BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

Docket No. LC 80

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, 2023 Clean Energy Plan and Integrated Resource Plan.	OPUC Staff Initial Comments

Portland General Electric Company (PGE) submitted its first Clean Energy Plan and 2023 Integrated Resource Plan (IRP/CEP) on March 31, 2023. Staff provides these initial "Phase 0" comments on the IRP/CEP as directed by Commission Order No. 23-010.[1] The below comments are not comprehensive nor conclusive and are meant to provide an opportunity for PGE to update its IRP/CEP prior to the formal comment period that will follow PGE's targeted submission date of May 31, 2023. Staff appreciates PGE's and countless stakeholders' extensive work developing Oregon's first CEP and associated IRP and hopes to receive more clarity in key areas of the plan following this initial round of feedback.

Policy Landscape and Staff Approach

PGE's submission of this plan marks a major milestone in the implementation of the state's landmark electric decarbonization policy, House Bill 2021 (HB 2021).[2] Staff acknowledges the importance and complexity of this plan and appreciates the effort that went into its development.

PGE's resource strategy is being reviewed at a time of extreme change and uncertainty—which will be a major topic of discussion in this docket. Participants in the IRP/CEP review process are also testing for the first time a range of initial assumptions about what is meaningful to analyze and present in a post-HB 2021 resource plan. While there is an aspect of muddling through in this planning environment, the emissions reduction target years are quickly approaching and impacts to environmental justice communities continue. In light of this complexity, it will be important for PGE to focus on collaboration with its communities and stakeholders toward the articulation of an accessible, just, and comprehensive decarbonization strategy.

[1] *See* Docket No. LC 73, Commission Order No. 23-010, January 26, 2023.
[2] HB 2021 was adopted into Oregon Revised Statute (ORS) 469A.400 to 469A.475.

Staff's approach to reviewing the IRP/CEP will rely on a combination of established planning principles and key new direction from HB 2021, including these considerations for acknowledgement:

> *(a) Any reduction of greenhouse gas emissions that is expected through the plan, and any related environmental or health benefits; (b) The economic and technical feasibility of the plan; (c) The effect of the plan on the reliability and resiliency of the electric system; (d) Availability of federal incentives; (e) Costs and risks to the customers; and (f) Any other relevant factors as determined by the commission.*[3]

Staff will also consider the Company's efforts to reflect the priorities surfaced in the UM 2225 Investigation into CEPs. Further, Staff will work to identify opportunities to improve upon the initial CEP guidance and evolve the Commission's longstanding planning and resource acquisition policies.

In the comments below, Staff provides initial observations on the key elements of the resource strategy conveyed in the IRP/CEP and identifies opportunities to improve the analysis and clarity of the plan.

1. Energy and Capacity Actions

PGE's decarbonization strategy highlights the need to replace fossil fuel generation and energy purchases for its Oregon retail customers with procurement of non-emitting energy and capacity resources "at a pace and scale sufficient to reduce emissions below HB 2021 targeted requirements".[4] PGE also provides support for an accelerated procurement strategy in its portfolio sensitivity analysis.[5] To this end, PGE intends to issue an all-source RFP in 2023 to procure non-emitting energy and capacity resources that can achieve commercial operations by the end of December 2025 and that the resource need will be informed by the IRP acknowledgement.[6]

Staff appreciates the need to be quick and nimble in the procurement of existing non-emitting technologies and seeks clarity about PGE's acknowledgement requests for this IRP/CEP and its engagement strategy for concurrent Request for Proposals (RFP) and IRP/CEP dockets. For example, Staff believes that it would be helpful to articulate the overlap of topics between the IRP/CEP and RFP and indicate which elements PGE expects to be discussed and/or decided in the IRP/CEP docket and which elements the Company envisions parties will work through in the 2023 RFP docket.[7] Staff recognizes that this is likely a collaborative effort and looks forward to

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[3] CEP acknowledgement considerations are found in ORS 469A.420.
[4] PGE 2023 IRP/CEP, Page 33.
[5] PGE 2023 IRP/CEP, Section 11.7.1, Page 299.
[6] PGE 2023 IRP/CEP, Page 311.
[7] See Docket No. UM 2274.

helping articulate this more clearly in the coming months. These discussions would benefit from PGE sharing any preliminary expectations it can at this time.

In Chapter 12 of the Action Plan, PGE describes its energy resources acquisition plans for the next four years. PGE plans to conduct one or more energy RFPs to acquire 543 MWa of non-emitting energy resources between 2026-2028 with a yearly target of 181 MWa. Additionally, the Company will pursue RFPs for Community Based Renewable Energy (CBRE) resources targeted at 29.5 MWa between 2026-2028, which will bring energy needs down to 175 MWa per year. Staff seeks more clarity around the interaction of the non-emitting and CBRE resources RFPs.

PGE's projected capacity needs in 2028, after accounting for cost-effective energy efficiency and demand response, are still significant at 624 MW in summer and 614 MW in winter.[8] While CBREs and other energy resources will help meet some of this capacity need, PGE explains that resource adequacy issues may still exist. PGE will seek bilateral capacity contracts prior to issuing capacity RFPs. Staff is interested in learning more about PGE's approach to obtaining bilateral capacity contracts.

<u>Staff requests that PGE update the IRP/CEP with</u>:

- 1.1 Clarification on whether PGE is seeking acknowledgement of any aspect of the accelerated procurement approach beyond the 2023 All Source RFP in this IRP/CEP.
- 1.1 A description of its preliminary expectations for overlapping elements of this IRP/CEP that will inform the development and/or execution of the concurrent RFP and how parties can keep the two dockets aligned—substantively and procedurally.
- 1.2 Additional clarity about how the approach to the proposed 2023 RFP (See Docket No. UM 2274) may differ from the strategy for ongoing procurements after that.
- 1.3 Explanation of how the RFPs for non-emitting energy will be adjusted in response to CBRE acquisition. How will these two RFPs be timed?
- 1.4 Explanation of how PGE will demonstrate to the Commission that they have pursued and fairly evaluated all feasible paths for bilateral contracts for capacity.

2 Customer Resource Actions

PGE identifies customer participation as a key component of its decarbonization strategy. Staff commends PGE for evaluating additional energy efficiency (EE) beyond that identified as "cost effective" by the Energy Trust (ETO) within the IRP. In this analysis, PGE found that 50 MWa of additional EE lowered long-term cost and risk, indicating that when considered holistically relative to other resource options, energy efficiency may bring benefits to the portfolio that are

[8] PGE 2023 IRP/CEP, Section 12.2.4, Page 310.

not currently identified by traditional EE cost effectiveness analysis.[9] Staff believes that this is an important finding.

PGE, however, did not include the additional energy efficiency that lowered cost and risk in the Preferred Portfolio or the Action Plan. PGE cites near term cost impacts and execution risks as their justification for excluding additional cost-effective EE. Staff seeks more clarity with respect to the relevance of near-term cost impacts for this portfolio since PGE uses specific metrics, for example, cost, variability, severity, cumulative greenhouse gas (GHG emissions), and community benefits over the 2024-2043 time to compare all portfolios.

Additionally, PGE has not provided analysis supporting a near term cost impact threshold, a quantification of ETO execution risk, or explain how they applied these lenses in a consistent fashion across other resource decisions. PGE does not include items in the Action Plan that would enable the ETO to pursue additional cost-effective energy efficiency per IRP findings.

Finally, Staff notes that the Preferred Portfolio applies different constraints to portfolio construction than the portfolios that tested varying amounts of additional EE (Portfolios 6-8 and 36-38 in the CEP Data Template). For example, it appears that the EE portfolios may not have additional market access associated with proxy transmission, while the Preferred Portfolio does have this additional market access, which seems to significantly reduce the cost of the Preferred Portfolio relative to the EE portfolios. For this reason, it is not possible to directly compare EE economics between the Preferred Portfolio and the EE portfolios.

<u>Staff suggests that PGE update the IRP/CEP with</u>:

2.1 An analysis of near-term cost impact of the 50 MWa of additional EE and an explanation of execution risks.
2.2 Further explanation for prioritizing short term cost impacts over long-term reductions in cost and risk and how PGE considered the loading order adopted in Senate Bill 1547 (Cite ORS 757.054(3)).
2.3 An update to the Action Plan to enable the ETO to pursue additional cost-effective energy efficiency or a justification for not including such an item in the Action Plan.
2.4 An analysis of a separate portfolio that applies the same constraints that were used to design the Preferred Portfolio, but also incorporates the 50 MWa of additional EE that was tested in Portfolio 36.
2.5 An analysis of another separate portfolio that has the 50 MWa of additional EE and the same constraints as the Preferred Portfolio but does not force in the SoA upgrade.

[9] PGE 2023 IRP/CEP, Section 11.4.4, Page 275.

3 Transmission Actions and Analysis

Staff appreciates the advancements that the Company has made in modeling transmission as a resource action. Staff also recognizes the difficulty PGE faces in considering transmission in an IRP/CEP under current conditions. This will be a key focus of Staff's IRP/CEP review and Staff offers these initial observations.

PGE's portfolio analysis identifies the need for transmission resources beyond PGE's existing transmission assets and rights to integrate many of the future resources it plans to acquire. Accordingly, one of PGE's near-term Action Plan includes exploring options to upgrade the Bethel to Round Butte line.[10] However, it appears that this transmission upgrade was not modeled in portfolio analysis or included in the Preferred Portfolio. Staff seeks clarity around this issue. Conversely, PGE includes proxy transmission to Wyoming beginning in 2026 and the Desert Southwest beginning in 2030 in the Preferred Portfolio to access more diverse renewables and to reduce capacity needs but does not identify specific actions in the Action Plan to pursue this transmission. It is not clear how the Action Plan addresses the risk that this transmission may not be available.

Additionally, PGE describes constrained PGE flowgates as a critical challenge in meeting future loads and accessing additional renewables,[11] but the Company does not appear to have quantified how the proposed transmission upgrades (South of Allston and Bethel to Round Butte) would impact the Available Transfer Capability across those key constrained BPA flowgates.

Finally, PGE has identified transmission upgrades as "no regrets" actions but does not appear to have provided quantitative support for this statement. Quantitative support could, for example, be based on information from the portfolios and futures in which transmission upgrades are and are not selected based on economics.

<u>Staff suggests that PGE update the IRP/CEP with</u>:

- 3.1 A clearer description of whether and how the transmission upgrades in the Action Plan are modeled in portfolio analysis.
- 3.2 Quantitatively identifying the impact of the proposed transmission upgrades in the Action Plan on PGE's ability to deliver generation to load.
- 3.3 A clearer description of how the proxy transmission in the Preferred Portfolio meets PGE's needs and why it is not directly addressed within the Action Plan.
- 3.4 Clear identification in *Chapter 9 Transmission* of the portfolio constraints that drive transmission needs (load service, renewable deliverability, or both).

[10] PGE 2023 IRP/CEP, Section 12.2.5, Page 310.
[11] See PGE 2023 IRP/CEP, Chapter 11 for a detailed description of flowgate constraints.

3.5 Clear identification in *Chapter 9 Transmission* of the resource options that are available to the model can help avoid transmission upgrades. For example, are the battery systems modeled assumed to be on- or off-system or sited to alleviate transmission constraints during constrained periods? Is the additional EE able to reduce the need for transmission upgrades?

4 Community Lens and CBRE Actions

HB 2021 and UM 2225 CEP rules require PGE to evaluate impacts of its long-term plan on environmental justice communities, tribes, and the most vulnerable communities. PGE has developed community benefit indicators (CBIs) to capture these benefits. Additionally, the rules require PGE to evaluate Community Based Renewable Energy (CBRE) resources as potential non-emitting energy and capacity resources in PGE's portfolio analysis. Staff presents some initial observations regarding the CBIs used by PGE in its portfolio analysis and the Action Item related to acquisition of CBREs.

Community Benefits Indicators:

Regarding treatment of CBIs in the portfolio analysis, Staff notes that while PGE has identified 14 interim CBIs, it appears that only two of them influenced the design of the Preferred Portfolio: a measure of the total MW of CBREs and a measure proportional to the total cost of the CBREs.

It is not clear how these two CBIs reflect benefits across the five categories of community impacts: resilience; economic; environmental; energy equity; and health and community well-being. Staff expects that the community impacts of the CBREs will depend on where the CBREs are sited, who owns them and/or benefits from them financially, how they are built, how they support the community during outages, and how they support the community in other ways. Without this type of information or specific intentions for the types of community benefits that these projects will seek to generate, it is difficult to get a meaningful sense of how these projects will tangibly impact communities.

PGE refers to the CBIs proposed by stakeholders in UM 2225, however, it is not clear how many of the CBIs proposed in UM 2225 have been adopted by PGE and why PGE chose not to adopt all the metrics. The guidance from UM 2225 included an expectation that the utilities explain why they did not adopt recommendations made by community in their plans.

Additionally, Staff needs a better understanding of how the IRP/CEP analysis recognizes the community benefits of energy efficiency. One of the 14 interim CBIs, which is listed as an informational CBI, is Metric 6A: Amount of residential energy efficiency achieved in target communities.[12] This metric seems directly related to portfolio composition and would suggest that portfolios with more residential EE might offer greater community benefits, and yet it is not considered within portfolio analysis.

Finally, Staff notes that in *Appendix L. Clean Energy Plan: Learning Labs community feedback,* PGE provides detailed information about the community-focused education and input gathering process that informed the development of the IRP and CEP. Staff recognizes PGE's responsiveness to the call for more accountability in the planning process. Staff support the emphasis on community-focused engagement and looks forward to reviewing the information presented in the draft IRP and CEP but note that we intended the proposal for Roadmap Topic No. 6, which was adopted in Commission Order No. 22-390, to capture stakeholder feedback broadly.

Community Based Renewable Energy:
PGE plans to conduct an RFP for CBREs targeting 66 MW of CBRE resources to come online by 2026 and eventually reaching its goal of acquiring 155 MW of CBRE resources by 2030.[13] Staff is appreciative of this effort; however, more information is needed on this RFP design given its novelty. For example, Staff is interested in learning whether the RFP will be made accessible to projects designed to benefit specific communities as opposed to just experienced QF developers. Staff is also curious to know if PGE will explore options other than an RFP towards developing CBRE resources in its portfolio. For example, will PGE consider forming partnerships with community led renewable energy projects?

<u>Staff suggests the following</u>:

4.1 Update the IRP/CEP explaining why PGE chose the two CBIs to inform its preferred portfolio and provide details regarding how these two CBIs reflect benefits in the five categories discussed above.
4.2 Provide an explanation for not adopting recommendations made by community groups in the plan reflecting UM 2225 guidelines.
4.3 Expand the accountability analysis to include key input received in traditional IRP Roundtables, to the extent feasible.
4.4 Provide an explanation of how PGE plans to keep its CBRE RFP equally accessible to both community-specific renewable energy and professional QF developers.
4.5 To the extent feasible, provide a description of the various opportunities PGE might explore to acquire targeted CBRE resources.

[12] PGE 2023 IRP/CEP, Chapter 7, Table 26, Page 149.
[13] PGE 2023 IRP/CEP, Chapter 12, Section 12.2.2, Page 309.

5 Emissions Reductions

PGE's IRP/CEP must show a pathway to achieving emissions reductions targets for its retail load as established in HB 2021. This necessitates that PGE identify the allocation of energy generated by GHG emitting resources between its retail and wholesale customers. PGE describes an Intermediary GHG model that allocates fossil generation to their customers and assumes any remaining generation is sold in wholesale markets. This model, its assumptions, logic, and implications are not well documented in the IRP/CEP. It is not clear whether this model results in realistic assumptions regarding the delivery of Colstrip generation to PGE customers.[14]

PGE also identifies a significant shift in the proportion of its emitting generation that is delivered to customers versus sold into wholesale markets but has not explained how they will operationalize this shift. Staff believes that PGE, however, has not explained how their analysis considers obligations and other operational and/or contractual constraints and whether any changes to these constraints or operational practices will be needed to ensure that the delivery of emitting generation to customers can decrease at the rates that their planning assumes.

Staff notes that in a change from prior planning analysis, which had Colstrip exiting PGE's portfolio in 2025, the current IRP/CEP includes Colstrip in the portfolio through 2029. PGE tested the impact of an earlier Colstrip exit on resource needs and found that removing Colstrip from the portfolio in 2025 would increase near term capacity needs and reduce near term clean energy needs. However, PGE does not appear to have tested a portfolio with an earlier Colstrip exit within its portfolio analysis. It is therefore not clear whether the inclusion of Colstrip in PGE's portfolio beyond 2025 (as capacity, energy, or both) appropriately balances cost, risk, the pace of GHG reductions, and community impacts and benefits.

Finally, Staff realizes that since PGE has already incorporated estimates of distributed energy resources (DERs) including cost-effective EE and DR from its Distribution System Plan (DSP) in its IRP/CEP load forecast, the procurement of non-emitting resources appears to be the only tool available to PGE to reduce GHG emissions in the current analysis. Nonetheless, Staff seeks a better understanding of the contribution of embedded demand side resources in emissions reductions or the extent to which PGE's DER projections incorporate emissions reduction.

<u>Staff suggests that PGE update the 2023 IRP with</u>:

5.1 A more thorough description of the assumptions and logic used in the intermediary GHG model to allocate generation between retail load and wholesale market sales.

5.2 A quantitative and qualitative discussion of the implications of the intermediary GHG modeling approach regarding the delivery of Colstrip generation to PGE customers.

[14] See PGE 2023 IRP/CEP, Chapter 5, Section 5.3, Page 96, for more details on the Intermediary GHG Model.

5.3 Inclusion of a portfolio showing a 2025 exit of Colstrip and comparison to portfolios with a Colstrip exit in 2029 with respect to cost, risk, pace of GHG emissions reductions, and community impacts and benefits.
5.4 Explanation of how PGE considered HB 2021 rules that direct electric utilities to evaluate non-emitting resources, energy efficiency and demand response resources to meet clean energy targets.[15]

6 Other Resource Strategy Implications

Regional Resource Adequacy: Given the goals and status of regional program development, it will be increasingly important to understand how the Company's Action Plan is expected to influence their position in the Western Resource Adequacy Program (WRAP) and how WRAP participation could impact the feasibility and outcomes of pursuing the Action Plan.

<u>Staff suggests that PGE update the IRP/CEP with</u>:

6.1 Any analysis or discussion that will help parties better understand how the current Action Plan might impact their position in the WRAP or their engagement in ongoing design elements, and/or how the implementation of the WRAP could influence the Action Plan.

Cost drivers: PGE explains that for the preferred portfolio, "the Reference Case costs of generation resources, normalized by load growth, are forecast to increase by approximately 21 percent by the end of the decade." [16] Review of the outputs of its Annual Revenue Requirement Tool in the PGE CEP Data Template suggests the preferred portfolio generation (and transmission) cost projections increase steeper in the years following 2030.

<u>Staff suggests that PGE update the IRP/CEP with</u>:

6.2 More in this section that explains key drivers for the shape of costs over time for the preferred portfolio.

Resource Need Sensitivity: PGE conducts high and low Qualifying Facility (QF) sensitivities for its energy needs. Staff noticed that in Chapter 6, Resource Needs, Table 20, PGE depicts that the High QF sensitivity results in a 1 MWa increase in energy, as opposed to the Low QF sensitivity that has a much larger impact of a 36 MWa decrease in energy in 2026. While Staff realizes that this is an analytical result, Staff would like to better understand the logic behind this outcome.

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[15] Oregon House Bill 2021, Section 4(b): https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2021.
[16] PGE 2023 IRP/CEP, Chapter 11, Section 11.5.1, Page 292.

Staff suggests that PGE update the IRP/CEP with:

6.3 An explanation of why the High QF case has a much lower impact on energy needs compared to the Low QF scenario.

Demand Response: PGE explains that while the DSP only contains cost-effective demand response (DR), the IRP evaluates non-cost-effective DR and "…. the IRP Action Plan sets a target that combines both the cost-effective and currently non-cost-effective resources".[17] However, the Action Plan Item 1(b) includes DR resources that are cost -effective and does not include currently non-cost-effective resource.[18]

Staff suggests that PGE update the IRP/CEP with:

6.4 Resolution of any discrepancy in the statements regarding consideration of cost-effective and non-cost-effective demand response resources in the Action Plan. If PGE does not believe there is a discrepancy, Staff requests that the Company provide an explanation.

This concludes Staff's initial comments on PGE's 2023 IRP/CEP. Staff appreciates PGE's efforts in developing the CEP for the first time. Staff looks forward to receiving updates and clarification from the Company and believes it will enhance Staff's understanding of PGE's IRP/CEP going forward.

Dated at Salem, Oregon, this May 4, 2023.

Sudeshna Pal

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Sudeshna Pal
Senior Energy Policy Analyst
Energy Resources and Planning Division

[17] PGE 2023 IRP/CEP, Chapter 6, Section 6.2.2, Page 114.
[18] PGE 2023 IRP/CEP, Chapter 12, Section 12.2.1, Page 309.