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June 15, 2022

Via Electronic Filing

Public Utility Commission of Oregon
Attention: Filing Center
201 High Street Southeast, Suite 100
P.O. Box 1088
Salem, Oregon 97308-1088

Re: UM 2166 – In the Matter of Portland General Electric Company 2021 All-Source Request for Proposals – PGE’s Reply Comments

Dear Filing Center:

Enclosed for filing today in the above-referenced docket are Portland General Electric Company’s Reply Comments.

Thank you in advance for your assistance.

Sincerely,

A handwritten signature in blue ink that reads "Erin Apperson".

Erin Apperson
Assistant General Counsel II

EA:al
Enclosure

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 2166

In the Matter of

PORTLAND GENERAL ELECTRIC
COMPANY,

Request for Acknowledgement of the 2021 All
Source Request for Proposals Final Shortlist

**REPLY COMMENTS OF PORTLAND
GENERAL ELECTRIC COMPANY**

I. INTRODUCTION

In accordance with the schedule in this docket, Portland General Electric Company (PGE or Company) submits these comments in support of its 2021 All-Source Request for Proposals (RFP) Request for Acknowledgement of the Final Shortlist (Request). These comments also respond to the May 19, 2022 Public Utility Commission of Oregon (Commission or OPUC) workshop and comments submitted on June 7, 2022, by Commission Staff.

PGE's Request, filed May 5, 2022 and supplemented via errata on May 25, 2022, seeks Commission acknowledgement that bids selected for the final shortlist are reasonable, and that the RFP was conducted fairly and in accordance with Oregon's Competitive Bidding Rules (Rules).¹ PGE seeks to procure new renewable resources of approximately 180 MWa, which includes: 150 MWa of resources consistent with the 2019 Integrated Resource Plan (IRP) action plan, 100 MW nameplate of renewable resources to meet the Green Future Impact (GFI) program Phase II PGE-supplied option (Phase II GEAR PSO), and sufficient capacity resources to meet the remainder of the 2025 capacity need (currently estimated to be 388 MW).

¹ Oregon Administrative Rule 860-089.

Given the need to achieve reasonable progress towards meeting the House Bill 2021 (HB 2021) compliance targets, combined with the portfolio analysis results shared in this proceeding, PGE recognizes the potential customer benefit of considering the addition of a higher volume of renewable resources through the current RFP. PGE’s robust final shortlist of 434 MWa of renewable resources and 497 MW of non-emitting capacity resources provides sufficient resources to consider this alternative. At the same time, we continue to face uncertainties associated with new resource procurement under the current macroeconomic procurement environment as shared during the May 19, 2022 Commission Workshop. PGE continues to favor procurement actions to secure approximately 180 MWa of renewable resources—a resource volume that aims to balance execution risks with achieving continued progress toward PGE’s HB 2021 carbon reduction targets.² Should negotiations indicate that counterparties are willing to enter into commercially binding commitments to deliver projects under the terms bid into the RFP, PGE may have an opportunity to procure more than 180 MWa of new renewable resources. In that case, PGE will examine the potential risks and benefits of additional procurement provided continued alignment with HB 2021 resource needs.

PGE appreciates the engagement and input from stakeholders throughout this process and looks forward to continued discussion as we move forward with implementing the HB 2021 decarbonization targets.³

² See PGE’s May 19, 2022 Workshop Presentation at Slide10.

³ See UM 2166, Staff Comments at 4.

II. REPLY

PGE's Reply organizes comments and recommendations from stakeholders into the following categories: 1) portfolio needs; 2) contracting practices and execution risk; 3) overall planned portfolio procurement volume; and 4) and other procurement considerations. PGE's comments are responsive to feedback provided during the May 19, 2022 Commission Workshop, through questions received via the discovery process, and to comments received from Staff on June 7, 2022.

A. **PGE's 2021 All-Source RFP Allows for Significant Action to Meet 2030 HB 2021 Compliance Needs.**

HB 2021 requires electricity providers to reduce greenhouse gas emissions by 80% by 2030.⁴ The projects selected to the final shortlist in this RFP represent a robust and diverse set of carbon-free resources that will move the company meaningfully forward in meeting the HB 2021 requirements. As commercial negotiations evolve and it becomes clearer what portfolio volumes are attainable through this RFP, PGE will continue discussions with Staff and stakeholders regarding how those volumes could further advance achievement of HB 2021 targets, while maintaining reliable and affordable service for customers.

1. HB 2021 Compliance Forecasted Renewable Needs.

As HB 2021 was passed into law after the acknowledgement of the 2019 IRP and IRP Update, and subsequent to the proposed scoring and modeling methodology established in this RFP, parties have recommended reconsidering the procurement volumes associated with the 2021

⁴ From a 2010-2012 baseline value calculated by the Oregon Department of Environmental Quality.

RFP as part of consideration of how PGE will progress toward the targets outlined in the law.^{5,6} While the Commission ultimately decided against ordering increased procurement volumes in Order No. 21-460, PGE was instructed to continue working with Staff and stakeholders to understand how this RFP supports the overall resource acquisition need per HB 2021. PGE's most recent estimate of the resource volumes needed to comply with HB 2021 is approximately 2,500 to 3,500 MW of renewable resources, and 800 to 1,000 MW of non-emitting capacity resources.⁷

Before approval of the 2021 RFP, PGE shared an initial HB 2021 estimate of approximately 650 MWa of renewable resources subject to a number of caveats including load growth and ability to renew existing carbon-free resource agreements. PGE's RFP analysis of HB 2021 compliance requirements remain interim estimates that will be re-examined in the 2023 IRP. PGE's RFP analysis forecasted multiple HB 2021 compliance scenarios reflecting various sensitivities for customer demand, distributed energy resource additions, electrification, and renewal of existing contracts resulting in a range of approximately 800 MWa to 1400 MWa of renewable resource need by 2030. The increase in PGE's projected compliance requirement relative to previous forecasts is primarily driven by updates to forecasted load.⁸

As noted in PGE's May 19 presentation, PGE has performed portfolio analysis and evaluated renewable resource volumes of 180, 250, or 400 MWa. The evaluated procurement options assess the costs and risks associated with procurement volumes consistent with the 2019 IRP Action Plan, an elevated 250 MWa procurement volume associated with approved RFP design

⁵ UM 2166, Renewable Northwest's September 13, 2021 Reply Comments at 1-3.

⁶ UM 2166, Staff's September 29, 2021 Reply Comments at 11.

⁷ See PGE's May 11, 2022 Investor Presentation, available at: <https://investors.portlandgeneral.com/events-presentations>.

⁸ Response to information request OPUC 42.

decisions, and a portfolio volume of 400 MWa that would satisfy over one-third of PGE’s current HB 2021 need estimate. All procurement volumes make important and significant progress toward reducing PGE’s forecasted CO2 emissions. Based on the Oregon Department of Environmental Quality baseline and reporting, 180 MWa shows an approximate 39% cumulative portfolio reduction from 2010-2012 baseline in 2025, and 400 MWa shows a 49% cumulative portfolio reduction in 2025. For reference, PGE’s 2021 emissions reflect an approximately 23% cumulative reduction relative to the baseline. PGE continues to evaluate progress toward HB 2021 decarbonization compliance with the commitments to serve customers reliably and affordably.

2. *Preliminary Forecasted Customer Price Impact Associated with Near Term Procurement.*

PGE’s portfolio procurement scenarios indicate a range of customer price impacts associated with specific procurement volumes. As described in PGE’s Request, we estimate that top-performing portfolios would result in a 5.4% to 6.7% customer rate impact in 2025 based on the portfolio volume procured—180 MWa to 400 MWa respectively. The estimated rate impact range assumes specific final shortlisted projects are secured at contract prices offered in the RFP, that project performance is consistent with RFP forecasts, and that wholesale market prices remain consistent with reference case forecasts. Wholesale market prices have a significant impact on forecasted customer price impacts of each resource decision because market prices impact the net variable power cost benefit (energy benefit) associated with resources included in the portfolios examined in the RFP. Energy benefits are expected to have considerable uncertainty given the volatility of wholesale energy markets. Should wholesale prices continue to remain elevated in 2025, the customer price impact associated with all studied RFP renewable portfolios would decrease given the greater net variable power cost benefit associated with each resource.

3. *Remaining Cost and Risk Considerations Relating to Procurement Volumes.*

PGE faces significant resources needs by 2030 to achieve HB 2021 compliance. PGE believes it is appropriate to take actions available in this RFP to procure available resources while balancing PGE's obligations regarding affordability and reliability. The traditional cost and risk metrics included in PGE's final shortlist suggest that elevated procurement volumes would lower long-term cost and risks for customers. This finding is largely associated with reducing exposure to mandatory renewable procurements at the end of the decade when renewable resources are forecasted to have higher costs due to the expiration of federal tax credits. Additionally, many northwest utilities face similar and significant renewable resource requirements in 2030 whether they are subject to Oregon's HB 2021, Washington's Clean Energy Transformation Act (CETA), or California's reduced 2032 emissions targets associated with Senate Bill 100 requirements. In an environment of rapidly increasing demand, PGE could face elevated supply costs and risks if planning to close a larger fraction of compliance requirements in the 2025 to 2030 time period.

As noted in PGE's Request, PGE analyzed portfolio volumes at the 180 MWa level, 250 MWa level, and 400 MWa level. PGE's analysis favored the near-term selection of larger portfolio volumes, with the 180 MWa and 250 MWa volumes performing relatively worse than the 400 MWa volume in PGE's portfolio analysis.⁹ PGE's portfolio analysis found that larger portfolio volumes capture available, cost-effective renewables that take advantage of expiring tax credits. Early procurement reduces the need to acquire potentially more expensive renewables in the late 2020s, delivers near-term reduction of dispatchable capacity needs, and reduces the need for wholesale market purchases during periods of high market volatility. In addition, the portfolio

⁹ See UM 2166, PGE's May 25, 2022 Errata at 26, Figure 2.

results favor procurement of diverse resources: all top performing portfolios include either a combination of wind, solar, and battery facilities or provide geographic diversity to reduce portfolio costs and risks.

In contrast, other future scenarios could favor deferring larger procurement volumes to subsequent solicitations. In particular, the size of PGE's compliance requirement correlates strongly with PGE's load forecast. Should load forecasts moderate over time as a result of an economic contraction, fewer renewable resources will be required for compliance. In addition, extended federal and state support for renewable technologies may increase funds available for renewable resource purchasers later this decade, as well as the potential for further renewable resource technology advancements and cost declines.

Despite the long-term benefit and risks associated with various near term portfolio volumes, PGE's intended 180 MWa procurement volume is primarily driven by the Company's assessment of commercially available resources present on its final shortlist. While PGE's portfolio analysis favors larger procurement volumes, modeled results presumes that all bids are available to procure at the price, terms and conditions offered in the solicitation. For reasons described further in these comments, it is possible that some of the projects on the final shortlist may be unable to proceed with commercial agreements due to outstanding execution risks.

While PGE recognizes its portfolio modeling favors larger procurement volumes as beneficial in the near-term, macroeconomic disruption could impact PGE's ability to enter into agreements with some projects selected to the final shortlist. PGE will work with bidders to determine whether they are able to deliver projects at the pricing and terms submitted in the RFP.

To the extent that sufficient counterparties can maintain the pricing and terms as bid, PGE intends to evaluate additional customer benefit of a higher volume of renewable resources.

B. PGE’s Procurement Actions Are Expected to be Limited by Outstanding Execution Risks

Bidders face uncertainty and macroeconomic challenges that may limit PGE’s ability to execute agreements with final shortlisted projects. While PGE’s final shortlist includes 434 MWh of renewable resources and 497 MW of non-emitting capacity resources, fewer resources may be able to execute agreements to deliver these projects at prices, terms and conditions specified in the RFP.

PGE’s Request and PGE’s May 19, 2022 workshop presentation provided detail on the nature of uncertainties and macroeconomic challenges faced by bidders in PGE’s RFP.¹⁰ Those risks and considerations include an investigation by the United States Department of Commerce into possible circumvention of tariffs for solar panel equipment. Upon its announcement, the investigation led to a major disruption to the solar supply chain and led many solar developers, and some bidders within PGE’s solicitation, to indicate an inability to move forward with projects during the period of investigation. President Biden’s administration announced on June 6, 2022, a suspension of solar tariffs for two years while the Department of Commerce investigation proceeds. This recent federal action is expected to significantly ease the uncertainty faced by US solar developers securing solar project components. However, given the large-scale disruption to the supply chain it remains unclear whether solar developers must reassess pricing and forecasted commercial operation dates. Due to previously existing supply chain pressures,¹¹ coupled with the

¹⁰ See UM 2611, PGE’s May 19, 2022 Workshop Presentation at Slide 11.

¹¹ See: <https://www.utilitydive.com/news/solar-storage-delays-price-supply-chain/620537/> (accessed 6-15-2022).

disruption brought by the onset of the investigation, solar bidders may face persistent challenges in both timing and pricing for new projects. PGE will continue to engage with bidders on the final shortlist to determine outstanding impacts to solar bids. PGE recognizes the possibility that some solar bidders will continue to face unexpectedly elevated solar supply costs that may preclude commercial agreements.

Bidders face additional macroeconomic risks that may inhibit the ability to execute agreements at prices and terms submitted in the RFP. Inflation continues to run above historic levels.¹² Bidders that have not negotiated supply agreements or are otherwise unable to accommodate risks of further inflation may be unable to enter into commercial agreements in accordance with previous cost and price expectations. Furthermore, in addition to general inflationary pressures, supply chain challenges are expected to complicate bidders' supplier and engineering, procurement and construction agreements. PGE expects that some bidders on the final shortlist will be unable to move forward with definitive agreements due to the changing macroeconomic conditions that were not recognized in the submitted bid.

During the May 19 Commission Workshop, PGE heard from parties that it may be preferable for the Company to explore ways to procure resources more quickly through an accommodating contracting process. The stakeholder suggested that PGE's targeted definitive agreements depart from the term sheets approved in Order No. 21-460. Specifically, the recommendation contemplated how contractual penalties for non-performance could be removed to facilitate counterparty contractual commitments with lower-consequence opt-out provisions.¹³

¹² See: <https://fred.stlouisfed.org/tags/series?t=annual%3Binflation%3Busa> (accessed 6-15-2022).

¹³ NewSun. At time mark 1:58:01 of UM 2166 May 19, 2022 Special Public Meeting - PGE's 2021 RFP Commission Workshop 1, available at: <https://www.oregon.gov/puc/news-events/Pages/default.aspx>.

While PGE appreciates stakeholder feedback, PGE believes that it would be unreasonable to intentionally shift risk away from developers and onto customers to enable potentially speculative contracts. The types of terms and conditions for which modifications are recommended are some of the primary means to protect customers from unforeseen and expensive consequences associated with counterparty failure to perform or default. PGE is not advancing customer interests by entering into higher-risk contracts with counterparties that lack a clear pathway to perform. The uncertainty associated with such out-of-market terms and conditions would disrupt necessary procurement certainty to achieve the HB 2021 carbon reduction targets.

Rather than to revise PGE's form agreements, contracts, and deposit structures to de-risk contracting for counterparty benefit, PGE instead recommends that the Company maintain engagement with bidders as market uncertainty clears. Per RFP requirements, the validity of bidders' price and terms remains irrevocable for 250 days after bid submission.¹⁴ PGE does not interpret this provision as preventing further consideration or negotiation following the passage of the 250 days, at PGE's discretion. Instead, the 250 days is intended to hold terms and price constant during the RFP process inclusive of the prospective negotiation process. Given these RFP expectations, PGE will continue to maintain a final shortlist of resources from which PGE may continue to negotiate and transact following the resolution of near-term uncertainties and macroeconomic barriers. While PGE will look to execute commercial agreements of approximately 180 MWa of renewable resources by the end of 2022, remaining resources on the final shortlist would be strong candidate resources should PGE be unsuccessful in closing the

¹⁴ PGE RFP main document, page 10.

requisite volume of agreements by end of year or in the event PGE seeks to procure more than 180 MWa, should planning and procurement conditions warrant securing additional resources.

C. Overall Planned Procurement Volume and Portfolio Selection

- 1. The projects selected to PGE's final shortlist are reasonable and represent a robust set of resources that could construct a portfolio that realizes benefits for customers.*

Of the 44 initial shortlist bids that were found to be compliant with the 2021 RFP eligibility requirements, 29 were placed on PGE's final shortlist. The final shortlist for renewable resources and dispatchable capacity resources were separately identified by selecting the top resources for each resource type based on the projects' total price score. For renewable resources, PGE identified the first meaningful break in the bids' total score after including on the final shortlist all renewable projects that passed PGE's cost-to-value metric (a cost to benefit ratio less than 100 percent). This methodology resulted in the final shortlist selection of nine renewable projects with 18 total project variations.

Considering only the best bid variants for each project, the renewable final shortlist for renewables includes enough projects to generate 434 unique MWa of renewable energy. Should all counterparties be prepared to execute agreements, the volume of renewable resources included in the final shortlist provides adequate bids to meet three to four times the 150 MWa IRP action plan and 100 MW GFI renewable procurement levels approved in the RFP design (approximately 180 MWa). Given that some bidders may not be situated to transact due to the aforementioned factors, the additional renewable volume on PGE's final shortlist provides several important advantages for customers. First, a robust volume of final shortlisted resources ensures that competitive pressures are exerted on potential counterparties throughout the negotiation process. Should bidders seek to alter the cost and performance of the project as reflected in the bid, PGE

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can work with alternative counterparties. The ability to maintain a larger final shortlist continues to provide commercial pressure on bidders that are not currently facing execution risks – and increases the number of viable resources from which PGE may enter a commercial agreement. Second, in the event that fewer projects than expected face execution challenges, a robust volume allows PGE to broaden its portfolio analysis methods to consider procurement volumes beyond 180 MWa as discussed in the OPUC’s RFP approval order.¹⁵

2. *Bidder Rank on PGE’s Final Shortlist is Informed By PGE’s Portfolio Analysis.*

PGE’s portfolio analysis indicates the relative performance of the final shortlisted bidders given RFP analysis of information provided by bidders. PGE will prioritize negotiations with those bidders who are most frequently present in the top performing portfolios. Portfolios included in the efficient frontier are considered top performing. For this reason, PGE will prioritize negotiations with the bidders who most often are included in PGE’s efficient frontier portfolios.

Tables 6 and 7 of PGE’s Final Shortlist Request identify frequency for which each project is included in the efficient frontier portfolios. As noted in Staff’s Comments, all portfolios included in PGE’s efficient frontier group are a subset of PGE’s 400 MWa portfolios and thus include at least 212 MWa of renewable resources and no more than 400 MWa. Despite PGE’s intention to procure approximately 180 MWa of renewable resources, PGE maintains that relative bidder performance is best informed by the efficient frontier group including the 400 MWa portfolios. As is discussed in response to OPUC DR 045, if portfolio results are limited to only 180 MWa portfolios, the relative performance for non-top-performing resources is obscured. The results for volume-limited portfolios are limited by the selection of top-performing projects with all

¹⁵ UM 2166, Order No. 21-460 at 9.

remaining projects having comparably poor selection performance. Importantly, the top-performing projects are always favored in PGE’s results regardless of portfolio scenario volume. However, if top-performing resources are unavailable to enter a commercial agreement, PGE will turn to lesser performing projects whose performance is best indicated when considering larger portfolio volumes, as is consistent with information presented in Tables 6 and 7 of the Final Shortlist Request.

PGE’s selection of projects included on the final shortlist is consistent with the process described in Section 1.7 of Appendix N of PGE’s 2021 RFP documents, which states that the final shortlist will serve as a “group of resources that PGE will make selections from. Once the final shortlist is filed, PGE will engage in negotiations with those selected bidders.” While Figure 1 of Appendix N notes that portfolio analysis will inform the final shortlist, it does not say that the portfolio analysis will be used to winnow or otherwise limit which projects are eligible for commercial negotiation. Rather, the portfolio analysis process has served to inform the relative ranking of projects—and priority of negotiations—included in the final shortlist as reported as part of PGE’s Request.

3. *PGE’s will prioritize projects on the final shortlist to prioritize low costs and low risk outcomes for customers.*

PGE intends to perform a fair and reasonable negotiation process by prioritizing negotiations with top performing resources as indicated from PGE’s portfolio analysis. PGE will commence negotiations with top performing resources in an effort to reach commercial agreements with approximately 180 MWa of renewable resources and sufficient dispatchable capacity resources to meet PGE 2025 capacity needs. Should top performing resources enter into commercial agreements consistent with their bid evaluation, PGE intends to then commence

negotiations with the next best resources as indicated in PGE's portfolio analysis results. As is discussed in response to OPUC information request 045, when comparing bids with comparable or identical portfolio analysis results, PGE will prioritize negotiations with the bidders that are best suited to meet PGE's portfolio need while reducing cost and risk. PGE notes that the Company is responsible for making procurement decisions based on all costs, risks, and circumstances known at the time of entering into a contractual commitment. As such, PGE's procurement decisions are informed, but not replaced, by PGE's economic analysis and portfolio analysis.

In their June 7 comments, Staff notes that certain projects on the renewable final shortlist are larger than the 180 MWa target, and Staff requests additional guidance as to how those projects could be included if they are above PGE's targeted procurement volume. As noted throughout this filing, PGE anticipates procuring approximately 180 MWa, and may consider additional volume if commercial negotiations, and prevailing risk and benefit factors indicate that additional volumes are warranted to achieve reasonable progress toward meeting HB 2021 requirements. If bidders with a project volume above PGE's procurement target are able to hold to their price and terms, PGE would consider procuring those projects in pursuit of the HB 2021 procurement needs.

D. Risk Mitigation of HB 2021 Compliance

PGE notes that larger near-term portfolio volumes may greatly accelerate the progress toward PGE's HB 2021 compliance, with portfolio analysis finding that the 400 MWa acquisition—coupled with a proxy addition of over 1,000 MW nameplate of renewables in the 2024 and 2030 timeframe—would serve to acquire all renewable resources needed by PGE for HB 2021 compliance while capturing available tax credits. For the 180 and 250 MWa portfolios,

renewable acquisitions are modeled to continue through the end of the decade. PGE has also provided this information in response to OPUC information request 049.

In addition, PGE is concerned that lengthy planning cycles may lead to RFPs that are too far apart and not sufficiently able to capture unique market opportunities without the need for waivers of the competitive bidding rules, or exceptions to the rules based on time-limited opportunities. PGE seeks Commission direction on processes that allow for multiple procurement rounds once an RFP structure is approved and an IE selected. Under such a process multiple procurements could be performed– if needed – as long as they all comply with the approved RFP orders and tie to the IRP acknowledged system need. As shared during the UM 2225 public meeting on May 31, 2022, PGE is currently developing a straw proposal to streamline the planning and procurement processes, and plans to share the proposal with parties in UM 2225 for review. Generally, PGE recommends that any streamlining be in place in advance of the filing of PGE’s 2023 IRP and 2023 CEP, both planned for March 2023.

III. CONCLUSION

In response to the 2021 RFP, PGE received robust participation and bid response, with all projects on the final shortlist representing significant customer benefit and capacity and energy products consistent with the system need identified in the 2019 IRP and IRP update. As requested in the May 5, 2022 filing and reiterated during the May 19 workshop, PGE requests acknowledgement that the projects selected for inclusion on the final shortlist are reasonable, and that the 2021 RFP was conducted fairly, transparently, and in accordance with Oregon’s competitive bidding rules. Upon acknowledgment, PGE anticipates moving forward with the intent to procure approximately 180 MWa of renewable resources and additional dispatchable capacity

resources to meet the 2025 system capacity need. identified in the 2019 IRP and subsequently updated in this proceeding. PGE intends to commence negotiations with the top performing bids identified in PGE's portfolio analysis. Upon procurement of approximately 180 MWa of renewable resources, PGE will evaluate the benefits of additional renewable procurement provided sufficient viable resources remain on PGE's final shortlist.

Respectfully submitted,



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