



**Portland General Electric Company**  
Legal Department  
121 SW Salmon Street • 1WTC1301 • Portland, Oregon 97204  
Telephone 503-464-8544 • Facsimile 503-464-2200  
portlandgeneral.com

**Erin E. Apperson**  
Assistant General Counsel

April 12, 2021

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

**Re: LC 73 – Portland General Electric Company’s Response to Staff Report**

Dear Filing Center:

Enclosed for filing today in the above-referenced docket is Portland General Electric Company's Response to Staff Report.

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

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**BEFORE THE PUBLIC UTILITY COMMISSION OF**

**OREGON**

**Docket LC 73**

In the Matter of

PORTLAND GENERAL ELECTRIC  
COMPANY

2019 Integrated Resource Plan.

**PORTLAND GENERAL ELECTRIC COMPANY'S  
RESPONSE TO STAFF REPORT**

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## 1. Introduction

Portland General Electric Company's (PGE or Company) 2019 IRP (integrated resource plan) and IRP Update support the Company's strategy for meeting increasing customer needs in a manner that best balances cost and risk in a dynamic and rapidly evolving environment. PGE appreciates Staff's thorough review and overall support for acknowledgment of the 2019 IRP Update and well as feedback provided by parties throughout this process. PGE largely supports and agrees with Staff's recommendations. In the sections below we begin by providing a summary and brief response for each of Staff's recommendations. We then focus on PGE's request for acknowledgment. Finally, we provide the Company's position on some of the key issues that Staff and parties raised in this proceeding.

## 2. Staff Recommendations

In the Staff Report to the Public Utility Commission of Oregon (Commission) filed April 6, 2021 (Report), Staff recommended acknowledgment of PGE's 2019 IRP Update for the purposes of incorporating the inputs as part of the May 1 avoided cost update filing.<sup>1</sup> Staff proposed three actions for PGE to take in either the next IRP or the upcoming RFP (request for proposals), which PGE supports working with Staff to accommodate, though in some cases PGE has recommendations to clarify Staff's request.<sup>2</sup> **Table 1** lists the recommendations from Staff and PGE's position on each.

*Table 1. Staff's recommended actions and PGE's response*

Recommendation	Summary and Response
<b>1. Wholesale Market Electricity Prices</b>	<p><b>Staff Recommendation:</b> "Staff requests a workshop with PGE for the purpose of working with PGE before the 2021 IRP is filed to look at natural gas generation in the 'high renewables buildout' price forecast, and discuss whether gas resources would be likely to generate significantly less in that future, thus reducing market prices."<sup>3</sup></p> <p><b>PGE Response:</b> PGE agrees to coordinate with Staff to schedule a price forecasting workshop during the public process for the development of the next IRP. This workshop will include a discussion of the purpose of Western Electricity Coordinating Council (WECC) wide resource buildouts as well as the role of natural gas resources in market price determination.</p>
<b>2. Resource Economics (ELCC Values)</b>	<p><b>Staff Recommendation:</b> "Staff requests that PGE compute effective load carrying capability (ELCC) values by year and present the findings with its next IRP. Staff and stakeholders can use the findings to determine whether the impact of resource retirements and additions, and other changes in the load and resource balance, significantly change the ELCC values."<sup>4</sup></p>

<sup>1</sup> LC 73 – Staff's Report at 1.

<sup>2</sup> *Id.* at 1-2.

<sup>3</sup> *Id.* at 1.

<sup>4</sup> *Id.* at 1-2.

Recommendation	Summary and Response
	<p><b>PGE Response:</b> PGE agrees to collaborate with Staff and participants to determine what additional ELCC analysis is of interest and may be informative to the IRP process. PGE will work with Staff and participants to balance this in coordination with other analytical requests.</p>
<p><b>3. Portfolio Analysis</b></p>	<p><b>Staff Recommendation:</b> “Staff requests that PGE collaborate with Staff in developing and reporting low market price and Production Tax Credit (PTC) extension sensitivities for inclusion with the Final Shortlist in the upcoming RFP.”<sup>5</sup></p> <p><b>PGE Response:</b> PGE agrees to collaborate with Staff to determine the best methods to examine low wholesale market electricity prices and to develop a PTC extension sensitivity for recommended inclusion in the Final Shortlist analysis in the upcoming RFP.</p>

### 3. Request for Acknowledgment

PGE supports Staff’s recommendation that the Commission acknowledge its IRP Update. As PGE outlined in its initial filing and reply comments, PGE requests acknowledgment of its 2019 IRP Update so that it may update its avoided cost prices according to the Commission’s rules and standard timeline. The Company has followed the expected and appropriate process by submitting its request for acknowledgment—leading a fair and accessible process with robust analysis and open communication regarding the results with participants and Staff. PGE’s request is consistent with the Commission’s policy of ensuring that prices remain as accurate as possible and that pricing updates are predictable.

PGE appreciates Staff’s finding that PGE’s avoided cost inputs, and the underlying assumptions, are acceptable and Staff’s recommendation that the inputs should be acknowledged. Staff recommends acknowledgment of the avoided cost inputs contained in the IRP Update and specifically states that “Each of the three major assumptions that decreased PGE’s solar ELCC values are acceptable as a starting point, therefore, Staff recommends that PGE’s IRP Update be acknowledged as a starting point for the May 1 avoided cost update.”<sup>6</sup>

PGE’s only concern with Staff’s recommendation is to the extent that Staff is suggesting that parties should be permitted to fully re-litigate the assumptions underlying acknowledged inputs, such as assumptions around the size of the Community Solar Program (CSP) or other assumptions underlying the ELCC calculation, in docket UM 1728. PGE is concerned that this would be administratively inefficient given the thorough review by Staff and participants in this proceeding.<sup>7</sup> Specifically, PGE’s concern is raised by Staff’s statement that “despite being an acceptable starting point, Staff finds it reasonable for

<sup>5</sup> *Id.* at 2.

<sup>6</sup> *Id.* at 13.

<sup>7</sup> The Commission has previously recognized the challenges inherent in examining certain IRP inputs and assumptions outside the IRP process in UM 1794, Order No. 17-176 at 3.

stakeholders to make arguments in the May 1 avoided costs update filing that adjustments to the three assumptions above would change the 5.5 percent solar ELCC value.”<sup>8</sup>

During this IRP Update process, PGE has engaged at length with Staff and participants regarding these inputs—filing a Supplemental Filing to help participants understand the avoided cost implications of the IRP Update, and responding numerous data requests from Renewable Energy Coalition (REC) addition to Staff’s 58 requests. As a result, PGE believes that participants have had a full opportunity and information available to vet the avoided cost inputs from this IRP Update.

Consistent with the Commission’s rules, PGE plans to flow acknowledged inputs into its updated standard avoided cost prices that will be filed in Docket UM 1728.<sup>9</sup> If Staff or participants have questions or concerns regarding how the inputs flow into PGE’s avoided cost calculations or the resulting avoided cost prices, PGE agrees those concerns are appropriately explored in Docket UM 1728. Here, Staff and participants already have had ample opportunity to review and obtain Commission resolution regarding the inputs. Given the effort and time devoted to review of the IRP Update, it would be inefficient for participants to completely re-raise, and for the Commission and its Staff to completely re-examine, the same criticisms and arguments in Docket UM 1728 as were already addressed in this proceeding. Therefore, PGE respectfully requests that the Commission clarify that the assumptions underlying acknowledged inputs addressed in this proceeding will not be wholly re-examined in Docket UM 1728. Alternatively, if the Commission believes it is appropriate to re-examine the issues that were thoroughly vetted in the IRP Update process, PGE requests that it direct that any re-examination be conducted in a manner that accounts for the record developed in this docket and gives due weight to the Commission decision in this IRP Update proceeding.

#### 4. Avoided Cost Pricing and PURPA QF Contracts

As stated previously, PGE is seeking acknowledgment to be able to include the updates from the 2019 IRP Update in the May 1 avoided cost price filing to better align prices with customer avoided costs. In PGE’s February 5 supplemental filing,<sup>10</sup> we provided information about the items from the IRP Update that will be included in the May 1 avoided cost filing, which are: (1) updated ELCC values; (2) updated simple-cycle combustion turbine net energy value; (3) updated interconnection costs; and (4) updated combined-cycle combustion turbine annual generation and starts. The supplemental filing also included an estimate of how these specific changes impact current avoided cost prices. While some parties disagreed with the need to update avoided cost pricing, Staff noted in the Report that their “thinking aligns with PGE that updating avoided cost prices is desirable to reflect newly available inputs.”<sup>11</sup>

The need and position assessments for the 2019 IRP Update included an updated snapshot of executed PURPA qualifying facilities (QF) contracts and reflected anticipated terminations related to the Community

<sup>8</sup> LC 73 - Staff’s Report at 13.

<sup>9</sup> OAR 860-029-0085(4)(a)(D).

<sup>10</sup> LC 73 – PGE’s 2019 IRP Update Supplemental Filing.

<sup>11</sup> LC 73 – Staff’s Report at 13.

Solar Settlement Agreement. While Staff expressed agreement with PGE that historical QF terminations may not be a reasonable forecast of future QF terminations, Staff also expressed interest in forecasting terminations, renewals, and new executions in the future.<sup>12</sup> Staff noted that the 2020 power cost filing included a deration to QF generation.<sup>13</sup> Staff also recommended that questions regarding QF assumptions be explored in Docket No. UM 2038.<sup>14</sup>

PGE agrees with Staff that Docket No. UM 2038 is the appropriate forum to address QF assumptions for IRPs. PGE notes that it continues to find that its treatment of QFs in the Baseline Portfolio is the most appropriate view for customers for long-term resource planning, competitive procurement processes, and when contracting for avoided cost resources.

In reference to Staff's comment regarding the 2020 power cost deration for QFs, PGE notes that what may be appropriate in the context of establishing customer rates may not be appropriate in the context of analysis for long-term planning or for entering into customer obligations for procurement.<sup>15</sup>

## 5. Voluntary Renewables

The need and position assessments for the 2019 IRP Update included the CSP in the Baseline Portfolio (approximately 93 MW). The snapshot also incorporated the anticipated QF contract terminations related to the Community Solar Settlement Agreement. As discussed in Section 4.3 of PGE's 2019 IRP Update reply comments, PGE found this to be the most appropriate treatment for long-term planning based on the information available at the time of analysis and in alignment with the requirements of Order No. 17-232. In the Report, Staff supported PGE's treatment "as the best possible forecast as of this filing."<sup>16</sup> PGE continues to find the inclusion of CSP in the Baseline Portfolio as the most appropriate view for long-term planning and intends to include it in the Baseline Portfolio for analysis for the upcoming RFP process.

In the 2019 IRP Update, the remaining 138 MW of the Green Energy Affinity Rider<sup>17</sup> (GEAR) Phase 1 was examined through a sensitivity analysis of a placeholder resource. On February 11, 2021, PGE announced that the Company had entered into a power purchase agreement (PPA) for the generation from a solar facility to fill this remaining portion of GEAR Phase 1.<sup>18</sup> In the Report, Staff commented that PGE should update the GEAR resource modeling in the Baseline Portfolio to reflect the contracted resource.<sup>19</sup>

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<sup>12</sup> *Id.* at 7.

<sup>13</sup> *Id.* at 8.

<sup>14</sup> *Id.* at 12.

<sup>15</sup> The power cost process includes a true-up mechanism, which is not available to customers for executed QF contracts. Additionally, PGE notes that no derate was applied in the most recent power cost filing. See PGE's UE 391 Direct Testimony 100 at 39-40.

<sup>16</sup> LC 73 – Staff's Report at 5.

<sup>17</sup> Also referred to as the Voluntary Renewable Energy Tariff (VRET), green tariff, and Green Future Impact.

<sup>18</sup> See: <https://portlandgeneral.com/news/2021-02-11-customer-participation-in-pges-green-future-impact-program>

<sup>19</sup> LC 73 – Staff's Report at 5-6.

PGE agrees that this should be included in the Baseline Portfolio in the next snapshot update and intends to include it in the Baseline Portfolio for the analysis for the upcoming RFP process.

In Order No. 21-091, the Commission approved an additional 200 MW for PGE’s GEAR program and updated conditions applicable to proposals.<sup>20</sup> The Order discussed the importance of incorporating the impacts of voluntary renewable program in the long-term planning process, including examination of the impacts of various market price scenarios on GEAR resources, and potential impacts on non-participating customers.<sup>21</sup>

PGE continues to commit to provide analysis that incorporates updates to voluntary renewable programs, such as consideration of the additional 200 MW of approved GEAR capacity. Additionally, PGE plans to provide updated analyses for GEAR program developments as necessary. PGE continues to agree that incorporating effects of the potential growth of voluntary renewable programs in the long-term planning process and potential impacts on customer price and risk remain important and will work to do so collaboratively with Staff and participants in the next IRP.

## 6. ELCC Values (Resource Economics)

PGE appreciates Staff’s and participants’ review of the ELCC Study for the 2019 IRP Update and Staff’s finding of support for the proxy solar resource in the analysis.<sup>22</sup> As discussed in the IRP Update and PGE’s reply comments, the findings of the study indicate that the primary driver in the decline of the solar ELCC value of the first incremental addition relative to the 2019 IRP is the increase in solar resources in the Baseline Portfolio. The results were shared with participants in the November 2020 Roundtable and align with the declining marginal ELCC values for solar from previous ELCC studies.

In the Report, Staff found the solar ELCC values to be “an acceptable starting point” and discussed three inputs to the analysis: the executed qualifying facility contracts, the CSP, and the examination of a 2025 test year.<sup>23</sup> PGE appreciates Staff’s thorough review and while we agree with Staff that avoided cost pricing is not determined in the IRP docket, we note that the 2019 IRP Update ELCC Study was based on the most appropriate information available at the time of analysis and the results have been extensively reviewed in this docket.<sup>24</sup> Additionally, PGE notes that the treatment of the three items in the Baseline Portfolio for the ELCC aligns with modeling in the capacity need assessment and is consistent with how we recommend these items be treated in the capacity assessment for competitive procurement in the upcoming RFP process. PGE provides additional discussion about executed QF contracts in **Section 4** and the Community Solar Program in **Section 5**.

PGE appreciates Staff’s interest in additional ELCC analysis across the planning horizon in the next IRP. As indicated in **Section 2**, PGE will work with Staff and participants to consider what additional ELCC

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<sup>20</sup> Order No. 21-091 at 1.

<sup>21</sup> *Id.* at 14-15.

<sup>22</sup> LC 73 – Staff’s Report at 7.

<sup>23</sup> *Id.* at 12-13.

<sup>24</sup> See LC 73 – PGE’s Reply Comments, Section 5.2 at 66-67.



exploration may be informative for the next IRP. However, this work will need to be balanced in coordination with the other analytical requests. Additionally, while exploring ELCC analysis for additional years may produce some useful insights and questions, as noted in PGE’s reply comments, PGE finds that for the purposes of comparing resources for long-term procurement decisions and contracting for avoided cost resources, the test year methodology is more appropriate.<sup>25</sup>

Staff commented that “coal retirement and storage additions might shift loss of load hours to during times of solar generation which, all else equal, would increase the ELCC of solar.”<sup>26</sup> While PGE looks forward to further discussions with Staff and participants on this topic, PGE cautions that the impact of adding or removing a resource on the loss-of-load hours and the ELCC values for incremental solar resources (or other technology types) depends on the underlying nature of the system’s load and the remaining portfolio of resources (in addition to the characteristics of the resource added or removed). For example, a system dominated by winter need may see a greater impact to winter loss-of-load events than summer loss-of-load events due to the removal of a coal plant and this may not lead to an increase in the ELCC value of a solar resource. Additionally, PGE notes that adding a storage resource to a system does not necessarily mean that the system’s loss-of-load hours would increase during hours aligned with solar generation. A system may have sufficient hours with generation capacity available to fully charge a storage resource.

## 7. Wholesale Market Electricity Prices

In the 2019 IRP Update, PGE refreshed the 54 wholesale market price scenarios from the 2019 IRP to incorporate updated forecasts for natural gas prices and carbon prices.<sup>27</sup> Staff examined the updated prices and concluded that they did “not find a reason for concern in the changes to PGE’s market price forecast from the 2019 IRP to the IRP Update.”<sup>28</sup>

Staff also noted two areas of interest for further exploration with PGE and participants in the development of the next IRP. Staff is interested in examining the role of natural gas resources in a WECC-wide high renewable buildout scenario and requested a workshop to discuss this.<sup>29</sup> As discussed in **Section 2**, PGE agrees to coordinate with Staff to schedule a price forecasting workshop during the public process for the development of the next IRP. This workshop will include a discussion of the purpose of WECC-wide resource buildouts as well as the role of natural gas resources in market price determination.

Staff is also interested in understanding the implications of the regional market capacity study on the wholesale market price forecast.<sup>30</sup> PGE clarifies that the regional market capacity study informs the capacity assessment analysis but is not part of the wholesale market price analysis. PGE looks forward to

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<sup>25</sup> See LC 73 – PGE’s Reply Comments at 21.

<sup>26</sup> LC 73 – Staff’s Report at 12-13.

<sup>27</sup> LC 73 – PGE’s 2019 IRP Update, Section 4.

<sup>28</sup> LC 73 – Staff’s Report at 6.

<sup>29</sup> *Id.* at 1.

<sup>30</sup> *Id.* at 6.

discussions with Staff and participants during the development of the next IRP to provide additional information about the WECC-wide resource assumptions for the wholesale market price forecasting.

When developing price forecasts for the next IRP, PGE plans to continue robust engagement with participants in the public process. PGE has already shared draft price drivers in Roundtable 21-1 and will continue to share updated information throughout the price forecasting process. PGE looks forward to working with Staff and participants in its price forecasting efforts.

## 8. Portfolio Analysis

PGE appreciates the evaluation of its portfolio analysis in the Report and the request for the development of PTC extension and market price sensitivities for inclusion of the upcoming RFP. While PGE disagrees with Staff's characterization of the renewable additions in its portfolio analysis,<sup>31</sup> the smaller quantity of capacity resources selected,<sup>32</sup> and the relative contribution of the Douglas PPA,<sup>33</sup> the Company supports Staff's request to include a tax credit sensitivity and to evaluate low wholesale market prices in the upcoming RFP and to determine the most informative view of the changing and uncertain economics of renewable resources.

## 9. Decarbonization

In November 2020, PGE announced new climate goals, including reducing greenhouse gas emissions associated with the power served to customers by at least 80% below 2010 levels by 2030, plus an aspirational goal of zero greenhouse gas emissions by 2040 for the power served to customers. Importantly, PGE will continue to maintain reliable and affordable electric service that our customers and communities rely upon. Determining how to plan for these new climate goals, along with implementation of the Governor's Executive Order 20-04 and the Commission's workplan, and application of any other new applicable carbon greenhouse gas reduction or clean energy legislation will be a major focus of the next IRP. PGE looks forward to working with Staff and its public participants to develop that plan.

PGE will continue to use the IRP long-term planning process to ensure we make continual progress towards these important climate goals while maintaining a reliable and affordable system. Neither the 2019 IRP nor the IRP Update were developed planning to these goals. However, the resource actions proposed through the analysis provide significant value in making incremental progress towards these

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<sup>31</sup> Staff's Report at 13 notes the preferred portfolio in the 2019 IRP Update includes additional renewables in 2023 relative to the results filed in PGE's LC 73 Final Comments. While technically correct, PGE notes both that results from the filed 2019 IRP portfolio analysis show the same renewable additions in 2023 and that ROSE-E has selected the same cumulative renewable additions by 2024 in every iteration of its portfolio analysis.

<sup>32</sup> Staff's Report at 8. See PGE's IRP Update Reply Comments at 23 for PGE's explanation of the IRP Update's selection of fewer dispatchable capacity resources.

<sup>33</sup> Staff's Report at 10. PGE clarifies that the 595 MW of dispatchable resources in the 2019 IRP's preferred portfolio included the Capacity Fill resource and storage resources with capacity contributions based on RECAP analysis. While the Douglas PPA was a large driver of reduced capacity need, there were other factors as well. Finally, PGE notes that the preferred portfolio in the IRP Update included 337 MW of dispatchable capacity resources: see IRP Update, Table 28 at 71.

climate goals. PGE looks forward to the upcoming RFP as an important step towards a decarbonized future.

## 10. Acknowledged Action Plan and RFP Process

PGE thanks Staff for the comments regarding the RFP and support for commencing the independent evaluator (IE) docket this month.<sup>34</sup> The Company looks forward to addressing long lead time resources in the upcoming RFP and appreciates Staff's suggestion on collaborating on an evaluation of low market prices and a PTC extension sensitivity.<sup>35</sup>

Through the 2021 All-Source RFP, PGE plans to seek dispatchable non-emitting resources as well as renewable resources to meet identified 2025 capacity needs. Additionally, PGE continues to pursue bilateral negotiations for existing capacity in the region and looks forward to apprising the Commission on progress made. PGE will update its capacity need in the RFP to reflect any resource acquisitions and/or load updates. The Company intends to use Sequoia for its capacity need and capacity contribution analyses in the RFP. Use of the Sequoia model in the Company's upcoming procurement process will allow for a more sophisticated and comprehensive evaluation of energy-limited resources like battery storage.

Following the acknowledged 2019 IRP Action Plan, the RPS (renewable portfolio standard) energy limit of up to approximately 150 MWa will allow for dispatchable resources to meet a significant portion of PGE's remaining 2025 capacity need.<sup>36</sup> PGE looks forward to collaborating with Staff and other participants to conduct a procurement that results in the best combination of cost and risk for customers, while also advancing decarbonization efforts.

## 11. Conclusion

PGE appreciates the thoughtful dialog and contributions of Staff and participants to the Company's 2019 IRP and IRP Update. We believe the IRP Update analysis provides more confidence that the 2019 IRP Action Plan represents the best path for PGE as we optimize the system to achieve a clean and reliable energy future for the benefit of customers. The 2019 IRP Update supports PGE's strategy for meeting customer needs in a way that is grounded in balancing cost and risk and recognizes the opportunity for new clean technologies to help meet those needs. Furthermore the 2019 IRP Update meets the procedural and substantive requirements established in the IRP Guidelines and orders. We respectfully

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<sup>34</sup> LC 73 – Staff' Report at 4.

<sup>35</sup> *Id.* at 11.

<sup>36</sup>*Id.*

request that the Commission acknowledge PGE's 2019 IRP Update at the April 20, 2021 special public meeting.

Dated this 12<sup>th</sup> day of April, 2021.

Respectfully submitted,



Erin Apperson, OSB No. 175771

Assistant General Counsel

Portland General Electric Company

121 SW Salmon Street, 1WTC1301

Portland, Oregon 97204

(503) 464-8544 phone

(503) 464-2200 fax

erin.apperson@pgn.com