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**Erin E. Apperson**  
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March 6, 2020

Public Utility Commission of Oregon  
Attention: Filing Center  
P.O. Box 1088  
Salem, OR 97308-1088

Re: LC 73 – Portland General Electric Company’s 2019 Integrated Resource Plan (IRP)

Dear Filing Center:

Enclosed for filing today in the above-referenced docket are Portland General Electric Company's ("PGE") Response Comments to Staff’s Report for the Special Public Meeting to be held on March 16, 2020.

Thank you in advance for your assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Erin Apperson", with a long horizontal flourish extending to the right.

Erin E. Apperson  
Assistant General Counsel

EEA: dm

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**LC 73**

In the Matter of

PORTLAND GENERAL ELECTRIC  
COMPANY

2019 Integrated Resource Plan.

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**PORTLAND GENERAL ELECTRIC  
COMPANY'S**

**RESPONSE TO STAFF'S REPORT**

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## 1. Introduction

Portland General Electric Company's (PGE) 2019 IRP presents the Company's strategy for meeting increasing customer needs in a manner that best balances cost and risk in an environment of rapid change and uncertainty. PGE appreciates Staff's thorough review of the 2019 IRP as well as the feedback provided by parties throughout the process. While there are several areas where PGE agrees with Staff's recommendations, some outstanding issues remain where PGE and Staff are not fully aligned, and where Commission guidance will be especially valuable. In the sections that follow, we first provide a high-level summary of our analytical findings and the reasoning behind our Action Plan. We then focus on what we believe to be a key outstanding issue in this docket—the structure of our proposed procurement processes for new renewables and dispatchable capacity and Staff's recommendations regarding these proposed actions. Finally, we summarize the Company's position on each of Staff's recommendations and provide some further clarifications where needed.

## 2. Key Findings

The most pressing challenge identified in the 2019 IRP is the anticipated growth in PGE's capacity needs in the mid-2020s. As coal resources retire in the region, there is a growing urgency to take action to ensure resource adequacy not only at PGE, but across the West. PGE is actively engaged at the regional level and in other forums to address regional resource adequacy issues. The 2019 IRP focuses on the steps that PGE can take to specifically address the needs of our customers. PGE has identified a 2025 capacity need of 697 MW in the Reference Case, with a range of approximately 350 MW to 1,100 MW, depending on key drivers of uncertainty, including economic conditions and customer adoption of distributed energy resources (DERs). Approximately 350 MW of the identified capacity need is associated with the expiration of contracts. However, there is no guarantee that these contracts or other contract options will be available at comparable sizes, terms, and prices to those that have contributed to meeting customer needs in the past, especially as the demand for capacity grows across the region. Based on this analysis, PGE and parties agree that the Company faces a need for additional capacity in the mid-2020s to ensure resource adequacy for our customers.

While a capacity need is one reason to take a major resource action, it is not the only reason that a utility may seek major resources. PGE evaluates portfolios of resources that meet customer needs against the key criteria set forth in the IRP Guidelines – specifically the balance of expected cost and associated risk. As has traditionally been the case in long-term planning, both cost and risk are strongly influenced by the Company's reliance on the wholesale energy market, which depends on the size and attributes of the resources in the portfolio, existing and new.

PGE's market energy position analysis determined that, without action, the Company is likely to meet a portion of customer demand with energy purchases from the wholesale market on an average annual basis, exposing PGE and our customers to the costs associated with market purchases and some degree of wholesale market risk. The IRP estimates that without action, exposure to the market (or the market energy position) is estimated to be 527 MWa in the Reference Case in 2025 and is likely to exceed 250 MWa across a wide range of futures in both the near and long term. PGE has no explicit

need to reduce this market exposure, but portfolio analysis suggests that reducing market exposure with the addition of low-cost renewable resources helps to reduce both expected cost and risk. PGE understands that the question of how much of this exposure to curb through a long-term resource addition is largely a question of weighing various risks. Our analysis suggests that when renewables can be obtained at low costs, larger renewable resource additions reduce expected cost and wholesale energy market risk, but that smaller renewable resource additions reduce risks associated with uncertain technological advancement and the potential to overbuild our system. These cost and risk factors are at times in tension with one another and have required PGE to design a plan that provides for a reasonable balance between them. PGE identified an energy cap on new resource additions of approximately 150 MWa as a reasonable way to strike a balance between the costs and both quantitative and qualitative risks associated with long-term energy additions as well as the market exposure that such additions would mitigate.<sup>1</sup>

As has been noted throughout discussions of the 2019 IRP, PGE has not identified a near-term need for additional Renewable Energy Credits (RECs) to support Renewable Portfolio Standard (RPS) compliance. In this way, PGE does not have a near-term need for RPS-eligible resources. However, as described above, portfolio analysis strongly suggests that procurement of low-cost renewable energy resources is likely to reduce both cost and risk with respect to the traditional metrics considered within the IRP. As such, the pursuit of a portfolio that best balances cost and risk may result in incremental RPS-eligible resources regardless of near-term RPS compliance needs.

PGE relied on IRP portfolio analysis to holistically consider the Company's needs and the options available to meet them on a consistent basis across a wide range of resource options and future conditions. The Preferred Portfolio balanced cost and risk by pairing dispatchable energy storage resources with low-cost renewable resources to meet the needs that remain after accounting for Customer Resources and potential contracts for capacity from existing resources.

### 3. Action Plan

PGE designed the Action Plan to allow the Company to pursue resources with the key attributes identified in the Preferred Portfolio.

The Action Plan calls on PGE to pursue all cost-effective energy efficiency and all cost-effective and reasonable distributed flexibility. PGE appreciates the support from Staff and parties in pursuing the Customer Resource Actions and requests that the Commission acknowledge them.

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<sup>1</sup> The 150 MWa constraint applies only to the new resource additions pursued through this IRP. PGE reduced this cap from the 250 MWa identified through the market energy position analysis in part to recognize the potential of the bilateral negotiation process to bring additional energy to the portfolio.

**Customer Resource Actions**

**Action 1A.** Seek to acquire all cost-effective energy efficiency.

**Action 1B.** Seek to acquire all cost-effective and reasonable distributed flexibility.

With respect to supply side resources, the Action Plan aligns with the findings of the Preferred Portfolio, which includes a combination of renewable resources and energy storage to meet needs that are not met by Customer Resources or potential contracts for capacity. The inclusion of renewables and storage in the preferred portfolio is the result of a holistic portfolio optimization exercise that considers all resource options together and the Action Plan is designed to pursue those resources. With regard to procurement efforts, PGE proposes to consider dispatchable capacity resources and renewable energy resources in separate processes, as the key resource attributes that they provide are distinct and necessitate somewhat different treatment within a competitive solicitation, particularly with respect to resource requirements and non-price scoring criteria.

The Capacity Action is designed to provide the opportunity for PGE to secure dispatchable capacity resources to contribute to meeting the Company's capacity and flexibility needs. PGE's Capacity Action provides for a robust and flexible approach to supporting resource adequacy for our customers by leveraging both existing capacity in the region through bilateral negotiations and seeking dispatchable capacity from new clean technologies, like energy storage, through a non-emitting Capacity RFP. While PGE has already initiated bilateral negotiations, the Company plans to begin work on the non-emitting Capacity RFP concurrently with these activities to ensure timely consideration of both long- and short-lead time resources. PGE requests that the Commission acknowledge our Capacity Action.

**Capacity Action**

Pursue dispatchable capacity through the following concurrent processes:

**Action 3A.** Pursue cost-competitive agreements for existing capacity in the region.

**Action 3B.** Conduct an RFP for non-emitting dispatchable resources that contribute to meeting PGE's capacity needs.

The Renewable Action is designed to provide the opportunity for PGE to pursue low-cost renewable energy that contributes to meeting the Company's capacity needs, consistent with the cost and risk findings from portfolio analysis. PGE proposes a set of conditions to encourage strong outcomes for customers and proposes to constrain energy additions across the Renewable Action and the non-emitting Capacity RFP to approximately 150 MWa in recognition of the cost and risk tradeoffs associated with both energy additions and market exposure. PGE notes that the Renewable Action is not designed to compel the Company to procure approximately 150 MWa of renewable resources,

but to allow the Company to consider up to approximately 150 MWa of renewable resources as part of a strategy to meet customer needs with the best balance of cost and risk.

In the following section, we discuss Staff’s recommendation to allow renewable resources to participate in the non-emitting Capacity RFP rather than conducting a separate Renewables RFP. Regardless of whether renewables are pursued through a separate RFP or through a combined non-emitting RFP, PGE believes that the core components of the Renewable Action are consistent with the findings of the 2019 IRP portfolio analysis, capture the key attributes of the preferred portfolio, provide for the best balance of cost and risk based on IRP analysis, and should be acknowledged by the Commission.

#### Renewable Action

**Action 2.** Conduct a Renewables Request for Proposals (RFP) seeking up to approximately 150 MWa of new RPS-eligible resources that contribute to meeting PGE’s capacity needs by the end of 2024.

Conditions:

- Resources must qualify for the federal Production Tax Credit (PTC) or the federal Investment Tax Credit (ITC);
- Resources must pass the cost-containment screen;
- The value of RECs generated prior to 2030 must be returned to customers; and
- Resources must meet the transmission requirements for variable renewables described in PGE’s Addendum Filing.

#### Portfolio Conditions

The combined capacity contribution of all procured dispatchable capacity resources (Modified Actions 3A and 3B) and all new renewable resources (Modified Action 2) will not exceed PGE’s identified 2025 capacity need, currently forecasted to be 697 MW.

The combined energy additions from new non-emitting dispatchable capacity resources (Modified Action 3B) and new renewable resources (Modified Action 2) will not exceed approximately 150 MWa.

## 4. Procurement Processes

One of the key differences between PGE and Staff in this IRP is our proposed approach for pursuing renewable resources. PGE continues to prefer distinct procurement processes to pursue dispatchable capacity and low-cost renewable resources in order to more clearly delineate between the resource requirements and non-price factors associated with those resource types. Despite these different tracks within the Action Plan, PGE sees both the Capacity and Renewable Actions as part of a coordinated strategy to meet customer needs with the best balance of cost and risk. The revisions to

the Action Plan that PGE included in Final Comments, which allow for concurrent procurement activities and apply portfolio-level constraints across those activities, were intended to make this coordination more explicit.

PGE understands that Staff has concerns that separate procurement activities may still lead to suboptimal outcomes for customers, despite concurrent processes. Staff proposes a set of conditions if PGE were to pursue renewable resources through a separate RFP. PGE opposes Staff's proposed conditions and the Company finds two of the conditions, which are discussed below, to be particularly concerning. We provide additional response to each proposed condition in Section 5.1.

Staff's first proposed condition would prohibit PGE from submitting a benchmark bid in a standalone renewable RFP.<sup>2</sup> While PGE has not proposed a benchmark resource, such a condition would set a bad precedent without any demonstration by Staff that third party bids necessarily result in better outcomes for customers on the basis of cost and risk. PGE strongly objects to this proposed condition.

PGE finds the fourth condition proposed by Staff, which makes statements about the risk of proceeding and potential ratemaking decisions,<sup>3</sup> to be puzzling and problematic as a proposed condition for acknowledgment. One interpretation of the fourth proposed condition is that it is simply a reiteration that IRP acknowledgment never guarantees full cost recovery or specific ratemaking treatment and that some risks always persist for the Company until a prudence determination is made. Under this interpretation, it seems odd that such a statement would be posed as a condition of acknowledgment.

An alternative interpretation of the fourth proposed condition is that acknowledgment should in no way reduce the risk to the Company of moving forward with an action. This interpretation is much more troubling. When major resource additions are considered in prudence review, the first among many questions is whether that resource action was consistent with the Company's acknowledged plan. In this way, consistency with an acknowledged IRP has historically reduced, though not eliminated, the risk that a resource addition will be disallowed from rates. This provides an important incentive for the utility to conduct a thorough, rigorous, and transparent planning process. If acknowledgment of a plan does not represent some reduction in the risk of disallowance, then the role of the IRP process and IRP acknowledgment orders diminish significantly. The Commission has indicated and PGE agrees that the IRP process and IRP acknowledgment both serve important roles in providing guidance to efforts that could result in major actions taken on behalf of customers.<sup>4</sup> PGE therefore urges the Commission to provide clear guidance on the reasonableness of PGE's plans

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<sup>2</sup> LC 73 Staff Report at 2.

<sup>3</sup> LC 73 Staff Report at 3.

<sup>4</sup> Per Commission Order No. 17-386, "[t]he purpose of the IRP process is to provide the utility with the input and opinion of stakeholders and the Commission based on the reasonableness of the plan presented by the utility in its IRP filing. Our acknowledgment decision provides PGE with guidance to consider making resource investment decisions that, ultimately, rest firmly with the company."



within the IRP and to address further determinations related to cost recovery in future ratemaking proceedings.

While PGE strongly objects to the conditions that Staff proposes for a separate Renewable RFP, the Company understands Staff's concern that a separate process for renewables may result in different procurement outcomes than if renewables were considered together with dispatchable capacity within a single RFP. PGE would plan to subject resource bids in both solicitations to the same price scoring frameworks and therefore anticipates that individual project performance would be very similar regardless of whether projects were considered in two separate or one combined RFP. However, the Company acknowledges that there may be portfolio benefits associated with considering storage and renewable resources together rather than separately.

While not our preferred approach, PGE is open to Staff's proposal to allow non-dispatchable capacity options to participate in the non-emitting Capacity RFP and would not see such a decision as necessarily incompatible with the overall Action Plan. If non-dispatchable resources are allowed to participate in the non-emitting Capacity RFP, PGE would propose to apply the same constraints and conditions PGE has included within the Renewable Action to those resources.

If the Commission shares Staff's concern with a separate Renewable RFP, PGE requests that the Commission acknowledge PGE's Capacity and Renewable Actions and direct PGE to combine the non-emitting Capacity and Renewable RFPs into a single solicitation. In this circumstance, acknowledgment of the Capacity and Renewable Actions would provide important guidance for the structure and design of an all-source RFP that is consistent with the findings of the IRP.<sup>5</sup>

Regardless of whether the Action Plan is implemented via two separate RFPs or one combined RFP, PGE believes that the guidance provided by the Capacity and Renewable Actions will be critical to ensuring that the competitive solicitation process aligns with the findings of the IRP. PGE therefore requests acknowledgment of both the Capacity and Renewable Actions.

## 5. Summary of PGE's Positions

In this section, PGE provides its response to the specific recommendations proposed by Staff. **Table 1** lists the main topics and the locations of the Staff's recommendations by number (GR1-GR6 and AR1-AR8).

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<sup>5</sup> The 2009 IRP and subsequent 2012 RFP provide precedent for such a decision. The Commission acknowledged PGE's 2009 IRP (Order No. 10-457), which included separate action items for a baseload resource and a flexible capacity resource (LC 48 2009 IRP Addendum at 126-127). Within the RFP process, NIPPC and ICNU urged PGE to combine the RFPs for the two resources, and the Commission ultimately adopted their recommendation, ordering PGE to combine the energy and capacity RFPs (Order No. 11-371 at 2).

Table 1: Summary of Staff recommendations addressed by topic

Topic	Staff Recommendations
<b>Action Plan and Procurement</b>	Action Plan, GR3: Load Forecast (2 <sup>nd</sup> recommendation)
<b>Interim Transmission Solution</b>	GR1: Interim Transmission Solution
<b>Enabling Analyses</b>	AR1: Market Price Forecasts AR2: Probabilities AR3: Intergenerational equity AR4: Emissions Forecast
<b>Future IRPs</b>	GR2: RPS Compliance and Banking Strategy GR3: Load Forecast (1 <sup>st</sup> recommendation) GR4: Non-traditional Metrics GR5: Market Energy Position GR6: Decarbonization Strategy
<b>Other Dockets</b>	AR5: Energy Efficiency Capacity AR6: Direct Access AR7: QFs AR8: Green Tariff

5.1. Action Plan and Procurement

Topic	Summary and Response
<b>Action 1A: Energy Efficiency</b>	<p><b>Staff Recommendation:</b> Staff recommended acknowledgment of PGE’s energy efficiency action, subject to three conditions, that the Company:</p> <ul style="list-style-type: none"> <li>• Work with Energy Trust and stakeholders to explore whether incremental EE beyond the baseline forecast can be tested within portfolio analysis.</li> <li>• Work with Energy Trust to develop high and low energy efficiency forecasts that have internally consistent assumptions with the load scenarios; and</li> <li>• Work with the Energy Trust to study data center load and EE measures and to consider adoption of the Northwest Power and Conservation Council EE capacity value modifiers.<sup>6</sup></li> </ul> <p><b>PGE Position:</b></p> <ul style="list-style-type: none"> <li>• PGE supports Staff’s first recommendation and will work with Energy Trust and stakeholders on this issue for the next IRP.</li> </ul>

<sup>6</sup> LC 73 Staff Report at 2, 8.

Topic	Summary and Response
	<ul style="list-style-type: none"> <li>• PGE generally supports Staff’s second recommendation, but clarifies that as in prior IRP cycles, the Energy Trust forecasts will be based on earlier vintage load forecasts than those in the next IRP or IRP Update.</li> <li>• PGE recognizes the significance of energy efficiency opportunities for data center loads, and PGE maintains that energy efficiency measures are already being adequately considered through existing Energy Trust processes, including its New Building program that specifically addresses data center technology. Therefore, PGE disagrees with Staff’s recommendation to have PGE conduct a specific study with Energy Trust on data center energy efficiency measures. PGE proposes that it address data center loads and energy efficiency measures in more depth with stakeholders at a 2020 IRP workshop. PGE will discuss the Northwest Power and Conservation Council (NWPPCC) capacity modifiers with Energy Trust. Without additional information and discussion, PGE cannot comment on their potential applicability to IRP planning at this time.</li> </ul>
<p><b>Action 1B: Distributed Flexibility</b></p>	<p><b>Staff Recommendation:</b> Staff recommended acknowledgment of PGE’s distributed flexibility action, subject to two conditions, that the Company:</p> <ul style="list-style-type: none"> <li>• File a Flexible Load Plan by June 2020 and continue to work with the Demand Response Advisory Group (DRAG) to expand demand response deployment; and</li> <li>• Provide updates on the Flexible Load Plan, Demand Response Test Bed, and the DRAG within an IRP Update.<sup>7</sup></li> </ul> <p><b>PGE Position:</b> PGE supports Staff’s recommendation.</p>
<p><b>Action 2: Renewable Action</b></p>	<p><b>Staff Recommendation:</b> Staff recommended that the Commission not acknowledge a separate Renewable RFP and alternatively that the Commission condition acknowledgment of the Renewable Action in one of two ways:</p> <ul style="list-style-type: none"> <li>• Allow non-dispatchable resources within the non-emitting Capacity RFP; <u>or</u></li> <li>• Subject the separate Renewable RFP to additional conditions that would:             <ul style="list-style-type: none"> <li>○ Prohibit PGE from submitting a benchmark bid;</li> <li>○ Require that PGE structure the cost containment screen to reflect the cost and performance attributes of the preferred portfolio;</li> <li>○ Require a rigorous stakeholder process to discuss how to consider renewable and dispatchable capacity resources in a coordinated manner across RFPs;</li> <li>○ Suggest that acknowledgment should not be used to support a prudence review or cost recovery determination; and</li> <li>○ Prevent PGE from assuming that the value of RECs will be returned to customers.<sup>8</sup></li> </ul> </li> </ul>

<sup>7</sup> LC 73 Staff Report at 2.

<sup>8</sup> LC 73 Staff Report at 2-3.

Topic	Summary and Response
	<p><b>PGE Position:</b> PGE disagrees with Staff’s recommendation. PGE continues to believe that the Renewable Action will allow the Company to pursue resources that support the best balance of cost and risk, per the findings of portfolio analysis and the key attributes of the Preferred Portfolio.</p> <p>PGE is open to Staff’s alternate recommendation that non-dispatchable resources be permitted to participate in the non-emitting Capacity RFP. If this recommendation is adopted by the Commission, PGE would propose to apply the same constraints and conditions to non-dispatchable resources participating in the Capacity RFP that the Company has described in the Renewable Action. For this reason, PGE requests that the Commission acknowledge the Renewable Action regardless of whether the Commission prefers that PGE pursue resources through separate RFPs or a combined RFP.</p> <p>With regard to the conditions that Staff proposes for a separate Renewable RFP:</p> <ul style="list-style-type: none"> <li>• PGE strongly objects to the proposed condition that PGE be prohibited from submitting a benchmark bid. While PGE has not proposed a benchmark resource, such a condition would set a bad precedent without any demonstration by Staff that third party bids necessarily result in better outcomes for customers on the basis of cost and risk.</li> <li>• PGE does not agree with Staff’s proposed modifications to the cost containment screen—the specific resource cost and performance attributes in the preferred portfolio are not the only way to ensure strong cost and risk outcomes for customers. For example, if a solar plus storage resource has strong cost and risk performance, it should not be precluded from consideration solely because its cost and performance attributes do not conform to the proxy wind resources in the IRP.</li> <li>• PGE does not object to Staff’s recommendation that, if two separate RFPs are conducted, there be a discussion with stakeholders about potential interactions between the RFPs. PGE seeks to clarify that compliance with the new Competitive Bidding Rules requires an expanded stakeholder process to accompany the proposed non-emitting capacity RFP design. PGE maintains that the expanded stakeholder process is not required for the proposed Renewable RFP because PGE has identified the necessary information regarding scoring models and design elements within the 2019 IRP. PGE recognizes the extension of the federal production tax credits has created ample time to conduct necessary stakeholder process in order to review the Renewable RFP. However, PGE requests that the Commission find that the information contained in the 2019 IRP is appropriate to allow PGE to continue to the traditional RFP approval process. Given the recently introduced Competitive Bidding Rules, PGE has endeavored to include the necessary information to satisfy these requirements. PGE requests that the Commission consider whether PGE’s filing is complete, recognizing the dual aims of increasing discussion of RFP scoring within the IRP and maintaining flexibility</li> </ul>

Topic	Summary and Response
	<p>necessary to respond to changing circumstance and also appropriately focusing on the planning level questions of central concern to the IRP.</p> <ul style="list-style-type: none"> <li>• PGE strongly objects to Staff’s proposed condition regarding risk and future cost recovery determinations. Prudence review and cost recovery determinations consider, among many other factors, whether a resource was planned for in a prudent manner given the information known at the time. Depending on the interpretation, this proposed condition could diminish the meaning of IRP acknowledgement and undermine the role of the IRP process as an important step in the consideration of major resource actions that could be taken on behalf of customers.</li> <li>• PGE disagrees with Staff’s condition regarding returning REC value. PGE continues to support its recommendation that the value of RECs generated prior to 2030 be returned to customers. This is a reasonable condition to help balance near-term and long-term concerns. PGE also notes that IRP analysis and the proposed RFP scoring do not credit resources with any assumed cost savings associated with returning the value of RECs to customers.</li> </ul>
<p><b>Action 3A: Bilateral negotiations for existing capacity</b></p>	<p><b>Staff Recommendation:</b> Staff recommended that Commission acknowledge this action item, subject to a condition that PGE provide monthly status updates to the Commission.<sup>9</sup></p> <p><b>PGE Position:</b> PGE supports Staff’s recommendation, but requests that updates to the Commission be no more often than quarterly.</p>

<sup>9</sup> LC 73 Staff Report at 3.

Topic	Summary and Response
<p><b>Action 3B: Non-emitting Capacity RFP</b></p>	<p><b>Staff Recommendation:</b> Staff recommended that the Commission acknowledge this action item, subject to two conditions that PGE:</p> <ul style="list-style-type: none"> <li>Engage in a rigorous process to establish RFP details, clarify key attributes including dispatchability and transmission requirements, and determine how dispatchable resources can be considered concurrently with non-dispatchable resources; and</li> <li>Provide an update on capacity needs based on updated market capacity information, the outcomes of bilateral negotiations, and any changes to voluntary programs, QF contracts, and the Long-term Direct Access program.<sup>10</sup></li> </ul> <p><b>PGE Position:</b> PGE generally supports Staff’s recommendation. PGE reiterates the Company’s position that RFP details, including those items listed by Staff in the first proposed condition, be considered within an RFP docket, rather than the IRP. With respect to the market capacity assumptions referenced in the second condition, PGE notes that the Market Capacity study was conducted by a third party over several months. PGE does not believe that it is reasonable or necessary to conduct a new Market Capacity study prior to initiating a Capacity RFP, but the Company can commit to utilizing the existing model to test the impacts of more recent coal retirement announcements on the market capacity assumptions and identified capacity needs in 2025.</p>
<p><b>Staff GR3. Load Forecast Historical Load and DER Adoptions</b></p>	<p><b>Staff Report:</b> Staff recommended that PGE report on trends of sales by customer class and DER installments for 2015 through 2019 and discuss applying adjustments from these trends to load forecasts used in bilateral capacity negotiations and “any RFP acknowledged by this IRP.”<sup>11</sup></p> <p><b>PGE Position:</b> PGE agrees to provide information regarding trends in sales by customer class and behind-the-meter PV installments at a public meeting in 2020 and in the next IRP Update. PGE disagrees with Staff that an ad hoc adjustment to load forecasting methodology should be applied to either the bilateral capacity negotiations or to any RFP resulting from acknowledgment of this IRP. Further, PGE notes that its load forecast is regularly updated to incorporate additional historical data. As in prior RFP processes, PGE plans to provide an updated need assessment, that will include a load forecast update.</p>

## 5.2. Interim Transmission Solution

Topic	Summary and Response
<p><b>Staff GR1. Interim</b></p>	<p><b>Staff Report:</b> Staff proposed several conditions to the Commission to adopt for any RFP that includes renewable resources.<sup>12</sup> Specifically, Staff</p>

<sup>10</sup> LC 73 Staff Report at 3-4.

<sup>11</sup> LC 73 Staff Report at 52 (emphasis added).

<sup>12</sup> LC 73 Staff Report at 43.

Topic	Summary and Response
<p><b>Transmission Solution</b></p>	<p>recommended the Commission direct PGE to incorporate the following modified elements in its initial RFP application:</p> <ul style="list-style-type: none"> <li>• Scoring methodology for transmission service.</li> <li>• Details in the scoring methodology explaining how the methodology will take into account trade-offs between resource quality and transmission related costs (e.g., existing service vs. upgrades).</li> <li>• Address resource diversity in its scoring.</li> <li>• Assessment of partnerships or partial shares of in larger projects.</li> <li>• Weighting of specific transmission paths and average flowgate impacts, and an explanation of how PGE would acquire each transmission resource or right.</li> </ul> <p>Further, Staff recommended that PGE notify the Commission of any significant changes between the RFP and IRP.</p> <p><b>PGE Position:</b> PGE has several disagreements with Staff’s Report, which are explained below in <b>Section 6 - Additional Clarifications</b>. However, PGE is generally supportive of Staff’s recommendations for the initial RFP application, and believes that specific conversations about technical details like scoring methodology and bid evaluation are best addressed in an RFP docket. Specifically, PGE supports including the following in an RFP:</p> <ul style="list-style-type: none"> <li>• Transmission scoring detail.</li> <li>• Detail on how trade-offs will be evaluated.</li> <li>• Scoring detail addressing diversity.</li> <li>• Information on scoring of partnerships.</li> </ul> <p>PGE also supports Staff’s recommendation that PGE present any material differences between the interim transmission solution presented in the IRP and the RFP. The Company believes this recommendation is aligned with Sections 3.2 and 3.3 of the Interim Transmission Solution (ITS).<sup>13</sup></p> <p>PGE does not believe an RFP is an appropriate place to evaluate average flowgate impacts or weightings of specific transmission paths. For more detail on this recommendation, please see <b>Section 6 – Additional Clarifications</b>.</p>

<sup>13</sup> Interim Transmission Solution, 2019 IRP Addendum at 7-9.

5.3. Enabling Analyses

Topic	Summary and Response
<p><b>PGE Proposed Analyses</b></p>	<p><b>Staff Report:</b> Staff recommended the four Enabling Analyses proposed by PGE (Transmission-Related Constraints, Climate Adaptation Study, Solar Integration Cost Drivers, and Colstrip Customer Impacts) and called for the Climate Adaptation Study to be included in the IRP Update and the other three analyses to be completed prior to the next IRP.<sup>14</sup></p> <p><b>PGE Position:</b> PGE supports Staff’s recommendation for PGE to include the enabling analyses on Transmission-Related Constraints and Solar Integration Cost drivers in the next IRP. PGE will provide an update on the status of both in the IRP Update.</p> <p>PGE clarifies that we do not anticipate that the Climate Adaptation Study will be completed in time to include in the IRP Update. PGE recommends that it instead be included in the next IRP.</p> <p>PGE proposes to complete and report findings from the Colstrip enabling analysis to Staff by July 31, 2020. This is also discussed in PGE’s response to Staff Recommendation GR6.</p>
<p><b>Staff Proposed Analyses</b></p> <p><b>Staff AR1 – AR4.</b></p>	<p><b>Staff Report:</b> Staff recommended five additional analyses:<sup>15</sup></p> <ul style="list-style-type: none"> <li>• Emissions forecast update (IRP Update)</li> <li>• Market price forecast enhancements (next IRP)</li> <li>• The probability of individual futures (next IRP)</li> <li>• Discount rate sensitivities for intergenerational equity (next IRP)</li> <li>• Flexibility value for hybrid energy and storage resources (next IRP)</li> </ul> <p><b>PGE Position:</b></p> <ul style="list-style-type: none"> <li>• PGE is committed to updating its emissions forecast in the next IRP update.</li> <li>• PGE will continue to discuss and collect feedback on market price forecasting methodology in stakeholder processes in the next IRP.</li> <li>• PGE supports Staff’s recommendation, and has committed to work with Staff and stakeholders to improve the consideration of weights applied to various futures.<sup>16</sup> PGE notes that multiple considerations are accounted for in making portfolio modeling decisions such as this, and that future work between the company, Staff, and stakeholders will not necessarily lead to tangibly different methodologies.</li> </ul>

<sup>14</sup> LC 73 Staff Report at 4.

<sup>15</sup> LC 73 Staff Report at 4 and 59.

<sup>16</sup> PGE Final Comments at 51.



Topic	Summary and Response
	<ul style="list-style-type: none"> <li>• PGE is open to working with Staff and stakeholders to develop appropriate sensitivities on the discount rate in its intergenerational equity analysis for the next IRP.</li> <li>• PGE is open to investigating the potential flexibility value of hybrid energy and storage resources in the next IRP.</li> </ul>

#### 5.4. Future IRP or IRP Update

Topic	Summary and Response
<p><b>Staff GR2. RPS Compliance and Banking Strategy</b></p>	<p><b>Staff Report:</b> Staff recommends the Commission decline to acknowledge PGE’s physical RPS compliance strategy and suggests the Commission direct PGE to make five changes going forward:<sup>17</sup></p> <ul style="list-style-type: none"> <li>• In the next IRP, not model physical compliance</li> <li>• In an upcoming RFP and/or IRP update, model the use of a reasonable amount of unbundled RECs</li> <li>• In an upcoming RFP and/or IRP update, revise RPS needs to include 20 percent unbundled RECs</li> <li>• In the next IRP, run a sensitivity analysis on the preferred portfolio using 20 percent unbundled RECs</li> <li>• Open a contested case to determine how to return REC bank value to customers</li> </ul> <p><b>PGE Response:</b></p> <ul style="list-style-type: none"> <li>• PGE disagrees with Staff and maintains that physical RPS compliance is a reasonable long term planning assumption for consistency with Oregon clean energy policy. However, PGE is open to running a sensitivity in the next IRP that does not require physical RPS compliance.</li> <li>• PGE is open to working with both Staff and stakeholders to develop sensitivities that test the use of Banked RECs as a method of RPS compliance in either a future IRP or IRP Update. PGE does not believe that a future RFP is the appropriate forum to address this issue.</li> <li>• PGE is open to working with both Staff and stakeholders to develop sensitivities that test the use of unbundled RECs as a method of RPS compliance in either a future IRP or IRP update. PGE does not believe that a future RFP is the appropriate forum to address this issue.</li> </ul>

<sup>17</sup> LC 73 Staff Report at 47.

Topic	Summary and Response
	<ul style="list-style-type: none"> <li>• PGE is willing to run a sensitivity on the preferred portfolio in the next IRP using 20 percent unbundled RECs.</li> <li>• PGE is supportive of having a robust discussion of how the REC bank can best be used for customers.</li> </ul> <p>PGE does have some concerns about the assertions that Staff makes in support of their recommendations, which are addressed below in <b>Section 6</b>.</p>
<p><b>Staff GR3. Load Forecast</b></p> <p><b>Industrial Load Forecast</b></p>	<p><b>Staff Report:</b> Staff recommended that in the planning cycle for the next IRP, PGE work <i>“with stakeholders to explore the drivers used in future industrial load forecasts and sensitivities around Direct Access customers.”</i><sup>18</sup></p> <p><b>PGE Position:</b> PGE agrees to discuss with stakeholders alternate drivers of the econometric industrial load forecast as well as specific sensitivity analyses for the industrial load forecast. PGE will work with stakeholders to develop appropriate sensitivity scenarios.</p>
<p><b>Staff GR4. Non-traditional metrics</b></p>	<p><b>Staff Report:</b> Staff expresses support for non-traditional metrics and found that the non-traditional metrics address contemporary risks not fully captured by traditional cost and risk metrics.<sup>19</sup> However, Staff recommends against the use of non-traditional screening metrics prior to consideration of traditional cost and risk and recommends that PGE continue to refine non-traditional metrics with Staff and stakeholder input.<sup>20</sup></p> <p><b>PGE Position:</b> PGE plans to work with Staff and stakeholders to consider adjustments to the scoring methodology in the next IRP cycle. Staff’s recommendations regarding non-traditional scoring metrics will be considered as part of those discussions. PGE does not find it appropriate to decide at this time what changes should be adopted and whether non-traditional metrics can be appropriately applied as screens.</p>
<p><b>Staff GR5. Market Energy Position</b></p>	<p><b>Staff Report:</b> Staff provides two recommendations regarding the market energy position in the next IRP:</p> <ul style="list-style-type: none"> <li>• “Continue to use the MEP in portfolio modeling to manage the market position of its portfolios and provide the traditional LRB as a means of determining if there is a capacity or energy shortage.”<sup>21</sup></li> <li>• “Work with Stakeholders to consider opportunities to improve the terminology and reporting of MEP information related to energy in future IRPs.”<sup>22</sup></li> </ul>

<sup>18</sup> LC 73 Final Staff Report at 52.

<sup>19</sup> LC 73 Staff Report at 52-53.

<sup>20</sup> LC 73 Staff Report at 54.

<sup>21</sup> LC 73 Staff Report at 56.

<sup>22</sup> LC 73 Staff Report at 56.

Topic	Summary and Response
	<p><b>PGE Position:</b> PGE will continue to appropriately manage the energy position in portfolio development and scoring in the next IRP. PGE supports working with stakeholders to continue to improve the terminology and reporting for the market energy position and to improve the understanding of the traditional energy load-resource balance.</p> <p>PGE will provide the traditional energy load-resource balance in the next IRP, but PGE continues to disagree with Staff on its usefulness in determining if there is an energy shortage, as discussed in PGE’s Reply and Final Comments.<sup>23</sup> PGE disagrees with Staff’s suggestion that the traditional load-resource balance be used to determine capacity needs. The traditional capacity load-resource balance is a reporting tool that is informed by and does not replace probability loss of load modeling.</p>
<p><b>Staff GR5. Market Energy Position Resource Need</b></p>	<p><b>Staff Report:</b> Staff recommends that PGE work with stakeholders before the next IRP to <i>“Include a regional market analysis to identify the impacts of regional market developments on PGE’s resource needs and options.”</i><sup>24</sup></p> <p><b>PGE Position:</b> PGE supports including a discussion with stakeholders of potential updates to the regional market capacity study in the next IRP planning cycle. PGE intends to update the analysis to inform the capacity need assessment for the next IRP.</p> <p>Regarding potential regional markets such as the Extended Day-Ahead Market (EDAM), PGE noted in final comments that PGE will reach out to stakeholders to discuss what information would be useful to provide and what docket would be most appropriate to provide the information.<sup>25</sup></p>
<p><b>Staff GR6. Decarbonization Strategy</b></p>	<p><b>Staff Report:</b> Staff makes several recommendations related to a holistic least cost/least risk decarbonization strategy.<sup>26</sup> These include conducting the proposed Colstrip enabling analysis and providing quarterly updates to Staff; continued work and enhancements to portfolio modeling to investigate a <i>“least cost, least risk decarbonization strategy to be compared to traditional top performing portfolios”</i>;<sup>27</sup> consideration of potential thermal resource retirements in portfolio modeling;<sup>28</sup> and a <i>“discussion of community-driven decarbonization efforts in the IRP Update.”</i><sup>29</sup></p> <p><b>PGE Position:</b></p>

<sup>23</sup> LC 73 PGE Reply Comments at 53-54 and PGE Final Comments at 6, 17.

<sup>24</sup> LC 73 Staff Report at 56.

<sup>25</sup> LC 73 PGE Final Comments at 18.

<sup>26</sup> LC 73 Staff Report at 59.

<sup>27</sup> LC 73 Staff Report at 59.

<sup>28</sup> LC 73 Staff Report at 59.

<sup>29</sup> LC 73 Staff Report at 59.

Topic	Summary and Response
	<ul style="list-style-type: none"> <li>• PGE agrees with Staff that it is important to actively evaluate options related to Colstrip. The range of policy, operating and political uncertainty surrounding Colstrip both complicate and drive the importance of continuously evaluating the plant’s future within PGE’s portfolio. PGE proposes to complete and report findings from the proposed Colstrip enabling analysis to Staff by July 31, 2020, in lieu of quarterly reporting.</li> <li>• PGE will continue to engage with stakeholders prior to the next IRP on how to incorporate decarbonization strategy into the IRP through modeling assumptions and other choices. PGE notes that incorporating more complex portfolio optimization treatment for resource retirements may necessitate the development of new methodologies and significant additional analytical complexity. When considering new capabilities within the IRP, PGE prioritizes those areas of methodological development that are most salient to the next planning cycle and looks to input from the Commission and stakeholders in making those determinations.</li> <li>• PGE will also provide a status update on voluntary renewable programs in the IRP Update.</li> </ul>

5.5. Other Dockets

Topic	Summary and Response
<p><b>Staff AR5. Energy Efficiency Capacity</b></p>	<p><b>Staff Report:</b> <i>“Further refinement of the capacity value of energy efficiency in UM 1893, as highlighted in NWECE’s comments.”<sup>30</sup></i></p> <p><b>PGE Position:</b> PGE has been working with Energy Trust, Staff, and stakeholders in Docket No. UM 1893 to improve the energy efficiency avoided cost input process, including improvements to the treatment of capacity value. PGE looks forward to continuing to work with parties in UM 1893 for continued improvements.</p>
<p><b>Staff AR6. Direct Access</b></p>	<p><b>Staff Report:</b> <i>“Planning for Direct Access load and capacity in UM 2024.”<sup>31</sup></i></p> <p><b>PGE Position:</b> PGE believes it is appropriate to continue discussion of planning for the capacity needs of Long-term Direct Access customers in Docket No. UM 2024 in addition to the IRP. PGE continues to urge the OPUC to allow PGE to plan for the capacity needs of direct access customers by providing additional guidance on Guideline 9 allowing for the planning and procurement of the capacity, not energy, needs of direct access customers. Given the Commission’s Order No. 20-002 in UE 358 and the plan to address resource adequacy and how all system participants contribute to resource adequacy in UM 2024, once that policy direction is provided, PGE anticipates IRP planning considerations will follow.</p>

<sup>30</sup> LC 73 Staff Report at 60.

<sup>31</sup> LC 73 Staff Report at 60.

Topic	Summary and Response
<b>Staff AR7. QFs</b>	<p><b>Staff Report:</b> <i>“Planning for future and expiring QFs in UM 2038, per the concerns expressed by REC.”</i><sup>32</sup></p> <p><b>PGE Position:</b> PGE agrees with Staff that Docket No. UM 2038 is the appropriate docket for addressing the treatment of PURPA qualifying facilities (QFs) in the IRP process. PGE continues to disagree with the opinions expressed by REC as discussed in Section 4.9 of PGE’s Reply Comments.</p>
<b>Staff AR8. Green Tariff</b>	<p><b>Staff Report:</b> <i>“The potential for Voluntary Renewable Energy Tariffs to cause PGE to overbuild bundled energy resources in UM 1953, as raised by AWEC.”</i><sup>33</sup></p> <p><b>PGE Position:</b> PGE believes that Docket No. UM 1953 is the appropriate docket to address issues regarding the unsubscribed portion of the previously-approved 300 MW and any proposed increased capacity for the Voluntary Renewable Energy Tariff.</p>

## 6. Additional Clarifications

In this section, PGE provides additional clarifications and responses to some of the additional content in the Staff Report.

Topic	Summary and Response
<b>RPS Compliance and Banking Strategy</b>	<p><b>Staff Report:</b> Staff claims that PGE’s physical compliance of RECs has led to a seven-fold increase in the size of the REC bank forecasted in 2040 between the 2016 and 2019 IRPs.<sup>34</sup></p> <p><b>PGE Response:</b> Staff incorrectly attributes the increase in PGE’s forecasted REC bank solely to the physical RPS compliance constraint. The large increase in the size of the REC bank in portfolio modeling is primarily due to the increase in renewable additions that are driven by economics rather than RPS requirements.</p>

<sup>32</sup> LC 73 Staff Report at 60.

<sup>33</sup> LC 73 Staff Report at 60.

<sup>34</sup> LC 73 Staff Report at 45.

Topic	Summary and Response
<p><b>Long-term Direct Access</b></p>	<p><b>Staff Report:</b> “Staff agrees with AWEC that docket UM 2024 would be the most appropriate forum to explore treating Direct Access as a resource option in future IRPs.”<sup>35</sup></p> <p><b>PGE Position:</b> While the issue may be an open question for UM 2024, PGE continues to strongly disagree with the opinion that speculating on future long-term direct access elections is an appropriate resource option for long-term planning. PGE has an obligation to plan for all cost-of-service supply customers, regardless of customer class or eligibility for Direct Access. Additional discussion was provided in Section 3.1 of PGE’s Final Comments.</p>
<p><b>Load Forecasts</b></p>	<p><b>Staff Report:</b> “Staff agrees strongly with CUB’s description of the necessity of load forecasts to be as accurate as possible to avoid overbuilding resources.”<sup>36</sup></p> <p><b>PGE Position:</b> It is important to develop methodologically sound forecasts and to continually seek opportunities to improve them. It is also important to recognize that there are uncertainties in inputs and models. PGE’s 2019 IRP examined low and high need scenarios that captured these uncertainties and PGE recommended actions that are robust to these uncertainties. PGE finds this to be an appropriate tool for addressing concerns such as the potential to overbuild resources. PGE looks forward to continued discussion of the treatment of uncertainties in the next IRP cycle.</p>
<p><b>Traditional Energy Load-Resource Balance</b></p>	<p><b>Staff Report:</b> “The traditional energy LRB, which identifies the last possible year when the company could acquire a new resource and still serve load reliably, is an accurate way to identify the year of a resource need.”<sup>37</sup></p> <p><b>PGE Position:</b> PGE strongly disagrees with this statement and other similar statements in this section. The traditional energy load-resource balance (LRB) is not a reliability assessment, it does not indicate the year when new resources are needed to serve load reliably, and it does not consider “the full potential energy output of existing utility resources”.<sup>38</sup> As stated in <b>Section 5.4</b>, PGE looks forward to working with Staff and stakeholders in the next IRP planning process to create a better understanding of the traditional energy LRB.</p>

<sup>35</sup> LC 73 Staff Report at 50.

<sup>36</sup> LC 73 Staff Report at 50.

<sup>37</sup> LC 73 Staff Report at 55.

<sup>38</sup> LC 73 Staff Report at 55.

Topic	Summary and Response
<p><b>Interim Transmission Solution</b></p>	<p>PGE provides the following clarification to Staff’s report to ensure the intent of the ITS is fully understood by all parties:</p> <ul style="list-style-type: none"> <li>• The ITS is aimed at addressing constrained transmission in the region, while balancing costs and risks for customers and the Company. PGE is not deploying the ITS to comprehensively address the costs and risks of integrating renewable resources as integration (e.g., balancing) is separately addressed in the IRP through the variable energy resource (VER) integration and flexibility assessments.</li> <li>• The Company has only proposed to apply the ITS to non-dispatchable renewable resources.</li> <li>• The transmission rights associated with the Boardman closure are not on PGE’s system. Instead, they are transmission rights on the BPA system from Boardman’s point of interconnection, the Slatt substation, to PGE’s interconnection with BPA. PGE appreciates Staff’s recognition of the potential risks associated with entering into another five-year agreement for these specific rights. However, Staff appears to mischaracterize the risk that PGE has represented. If PGE were to renew these rights for use in an RFP, it would have cost and risk implications for <u>both</u> customers and PGE. In a hypothetical situation where PGE renewed these rights exclusively for a potential benchmark bid, PGE shareholders would bear the associated costs and risks until such a time that those rights were placed into service with the benchmark, and only if the benchmark is successful in an RFP.</li> <li>• The assessment of average flowgate impacts and weightings of specific transmission paths is best suited for subsequent transmission-specific analysis within a future IRP. Within an RFP, specific bids are submitted, and those bids have defined flowgate impacts, as determined by BPA. PGE is not in a position to determine these specific impacts, but rather will work with bidders and BPA to gather the project specific information and publicly available information to make informed scoring decisions. Furthermore, as PGE has explained in its comments, transmission rights are not procured on a flowgate-by-flowgate basis, they are procured on a path basis, which has flowgate impacts. Each specific path has a specific set of flowgate impacts determined by BPA when evaluating the availability of transmission. The Company is not in a position to speculate about transmission availability, impacts, or upgrade costs when it comes to specific transmission paths or requests on the BPA system.</li> </ul>

## 7. Conclusion

PGE appreciates the thoughtful dialogue and contributions of Staff and parties to the Company’s 2019 IRP. We believe that the 2019 IRP represents a leap forward for PGE’s ability to plan amidst broad and rapid changes in our industry. The 2019 IRP presents PGE’s strategy for meeting customer needs in a way that is grounded in balanced cost and risk and recognizes the opportunity for new clean technologies to help meet those needs. Furthermore, the 2019 IRP meets the procedural and

substantive requirements established in the IRP Guidelines and prior orders. We respectfully request that the Commission acknowledge PGE's 2019 IRP at the March 16<sup>th</sup>, 2020 public meeting.

DATED this 6th day of March, 2020.

Respectfully submitted,



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