BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
LC 66

In the Matter of PORTLAND GENERAL ELECTRIC 2016 Integrated Resource Plan	)	FINAL COMMENTS OF OREGON DEPARTMENT OF ENERGY

Introduction

The Oregon Department of Energy (ODOE or Department) appreciates the opportunity to submit these Final Comments in response to the opening comments of other parties on Portland General Electric's (PGE) 2016 Integrated Resource Plan (IRP) and to PGE's reply comments submitted on March 31, 2017. The Department's comments are framed by the state's overarching energy and climate change goals and the impact that energy resource decisions made pursuant to this IRP could have on achievement of these goals. As such, ODOE's comments are focused on the following topics: (1) downside risks associated with the procurement of long-term fossil fuel assets; (2) prioritization of carbon-free resources; (3) short-term capacity resources; and (4) bilateral negotiations to secure hydro capacity resources.

1. Downside Risks Associated with the Procurement of Long-term Fossil Fuel Assets

ODOE recognizes that several parties questioned the sufficiency of PGE's risk analysis concerning the potential acquisition of a long-term fossil fuel based facility and that PGE primarily addressed these concerns in Section 6.2 of its reply comments.[1] There still exists, however, potentially significant downside risks associated with the acquisition of a long-term fossil fuel based facility that have not been adequately addressed by the company, including: (a) ratepayer exposure to project cost overruns and stranded assets, (b) economic risks associated with failing to meet greenhouse gas emission

[1] LC 66 – PGE's REPLY COMMENTS, Section 6.2 Scenario-Based Risk Analysis, page 89-91.

goals, and (c) other risks associated with acquiring a long-term fossil fuel based facility when doing so would be inconsistent with a broad expression of customer desires.

(a) Ratepayer exposure to project cost overruns and stranded assets

ODOE agrees with the Citizens' Utility Board (CUB) that PGE provided "little to no discussion of the comparative risks" associated with the acquisition of a long-term fossil based resource compared to shorter term resources.[2] ODOE agrees with CUB's analysis that "some of the greatest risks posed by large long-term fossil-fuel based facilities [are] the risk[s] of stranded assets, early retirement, and ratepayers being asked to shoulder the burden of cost overruns and mechanical failure."[3] CUB cites the impact of such issues related to PGE's Trojan, Boardman, and Carty power plants.[4] PGE's analysis of these types of risks in its IRP is insufficient as it pertains to the potential acquisition of long-term fossil fuel assets.

Additionally, ODOE agrees with CUB that rapid technological advances in demand response, energy efficiency, and energy storage will likely have a significant impact on PGE's projected need for new capacity and that, as such, "PGE is in a poor position to predict the impact [demand response], [energy efficiency], and storage will have on its capacity needs in 10, 20, let alone 30 years."[5] In its reply comments, PGE addressed CUB's comment by asserting, "PGE cannot wait 30 years to meet its capacity needs."[6] PGE did not respond, however, to the core point raised here: not that PGE must wait 30 years to meet its capacity needs, but that it is difficult for a utility to assess its capacity needs in the *near-term*, let alone over the long-term (10, 20, or 30 years), due to these rapid changes in technology. For the reasons articulated by CUB and quoted above, ODOE agrees that rapid changes in technology in the areas identified by CUB (in addition to other factors, such as ongoing discussions surrounding Oregon's

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[2] LC 66 – CUB Opening Comments, Section III. Comments, p. 4, lines 14-18.
[3] *Id* at p. 3, lines 8-12.
[4] *Id* at p. 3, line 9.
[5] *Id* at p. 8, lines 2-9.
[6] PGE's REPLY COMMENTS, Section 6.2.2, p. 94.

participation in a regional wholesale electricity market) add significant risk that any newly acquired long-term fossil fuel asset could become a stranded asset.

(b) Economic risks associated with failing to meet greenhouse gas emission goals

ODOE has a similar concern to the one expressed by the Northwest Energy Coalition (NWEC)[7] that PGE did not model at least one actionable portfolio that would achieve the utility's proportionate share of the state's economy-wide greenhouse gas emission reduction goals as adopted by HB 3543 (2007).[8] ODOE notes that, pursuant to IRP Guideline 1(b)(1), the utility must evaluate the risks and uncertainties associated with the "costs to comply with any regulation of greenhouse gas emissions."[9] As shown in Figure 12-8 of PGE's IRP, none of the company's actionable portfolios would achieve the state's long-term greenhouse gas emission goals.

PGE produced a table in its reply comments in an effort to demonstrate compliance with the PUC's IRP Guidelines.[10] The company did not directly address in this table its compliance (or lack thereof) with IRP Guideline 1(b)(1). PGE should evaluate the risks and uncertainties associated with the costs to comply with the greenhouse gas emissions targets established by HB 3543 given the potentially significant downside risk to being unprepared to comply with these targets should they one day become legally binding. As NWEC notes in its opening comments, the 2035 and 2050 GHG targets may require PGE to eliminate the GHG emissions associated with any long-term fossil fuel plant acquired as a result of this IRP. Given the expected operating lifetime of a new fossil plant to be 30 to 40 years, this may require PGE to retire any fossil plant newly acquired through this IRP earlier than its full operational lifetime would otherwise require. Alternatively, PGE may choose to mitigate GHG emissions from any fossil plant newly acquired through this IRP in another way, such as through the capture and sequestration

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[7] LC 66 Initial Comments of the NW Energy Coalition, Section I. Portfolio Analysis, *Oregon State Greenhouse Gas Reduction Goals*, p. 10.
[8] HB 3543 (2007) adopted three goals: annual reduction in GHG emissions beginning not later than 2010; 10% reduction in GHG emissions below 1990 levels by 2020; and *at least* 75% below 1990 levels by 2050. The Oregon Global Warming Commission later adopted an interim goal of 40% below 1990 levels by 2035.
[9] Oregon Public Utility Commission, Order No. 07-047, Guideline 1(b)(1).
[10] PGE's REPLY COMMENTS at Section 8, Table 20, p. 118.

of the plant's GHG emissions. In either case, the potential economic costs could be significant and PGE has not accounted for these risks in its IRP.

(c) *<u>Other risks associated with acquiring a long-term fossil fuel based facility when doing so would be inconsistent with a broad expression of customer desires</u>*

In the introduction of its reply comments, PGE offers the following assessment of whether or not it believes that its 2016 IRP Action Plan meets the needs of its customers:

> *PGE remains convinced the 2016 IRP Action Plan offers the best balance of cost and risk for its customers. It will allow PGE to continue reducing its environmental impact while meeting customers' needs for safe, reliable, and affordable power.*[11]

PGE has omitted another important element from this evaluation of whether its IRP sufficiently meets the needs of its customers: the expressed desires of its customers.

On April 10, 2017, the elected governments of the City of Portland and Multnomah County (which, together, represent a significant majority of PGE's customer base) jointly announced goals of meeting "the community's electricity needs from renewable sources by 2035" and shifting all other energy uses (e.g., transportation) to renewables by 2050. In the press release from the City of Portland announcing this new goal, Mayor Ted Wheeler explicitly noted that he hopes that adoption of these goals "will spark a much broader partnership from utilities to community members." Mayor Wheeler continued: "We don't succeed addressing climate change by government action alone. We need our whole community: government, businesses, organizations and households to work together to make a just transition to a 100% renewable future."[12]

The Oregon Department of Energy does not take a position on the goals adopted by the City of Portland and Multnomah County. We only note this recent development here because of the relevance of these goals to PGE's IRP. This recent development—combined with PGE's recognition that its own voluntary renewable energy tariff option has the highest customer subscription rate of any such program

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[11] PGE's REPLY COMMENTS at 1. Introduction, p. 4.
[12] The City of Portland, Office of the Mayor. (April 10, 2017) *City and County Leaders Pledge to Move to 100 Percent Renewable Energy*. [Press Release] Retrieved from: https://www.portlandoregon.gov/wheeler/article/635328

in the United States[13]—provides strong evidence that PGE's customers support a more aggressive approach toward the acquisition of renewable resources than the approach represented by PGE's preferred portfolio in its 2016 IRP. The Department believes that the potentially significant divergence of PGE's preferred portfolio from the desires of its customers creates future risks that PGE has not evaluated sufficiently.

2. Prioritization of Carbon-free Resources

The Department wants to take this opportunity to reiterate the support that it gave to PGE in its opening comments for the company's prioritization of carbon-free resources in its 2016 IRP.[14] In particular, ODOE supports PGE's prioritization of energy efficiency, demand response, and renewable energy. Paralleling our comments in Section 1 of these Final Comments, ODOE contends that the prioritization of these carbon-free resources *minimizes* (a) ratepayer exposure to project cost overruns and stranded assets, (b) economic risks associated with failing to meet greenhouse gas emission goals, and (c) other risks associated with acquiring a long-term fossil fuel based facility when doing so would be inconsistent with a broad expression of customer desires.

In particular, ODOE reiterates both its support for PGE's proposed early procurement of renewable energy for the reasons articulated in our opening comments[15] and its encouragement for PGE to more aggressively develop and acquire demand response assets to address the company's capacity needs.[16]

3. Short-term Capacity Resources

Several parties raised concerns in their opening comments with PGE's treatment of short-term capacity resources in its IRP. CUB, for example, noted that PGE evaluated the cost-effectiveness of

[13] See PGE's "Choose Renewable" webpage, which promotes its voluntary renewable energy programs in the following manner: "Join the nation's top renewable power program or generate your own. More than 150,000 PGE customers have joined our program to support local renewable power." Available online: https://www.portlandgeneral.com/residential/power-choices/renewable-power/choose-renewable

[14] Opening Comments of Oregon Department of Energy (LC 66), Section 1. Prioritization of Carbon-free Resources, p. 1-2.

[15] *Id* at Section 3, p. 2.

[16] *Id* at Section 4, p. 2-3.

resources against one another by normalizing the duration of resources across the entire 34-year duration of the IRP's planning horizon. To do this with a short-term resource of five years, PGE would consider the resource-specific economics of that resource for the first five years, and then would backfill the remaining 29 years of the IRP's planning horizon with generic resources to evaluate that short-term resource over the 34-year planning horizon. CUB notes that the utility "never considers whether a five-year resource could be a lower cost option during those first five years."[17] CUB recommended that the PUC require the utility to pursue shorter-term resources to determine if they offer "the kind of optionality which would meet PGE's projected need with less risk to ratepayers."[18] And as PGE acknowledges in its reply comments, PUC Commissioner Bloom suggested at a Commission workshop on February 16, 2017, that "it may be preferable to rely on short or medium term products in order to preserve optionality."[19]

Similarly, the Northwest and Intermountain Power Producers Coalition (NIPPC) argued that PGE did not "adequately analyz[e] whether its short-term need can be met with short-term purchases rather than a long-term investment in a new gas plant."[20] For this reason, NIPPC recommended that the Commission require the utility to evaluate whether its capacity need could be best served with short to medium term power purchase agreements.[21]

Additionally, the NWEC argued that the closeness of the scores (incorporating considerations of both cost and risk) between the top-ranked portfolios that PGE considered in its IRP Action Plan "argues for an approach that shuns large investments in long-term, natural gas resources in favor of short term contracts or market purchases."[22] Following from this, the NWEC recommended that the PUC require the issuance of "two or more RFP's that seek short and long term resources"[23] to ensure the fair consideration of short-term resources that could meet PGE's capacity needs.

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[17] CUB Opening Comments at Section III(a), p. 5-6.
[18] *Id* at p. 7.
[19] PGE Reply Comments at Section 5.3, p. 72.
[20] Northwest and Intermountain Power Producers Comments, Section I., p. 2.
[21] *Id* at p. 1.
[22] NWEC Comments at Section VII. Conclusion, p. 16.
[23] *Id* at Section VI. Recommendations, (3)(a), p. 15.

The Department recognizes that PGE responded to these concerns of parties in Section 5.3 of its reply comments.[24] PGE has not, however, sufficiently addressed this issue and encourages the Commission to require the company to evaluate the acquisition of resources with a contractual duration of 10 years or less to meet its capacity needs. The Department generally agrees with the comments of the parties quoted above that a prioritization of these shorter-term resources would delay any decision about the need to acquire a long-term fossil fuel asset. Delaying such a decision would preserve optionality for PGE and would minimize the potential downside risks associated with such an acquisition as discussed in Section 1 of these Final Comments.

4. Bilateral Negotiations to Secure Hydro Capacity Resources

ODOE appreciates the rationale given by PGE in Section 5.4.1 of its reply comments for why the company does not speculate about whether its existing hydro contracts might be renewed or on what terms.[25] That said, the Department encourages PGE to prioritize the renegotiation of these hydro contracts to meet its capacity needs before it issues an RFP that might result in the acquisition of a long-term fossil fuel resource.

Additionally, ODOE appreciates that PGE responded to feedback from stakeholders and the Commission to reach out to "owners of existing dispatchable generation in the Pacific Northwest to discuss whether they have any available capacity starting in 2021."[26] On the basis of PGE's finding that there is "available capacity in the region for sale to meet the capacity need identified in PGE's Action Plan,"[27] the Department encourages PGE to prioritize the execution of contracts with these resources to meet its capacity needs. Particularly given the unique nature of some of the dispatchable hydro resources in the Pacific Northwest (e.g., with many owned and operated by public entities, including the federal government), the Department supports PGE's efforts to pursue bilateral contracts with these resources. The Department believes that these bilateral discussions could secure carbon-free capacity resources to

[24] PGE Reply Comments at Section 5.3, p. 71-79.
[25] *Id* at Section 5.4.1, p. 81.
[26] *Id* at Section 2.6, p. 11-12.
[27] *Id* at p. 12.

meet the needs of the company's ratepayers in a manner that's cost-effective and minimizes or eliminates the potentially significant downside risks associated with the acquisition of a long-term fossil resource as discussed in Section 1 of these Final Comments.

Conclusion

The Oregon Department of Energy appreciates the opportunity to submit these Final Comments and the thoughtful engagement by PGE and all of the intervening parties.

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Respectfully submitted,

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