid United LLC, NewSun Energy LLC (NewSun), Northwest Energy Coalition (NWEC), Oregon Solar + Storage Industries Association (OSSIA), Renewable Energy Coalition (REC), Renewable Northwest (RNW), and Swan Lake and Goldendale Energy Storage Projects.

Staff also thanks PGE for embracing many of Staff's draft recommendations, its willingness to consider inputs provided by a broad range of participants, and commitment to continue working on improving its planning tools and approaches moving forward. PGE's recent updates to its IRP/CEP address several concerns raised by Staff and stakeholders. Specifically, the adjustment to energy and capacity needs based on inclusion of optimum energy efficiency resources and contract renewal updates. In addition, adjustments to market capacity assumptions in modeling proxy transmission resources have boosted Staff's confidence that the current IRP/CEP is capturing a realistic estimate of what is required to support HB 2021 compliance.

The remainder of this Staff report reflects on the key decarbonization planning insights gained, expresses support for the Company's revised near-term actions, and makes recommendations for PGE to better demonstrate a credible path to a reliable, affordable, equitable and decarbonized system.

*IRP/CEP Overview*

PGE has estimated significant growth in its energy and capacity needs over the next two decades driven by the transition to non-emitting energy and growing demand from industry and electrification. At the same time, the Company iterated on its supply and demand side needs based on input from participants in the IRP/CEP review investigation.

The Company's latest revision to its plan projects 1254 MWa of energy and 1538 MW Summer, 1284 MW Winter MW of capacity additions are needed to support the 2030 emissions reduction targets in an affordable and reliable manner. To make progress toward this, PGE identified the following acquisition goals in the Action Plan (2024–2028):

- 251 MWa of energy per year (previously 261 MWa)
- 905 MW of summer capacity (previously 944 MW)
- 787 MW of winter capacity respectively (previously 827 MW)

Through portfolio analysis, the Company explored the role that different resource types could play in the Company's long-term strategy, such as community-based resources, demand-side resources, emerging and long lead time resources, transmission expansion, and access to markets. Through this analysis, the Company identified a preferred portfolio of annual resource actions through 2043. From this, the Company identified a set of near-term action items that will best position the Company to achieve the balance of cost, risk, emissions reductions, and community impacts and benefits reflected in the preferred portfolio. The Action Plan is summarized in Table 1.

Table 1. Summary of PGE's Action Plan for 2024 - 2028

| | | LC 80 Addendum | PGE Round 2 Comments |
|---|---|---|---|
| Customer Actions | Acquire all cost-effective energy efficiency **plus additional quantities identified in the CEP/IRP analysis** | 150 MWa Cumulative 2024-2028 | **182** MWa Cumulative 2024 - 2028 |
| | Incorporate customer demand response. | 211 MW Summer and 158 MW winter by 2028 | Unchanged |
| CBRE Action | Issue RFP for all available and qualifying CBRE resources. | 66 MW by 2026 | Unchanged |
| Energy Action | Conduct one or more RFPs to acquire sufficient capacity to meet forecasted 2028 needs. | 261 MWa (1307 MWa/5 total years) per year through 2028 | **251** MWa (**1254** MWa/5 total years) per year through 2028 |
| Capacity Action | Conduct one or more RFPs to acquire sufficient capacity to meet forecasted 2028 needs. | 944 MW summer and 827 MW winter | **905** MW Summer and **787** MW winter |
| Transmission Actions | Pursue options to alleviate congestion on the South of Allston (SoA) flowgate. | n/a | Clarified to focus on developing a comprehensive transmission study |
| | Explore options to upgrade the Bethel-Round Butte line (from 230 to 500kV). | n/a | Clarified to focus on developing a comprehensive transmission study |

In addition to providing PGE's near-term goals in the Action Plan, the IRP/CEP process highlighted several important insights for PGE's path to decarbonization, as summarized below:

- Pursuing available supply and demand-side technologies in a manner that is responsive to the modern landscape is a clear low-regrets near-term action.
- HB 2021 and transmission constraints may require changes in the way we consider on-system resources as a resource option, particularly energy efficiency. Cost effectiveness methodologies may need to evolve to recognize this additional value.
- Uncertainty around load projections, driven by electrification of other sectors and growth in certain industries, is a key challenge in decarbonization planning.
- Access to regional markets and associated transmission may be a critical dependency of PGE's compliance strategy in the 2030s.
- Access to emerging non-emitting capacity technologies may be a critical dependency of PGE's 2040 compliance strategy.
- Overcoming transmissions constraints will require creativity, collaboration, and consideration of a portfolio of transmission expansion investments and alternative solutions such as on-system resources.
- It is important for PGE to become more quantitative with its evaluation of community benefits and impacts and the role of community-based resources.

Finally, this first attempt at resource planning in the current landscape resulted in many innovations and highlighted how difficult it is to develop a meaningful and accessible resource strategy using the tools and information available today. While Staff focuses its recommendations on acknowledgement considerations and critical near-term implementation direction, the need to evolve both planning and procurement strategies is clear. Staff looks forward to applying the lessons learned in this initial IRP/CEP review to the further development of the Commission's planning and procurement policies expected in 2024.

*Staff Recommendations*
The final recommendations in this Staff report reflect a collaborative effort among a diverse group of participants who share a common purpose of ensuring that PGE's Oregon customers receive clean, affordable, equitable and reliable electricity services. Although the planning period is over a 20-year timeframe, HB 2021 sets a target for PGE to reduce emissions to 80 percent below its baseline level in 2030. This helped

focus much of the discussion in this docket on the non-emitting resources that need to be in place for PGE to reduce emissions below the 2030 target.

On October 24, 2023, Staff released its draft recommendations for acknowledgement of PGE's Action Plan, Long-term IRP/CEP Strategy, and a handful of other resource strategy issues. PGE and stakeholders provided meaningful feedback on these recommendations on November 21, 2023. Staff has used this feedback to develop its final recommendations to the Commission.

Staff's final recommendations fall into three categories: IRP Acknowledgement, CEP Acknowledgement, and Other Issues. These recommendations are summarized in Attachment 1 and explained in further detail in the sections below.

Staff Note: The first IRP/CEP review process surfaced many learnings and Staff expectations for future planning processes. To focus Staff's recommendations on key decisions for acknowledgment of this IRP and CEP, Staff has documented these expectations separately in Attachment 2. Staff plans to raise these concepts for further exploration in discussions about future IRP/CEPs and clarifies that this list is not being presented for Commission approval. To the extent that the Commission wishes to comment on these concepts or include direction to implement them in its acknowledgment order, Staff believes that they have this flexibility.

***IRP Acknowledgement***

PGE's Updated Action items in its November 21, 2023, LC 80 filing include the following:

Customer Actions

- Acquire all cost-effective energy efficiency plus additional quantities identified in CEP/IRP analysis, which is, 182 MWa cumulative EE between 2024–2028.
- Incorporate customer demand response of 211 MW summer and 158 MW winter demand response by 2028.

CBRE Action

- Issue RFP for all available and qualifying CBRE resources amounting to 66 MW by 2026.

Energy Action

- Conduct one or more RFPs to acquire sufficient energy to position PGE to meet the forecasted 2030 needs, estimated to be 251 MWa (1307 MWa/5 total years) per year through 2028.

Capacity Action

- Conduct one or more RFPs to acquire sufficient capacity to meet forecasted 2028 needs of 905 MW summer capacity and 787 MW winter capacity.

Transmission Action

- Develop a comprehensive transmission study regarding options to alleviate congestion on the South of Allston (SoA) flowgate.
- Developing a comprehensive transmission study to explore options to upgrade the Bethel-Round Butte line from 230 to 500 kV.

Staff concludes that PGE's 2023 IRP meets the applicable requirements of the guidelines established in OAR 860-027-0400(2), and Staff recommends acknowledgement of the IRP **subject to the conditions** identified below.

1. Acknowledge PGE's CBRE Action Item subject to the condition that PGE pursue the broader range of procurement actions that it identified in comments in this docket.
2. Acknowledge PGE's Energy and Capacity Action Items subject to the following condition:

   Before issuing its next utility-scale RFP, PGE will file a proposal for a Long Lead Time Resource RFI developed via a stakeholder process in LC 80 and facilitate a stakeholder discussion (workshop) on the findings of the RFI and allow sufficient time for stakeholder review of its RFI before proposing its next steps.

**Customer Actions**

The Company's approach to establishing energy efficiency (EE) acquisition targets was a central point of discussion. PGE's portfolio analysis identified an additional 53 MWa of energy efficiency to be part of the least-cost least-risk portfolio. However, the Company decided not to pursue this additional amount citing near-term rate impacts and implementation challenges. Staff, stakeholders, and CRITFC advocated for inclusion of the additional least cost, least risk EE in PGE's acquisition targets and the Company has engaged in a discussion of potential solutions to its initial concerns, such as securitization of EE investments to lower the near-term cost burden on consumers. Staff believes that there is general agreement that EE resources provide a unique value under current policies and system conditions that may not be reflected in the traditional EE planning and procurement framework. Staff appreciates participants' commitment to modernizing these frameworks and addresses the EE avoided cost framework in more detail at the end of this section.

PGE's most recent analysis (PGE Round 2 Comments) shows that adding 53 MWa of energy efficiency to its Addendum preferred portfolio lowers its net present value of revenue requirement (NPVRR) by approximately $532 million.[9] The Company has also committed to taking the following actions to address near-term costs and implementation challenges:

1. Discussing securitization and other rate making mechanisms to address the magnitude and timing of EE costs to customers, for above-traditional levels of EE investments.
2. Supporting Energy Trust to develop guiding principles in addition to the existing cost-effectiveness framework to actively consider utility rate impacts.
3. Creating an appropriate mechanism, consistent with the above guiding principles, to set targets for outside funding and requirements for regular reporting.
4. Including PGE in formalizing the divisions of labor and funding allocations established between Energy Trust of Oregon (ETO) other entities such as ODOE, DEQ, PCEF and NEEA.
5. Exploring the co-deployment of flexible load and EE programs focusing on how these programs can help customers participating in the Income Qualified Bill Discount (IQBD).[10]

Based on these commitments and the Company's increasing willingness to engage in discussions about evolving EE planning and procurement frameworks to provide for the best balance of cost, risk, community impacts, and pace of GHG, Staff believes that the Company's revised Customer Action Item is reasonable and its draft acknowledgement conditions for the Customer Action Items can be converted to Staff expectations:

- PGE pursues all cost-effective EE, which means pursuing all EE identified through the IRP/CEP as providing for the best balance of cost, risk, community impacts, and pace of GHG reductions. This includes the additional 53MWa of energy efficiency that PGE identified as cost-effective in the current IRP/CEP.
- PGE engages collaboratively in addressing EE implementation issues with Staff, Stakeholders, and Energy Trust of Oregon, including Energy Trust's 2024 budget, further exploration of securitization of EE, and a 2024 effort to update avoided cost methods to include the full value of HB 2021 compliance and avoided transmission.

[9] PGE Response to Staff's Round 2 Comments and Recommendations (hereinto referred to as "PGE Round 2 Comments"), p.33.
[10] Id., p.17.

**CBRE Action**

Through the UM 2225 Clean Energy Plan Investigation, the Commission recognized the importance of articulating the role that community-based resources (CBREs) will play in HB 2021 compliance through the CEP.[11] PGE includes 155 MW of CBRE resources in its preferred portfolio and plans on acquiring 66 MW by 2026. PGE's analysis and inclusion of CBRE is a novel concept that prompted valuable discussion. In particular, that the development of CBREs will likely require a multipronged procurement approach and that it should be a priority for PGE to be more quantitative about community benefits and impacts and CBREs as a resource option.

Several stakeholders including RNW and Energy Advocates support Staff's draft recommendation to acknowledge PGE's CBRE Action Item. Energy Advocates and New Sun also suggest that PGE's modeling may have undershot the optimal acquisition target, pointing to the need to account for additional benefits from CBREs in modeling and recommends either a sensitivity (Energy Advocates) test of or consideration of uncapped CBRE or 125 percent of CBRE potential in portfolio modeling.

AWEC recommends that the Commission not adopt Staff's recommendation to acknowledge the CBRE Action Item on grounds of potential rate impacts on customers who are already burdened by ongoing and future utility rate increases due to various factors including high decarbonization costs. AWEC points out the lack of analytical support for CBRE modeling assumptions in PGE's portfolio analysis and recommends that CBRE resources should be directly comparable to non-CBRE resources if PGE is going to pursue Request for Proposals for these resources.

As reflected in prior Staff comments, Staff supports the CBRE Action Item as an initial attempt at responding to important policy direction. The Energy Advocates, NewSun, and AWEC's concerns all highlight the importance of being more quantitative about CBREs in future IRP modeling and considering cost-management strategies during ongoing implementation of the CBRE target. Without more sophisticated modeling approaches, arguments about that get more specific about the appropriate CBRE level target are difficult to substantiate. Staff believes that PGE has put forth a meaningful quantity and commits to being comprehensive and collaborative in its acquisition strategies. Staff also notes that affordability has several dimensions, including the differential burdens of rate increases and longstanding distributional inequities in the ability to access clean energy options prior to HB 2021. Staff continues to explore these complicated issues through its implementation of HB 2475 alongside HB 2021.

PGE also agreed to Staff's draft recommendation, and it remains unchanged in Staff's final recommendations.

[11] See Docket UM 2225 Order 22-390.

*Staff Recommendation 1. Acknowledge PGE's CBRE Action Item subject to the condition that PGE pursue the broader range of procurement actions that it identified in comments in this docket.*

**Energy and Capacity Action**
PGE proposes to perform ongoing, flexible Request for Proposals (RFPs) for non-emitting energy and capacity resources to complement its other resource actions. The Company filed a description of this strategy in its 2023 All-Source Request for Proposals docket[12] and provided a final projection of the energy and capacity procurements in its Round 2 comments:

- Energy target: Target 251 MWa per year, up to 1254 MWa by 2028.
- Capacity target: Seek 905 MW of summer and 787 MW in winter by 2028.

With HB 2021 requirements and the level of uncertainty underlying the IRP analysis, Staff agrees that issuing a series of adaptive RFPs is a low-regrets resource strategy. The trade-off of this strategy is an acute need for transparency, Commission touchpoints, confidence in the Company's bid scoring and contract negotiation approach, and ongoing reexamination of costs and resource needs. While some of this may be addressed in revisions to the Commission's planning and procurement framework in 2024, much of this work is likely to take place in individual procurement dockets.

In its draft recommendations, Staff recommended that PGE reflect the procurement of additional EE in its final energy and capacity actions. PGE revised its targets to reflect the 53MWa of additional EE in its preferred portfolio and recent bilateral contract renewals. PGE expressed its plan to initiate a process around procurement of long-lead time resources in the first quarter of 2024 and issue a Request for Information (RFI) around that time. Staff appreciates PGE making this adjustment.

PGE's revised preferred portfolio includes the acquisition of offshore wind resources beginning in 2032. RNW highlighted challenges that PGE may face procuring long-lead time (LLT) resources, like offshore wind, under the traditional RFP approach. In response, Staff's draft recommendation for acknowledgement of the Energy and Capacity Action Items included a condition for PGE to issue an RFI for LLT resources and use the results to propose RFP actions that will help the Company access beneficial LLTs.

[12] *See* Docket No. UM 2274, PGE'S Planning and Procurement Forecast, July 14. 2023.

PGE expresses support for this recommendation and anticipates issuing the RFI to by the end of Q1 2024 or providing an update filing in LC 80 to discuss progress and next steps.[13] RNW's comment provides additional insights into the proposed long-lead time development process and highlight the need to incorporate stakeholder feedback in the design of the RFI and allow sufficient time for stakeholder review of the RFI findings prior to including them in PGE's subsequent all-source RFP. Staff agrees this is an important part of the process and adjusted its recommendation to reflect the significance of stakeholder input in RFI and RFP processes. RNW also suggests including transmission as a long lead time resource and requests the Commission to acknowledge this resource as such. Staff believes that transmission development should be a separate exercise since it is notably different from any other supply or demand side resource development, and an RFI may not be the most appropriate way to get a comprehensive sense for potential and realistic transmission projects. PGE commits to provide comprehensive transmission studies related to congestion on its system. Staff considers that to be a good starting point and hopes to learn from the studies before moving on to the next steps.

Energy Advocates point out the importance of including non-price scoring factors in RFPs, which aligns with a Staff expectation listed in Attachment 2: Include a proposal for the use of CBIs in scoring the next utility-scale RFP bids.

Several participants including CUB, Energy Advocates, and RNW are generally supportive of Staff's recommendation to acknowledge the Energy and Capacity Action Items. Staff updates its final recommendation to reflect PGE's updated targets, RFI commitments and additional discussion in Round 2 comments.

> *Staff Recommendation 2. Acknowledge PGE's Energy and Capacity Action Items subject to the following condition:*
>
> > *Before issuing its next utility-scale RFP, PGE will file a proposal for a Long Lead Time Resource RFI developed via a stakeholder process in LC 80 and facilitate a stakeholder discussion (workshop) on the findings of the RFI and allow sufficient time for stakeholder review of its RFI before proposing its next steps.*

**Transmission Action**

This IRP/CEP represents PGE's first time endogenously modeling transmission actions alongside resource actions in portfolio analysis. PGE's original action items included its plan to pursue and explore options to alleviate congestion on the South of Allston transmission route and upgrade the Bethel-Round Butte transmission line. PGE's IRP/CEP highlights transmission expansion as a critical dependency of its resource

[13] PGE Round 2 Comments, p. 5.

strategy and many parties discussed the need for creativity and collaboration to overcome the challenges presented. However, several stakeholders and Staff pointed out the vagueness in the action items and their apparent disconnection with PGE's portfolio analysis. On these grounds, Staff and several stakeholders did not believe the transmission actions to be appropriate for Commission acknowledgement. Staff outlined some of its expectations for providing meaningful transmission analysis, including: a clear description of the drivers, a clear description of the investment options, detailed cost/benefit analysis, and exploration of alternatives.[14]

NewSun did not respond to Staff's draft recommendations but similarly urges the Commission to direct PGE to reflect more feasible transmission options and timelines. CRITFC supports the need for more comprehensive transmission planning and points out that the recent agreement between the Confederated Tribes of Warm Springs and PGE regarding the 230 kV Bethel-Round Butte transmission line upgrade project marks progress towards achieving HB 2021's broader goals of building partnerships with communities who are ultimately impacted by these infrastructure investments.

PGE responded to these concerns and modified the action items as follows:

> PGE will perform a transmission study in advance of the next IRP update analyzing the potential impacts and benefits of transfer capability along constrained transmission paths within PGE's system, in the Pacific Northwest, and the market and resource potential of importing generation from inter-regional climate zones and markets that PGE does not typically access today. The study will specifically analyze the benefits and impacts of Trojan to Harborton and Bethel to Round Butte, as potential solutions, to alleviate congestion on South of Allston and Cross Cascades.[15]

PGE provides additional details of its proposed study approach and Staff believes that this framework is likely to provide better information to guide future decision-making. Staff appreciates PGE's plan to conduct the much-needed study of transmission that fully evaluates transmission constraints on its system and opportunities for alleviation prior to its next IRP. Staff believes this is a reasonable starting point given the complexity of this analysis and looks forward to the comprehensive transmission plans that PGE commits to provide in its near-term action plan, prior to its next IRP Update.

[14] Staff also highlighted a few alternatives, including creative use of transmission rights, redirects, and on-system resources. Staff also proposed stacking investments and other alternatives to relieve a constraint.
[15] PGE Round 2 Comments, p. 13.

***CEP Acknowledgement***

Staff believes that the Company's first CEP reflects meaningful engagement with the key elements of HB 2021. The CEP includes annual goals for actions that make progress towards meeting the clean energy targets, a demonstration of anticipated emissions reductions through 2040, resource portfolio cost and risk analyses, consideration of community benefits and impacts, accounting for federal incentives, and evaluating the effect of its resource plan on system reliability. Staff also appreciates PGE's consideration of community-based renewable resources (including resilient resources) and its efforts to engage community in developing its first CEP.

As the first attempt at a CEP, Staff and stakeholders pointed out several vulnerabilities in considering the economic and technological feasibility of PGE's strategy for reaching the 2030 emissions reduction targets and beyond. In the following section, Staff provides a brief description of these issues and how PGE's IRP/CEP has evolved since the beginning of this process. PGE has addressed several of these concerns and revised its analysis and Action Plan accordingly. Opportunities for high priority improvements in future plans are presented in Attachment 2. One core issue with PGE's CEP remains. Therefore, Staff recommends that the Commission should decline to acknowledge the CEP and direct PGE to revise and resubmit elements of its plan to provide sufficient confidence that PGE has shown a reasonable upper bound of actions needed to meet its 2030 emissions reduction targets.

Staff note: The issues described in this section should not be interpreted as concerns about the presence of any particular resource action in the preferred portfolio. For example, Staff is supportive of the modeling improvements that resulted in the inclusion of offshore wind technology in the preferred portfolio and in making its recommendation does not intend to suggest that the Commission decline to acknowledge the presence of offshore wind in the preferred portfolio.

**Emissions Modeling Concerns**

Staff, RNW, and AWEC have extensively discussed the need for an hourly dispatch analysis to confirm PGE's GHG emissions projections and its ability to comply with HB 2021. Parties pointed out that PGE's annual approximations neglect important aspects of system operations that may impact the Company's annual GHG emissions and what they report to DEQ. PGE's plan relies on the ability to access non-emitting energy from the market during hours when PGE's load exceeds its available non-emitting generation, at no price premium. Staff is concerned that this assumption results in an overly optimistic assessment of the resource actions that may be needed to reliably meet its customers' needs and its emissions reduction targets. While PGE has been open to exploring these concerns and providing additional analysis, Staff continues to have concerns that PGE's IRP/CEP assumes this market depth into the future without any supporting analysis. In particular, Staff and stakeholders have expressed concern that the hours of PGE's system surplus and shortfalls generally coincide with those expected across the broader region, and that this alignment may severely limit PGE's ability to rely on the market for additional non-emitting generation to serve load when it is needed.

The sufficiency and timing of market depth for excess non-emitting generation into the future is a central question when planning for a decarbonized system. Staff agrees that it is reasonable to assume that there will be periods with excess renewable generation available from the market and that it's possible to estimate the timing and depth of these with some reasonableness. However, there is a point at which simplifying assumptions about market depth damage the integrity of the planning insights. To this end, Staff does not believe that it is appropriate to assume that these periods will necessarily align with PGE's periods of need with 100 percent certainty. Instead, Staff continues to urge PGE to use industry standard approaches, such as production cost simulation, on which its IRP already relies, to estimate the hourly performance of its resource portfolio and the interactions with the broader Western electricity market in order to estimate GHG emissions.

In the IRP/CEP review process, Staff requested that PGE perform additional analysis to identify the scale at which the Company may be underestimating the resources needed to achieve its emissions reductions. PGE raised several concerns with using the production cost modeling approach. Staff does not disagree that there are potential vulnerabilities associated with any production cost simulation and that IRPs are generally subject to these vulnerabilities, but production cost simulation remains the industry standard for answering these types of questions. Production cost modeling has been used extensively by utilities, researchers, and independent organizations to grapple with questions related to renewable integration, renewable overgeneration, and decarbonization for years. PGE also raised a reasonable concern about the strain that Staff's request placed on planning personnel. Staff is concerned about the Company's prioritization of its planning team resources given the central role that planning plays in meeting what is likely its most significant regulatory requirement in the coming decades. However, this report focuses on the substantive merits of this analysis.

Despite objections, the Company conducted an hourly analysis of the Preferred Portfolio using similar methodologies and assumptions to those proposed by Staff. PGE's hourly analysis yielded 2.51 mmtCO2e in 2030.[16] This finding corroborates Staff's concern that if PGE is not able to access adequate non-emitting generation from

[16] PGE Round 2 Comments, p. 24.

the market when it is needed, the emissions resulting from the Company's preferred portfolio could fall outside of the Company's 1.62 mmtCO2e target.[17]

PGE also conducted analysis into the potential for additional resources to help bring the GHG emissions from its hourly analysis down. PGE tested individual resource additions and found that unrealistically large capacities (i.e. 43-101 GW of additional wind, over 5 GW of hour-hour batteries, or over 300 MWa of additional energy efficiency) would be needed if PGE were to pursue only one type of resource. PGE also presents one portfolio of additional solutions (500 MW each of wind, solar, and four-hour batteries + 50MWa EE) that seems to achieve most of the needed reductions, but the Company does not report out the resulting emissions, discuss how this portfolio was developed, or explore whether different combinations of resources might yield lower costs. It is not clear whether PGE's findings reflect real limitations on its system, or whether they are in part due to the limitations in the GHG accounting construct in the Intermediary GHG model.

Nevertheless, Staff appreciates that this exercise has moved the discussion into a space where useful insights can be discussed. For example, Staff is reassured that combining diverse resources significantly reduced the amount of capacity needed to further bring down emissions. Staff is confident that PGE can find better portfolio solutions if given additional time.

**Transmission Access**

PGE responded to Staff's recommendation to remove WY and NV proxy transmission resources from the preferred portfolio by removing the perfect capacity modeling assumption associated with WY and NV proxy transmission resources. This addresses part of Staff's concerns along with concerns raised by AWEC, RNW, NewSun, CUB, and Energy Advocates. Staff appreciates PGE's response in this regard and notes that PGE reports a decline in the NPVRR of its Preferred Portfolio by approximately $5.3 billion due to transmission assumption and EE adjustments.

By removing the perfect capacity assumption for the WY and NV proxy resources and conducting hourly analysis to estimate their GHG emission in 2030, PGE's response in its Round 2 Comments largely addressed two of the three conditions attached to Staff's Draft Recommendation.[18] However, PGE did not endorse the findings of its hourly analysis nor did the Company update the Preferred Portfolio or identify any other enhancements to the resource strategy based on the insights provided by the hourly

[17] To help justify the importance of examining the potential scale of this modeling issue, Staff provided its own rough approximation in comments and estimated a range of 2.4-3.5 mmtCO2e, which provides a similar insight in terms of magnitude.
[18] See Recommendation 6 in Staff's Round 2 Comments, p. 16.

analysis. Staff remains concerned that PGE's Preferred Portfolio may not yield the GHG emissions reductions that the Company claims without incremental solutions that mitigate renewable balancing challenges, such as additional energy efficiency, energy storage, and more diverse renewables.

**CEP Acknowledgement Recommendation**

Several stakeholders including CUB, Energy Advocates, RNW, and AWEC have expressed support for Staff's draft recommendation to decline to acknowledge the CEP and direct the Company to revise and resubmit so that the Preferred Portfolio reflects the insights derived from the hourly analysis and removal of the proxy transmission.

PGE intends to work with Staff and stakeholders to address several methodological questions around its emissions analysis and hopes to find an appropriate way to verify whether its Preferred Portfolio can credibly meet the emissions targets. Staff realizes PGE may need more time to present an analysis that addresses modeling concerns raised from the beginning of this process by Staff and several stakeholders, and therefore believes that PGE would find a reasonable approach by the IRP Update that would be due for filing in 2025.

The Preferred Portfolio represents PGE's estimate of the minimum actions needed to achieve the emissions reduction targets, including the 2030 target. Staff believes the action plan associated with this portfolio will result in continual progress toward the 2030 target in the immediate future. Staff, however, will continue to lack confidence that these projected emissions reductions will ultimately result in compliance with the emissions reduction targets until the Company provides an opportunity for Staff and the Commission to consider the results of the requested portfolio analysis. Due to the nature of the CEP, Staff believes that it is important for the Company to outline a portfolio of actions that can credibly enable the desired emissions reductions. Staff continues to believe that this accuracy is needed to fully acknowledge the CEP.

*Staff Recommendation 3. Decline to acknowledge PGE's expected reduction of greenhouse gas emissions in the Clean Energy Plan as credible based on the preferred portfolio and direct the Company to make the following revisions and resubmit the revised plan before its IRP/CEP Update in 2025:*

- *PGE shall conduct hourly production cost simulation of its preferred portfolio under the Reference Case in a manner that separately tracks hourly purchases and hourly sales. PGE will use this analysis to revise its GHG emissions forecast and to revise its submission to DEQ.*

- *PGE shall update the Preferred Portfolio accordingly and provide a brief narrative explanation of the key planning insights derived from this exercise.*

***Other Issues***

The section below outlines a limited set of issues Staff or other participants raised for Commission direction.

**Avoided Cost – Energy Efficiency**

Discussion of the Customer Action Item highlighted a near-term need to update the EE avoided cost methodology in order to effectuate Staff's expectations for better EE planning and procurement. Energy Advocates pointed out the need to reevaluate prior practices in determining cost-effectiveness of energy efficiency in the light of HB 2021. PGE noted, and Staff agrees, deficiencies in the avoided cost calculation methodology in the current EE Avoided Cost Methodology docket (Docket No. UM 1893) which has not kept up with Oregon's decarbonization policies. Staff's draft recommendations called for PGE to propose an update to the current methods in this IRP/CEP review docket as a transparent launching point for an effort to update the methods in the appropriate docket. Several participants including CRITFC, CUB, Energy Advocates, NWEC have expressed support for this recommendation. CUB notes additionally, the need to thoroughly vet EE investments "in order to provide customers much-needed relief from inevitable rate increases due to costs of investments in CEP compliance and wildfire mitigation, to name a few."[19]

In response, PGE expressed that since Staff will be proposing interim methodology guidance for the workbook template in Docket No. UM 1893 (to be used for the March 1, 2024 filing) and updating the methodology for future cycles, it will no longer be necessary for PGE to elaborate on alternative avoided cost methods within LC 80. PGE expects to collaboratively engage in the UM 1893 process and is currently waiting for follow up from Staff regarding proposed interim changes. Staff is comfortable with PGE providing a proposal in Docket No. UM 1893 and looks forward to the Company's response in its comments on this Staff Report.

*Staff Recommendation 4. Direct PGE to work with Staff to propose a new method for calculating avoided costs in Docket No. UM 1893. The avoided cost proposal should resolve the shortcomings identified by PGE and Staff, including but not limited to the shift from one avoided capacity value to annual values, the impact of constraints observed in the model, and the need to procure clean electricity not captured by forward market prices.*

[19] LC 80 – CUB's Comments on Staff's Round 2 Comments and Recommendations, p.3.

**Cost Containment**
Section 10 of HB 2021 lays out a process for a proceeding in which the Commission may identify costs that contribute to compliance with HB 2021 and determine whether the rate impact of HB 2021 compliance has exceeded six percent of revenue requirement so as to provide a narrowly tailored, limited-duration exemption from compliance.[20] AWEC raises this provision and recommends that the Commission condition acknowledgement of PGE's plan on its ability to provide reliable cost estimates in the light of the cost cap provision.

While review of an electric company's CEP is not a proceeding under Section 10, Staff agrees that cost containment is an important aspect of planning and implementing HB 2021 that has not been explored in detail. Discussion in this first IRP/CEP focused on more fundamental questions of whether and how the Company could outline a credible path to compliance under current planning conditions. However, Staff believes that the topics explored in this IRP/CEP review adequately lay the groundwork for cost containment in near-term actions, like any IRP process. Further, the decarbonization planning insights offer more clarity for consideration of expected longer-term cost drivers and risks. Staff considers this a major accomplishment for the initial post-HB 2021 planning process and believes that it would be premature to recommend that the Commission condition acknowledgement on further cost analysis in the near-term. To do so would require PGE to make too many assertions about the cost categories and other methods that may or may not be used to make a determination under ORS 469A.445 in advance of a Section 10 proceeding or any separate Commission direction.

**Small Scale Renewable Resources**
PGE is required to meet 10 percent of its aggregate electrical capacity with small-scale renewable energy resources (SSRs) by 2030.[21] Staff expressed concerns about the level of detail regarding PGE's SSR compliance position and actions needed to ensure that the Company could meet the standard. Upon request, PGE roughly identified a 400 MW SSR shortfall but did not prioritize a discussion with Staff about its strategy to fill this shortfall.[22] Since its initial IRP/CEP filing, the Company also indicated that it may be beneficial to consider regulatory changes that would ensure net metering can be used to comply with SSR standard.[23]

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[20] ORS 469A.445.
[21] ORS 469A.210.
[22] PGE Response to Staff IR No. 197.
[23] See PGE 2023 IRP/CEP, p. 16, which states, "For example, this may require changes to the regulatory framework including net-energy metering and inclusion of net energy metering as a resource needed to accelerate small scale renewable adoption."

Given the limited time to understand and address compliance shortfalls, Staff developed a draft recommendation to direct PGE to conduct an SSR compliance analysis for submission with its next IRP Update. Staff requested that the analysis include data that would help the Commission consider the trade-offs of regulatory changes to ensure net metering resources could be included. Staff also suggested that the Company include any relevant detail about how those regulatory changes may occur.
Energy Advocates express support for Staff's recommendation and notes the importance of Staff's recommendation in the light of PGE's stakeholder discussions about proposed changes to its current net metering policy, which could potentially decrease the amount of customer-sited solar on its system by 2030.

PGE agrees that the next IRP should include SSR analysis in a more explicit way but questions the requested content of the analysis. PGE correctly notes that more clarity about the role of net metering in SSR compliance will be available by that time.

Staff remains frustrated by the Company's lack of simple, clear information about its SSR compliance position and the steps that it plans to take to fill any compliance gaps. Staff understands that the Company may need to conduct more sophisticated IRP analysis to provide the requested information, but is confused why the Company would consider Staff's request for relevant resource planning information out of scope, unhelpful, or duplicative of the backward-looking compliance verification processes outlined in the OAR 860-091-0040.[24] Staff is also unsure why the Company cannot commit to provide better information in its IRP Update, even if it is not based on the complete analysis it plans to provide in the next IRP/CEP.

That said, Staff believes that the discussion about net metering resources' role in PGE's resource future (and PacifiCorp's) has evolved since Staff developed its draft recommendation. The role of net metering in SSR compliance will likely be broached at a policy level before PGE's IRP/CEP Update. Therefore, Staff has removed these pieces from its recommendation. Staff still seeks simple, clear information about PGE's SSR compliance position and the actions that it will take to fill any potential gaps. Staff has revised its recommendation.

> *Staff Recommendation 5. Direct PGE in the next IRP/CEP Update to include an SSR compliance analysis. The SSR analysis should state the projected SSR compliance position, broken out by relevant resource types, and outline the actions the Company plans to take to fill any identified SSR shortfalls.*

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[24] Staff assumes that the backward-looking compliance verification process in OAR 860-091-0040 is the portion of Commission Order No. 21-464 that PGE refers to in its Round 2 comments.

**Community Engagement**

Staff and stakeholders appreciate PGE's continued efforts to engage with various community groups within this planning process and other related processes, for instance, PGE's Distribution System Plan. The Company is taking bold steps into uncharted territory for utility planning. Because PGE is at the beginning of the journey, PGE should be commended for its efforts and reminded that participants will be grappling with these issues together for a long time to ensure an appropriate planning approach is developed.

Staff and stakeholder comments focused on meaningful inclusion of community feedback in PGE's IRP/CEP and transparent communication regarding impacts of such feedback on its plan. Staff's recommendation regarding community engagement prioritizes the creation of a collaborative venue to address these concerns and expects PGE to create opportunities for effective community engagement in future and codevelop metrics or actions that appropriately capture different impacts on and, benefits to communities. PGE expresses support for this effort.

CRITFC provides additional remarks on the significance of engagement and partnership with tribal communities. They point out the importance of recognizing the sovereignty of tribal governments and their authority to govern activities occurring within the reservation boundaries. They express that consideration of diverse interests of tribal communities, and open and transparent communication is key to a successful tribal - utility interaction. Staff agrees that these are elements of a successful partnership between tribal communities and utilities and expects PGE to incorporate these principles in its ongoing and future collaboration with tribal communities. Staff expects this topic to be included in working group discussions.

*Staff Recommendation 6. Direct PGE to work collaboratively with Staff, stakeholders, peer utilities, and the CBIAGs in a dedicated working group to develop clear, actionable improvements to community and stakeholder engagement in subsequent IRP/CEPs by December 31, 2024. If PGE cannot complete this effort by this timeline, PGE should provide a detailed status update by the same date and explain how it will ensure that remaining issues are resolved as soon as practicable.*

**Community Benefits**

PGE made a sincere first attempt to develop Community Benefit Indicators and utilize them meaningfully in its IRP/CEP. Staff and several stakeholders, including CUB, Energy Advocates, NewSun, and RNW, have identified opportunity to improve CBIs so that they include clear information on health, environmental, economic, reliability and resilience impacts and/or benefits of PGE's plan on communities. The need to prioritize and develop meaningful CBIs that capture different impacts and benefits resonate in the comments by almost every participant in this docket.

CRITFC recommends that PGE develop "tribal-specific portfolio CBIs that account for the co-benefits of efficiency and the effect of projects on treaty resources and healthy fisheries". Staff appreciates and agrees that accounting for these community benefits should be a priority in utility planning of a clean energy future.
Staff recommended the Commission adopt a timeline on the development of improved CBIs for the next IRP/CEP. This will retain momentum and prioritization for this important modeling improvement.

Energy Advocates recommend adding a new sentence to this recommendation: "The Commission direct PGE to specify how each of its action plan items advances progress on identified CBIs". Staff believes it is a priority to better tie portfolio analysis and the resulting resource strategy to CBIs. Because the number and content of future CBIs is unknown, Staff wishes to take this matter up after the CBIs have been identified. In considering this requirement, Staff will weigh the relevance of this information and the time it will take to develop and evaluate it.

PGE supports Staff's recommendation and adds that, "PGE's approach to CBIs will aim to articulate how community benefits vary between portfolios, what community benefits are associated with PGE's Action Plan, and how RFP design and scoring can encourage additional and more specific benefits." Staff appreciates this commitment and looks forward to engaging in the CBI development effort. Staff notes that it's expectations for CBIs in Attachment 2 are designed to document discussions that occurred in the IRP/CEP review process. The Company should expect Staff to bring these perspectives to conversations next year for exploration but should not consider them directives or expectations for the outcome of the process.

*Staff Recommendation 7. Direct PGE to conclude its process to develop informational and portfolio CBIs and provide baseline metrics prior to filing its next IRP/CEP Update. If PGE cannot complete this effort by this timeline, PGE should provide a detailed status update and explanation of how it will ensure that remaining issues are resolved as soon as practicable.*

**Federal Incentives**
Federal incentives resulting from the passage of the Infrastructure Investment and Jobs Act (IIJA), passed in 2021 and the Inflation Reduction Act (IRA) passed in 2022 will have important implications for both supply side generation and transmission resources and demand side programs, and adoption of distributed energy resources. PGE has partially accounted for these incentives in the current plan but has indicated that future

plans will include a more robust analysis of federal, state and local incentives and funding options.

Staff's recommendation reflects CUB's recommendation in its Opening Comments that PGE provide timely updates about its analyses and strategies to utilizing available federal funds and how they plan to ensure that 40 percent of benefits flow to disadvantaged communities (resulting from the Justice40 initiative of the Federal government).

CUB, Energy Advocates and PGE have expressed support for Staff's Recommendation.

*Staff Recommendation 8. Direct PGE to include a report on federal incentive implementation and its key impacts on the Company's Action Plan and 2030 resource strategy with its next IRP/CEP Update.*

**QF Assumptions**
The Renewable Energy Coalition (REC) raised an issue in its Round 1 comments that Staff unfortunately failed to respond to in its Round 2 comments. Staff regrets this oversight. In comments REC recommended 1) not acknowledging PGE's 2023 IRP assumptions regarding existing QFs and Schedule 202 QFs; and 2) directing PGE to assume that a reasonable number of QFs will renew or otherwise enter new contracts with PGE at the end of their current contracts (such as 100%), and that fewer than all Schedule 202 QFs will develop (such as 50%). In REC's Round 2 comments, they provide a summary of Staff and Commission statements on this issue in previous dockets and utility IRPs and request that Staff draft a:

> [P]ainstakingly clear recommendation for PGE, similar to those already issued for Idaho Power and PacifiCorp, that directs PGE to assume that a reasonable, non-zero number of QFs will renew or otherwise enter new contracts with PGE at the end of their current contracts (such as 100% or nearly 100%), and that a reasonable and realistic number of Schedule 202 QFs will develop (fewer than 100% but more than 0%, such as 50%).[25]

Staff first notes that Commission guidance on this issue will be adopted in UM 2000 prior to PGE's next IRP/CEP.[26] As evidenced by REC's Round 2 comments, this issue has come up repeatedly in IRPs with implications for load/resource planning but also capacity valuation for QF avoided cost prices. Staff believes that a dedicated investigation into this issue alongside other PURPA issues which may be interrelated will result in the best-informed recommendation for long-term use. However, Staff

[25] REC's Round 2 Comments, p. 6.
[26] See Docket No. UM 2000, Staff's scoping proposal, February 24, 2023.

believes that the Company has not acted consistently with previous Commission orders requiring a utility to utilize a reasonable forecast for QF related planning assumptions. In particular, Staff notes the language in Commission Order No. 21-184 which states that modeling renewals of wind QFs in Idaho Power's IRP should include some percentage, "rather than taking an all or nothing approach." Staff understands and appreciates the difficulty faced by PGE in identifying a reasonable renewal rate due to lack of historical data and the uniqueness of the different utilities in the state.

However, Staff reiterates that an all or nothing forecast virtually guarantees an overestimation or an underestimation. Because PGE has not provided a workable alternative Staff supports REC's recommendation for use as an interim approach in PGE's post-IRP avoided cost update. For renewables, Staff recommends that PGE utilize an approach similar to PacifiCorp's approach and assume a 75 percent renewal rate, which has been vetted and approved in other venues. Although this number is based on a different utility's data, it provides a reasonable approach based on empirical evidence with an equal likelihood of under and overestimating the actual renewal rate, resulting in more accurate avoided cost pricing.

For QF success rates, REC has shown through historical data that PGE's Schedule 202 success rate assumption is too high.[27] However, the data is somewhat sparse and difficult to rely directly on without further consideration: there have been only a limited number of contracts executed, only 4 projects were planned and two of them terminated, however the two projects were being developed by the same entity. Staff agrees with PGE that Schedule 202 projects will generally have a higher success rate than smaller Schedule 201 projects. Given that parties generally feel comfortable with a 50 percent success rate for Schedule 201, Staff recommends the use of a 75 percent success rate for Schedule 202 projects. This interim estimate provides a middle ground between the limited data that is available, is more reasonable than the current estimate, and is supported by the proxy Schedule 201 value. It will further provide a more reasonable estimate for avoided cost pricing while Staff and parties review the issue in UM 2000.

NewSun also points out that PGE did not provide draft avoided cost information with its IRP as required by OAR 860-029-0080(3). PGE and NewSun hold different interpretations of what is considered draft avoided cost information. At this point in the investigation, Staff believes that focusing on direction for the final avoided cost information filed 30 days after IRP acknowledgment is most practical. Staff understands NewSun's concerns and believes it may be necessary to reexamine the appropriate relationship between IRP review dockets and review of PURPA avoided cost inputs after changes to avoided cost methods are evaluated in Docket No. UM 2000.

[27] REC Round 1 Comments, p. 6-8.

*Staff Recommendation 9. The Commission should decline to acknowledge PGE's avoided cost pricing inputs and direct PGE to recalculate its IRP inputs using an assumption of 75 percent for QF renewals and the QF success rate for Schedule 202 projects.*

Conclusion

PGE's first CEP and 2023 IRP demonstrates an innovative approach to resource planning and exposes the challenges associated with such planning in reaching the fast-approaching emissions reduction goals set by HB 2021. Staff appreciates that, despite the challenges, the Company has made substantial progress in the right direction towards meeting these goals. Staff reiterates the importance of the role of participants who, despite having limited resources, engaged in this process and provided a thorough review of PGE's plans and offered invaluable insights. Staff is truly grateful for that. Staff believes that PGE has made a good start and is confident that continuing the collaborative effort as observed in this process will only lead to better outcomes for the Company's planning in the future.

**PROPOSED COMMISSION MOTION:**

Acknowledge Portland General Electric's (PGE or Company) 2023 Integrated Resource Plan (IRP) subject to the conditions set forth in Attachment 1, decline to acknowledge the Clean Energy Plan (CEP) and direct the Company to revise and resubmit certain elements of the CEP by the next IRP Update, and direct the Company to take additional actions as provided in Attachment 1.

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## ATTACHMENT 1. SUMMARY OF STAFF'S RECOMMENDATIONS

### IRP Acknowledgement:

Staff recommends acknowledgement of the IRP **subject to the conditions** identified below.

*Staff Recommendation 1. Acknowledge PGE's CBRE Action Item subject to the condition that PGE pursue the broader range of procurement actions that it identified in comments in this docket.*

*Staff Recommendation 2. Acknowledge PGE's Energy and Capacity Action Items subject to the following condition: Before issuing its next utility-scale RFP, PGE will file a proposal for a Long Lead Time Resource RFI developed via a stakeholder process in LC 80 and facilitate a stakeholder discussion (workshop) on the findings of the RFI and allow sufficient time for stakeholder review of its RFI before proposing its next steps.*

### CEP Acknowledgement:

*Staff Recommendation 3. Decline to acknowledge PGE's expected reduction of greenhouse gas emissions in the Clean Energy Plan as credible based on the preferred portfolio and direct the Company to make the following revisions and resubmit the revised plan before its IRP/CEP Update in 2025:*

- *PGE shall conduct hourly production cost simulation of its preferred portfolio under the Reference Case in a manner that separately tracks hourly purchases and hourly sales. PGE will use this analysis to revise its GHG emissions forecast and to revise its submission to DEQ.*
- *PGE shall update the Preferred Portfolio accordingly and provide a brief narrative explanation of the key planning insights derived from this exercise.*

### Other Issues:

*Staff Recommendation 4. Direct PGE to work with Staff to propose a new method for calculating avoided costs in Docket No. UM 1893. The avoided cost proposal should resolve the shortcomings identified by PGE and Staff, including but not limited to the shift from one avoided capacity value to annual values, the impact of constraints observed in the model, and the need to procure clean electricity not captured by forward market prices.*

*Staff Recommendation 5. Direct PGE in the next IRP/CEP Update to include an SSR compliance assessment. The SSR analysis should state the projected SSR compliance*

*position, broken out by relevant resource types, and outline the actions the Company plans to take to fill any identified SSR shortfalls.*
*Staff Recommendation 6. Direct PGE to work collaboratively with Staff, stakeholders, peer utilities, and the CBIAGs in a dedicated working group to develop clear, actionable improvements to community and stakeholder engagement in subsequent IRP/CEPs by December 31, 2024. If PGE cannot complete this effort by this timeline, PGE should provide a detailed status update by the same date and explain how it will ensure that remaining issues are resolved as soon as practicable.*

*Staff Recommendation 7. Direct PGE to conclude its process to develop informational and portfolio CBIs and provide baseline metrics prior to filing its next IRP/CEP Update. If PGE cannot complete this effort by this timeline, PGE should provide a detailed status update and explanation of how it will ensure that remaining issues are resolved as soon as practicable.*

*Staff Recommendation 8. Direct PGE to include a report on federal incentive implementation and its key impacts on the Company's Action Plan and 2030 resource strategy with its next IRP/CEP Update.*

*Staff Recommendation 9. The Commission should decline to acknowledge PGE's avoided cost pricing inputs and direct PGE to recalculate its IRP inputs using an assumption of 75 percent for QF renewals and the QF success rate for Schedule 202 projects.*

## ATTACHMENT 2. STAFF EXPECTATIONS FOR FUTURE IRP

Staff Round 2 comments also highlighted a range of opportunities to improve the next IRP/CEP that PGE should be prepared to address in its plan development process and the investigation into the Commission's planning and procurement policies expected in 2024. This is a list of priorities and ideas that Staff gained through its first experience with IRP/CEP review. Staff believes they are worth documenting at the end of this process for several reasons. First, to recognize the amount of effort that went into running concerns to ground and determining that it is acceptable to address the concerns through improvements in the next IRP. In addition, Staff seeks to promote continuity going into development of the next IRP/CEP and planning and procurement investigation. Staff also believes that this documentation will help PGE understand and consider Staff's ideas as early in the next planning process as possible. Most importantly though, Staff presents its expectations in this manner to avoid the impression that they are comprehensive or rigid requirements for future planning. These are a starting point for future discussions amid rapidly changing conditions. Staff has seen Commission direction for future IRPs go stale but consume significant utility and stakeholder time on implementation. Staff seeks to avoid that here, as well.

If PGE determines that there are negative impacts or insurmountable challenges to moving forward with one of these concepts, Staff looks forward to engaging in further discussion during the next IRP/CEP development process or planning/procurement investigation. It is not necessary to add language to that effect or to note that any of these ideas will be subject to stakeholder input. That said, Staff appreciates the extensive feedback and provides updates and other responses below.

Customer Actions

- Include all EE identified as optimal in the Preferred Portfolio in the Action Plan, regardless of funding source. Ensure that other resource actions are informed by the overall target/optimal EE level.

PGE suggested including the option for "an explanation" in the event the optimal amount of EE is not included in the Preferred Portfolio. Staff finds that this is inherent in the nature of the list of expectations and does not need to be added.

CBRE Actions

- Improve the precision of the CBRE potential analysis, which may include a bottom up, community-driven potential analysis that is validated with AdopDER analysis.
- Articulate a more comprehensive and proactive CBRE acquisition strategy that includes leveraging a wide range of existing and proposed procurement pathways, identifying funding and technical assistance opportunities that can

ensure lower costs and greater benefits, and continual community, Staff, and stakeholder engagement.

- Quantify the costs and benefits of offsetting fossil fuel resources with CBREs with enough precision to support a meaningful discussion of the tradeoffs of CBRE and non-CBRE resource actions.

PGE is willing to meet Staff expectations regarding CBRE analysis but points out the need for the Company to use its resources appropriately to provide specific analytical expectations as expressed in Staff comments.

Energy and Capacity Actions

- If PGE issues another RFP before the Commission concludes an investigation into its planning and procurement policies, Staff expects the Company file a list of all relevant modeling inputs and assumptions that influence capacity and energy need, avoided costs, and project capacity, energy, and/or flexibility valuation. The Company should identify those inputs and assumptions it would anticipate updating prior to issuing future RFPs and those it assumes would only change as part of a new IRP filing or IRP Update.

- Include a proposal for the use of CBIs in scoring the next utility-scale RFP bids.

- Be dynamic with procurement targets and consider how market intelligence from RFPs might inform demand side resource valuation or procurement strategies for resources not participating in bidding opportunities.

PGE suggests minor modification regarding expectations around modeling inputs explaining that there are underlying assumptions in the workings of time series and other modeling techniques that need not be specified. Staff agrees and clarifies that Staff may still want to understand the inputs and assumptions that maybe relevant for Staff and stakeholders' understanding of the modeling techniques.

GHG Modeling

- If PGE cannot adapt its modeling framework to conduct hourly dispatch analysis of the Preferred Portfolio to demonstrate that the Preferred Portfolio can achieve the Company's 2030 GHG target under DEQ accounting rules to achieve all of the requirements of Draft Recommendation 6, Staff still expects PGE to develop this capability at an appropriate and informative timestep for its next IRP/CEP using inputs from Staff and stakeholders.

Staff appreciates the Company's willingness to continue to improve its emissions modeling and expects that PGE will develop an appropriate timestep after considering stakeholder inputs and current best practices. Staff clarifies that it will enter the discussions with an expectation of at least hourly analysis.

Transmission Modeling

- Provide a comprehensive transmission study showing the options PGE has explored, including the use of on-system resources, for instance DERs and CBREs, existing and new regional and inter-regional transmission systems, and others, in determining the transmission projects that can be realistically and feasibly selected to meet 2030 emissions targets. Staff expects that a more rigorous analysis of transmission needs will use power flow models.
- Provide a more detailed analysis of PGE's transmission product assumptions including an analysis to reconcile its transmission assumptions with those required in WRAP that better quantifies curtailment risk.
- Better explain how proxy transmission capacity levels align with the Company's peak needs and overall resource strategy.

PGE agrees that there is a need for more comprehensive benefit cost analysis related to transmission options and commits to provide that information before the next IRP Update. Staff appreciates PGE's commitment to provide a comprehensive transmission analysis and is open to reviewing the Company's explanation for why a power flow analysis was not appropriate in establishing transmission needs.

Portfolio Analysis

- Provide portfolio analysis that allows more direct comparison of tradeoffs of different resource strategies e.g., more precisely capture the CBIs of portfolios beyond the inclusion of CBREs i.e., allow comparison of the CBIs of the entire portfolio of actions and allowing GHG emissions to vary across portfolios.
- PGE must address the additional requirements in HB 2021, namely GHG emissions and community impacts, by either integrating emissions and community impacts with the cost benefit measures or by using separate measures for emissions and community impacts in its portfolio scoring.

PGE understands the need for a comprehensive understanding of potential tradeoffs in resource options, but believes the example stated by Staff is overly prescriptive in terms of how that tradeoff analysis should be provided. However, in the light of HB 2021, Staff and stakeholders need to develop a better understanding of tradeoffs in terms of GHG emissions and community impacts and benefits of different resource actions. Therefore, Staff believes that the above expectation is reflective of Staff and stakeholders' perceptions of capturing specific tradeoffs among portfolios in addition to cost and risk. This does not preclude alternative methods that PGE may use to produce the outcome that sheds light on these specific tradeoffs.

Reliability Analysis

- Evolve the RA planning standard in a manner consistent with a 1 in 10 years standard or otherwise identified in the investigation into planning and procurement policies in 2024.
- Incorporate estimated benefits associated with participating in a regional RA program.
- Incorporate estimated benefits associated with participating in a regional market.
- Consider resource adequacy portfolio effects in designing and evaluating portfolios. At a minimum, Staff expects PGE to test the annual RA performance of their draft and final portfolios, to be transparent with Staff and stakeholders in the event that these tests identify material issues with the assumptions in PGE's portfolio optimization model, and to explore alternatives or improvements if needed.

Staff provides this revised set of expectations based on PGE's response to Staff's Round 2 comments on reliability modeling expectations as well as stakeholder inputs on this issue.

Small-Scale Renewable Energy

- Include quantitative SSR compliance analysis that specifies the Company's compliance position and actions that it plans to take to acquire the needed resources.
- Include cost information that support the Company's strategy to meet the SSR requirements in a manner that controls costs and drives benefits to communities.

Community Engagement

- Provide detailed documentation of community, stakeholder, and CBIAG input received in the development of the IRP/CEP and clearly explain whether and how the input was used to inform the Company's plan.
- Present the CEP in a manner that is accessible, clear, and transparent. There should be evidence of proactive measures taken to integrate community feedback into iterations of CEP analysis and subsequent actions. A methodical approach to demonstrating the influence of community input on the resource actions and strategies outlined in the CEP is needed to validate the evidence of environmental justice principles in the planning process.

Community Benefits

- Staff is supportive of the Company's proposal to hold a process to further develop pCBIs with the help of a third party.
- Staff also plans to consider minimum expectations for CBI development and use in portfolio modeling in the Commission's re-examination of planning and procurement policies in 2024.
- Among other things, Staff will look for PGE to:
    - More precisely capture pCBIs and iCBIs with improved methods.
    - Expand pCBI beyond CBREs in portfolio analysis, including recognizing the tradeoffs of varying levels of different resource types and locations. Staff would expect this to show that CBIs levels are different in portfolios with more EE for example.
    - Consider the impact of thermal and hydro systems on EJ communities.
    - As the Company works to refine its CBIs and CBRE analysis in the future, Staff believes that it will be a priority to work toward a modeling approach that will be reflective of trackable CBI benefits and allows comparison of CBRE and non-CBRE actions.
    - Better inform CBIs and methods with input from stakeholders and community.
    - Enhance tribal-focused CBIs.
    - Use CBIs to better reflect the health impacts of EE.

- Enhance the ability of CBIs to better reflect the resiliency benefits of actions—CBRE and not CBRE.

PGE expresses commitment to developing CBIs with meaningful input from stakeholders and communities but objects to the level of specificity provided in Staff expectations regarding specifics of CBI development and suggests omission of the above list that could potentially capture community benefit or impacts from different utility actions. Staff provided the above list based on Staff and stakeholders' analysis of the current CBIs and related analysis in the IRP/CEP. This list reflects stakeholders' inputs and is relevant documentation of the opinions expressed in this docket. These are a starting point and should not be considered rigid requirements for the outcome of PGE's CBI improvement process.

Federal Incentives

- The Company should take ownership over the successful implementation of federal incentives and provide updates about the impact on its current strategy as information becomes available.

RECs

- Staff is committed to working with the Company to identify the appropriate REC analysis for future IRP/CEPs in the Commission's investigation into planning and procurement policies and/or development of PGE's next IRP/CEP.
- Staff does not plan to discuss REC disclosure, communications, and transparency policies until after the Commission order in Phase 1 of UM 2273 is issued.