ITEM NO. RA1

PUBLIC UTILITY COMMISSION OF OREGON
REDACTED STAFF REPORT
SPECIAL PUBLIC MEETING DATE: July 14, 2022

REGULAR X CONSENT ____ EFFECTIVE DATE N/A

DATE: June 29, 2022

TO: Public Utility Commission

FROM: Zachariah Baker

THROUGH: Bryan Conway, JP Batmale, and Kim Herb **SIGNED**

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. UM 2166)
2021 All-Source RFP Final Shortlist.

STAFF RECOMMENDATION:

Acknowledge Portland General Electric's (PGE) 2021 All-Source RFP Final Shortlist, subject to the conditions set forth in the conclusion of this memo.

DISCUSSION:

Issue

Whether the Public Utility Commission of Oregon (Commission or OPUC) should acknowledge Portland General Electric's 2021 All-Source RFP Final Shortlist.

Applicable Rule or Law

The Commission's competitive bidding requirements in OAR Chapter 860, Division 89 apply when an electric utility may acquire a resource or a contract for more than an aggregate of 80 megawatts and five years in length, as specified in OAR 860-089-0100(1). Resource acquisitions falling under the competitive bidding requirements require the use of a request for proposals (RFP) unless an exception applies or the rules are waived.[1]

OAR 860-089-0500 states that, in an RFP process:

[1] OAR 860-089-0250; OAR 860-089-0100; OAR 860-089-0010.

> "acknowledgment" is a finding by the Commission that an electric company's final shortlist of bid responses appears reasonable at the time of acknowledgment and was determined in a manner consistent with the rules in this division.

Per OAR 860-089-0500(3), requests for acknowledgement must, at minimum, include the independent evaluator's (IE's) closing report, the electric company's final shortlist, all sensitivity analyses performed, and a discussion of the consistency between the final shortlist and the electric company's last-acknowledged IRP Action Plan.

The IE's closing report contains an evaluation of the applicable competitive bidding processes in selecting the least-cost, least-risk acquisition of resources and any additional analyses requested by the Commission, under OAR 860-089-0450(9). The IE participates in the final short list acknowledgment proceeding and may be required by the Commission to have expanded involvement through final resource selection.[2]

Analysis

Request for Acknowledgement Background
Portland General Electric (PGE or Company) filed its Request for Acknowledgment of the Final Short List of Bidders in PGE's 2021 All-Source Request for Proposals (Request for Acknowledgement) on May 5, 2022. The Independent Evaluator's (IE) Closing Report was included as an attachment to the filing. The Commission held a workshop on May 19, 2022, to discuss the Request for Acknowledgement and the IE's Closing Report. At the workshop, PGE informed the Commission that it planned to submit an Errata filing to the Request for Acknowledgement.

PGE filed the Errata filing on May 25, 2022.[3] Given the extent of the Errata filing, Staff asked the IE to review the changes and update the IE's Closing Report using the information from PGE's Errata filing. The Errata to the IE's Closing Report was filed on June 7, 2022 – the same day Staff and Interested Person Comments were due.

Given the timing and extent of the Errata filing (and the associated Errata to the IE's Closing Report), Staff was unable to fully incorporate the Errata filing into its initial comments. In addition, Staff recognized the challenge for stakeholders to do this as well. As a result, Staff added an additional written comment opportunity for stakeholders in an effort to provide more time for consideration of the Errata filing while also keeping the overall schedule on track.

---

[2] OAR 860-089-0450(10).
[3] PGE's Errata to PGE's Request for Acknowledgement of the Final Shortlist of Bidders, May 25, 2022.

No stakeholder comments were received on the original comment due date, but comments from the Oregon Citizens' Utility Board (CUB) were received on the additional comment due date of June 15, 2022. As previously scheduled, PGE submitted its Reply Comments on that date as well.

Overview of PGE's Final Shortlist and Associated Procurement Approach

PGE requests acknowledgement of a final shortlist that includes projects totaling up to 1,131 MW of effective load carrying capability (ELCC).[4] The final shortlist includes renewables, as well as non-emitting dispatchable capacity.[5] On the renewables side, PGE includes enough to generate up to 604 unique MWa or 594 MW ELCC.[6] If counting only the best variations of projects, the total is 434 unique MWa.[7] The amount of renewables on the final shortlist is three to four times the 2019 IRP Action Plan level of approximately 150 MWa.

In addition, PGE includes substantially more non-emitting dispatchable capacity on the final shortlist than is needed to meet its 2025 capacity need of 388 MW. PGE includes up to 537 total MW of ELCC of dispatchable capacity, or 497 MW of ELCC, if only counting the best project variations.[8]

Projects on the list represent a variety of choices in terms of size, resource type, and commercial structure. Projects on the final shortlist vary in size. On the renewables side, projects vary in size from 11 MWa to 303 MWa.[9] On the non-emitting dispatchable capacity side, projects vary in size between 50 MW and 200 MW.[10] The final shortlist includes a diverse set of projects including wind, solar, battery storage, hybrid projects (e.g. solar and battery storage), and pumped hydro.[11] In addition, the projects represent a variety of commercial structures including power purchase agreements, utility-ownership, and hybrid structures.[12]

PGE conducted and presented a portfolio analysis of the final shortlist resources. That portfolio analysis included a look at three different procurement level scenarios: 180 MWa, 250 MWa, and 400 MWa. A number of sensitivities were also run on the

[4] Errata to the IE's Closing Report, June 7, 2022. Page 34.
[5] The final shortlist includes two shortlists: one for renewable resources and one for non-emitting dispatchable capacity resources. PGE refers to them as one final shortlist for acknowledgement. Staff and the IE have also referred to them as one final shortlist.
[6] Errata to the IE's Closing Report. Page 31.
[7] PGE's Errata to PGE's Request for Acknowledgement. Page 16.
[8] See IE's Closing Report, filed with PGE's Request for Acknowledgement. Page 34.
[9] Errata to the IE's Closing Report. Page 32.
[10] See IE's Closing Report, filed with PGE's Request for Acknowledgement. Page 34.
[11] See Errata to the IE's Closing Report. Pages 32-34.
[12] Id.

scenarios. PGE did not narrow the final shortlist further based on the portfolio analysis. Instead, it used the portfolio analysis to "inform the relative ranking of projects – and priority of negotiations."[13]

PGE has stated that its intention is to procure approximately 180 MWa of resources – 150 MWa of renewables, 100 MW of GFI, and non-emitting dispatchable capacity to meet PGE's remaining 2025 capacity need.[14] If additional final shortlist resources are available, PGE may consider procuring more.[15] PGE did not state how much more it would seek to procure, nor provide a specific timeframe for making its decision.

Considerations Weighing on Acknowledgement
Prior to outlining specific issues for Commission consideration for the acknowledgement decision, Staff wants to recognize the external challenges that overlay deliberation on the final shortlist. First, the passage of House Bill (HB) 2021 in 2021 constituted a major policy change between the IRP and the RFP. The resources required to meet the bill's greenhouse gas (GHG) reduction targets by 2030 and through 2040 are large. This raised questions about whether and how this RFP should be responsive to this new legislation.

In addition, as the final shortlist was being put together, a major investigation was launched by the U.S. Department of Commerce regarding solar tariffs that called into question whether solar projects that bid into the RFP could be expected to deliver on their originally quoted bid price and delivery date. A month later, after the final shortlist was submitted, the Biden Administration announced a 24-month pause on the solar tariffs in question. Industry players are still determining the effects of this. At the same time, record inflation and supply-chain challenges continue to add uncertainty around the ultimate procurement of final shortlist resources.

All of the above adds up to a very unique set of circumstances overlaying the final shortlist deliberations. Staff appreciates all of the efforts to-date by PGE and stakeholders to navigate through these issues. Further, Staff appreciates PGE's interest in flexibility given the circumstances and recognizes that PGE will ultimately be responsible for navigating the challenges ahead should it pursue procuring resources on the final shortlist.

With that context, Staff has identified a number of specific issues that weigh on the acknowledgement decision here. These include:

[13] PGE's Reply Comments, June 15, 2022. Page 13.
[14] Id. Pages 1-2.
[15] Id. Page 2.

- Compliance with the competitive bidding rules,
- Size of the final shortlist,
- Level of the procurement, and
- Order of procurement.

Each of these are discussed in turn below. Staff has also identified a number of items that do not ultimately weigh on acknowledgement, but are taken up with an eye towards future RFPs. These items include the price and non-price scoring split, the use of ELCC in a non-price scoring element, long-lead-time resources, IE recommendations for future RFPs, and RFP cadence and scheduling. Those items are outlined and discussed in a separate section at the end of the Staff Report.

Compliance with the Competitive Bidding Rules

Acknowledgement requires consideration of whether the final shortlist was determined consistent with the competitive bidding rules.[16]

The Commission approved PGE's RFP scoring and modeling methodology on October 5, 2021.[17] The Commission approved PGE's 2021 All-Source RFP on December 2, 2021.[18]

PGE subsequently issued its RFP. Benchmark bids were due before third party bids. The IE worked together on scoring the benchmark bids and submitted the required report before opening and scoring the third party bids.

As part of its Request for Acknowledgement, PGE included the IE's Closing Report, the electric company's final shortlist, all sensitivity analyses performed, and a discussion of the consistency between the final shortlist and the electric company's last-acknowledged IRP Action Plan.

The IE observed that the RFP process was run in accordance with the rules laid out in the RFP document; bidders were treated fairly under the rules of the RFP; offers selected for the final shortlist were selected fairly; and PGE's price and non-price scoring were reasonable.[19]

[16] OAR 860-089-0500(1).
[17] Order No. 21-320.
[18] Order No. 21-460.
[19] IE's Closing Report, filed with PGE's Request for Acknowledgement. Page 1.

The IE did note that "[t]he shortlist contains projects significantly in excess of the RFP targets – even accounting for the fact that some backup offers might be necessary."[20] The IE went on to explain that "[t]his is in part because PGE did not use the results of the portfolio modelling process to further narrow down the list of candidate offers."[21]

Staff Analysis and Recommendation
Staff believes PGE mostly met the requirements leading up to the final shortlist, based on many of the items noted above. Staff does not list or analyze every requirement here for efficiency sake.

Staff does however have concerns about PGE's approach to the portfolio analysis required by rule (and PGE's approved scoring and modeling methodology). OAR 860-089-0400(5) states that "[u]nless an alternative method is approved by the Commission under OAR 860-089-0250(2)(a), selection of the final shortlist of bids must be based on bid scores and the results of modeling the effect of candidate resources on overall system costs and risks using modeling methods that are consistent with those used in the Commission-acknowledged IRP." In this case, the Commission did approve PGE's scoring and modeling methodology outside of the IRP, but that scoring and modeling methodology included the use of portfolio analysis to inform selection of the final shortlist.

Figure 1 in Appendix N of the RFP (excerpted below), provides an overview of the RFP analysis process steps, including selection of the final shortlist after portfolio analysis.[22]

Figure 1: RFP Selection Process from Figure in Appendix N of the RFP

In addition, PGE's further explanation of this process in the scoring and modeling methodology included the following description on how it would choose the final shortlist:

> Upon completion of the portfolio analysis, PGE will examine the total combined price and non-price scores to determine the best combination of cost and risk for PGE customers. These results will be used to determine

[20] IE's Closing Report, filed with PGE's Request for Acknowledgement. Page 2.
[21] Id.
[22] PGE's 2021 All-Source RFP - Appendix N. Page 3.

> PGE's final shortlist, which, if acknowledged, will be the group of resources that PGE will make selections from.[23]

PGE and Staff disagree on what was intended by that language. Staff believes that language meant that PGE would use the portfolio analysis to refine the final shortlist, or at least present the specific least-cost, least-risk portfolio of resources that PGE plans to pursue in this procurement. PGE has not done either. PGE argues that "the language does not say that the portfolio analysis will be used to winnow or otherwise limit which projects are eligible for commercial negotiation" and that "the portfolio analysis process has served to inform the ranking of projects – and priority of negotiations."

Staff continues to believe that the rules and scoring and modeling methodology require a higher level of specificity here than PGE is providing. The portfolio analysis is the culmination of the IRP/RFP planning process, providing important information to assess the procurement options presented. RFPs typically use IRP analysis and modeling to narrow down the shortlist to a combination of projects with the size and characteristics that meet the utility's stated need. Using this analysis (including sensitivities), the utility presents what it thinks the best portfolio of options is to pursue. This then serves as the guidepost for discussions when the utility seeks a prudency review.

PGE has not provided that guidepost here. PGE has not indicated an ideal level of procurement, nor the portfolio of resources that would be pursued under that ideal level of procurement. PGE ran 150 different portfolios and has not stated which one would be best to pursue, nor which one it intends to pursue. Instead, PGE is treating the final shortlist like a mix-and-match pool of resources to fill anywhere between 180 MWa and 600 MWa as it deems fit – and that just counts the renewables on the list. PGE suggests a priority order to pursue the projects – but Staff continues to have questions about that order (as discussed in the order of procurement section below), particularly without an indication of the ultimate level of procurement.

Staff understands the challenges the current environment poses to procurement and PGE's interest in flexibility. At the same time, PGE's approach raises important questions about the ability to complete a fair and transparent process and the ultimate maintenance of the integrity of the IRP/RFP planning process.

The competitive bidding rules are "intended to provide an opportunity to minimize long-term energy costs and risks, complement the integrated resource planning (IRP) process, and establish a fair, objective, and transparent competitive bidding process, without unduly restricting electric companies from acquiring new resources and negotiating mutually beneficial terms." Conducting and applying portfolio analysis to

[23] PGE's 2021 All-Source RFP - Appendix N. Page 18.

inform the presentation of the ideal procurement is critical to upholding the first three purposes of the competitive bidding rules. Further, doing so does not unduly restrict electric companies from acquiring new resources as the company just needs to explain how and why it differed from the ideal path (if it does) during prudency review.

With that said, Staff does not believe non-acknowledgement of PGE's approach on these grounds would serve the right purpose here. As has been argued throughout the RFP docket, this RFP represents an important opportunity to position PGE for HB 2021 compliance – or at least not have PGE fall further behind. Significant Staff, Commission, and stakeholder work has gone into steering this RFP through a significantly changed planning environment – and Staff believes it is important to continue to try to do so.

Therefore, Staff recommends the Commission consider acknowledging the RFP with conditions. Staff further unpacks the challenges PGE's approach presents in each of the sections below and includes specific conditions aimed at compensating for these challenges.

Size of the Final Shortlist

Staff raised concerns in its Staff Comments regarding the size of PGE's final shortlist.[24] Staff had concerns that PGE did not narrow down the final shortlist using the portfolio analysis (as discussed in the section above); the size of the final shortlist given PGE's intention to only pursue the 2019 IRP Action Plan level; and the fact that four of the bids included on the final shortlist individually exceeded the 2019 IRP Action Plan level.[25]

As discussed in the section above, PGE disagreed that PGE needed to use the portfolio analysis further than it had. In response to the other issues, PGE clarified that it might procure more than the 2019 IRP Action Plan level.[26]

Staff Analysis and Recommendation
PGE's Reply Comments help allay some of Staff's concerns. Given PGE's now stated interest to potentially procure above the 2019 IRP Action Plan level, it is now more evident to Staff why PGE would want to include the amount and range of projects currently on the final shortlist.

At the same time, Staff continues to have concerns about this approach. PGE has not stated what level of procurement it intends to procure at beyond the 2019 IRP Action Plan level if it decides to, and PGE's stated order of procurement still raises questions.

[24] Staff Comments, June 7, 2022. Pages 6-9.
[25] Id.
[26] See, e.g., PGE's Reply Comments. Page 14.

In addition, as noted in the previous section, PGE has not provided the actual preferred portfolio of projects it plans to pursue, so there is no true benchmark for evaluating the reasonableness of the request for acknowledgement. As a result, the size of the final shortlist provides PGE with significant flexibility to procure renewables projects at a volume of anywhere between 180 MWa and 600 MWa, and potentially another approximate 500 MW of ELCC of dispatchable capacity. To accommodate a higher level of Company discretion in resource selection, while maintaining rate payer protections and a fair acquisition process, Staff suggests specific conditions in the sections that follow. At a minimum, Staff feels that the following condition of acknowledgement is necessary:

- **Condition 1**: **PGE shall ensure Bates White will continue to serve as Independent Evaluator through final resource selection. The Independent Evaluator would monitor all contract negotiations and file a final resource selection closing report with the Commission no later than 30 days after final resource selection.**

  The Independent Evaluator's report should summarize the substance and results of the contract negotiations; whether bidders were able to stick to their bids and why or why not; the order in which resources were pursued and selected; whether bidders were treated fairly in the negotiation process; whether there was any utility bias in the final resource selection; and any other information the IE deems useful to inform a prudency review.

  Per OAR 860-089-0450(10), the IE "must continue to participate if, at the time of acknowledgment of the electric company's final shortlist, the Commission chooses to require IE involvement through final resource selection." Staff believes requiring continued involvement through final resource selection, and specifically having the IE monitor and report on the contract negotiations leading up to the final resource selection, will provide insight into whether bidders were treated fairly and whether PGE selected the best bids possible.

Level of the Procurement

In its Request for Acknowledgement, PGE explained that it was seeking acknowledgement of its final shortlist to support procurement of approximately 150 MWa of renewable resources on behalf of cost-of-service customers, plus sufficient capacity to meet the remainder of its 2025 capacity need identified in the 2019 Integrated Resource Plan;[27] and 100 MW of nameplate resources to meet Phase II of

[27] In the 2019 IRP, PGE identified a capacity need of 511 MW in 2025. PGE has partially filled this need through bilateral transactions. Following those transactions and updated load growth assumptions, the

PGE's Green Future Impact (GFI) program.[28,29] This level of procurement reflects the 2019 IRP Action Plan.

But, as part of its RFP analysis, PGE analyzed three different procurement target levels:[30]

- *180 MWa* – representing the 2019 IRP Action Plan renewable procurement level target of 150 MWa plus the 100 MW of additional GFI resources;
- *250 MWa* – representing the alternative procurement scenario requested during the RFP process of including one-third of PGE's estimated renewables need to meet the 2030 HB 2021 target plus the 100 MW of additional GFI resources; and,
- *400 MWa* – representing a more aggressive push toward meeting HB 2021 targets.

PGE summarized the results of this scenario analysis and its intended level of procurement as follows:

> Widespread analytical findings indicate the opportunity to reduce customer costs and risks through procurement volumes above and beyond the 150 MWa acknowledged in the 2019 IRP Action Plan. At the same time, important and unquantified risks provide additional context support adherence to the approved volumes of approximately 150 MWa of renewable resources in addition to the 100 MW of GFI resources. These risks include transient increases in renewable pricing, federal tax policy, and supply chain disruptions related to federal trade investigations.[31]

Given the competing conclusions – analysis suggesting the benefit of a larger procurement level, yet PGE intending to stick with the 2019 IRP Action Plan level – Staff asked that PGE more fully explain the risks and benefits of the different sizes of procurement. Staff was particularly interested in understanding whether the Department of Commerce solar tariff investigation challenges PGE cited had been resolved by the Biden Administration's subsequent announcement to suspend the tariffs in question for 24 months. Staff also specifically asked for additional information on the anticipated near and long-term rate impacts of different procurement levels, which PGE cited as a

---

remaining need is 388 MW. This need is slightly higher than what was stated in the actual RFP due to incorporation of the latest load forecast from March 2022. See pages 3, 7, and 8 in PGE's Request for Acknowledgement for further explanation.

[28] PGE's Request for Acknowledgement. Pages 6-7.

[29] PGE's Errata to the Request for Acknowledgement. Page 1.

[30] Table 4 on page 23 of PGE's Request for Acknowledgement details the three scenarios.

[31] PGE's Request for Acknowledgement. Page 35.

reason for a smaller renewable buy. Finally, Staff asked for any updates to PGE's preliminary HB 2021 2030 compliance analysis provided earlier in the docket.[32]

Staff also asked PGE to clarify whether there was a possibility that PGE would procure beyond the 2019 IRP Action Plan level given the size of its final shortlist. PGE made some statements during the May 19, 2022, Commission Workshop that made Staff wonder about PGE's intentions (e.g. bringing in 2023 IRP analysis in the Fall or early next year to inform the level of procurement), especially given inclusion of individual resources on the final shortlist that were individually larger than the 2019 IRP Action Plan level.[33]

PGE discussed its procurement level intentions further in its Reply Comments. PGE explained that it "anticipates" and "favors" procuring approximately 180 MWa, but if there are more resources available, they "may consider"[34]/"would consider"[35]/"will examine the benefits of"[36] procuring more final shortlist resources.[37] PGE suggested this consideration might happen during initial negotiations[38]/"upon procurement of approximately 180 MWa."[39] In addition, PGE noted once in its Reply Comments that the consideration of additional procurement volume will include discussions with Staff and stakeholders.[40]

In response to Staff's questions, PGE explained that the numbers in its preliminary analysis have changed primarily due to updates to forecasted load. PGE cited a May 11, 2021, investor presentation for its most recent estimate of HB 2021's 2030 target compliance need: 2,500 to 3,500 MW of renewable resources, and 800 to 1,000 MW of non-emitting capacity resources.[41] PGE's preliminary analysis had estimated 650 MWa of renewable resources and at least 800 MW of non-emitting capacity resources.[42]

PGE provided more easily comparable numbers of the HB 2021 2030 renewable resources need increase in response to a Staff information request. In its response to

---

[32] Staff Comments. Pages 5-6.
[33] Id. Pages 8 and 10.
[34] PGE's Reply Comments. Page 14.
[35] Id. Page 14.
[36] Id. Page 2.
[37] PGE makes multiple statements regarding its intention to pursue additional renewable resources in its Reply Comments. Examples of the language are included here.
[38] PGE's Reply Comments. Pages 2-3.
[39] PGE's Reply Comments. Page 16.
[40] PGE's Reply Comments. Page 3.
[41] Id. Page 4.
[42] PGE's Scoring and Modeling Methodology Reply Comments, September, 13, 2021. Page 3.

the information request, PGE explained that the renewables MWa need has increased 350 MWa from the previously reported 650 MWa.[43] By Staff's calculation, that is approximately a 50 percent increase and brings the total additional renewables need to approximately 1,000 MWa. PGE included a number of caveats with the estimates and noted that the numbers provided are interim estimates to be superseded by 2023 IRP planning conclusions.[44]

Regarding potential rate impacts, PGE estimated that top performing portfolios would result in a 5.4 percent to 6.7 percent customer rate increase in 2025 based on the portfolio volume procured, 180 MWa to 400 MWa respectively.[45] PGE explained that the estimated 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.[46] Should wholesale market prices continue to remain elevated in 2025, the customer price impact associated with all studied RFP renewable portfolios would decrease.[47] PGE did not provide additional estimates of rate impacts beyond 2025.

Regarding additional explanation of the risks and benefits of different procurement levels, PGE explained that the traditional cost and risk metrics included in PGE's final shortlist suggest that elevated procurement volumes would lower long-term costs and risks for customers.[48] PGE noted that this finding is largely associated with reducing exposure to mandatory renewable procurement at the end of the decade when renewable resources are forecasted to have higher costs due to the expiration of federal tax credits.[49] PGE also noted that many northwest utilities face similar and significant renewable resource requirements in 2030, so 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.[50] PGE explained that 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.[51]

---

[43] PGE Revised Response to OPUC Information Request 042. PGE originally filed the cited data with a confidential designation on June 2, 2022, but submitted a non-confidential revised response with the data on June 28, 2022.
[44] PGE Response to OPUC Information Request 042.
[45] PGE's Reply Comments. Page 5.
[46] Id.
[47] Id.
[48] PGE's Reply Comments. Page 6.
[49] Id.
[50] Id.
[51] Id.

In contrast, PGE noted that other future scenarios could favor deferring larger procurement volumes to subsequent solicitations.[52] In particular, PGE noted the size of PGE's compliance requirement correlates strongly with PGE's load forecast.[53] As a result, should load forecasts moderate over time, fewer renewable resources will be required for compliance.[54] In addition, PGE cites the potential for extended federal and state support for renewable technologies to increase funds available for renewable resource purchases later this decade and the potential for further renewable resource technology advancements and cost declines.[55]

Considering all of this, PGE explained that "PGE's intended 180 MWa procurement is primarily driven by the Company's assessment of commercially available resources present on its final shortlist."[56]

Regarding the level of procurement question, CUB "recommends that the Commission continue to support the 2019 IRP identified renewables procurement in this RFP and require PGE to provide a comprehensive analysis of the nature we would see in an IRP before considering any additional procurement."[57] CUB cited the importance of discussing policy changes such as HB 2021 in the IRP process given both the rigor of analysis in the IRP process and the engagement of stakeholders in that process.[58] According to CUB, "[i]gnoring this process will leave many stakeholders out of this discussion and introduce new uncertainties in the IRP process."[59]

Similarly, CUB explained that specific planning for HB 2021 will occur through a clean energy plan (CEP), those plans need to consider more than just renewable procurements, and it's not clear that PGE considered all of those elements here.[60] Further, CUB asserted that "[a]cknowledging resource actions meant for HB 2021 compliance outside the CEP process undermines the importance of the CEP and leaves many stakeholders out of the process."[61]
Finally, CUB raised concerns over the rate impact data PGE provided.[62] CUB noted that PGE did not provide a range of rate impacts spread over time as opposed to a single

[52] Id. Page 7.
[53] Id.
[54] Id.
[55] Id.
[56] Id.
[57] CUB's Comments, June 15, 2022. Pages 3-4.
[58] CUB's Comments. Page 2.
[59] Id.
[60] Id. Page 3.
[61] Id. Page 6.
[62] Id. Page 4.

point in time as the Commission had requested.[63] In addition, CUB found the data showing the 250 MWa scenario facing the lowest average rate increase compared to the 180 MWa scenario "non-intuitive."[64] In addition, CUB urged the Commission to consider the rate impact of this single procurement in light of other present and future costs that PGE customers are or will be sharing as the Company progresses to meet a variety of public policy goals.[65]

Staff Analysis and Recommendations
There has already been a lot of discussion during the RFP docket about whether and how this RFP should be responsive to the passage of HB 2021, now codified in ORS Chapter 469A.[66] Staff summarized the HB 2021-related discussions leading up to the presentation of the final shortlist in its initial Staff Comments.[67]

Staff notes here where the discussions left off. During approval of the Draft RFP, the Commission concluded that PGE's preliminary analysis of HB 2021 2030 compliance needs established the "wisdom of considering acquiring more resources in response to the RFP," but that the preliminary analysis did not itself justify actual procurement of the additional resources.[68] As a result, the Commission declined to change the size of procurement at the time.[69] The Commission also stated that "going forward, PGE will need to produce robust analysis to justify the size and nature of any procurement, particularly if PGE is to procure resources going beyond the levels we acknowledged in the IRP."[70]

Therefore, it was intended that there would be an ongoing conversation about the level of procurement for this RFP as well as an openness to the possibility that PGE would seek to procure resources beyond the 2019 IRP Action Plan level. PGE was to present analysis to justify the size and nature of the procurement to continue that conversation.

PGE has now presented its procurement level intentions and supporting analysis. PGE's Reply Comments make it clear that PGE has interest in procuring resources beyond the 2019 IRP Action Plan level. But, PGE also explains that it favors the 2019 IRP Action Plan level and would only consider procuring more resources if additional

[63] Id.
[64] Id.
[65] Id. Pages 4-5.
[66] See Staff's Memo on Scoring and Modeling Methodology Approval, September 29, 2021, pages 9-13; Staff's Memo on Draft RFP Approval, November 19, 2021, pages 36-39; and Order No. 21-460, page 9.
[67] Staff Comments. Pages 2-4.
[68] Order No 21-460. Page 9.
[69] Id.
[70] Id.

resources are available. Staff makes a number of observations regarding PGE's approach and analysis:

- *PGE leaves the process for additional procurement level open-ended*. PGE explains that it intends to procure 180 MWa, but it may procure more if resources are available. Based on PGE's statements, it's not clear to Staff whether PGE would first procure 180 MWa and then consider buying more, or whether PGE would assess what is available, pick a level of procurement, and then contract with the resources. Staff is also unclear whether and when PGE would engage Staff, the Commission, or stakeholders in this assessment.

- *PGE leaves the additional procurement level open-ended*. PGE does not suggest or advocate for what the specific level of additional resources would be. As a result, Staff interprets PGE's Errata to the Request for Acknowledgement as asking for an acknowledgement order that finds it reasonable at this time to allow PGE to potentially procure as much as is available on the final shortlist without additional process under the competitive bidding rules. In addition, as discussed below, PGE's economic analysis seems to suggest trade-offs between different levels of additional procurement and PGE does not address these.

- *PGE argues for a 180 MWa level procurement to start.* PGE notes itself that the portfolio analysis suggests the benefits of a higher level of procurement as compared to the 180 MWa level. Yet, despite this, and despite PGE's expressed intention to potentially buy more, PGE argues for a smaller procurement to start. PGE explains that it does this primarily because it is concerned that there will not be enough projects to procure.

Ultimately, PGE is responsible for complying with HB 2021, and acquisition decisions within this RFP (and outside of it) will be looked at in future rate recovery proceedings. But, given the prior discussions regarding level of procurement dating back to the IRP, Staff thinks this is important to nail down further as part of the acknowledgement decision. PGE's approach here also raises important questions related to the integrity of the IRP/RFP process. Staff attempts to work through these issues below.

- *Staff is supportive of procuring more resources to meet HB 2021 compliance need through this RFP.*

As Staff has stated previously, Staff believes that HB 2021 was a significant policy change in the planning environment that should be considered in determining the level of procurement under this RFP.[71] To help better understand this change in the planning

[71] See Staff's Memo on Scoring and Modeling Methodology Approval, September 29, 2021. Page 11.

environment, Staff asked PGE for a preliminary analysis of what level of additional resources PGE would need to procure to meet HB 2021 2030 compliance. PGE estimated it would take 650 MWa of new renewables. At approximately 150 MWa – the 2019 IRP Action Plan level – it was thought that the RFP would get PGE about one-quarter of the way there.

To meet the remaining need, PGE explained that it could potentially conduct two to three more RFPs for resources to be online by 2030. Staff raised concerns about the possibility of a third RFP, and still maintains that concern. PGE has also indicated the need for more nimble and streamlined procurements as soon as possible moving forward to be able to meet HB 2021 targets.[72]

In addition, PGE's estimated renewables need for HB 2021 2030 compliance has increased significantly. PGE now estimates its renewables need at approximately 1,000 MWa – approximately 50 percent more than its previous estimate.[73] Using the new need estimate, PGE would get less than one-fifth of the way there with the 2019 IRP Action Plan level. As a result, future procurements would become even more important and those procurements may come with more competition for resources.

Furthermore, the portfolio analysis PGE presented actually suggests that a higher level of procurement beyond the 2019 IRP Action Plan level is the least cost, least risk path. PGE acknowledges this itself. Staff discusses the details of this analysis below.

- *The portfolio analysis raises questions about what level of additional procurement would be best, and seems to suggest that the 250 MWa level is a strong option across potential futures.*

Staff agrees with PGE that the analysis generally supports a larger volume buy. But, Staff also notes that some of the data supports a more moderate buy of 250 MWa, instead of the larger volume of 400 MWa. Further, there is not much support in the economic analysis for a 180 MWa buy when compared with the other procurement levels.

PGE ran 50 portfolios for each of the 180 MWa, 250 MWa, and 400 MWa levels. All of the top performing portfolios are closer to the 400 MWa level. The top 5 portfolios range from 363 MWa to 375 MWa.[74]

---

[72] PGE Response to OPUC Information Request 046.
[73] See PGE Revised Response to OPUC Information Request 042. PGE originally filed the cited data with a confidential designation on June 2, 2022, but submitted a non-confidential revised response with the data on June 28, 2022.
[74] PGE's Errata to the Request for Acknowledgement. Page 24.

As can be seen in Table 1 below, both the 400 MWa and the 250 MWa levels are less expensive on a net present value of revenue requirements (NPVRR) basis than the 180 MWa level. The 400 MWa level is less expensive than the 180 MWa level by about $328 million and the 250 MWa level is less expensive than the 180 MWa level by about $235 million. The figures presented here represent the average NPVRR of each group of 50 portfolios run under each portfolio size.

Table 1: Reference Case NPVRR ($2021 millions) - average of 50 portfolios[75]

Case	180 MWa	250 MWa	400 MWa	Difference (180-400)	Difference (180-250)	Difference (250-400)
Reference	33,644	33,409	33,316	328	235	93

PGE's portfolio analysis also looked at portfolio performance under a wide range of conditions including changes in gas price, market buildout, load, technology cost, and more. The IE looked at varying one element from the reference case analysis to see what factor might most impact the optimal size of renewable purchase.

As can be seen in Table 2 below, in almost every future case the 400 MWa level is, on average, the lowest cost scenario. The only time it's not is in the case of a low cost wind future in which the 250 MWa level becomes the lowest. In addition, in every future case, the 250 MWa is lower cost than the 180 MWa level. However, higher Western Electricity Coordinating Council (WECC)-wide buildouts and lower cost wind projects futures do shrink the advantage of the larger portfolios by a good deal as compared to the 180 MWa level. According to the IE, this makes logical sense as lower cost wind in the future and lower market prices via a WECC wide buildout would tend to lead toward a decision to buy less wind power now.

[75] See Table 14 of the Errata to the IE's Closing Report. Page 36.

Table 2: Sensitivities from Reference Case NPVRR ($2021 millions)[76]

Case	180 MWa	250 MWa	400 MWa	Difference (180-400)	Difference (180-250)	Difference (250-400)
Reference	33,644	33,409	33,316	328	235	93
Low cost wind	31,379	31,247	31,327	52	132	(80)
High cost wind	35,806	35,474	35,219	587	332	255
Low need	30,598	30,363	30,283	315	235	80
High need	37,504	37,257	37,160	344	247	97
High WECC buildout	30,546	30,400	30,351	195	146	49
High carbon adder	32,920	32,681	32,580	340	239	101
Low carbon adder	36,039	35,815	35,742	297	224	73
High gas	33,414	33,169	33,038	376	245	131
Low gas	33,210	32,973	32,878	332	237	95
Low hydro	37,670	37,428	37,322	348	242	106
High hydro	30,590	30,362	30,284	306	228	78

To test this further, the IE assumed a low cost wind future and a high WECC-wide buildout future. In this case, as can be seen in Table 3 below, the 250 MWa level actually becomes the low-cost choice. Of note, the 400 MWa level actually becomes more expensive than either the 180 MWa or the 250 MWa levels.

Table 3: High WECC Buildout/Low Cost Wind Case NPVRR ($2021 millions)[77]

Case	180 MWa	250 MWa	400 MWa	Difference (180-400)	Difference (180-250)	Difference (250-400)
High WECC buildout / low cost wind	28,378	28,336	28,457	(79)	42	(121)

To further this line of inquiry, the IE looked at a "worst case" scenario with additional factors that would attenuate towards a smaller renewable buy. And, again, as can be seen in Table 4 below, the 250 MWa level is the lowest cost, while the 400 MWa level becomes even more expensive.

[76] See Table 15 of the Errata to the IE's Closing Report. Page 37.
[77] See Table 16 of the Errata to the IE's Closing Report. Page 37.

Table 4: Stress Case Scenario NPVRR ($2021 millions)[78]

Case	180 MWa	250 MWa	400 MWa	Difference (180-400)	Difference (180-250)	Difference (250-400)
Low need / low cost wind / high WECC buildout / low gas / low carbon / high hydro	25,588	25,542	25,711	(123)	46	(169)

This analysis reinforces the point that certain conditions argue for a reduced renewable purchase, and the 250 MWa level is actually the least expensive in those conditions. Staff, would also note here that in none of the cases tested was the 180 MWa level the least cost.

In addition, the IE looked at the results of a requested sensitivity on the extension of the Production Tax Credit (PTC). As can be seen in Table 5 below, the cost differential between the scenarios shrinks. As compared to the original NPVRR difference of $328 million and $235 million for the 400 MWa and 250 MWa levels as compared to the 180 MWa level, those differences are now $169 million and $189 million, respectively. The 250 MWa level actually becomes the lowest cost reference case here. In addition, in several cases, the 180 MWa level becomes preferable to the 400 MWa level (see negative numbers), though the 250 MWa purchase is better in all of those cases except one. The stress case “worst case” scenario under this PTC extension sensitivity is the only time the 180 MWa level is the lowest cost – and not by much.

[78] See Table 17 of the Errata to the IE’s Closing Report. Page 37.

Table 5: PTC Extension NPVRR ($2021 millions)[79]

Case	180 MWa	250 MWa	400 MWa	Difference (180-400)	Difference (180-250)	Difference (250-400)
Reference	31,209	31,020	31,040	169	189	(20)
Low cost wind	28,433	28,301	28,391	42	132	(90)
High cost wind	33,795	33,556	33,490	305	239	66
Low need	29,080	28,921	29,051	29	159	(130)
High need	34,852	34,660	34,639	213	192	21
High WECC buildout	28,520	28,467	28,603	(83)	53	(136)
High carbon adder	30,267	30,051	30,022	245	216	29
Low carbon adder	34,064	33,935	34,052	12	129	(117)
High gas	30,411	30,160	30,039	372	251	121
Low gas	31,780	31,685	31,824	(44)	95	(139)
Low hydro	35,073	34,860	34,809	264	213	51
High hydro	28,344	28,183	28,230	114	161	(47)
High WECC buildout / low cost wind	25,773	25,761	25,956	(183)	12	(195)
Low need / low cost wind / high WECC buildout / low gas / low carbon / high hydro	24,314	24,335	24,699	(385)	(21)	(364)

A look at potential rate increases also weighs on the question of the level of procurement. As can be seen in Table 6 below, the 250 MWa level actually sees the lowest rate increase, not the 180 MWa level, while the 400 MWa level sees the highest rate increase.

Table 6: 2025 Estimated Rate Impact[80]

Procurement Level	Average	Median
180 MWa	5.9%	5.9%
250 MWa	5.7%	5.5%
400 MWa	7.1%	7.1%

Staff agrees with CUB that it is not intuitive that the 250 MWa level would see the lowest rate increase, so Staff would encourage PGE to provide an explanation of that in its

[79] See Table 18 of the Errata to the IE's Closing Report. Page 38.
[80] See Table 22 of the Errata to the IE's Closing Report. Page 42.

comments on the Staff Report. Staff is also sympathetic to CUB's interest in considering these numbers in light of other potential rate increases currently on the horizon. Doing so would point towards the lowest rate increase option – which would be the 250 MWa level. PGE did not provide rate impact estimates beyond this one point in time and there are a number of assumptions and uncertainties related to these, but this is the best Staff has at the moment.

Finally, a look at the reduction of emissions from the portfolios shows that the 400 MWa level reduces emissions the most, while the 250 MWa level reduces emissions more than the 180 MWa. Using PGE data, the IE calculated that under reference case conditions, the 400 MWa level reduces about 860,000 metric tons more of carbon dioxide per year than the 180 MWa level.[81] PGE reports that there is about a 10 percent difference between the cumulative portfolio reductions in 2025 between the 400 MWa and the 180 MWa level.[82] As part of its May 19, 2022, Commission workshop presentation, PGE provided specific numbers for PGE emissions in 2025 based on each of the procurement levels. PGE reported the emissions in million metric tons of carbon dioxide equivalents (MMTCO2e). Staff created Table 7 below to summarize the data:

Table 7: Total 2025 PGE greenhouse gas emissions based on procurement level[83]

Procurement Level	2025 PGE emissions (MMTCO2e)
180 MWa	4.95
250 MWa	4.69
400 MWa	4.16

Staff understands from PGE that PGE's data and calculations only include carbon dioxide emissions. PGE has not provided a satisfactory answer to why this is the case. Either way, the relationship between the portfolio emissions, if there are other emissions to account for, is likely similar.

In summary, the portfolio analysis suggests that a 250 MWa portfolio is a very strong option. It outperforms the 180 MWa in terms of cost at every turn except for a "worst case" scenario where it is practically equivalent. In addition, it reduces emissions more than the 180 MWa scenario. Finally, while the 400 MWa portfolio reduces emissions the most and reduces costs further than the 250 MWa portfolio in a number of cases, the 400 MWa portfolio is also more risky from a cost standpoint and can be more expensive

[81] IE's Closing Report, filed with PGE's Request for Acknowledgement. Page 43.
[82] PGE's Reply Comments. Page 5.
[83] See PGE's presentation slides from the May 19, 2022, Commission Workshop. Slide 10.

than the 250 MWa portfolio in certain futures – such as under an extension of the PTC, which continues to be a subject of conversation at the federal level.

- *A more moderate level of additional procurement (at the 250 MWa level) is more consistent with the integrity of the IRP/RFP process.*

Staff explained above why it believes an additional procurement beyond the 2019 IRP Action Plan is warranted here given the unique circumstances. But, Staff does share some of the concerns that CUB raised about the implications for the integrity of the IRP/RFP planning process.

In fact, Staff had some of these concerns in mind in proposing the scenario it did. At the time, partly motivated by stakeholder interest, Staff sought a path to "balance meeting the previously articulated IRP need while also best positioning PGE to achieve 2030 compliance."[84] Towards that end, Staff suggested a scenario that would look at a 65 MWa increase beyond the 2019 IRP Action Plan level. Staff saw that as an "informative incremental increase without additional analysis to inform expanding the RFP further."[85] Staff felt that it was important to at least have some level of analysis and continued to work with PGE to determine what analysis would be helpful.

The portfolio analysis ultimately provided does rely on IRP modeling. And, as discussed above, the modeling does seem to suggest that the alternative scenario Staff had invited (encapsulated in the 250 MWa scenario) is a better least cost, least risk path than the 2019 IRP Action Plan level.

With that said, PGE also ran a 400 MWa scenario and presented that data as well. That level is more than double what the 2019 IRP Action Plan included. Staff sees that as a fundamentally different level of procurement than what was contemplated by the IRP or Staff's suggested alternative. While some of the analysis suggests that an even larger buy could provide benefits to customers, it also shows it could be more risky. And, as CUB pointed out, the clean energy planning (CEP) process is on the horizon, providing the opportunity to better examine planning assumptions, emissions reductions options, and the actions needed to make continual progress towards HB 2021 compliance.

On a related note, PGE raised the idea that it might engage Staff, the Commission, and stakeholders in a determination of the level of procurement on an ongoing basis or after first procuring 180 MWa. Staff is unclear how that process would work and is cognizant of the amount of energy that has already gone into this docket from the Staff, Commission, and stakeholder side. Staff's intention was for PGE to make its case for a

[84] Staff's Memo on Scoring and Modeling Methodology Approval, September 29, 2021. Page 12.
[85] Id.

specific additional level of procurement at the time of acknowledgement. The level of procurement is something that is regularly addressed at the time of acknowledgement and then the utility is ultimately responsible for making its procurement decisions and defending them in prudency.

Staff is therefore hesitant to create an unprecedented process that will require more time and energy on Staff and stakeholders' part for this. And, as Staff has demonstrated in its analysis above, there is enough information to make a case for what an ideal additional procurement would be. PGE has decided not to do so.

In summary, Staff supports using the final shortlist for a somewhat larger procurement. Staff fails to understand why or how 180 MWa should be the aim from the start given the portfolio analysis and what is currently known about PGE's HB 2021 2030 compliance need. Staff is also uncomfortable with the open-ended nature of PGE's approach to an additional level of procurement that may be as large as the entire final shortlist. As Staff explained above, the portfolio analysis seems to suggest the 250 MWa level is a strong option and is also more consistent with the integrity of the IRP/RFP process. Of course, to the extent resources are not available on the final shortlist to constitute that level, that may be a reason for a smaller buy, but Staff believes that is unlikely given the size of the final shortlist. Condition 1 offered in the previous section will help provide insight into the ultimate level of procurement PGE pursues.

In addition, Staff suggests the following additional conditions related to the level of procurement:

- **<u>Condition 2</u>: The final shortlist is acknowledged to the extent it is used to procure at the 250 MWa level.**

- **<u>Condition 3</u>: If not provided prior to the Commission's acknowledgement decision, PGE must file, within one week of the acknowledgement decision, a designation of its preferred portfolio for the 250 MWa procurement level. This shall include the specific projects, the total MWa expected from those projects, how the portfolio analysis and sensitivities support the presented preferred portfolio, and any other relevant data to support the preferred portfolio.**

  The purpose of designating a preferred portfolio is to facilitate future discussions around the selections made and the decision-making process utilized by PGE in the final acquisition of resources through this RFP.

Order of Procurement

Given the size of the final shortlist and uncertainty around the level of procurement, Staff raised a number of questions with regard to PGE's ranking of projects and planned order of procurement. PGE presented the following Tables 6 and 7 (Staff report Tables 8 and 9) to explain its project rankings and order of procurement:[86]

Table 8: PGE's Table 6[87]
[Highly Confidential Information Redacted]

Table 6: Renewable Bid Count in Top Performing Portfolios

Resource	Efficient Frontier Portfolios	All 400 MWa Portfolios	All 250 MWa Portfolios	All 180 MWa Portfolios	All Portfolios Total
[redacted]	41	48	45	14	107
	40	48	45	47	140
	40	48	47	33	128
	34	35	1	1	37
	17	17	2	18	37
	13	17	16	22	55
	8	8	9	7	24
	8	11	9	3	23
	7	9	1	1	11
	6	7	7	1	15
	3	8	1	30	39
	1	1	1	3	5
	1	1	1	1	3
	1	1	1	1	3
	0	1	1	1	3
	0	1	1	0	2
	0	1	1	0	2
	0	1	0	0	1

[86] These Tables were included in PGE's Request for Acknowledgement on pages 25-26, but in an effort to be able to better compare the projects with the materials the IE submitted, Staff asked PGE to update the tables with the full bid identification number in the first column consistent with how the IE presented bids in its materials. PGE provided the updated Tables with that one change in a highly confidential attachment to PGE Response to OPUC Information Request 045. The bid number in the first column was already redacted as highly confidential in the previous version, so there was no change to the confidentiality of the table and Staff uses the updated table with the appropriate redaction.
[87] PGE Response to OPUC Information Request 045. Highly Confidential Attachment A.

Table 9: PGE's Table 7[88]
[Highly Confidential Information Redacted]

Table 7: Dispatchable Bid Count in Top Performing Portfolios

Resource	Efficient Frontier Portfolios	All 400 MWa Portfolios	All 250 MWa Portfolios	All 180 MWa Portfolios	All Portfolios Total
[redacted]	18	21	29	32	82
	12	18	15	10	43
	11	11	6	8	25
	8	8	13	13	34
	0	1	15	30	46
	0	1	13	19	33
	0	1	1	24	26
	0	2	6	17	25
	0	1	2	17	20
	0	1	9	8	18
	0	1	1	1	3

PGE stated in its Request for Acknowledgement that "[w]ith respect to identification of the best projects for customers, all analysis performed reinforces the general rank order of projects listed in Table 6 and 7."[89] PGE went on to explain that it "intends to commence negotiations with top performing counterparties."[90]

Staff was not clear exactly what this meant. According to PGE, Tables 6 and 7 show the rank of final shortlisted bids based on the frequency that each bid is present in the top performing 41 portfolios of superior cost and risk – or the efficient frontier portfolios.[91] Staff noted that Tables 6 and 7 also appeared to include how many times bids show up in the top portfolios under each of the three procurement level scenarios as well as how many times the bids show up total across the three procurement levels. Depending on which scenario, or which column, project rank could vary. As a result, Staff sought to clarify exactly what PGE meant by rank order.

---

[88] Id.
[89] PGE's Request for Acknowledgement. Page 34.
[90] Id.
[91] Id. Page 24. The efficient frontier methodology intends to identify portfolios that provide the optimal level of expected return at a given level of risk. In PGE's supply portfolio analysis, the efficient frontier is calculated based on traditional cost and risk metrics: namely through a comparison of cost, variability, and severity. The efficient frontier identifies a meaningful break point, below which portfolios can be said to provide the greatest return at the least cost. An example of portfolio calculation under PGE's efficient frontier methodology can be found on page 191 of the 2019 IRP.

Staff submitted an information request regarding the order of procurement.[92] PGE's response clarified some items but raised more questions. In its response, PGE indicated that the rank order is tied to the frequency of a project's inclusion in the efficient frontier portfolios (i.e. the "Efficient Frontier Portfolios" column in Tables 6 and 7).[93] Further, PGE explained that for projects with the same frequency of inclusion in efficient frontier portfolios, rank is determined based on the inclusion in all constructed top 50 portfolios.[94] Staff read this to mean that the "All Portfolios Total" column would determine the rank for that subset of projects. Through a follow-up data request, Staff asked PGE to confirm Staff's interpretation of PGE's response.[95]

Based on Staff's working interpretation at the time, Staff also asked a number of additional questions in the follow-up information request to further clarify what PGE was proposing regarding rank order and why.[96] For example, Staff pointed out for those projects that would require turning to the "All Portfolios Total" column for their rank, many of those projects also appear the same amount of times total across the portfolios, so it was not clear how turning to the "All Portfolios Total" column would be determinative of the rank order of those projects. Also, it was unclear why PGE would rely on the efficient frontier portfolio count for rank as opposed to the total count across portfolios, or the count consistent with the size of the portfolio PGE plans to procure (i.e. the "All 180 MWa Portfolios" column). Staff's understanding was that the efficient frontier portfolios were closer to the 400 MWa procurement level.[97] In addition, some projects do not even show up in the efficiency frontier portfolios, yet still are included on the final shortlist.

Staff requested that PGE clarify the rank order issue in response to Staff's information requests as well as in its Reply Comments. Relatedly, Staff requested that PGE explain how it envisioned pursuing a fair and reasonable negotiation process given the proposed order of procurement and size of the final shortlist.

PGE also made a number of comments during the May 19, 2022, Commission workshop that raised further questions regarding PGE's order of procurement intentions. These included PGE suggesting it may use its 2023 IRP analysis to inform the order of this procurement – either by bringing in draft IRP analysis in the Fall or coming back to the Commission around the time of filing its 2023 IRP to discuss additional procurement.[98] Staff asked PGE to clarify its intentions here as well as the

[92] OPUC Data Request No. 32.
[93] PGE Response to OPUC Information Request 032.
[94] Id.
[95] OPUC Data Request No. 45.
[96] Id.
[97] See PGE's Request for Acknowledgement. Page 26.
[98] See, e.g., recording of May 19, 2022, Commission Workshop. Time stamp 1:48:40 – 1:51:30.

envisioned mechanics. Staff noted that its understanding was that negotiations and final contracts were intended to be completed by the end of the year and that bids only needed to be held to for 250 days from the date bids were due, which would be through the end of September.[99] As a result, Staff asked PGE to again clarify its intentions and the envisioned mechanics in its Reply Comments.

PGE provided additional information on project ranking and the order of procurement in its data request responses and Reply Comments.[100] Much of what was in the information request response is repeated in the Reply Comments. Staff reports from the Reply Comments as it was provided most recently, but notes additional information from the data request response as relevant.

PGE explained that it intended to perform a fair and reasonable negotiation process by prioritizing negotiations with top performing resources as indicated from PGE's portfolio analysis.[101]

PGE confirmed that it planned to pursue bids using the efficient frontier portfolio count (i.e. the "Efficient Frontier Portfolios" column of Tables 6 and 7):

> 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.[102]

Further, PGE explained why it planned to use the efficient frontier portfolio count as opposed to the specific count for the 180 MWa level:

> 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. If portfolio results are limited to only 180 MWa portfolios, the relative performance of non-top-performing resources is obscured. The results for volume-limited portfolios are limited by the selection of top-performing projects with all remaining projects having comparably poor selection performance. Importantly, the top performing projects are always favored

[99] PGE's 2021 All-Source RFP. Page 10.
[100] See PGE's Response to OPUC Information Request 042. See also, PGE's Reply Comments, pages 12-14.
[101] PGE's Reply Comments. Pages 13-14.
[102] Id. Page 12.

> 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.[103]

In the response to the information request, PGE also explained that it calculated efficient frontiers from the 180 and 250 MWa levels as well: "PGE has determined the efficient frontier portfolios at the 180 MWa, 250 MWa, and 400 MWa scenarios respectively and the top performing bidders are consistent across the varying procurement levels."[104]

PGE also confirmed that for bids with comparable inclusion in PGE's efficient frontier, it would then look to the total portfolio inclusion (i.e. the "All Portfolios Total" column), but it would largely be a judgment call:

> When comparing bids with comparable inclusion in PGE's efficient frontier, PGE will look to prioritize negotiations with the bidders that are best suited to meet PGE's portfolio need while reducing cost and risk. PGE has ordered Tables 6 and 7 first by inclusion and second by total portfolio inclusion which reflects PGE's prioritization of those resources that are included in top performing portfolios studied in the RFP.
>
> …
>
> As a practical matter, for bids with near-identical performance in PGE's portfolio analysis results, PGE's procurement decisions are not limited to fine differences in portfolio analysis results but instead based upon all costs, risks, and circumstances known at the time of negotiating a definitive agreement.[105]

In addition, PGE offered the following overall caveat regarding the order of procurement:

> Following acknowledgment of the final shortlist, PGE is responsible for making procurement decisions based on all costs, risks, and circumstances known prior to making a commercial commitment. As such,

[103] PGE's Reply Comments. Pages 12-13.
[104] PGE Response to OPUC Information Request 042.
[105] Id.

> PGE's procurement decisions are informed, but not replaced, by PGE's economic analysis and portfolio analysis.[106]

Finally, in response to questions in Staff's comments regarding the timing of procurement, PGE said it could continue negotiations beyond the 250 days the bids needed to be held to and introduced that it may continue negotiations for the 180 MWa or additional resources into next year.[107]

Staff Analysis and Recommendation
Despite more clarity on the order of procurement and the possibility of a procurement beyond 180 MWa, Staff continues to have concerns with PGE's approach – particularly in light of Staff's proposed Condition 2 above, limiting acknowledgement of the final shortlist to supporting procurement at the 250 MWa level.

As confirmed by PGE, all of the efficient frontier portfolios PGE counts in its "Efficient Frontier Portfolios" column are closer to the 400 MWa procurement level. The 41 efficient frontier portfolios range from **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** to **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]**.[108] If PGE were planning to procure upwards of the 400 MWa amount from the start, Staff could see this as a helpful ranking. But, PGE states that it is not planning to do that. The Company is first planning to procure up to 180 MWa, with the caveat that there may not be enough resources to exceed that amount. And, as has been mentioned previously, PGE does not state exactly which level of additional procurement it would potentially pursue after that.

At the same time, PGE explained in its information request response that it also calculated efficient frontier portfolios for the 180 MWa level and the 250 MWa level. PGE does not include those counts in its "Efficient Frontier Portfolios" column in Tables 6 and 7. Staff provides the 180 MWa and 250 MWa efficient frontier counts below – first for the renewables (Table 10) and then for the dispatchable capacity (Table 11). The numbers in the 400 MWa column are the same as the "Efficient Frontier Column" in PGE's Tables 6 and 7, so can be used to compare with the 250 MWa and 180 MWa columns.

---

[106] PGE Response to OPUC Information Request 042.
[107] PGE's Reply Comments. Pages 10-11.
[108] See portfolios **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]**. PGE Response to OPUC Information Request 014. Highly Confidential Attachment 014A, "Portfolio Summary – 5-20-2022_All Errata changes_HighlyCONF".

Table 10: Efficient frontier portfolio count for the three levels of procurement – Renewables

[Highly Confidential Information Redacted]

Bid	400 MWa	250 MWa	180 MWa
[redacted]	41	[redacted]	[redacted]
	40		
	40		
	34		
	17		
	13		
	8		
	8		
	7		
	6		
	3		
	1		
	1		
	1		
	0		
	0		
	0		
	0		

Table 11: Efficient frontier portfolio count for the three levels of procurement – Dispatchable Capacity

[Highly Confidential Information Redacted]

Bid	400 MWa	250 MWa	180 MWa
[redacted]	18	[redacted]	[redacted]
	12		
	11		
	8		
	0		
	0		
	0		
	0		
	0		
	0		
	0		

Staff finds this data interesting given some of PGE's arguments. Starting with the renewables, only two renewables bids are top performing across the three levels of procurement. Further, as can be seen in Table 10 above, there are key differences between the procurement levels themselves. For example, only two renewables projects show up in the 180 MWa efficient frontier portfolios, whereas multiple projects show up in the 250 MWa efficient frontier portfolios, and even more in the 400 MWa efficient frontier portfolios. As another example, project **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** shows up in the 400 MWa efficient frontier portfolios, but **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** times in either the 180 or 250 MWa portfolios. That bid also happens to be a **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]**.

Similar discrepancies in outcomes can be seen in the dispatchable capacity count in Table 11. For example, project **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** shows up in the 400 MWa efficient frontier portfolios, but **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** times in either the 180 or 250 MWa efficient frontier portfolios. Furthermore, it would be the **Begin Highly Confidential]** [redacted] **[End Highly Confidential]** project in the 180 MWa portfolio using the efficient frontier count. Staff does not point out all of the differences here, but it is evident that the numbers PGE ultimately relies on for rankings matters.

Staff generally agrees with the idea of focusing on the efficient frontier portfolios as those are the top performing portfolios, but using the efficient frontier portfolio rankings for a portfolio size smaller than the portfolio that is ultimately being aimed for seems like a mismatch. It is possible that PGE would pursue a 400 MWa level portfolio, but it is looking to procure 180 MWa to start, with an undetermined amount after that. And, if Staff's Condition 2 is adopted, the acknowledged procurement level would be the 250 MWa level.

Assuming for this purpose that Staff's Condition 2 is adopted, it seems that using the efficient frontier totals for the 250 MWa level would be a more reasonable option. This would mean the top performing projects could be pursued consistent with the targeted procurement level. In fact, this count matches up well with the top scoring projects. The 250 MWa level also has a lot more bids that show up in the efficient frontier portfolios, so PGE's previous concern with potentially relying on the limited 180 MWa numbers would not apply. And, as PGE previously mentioned, PGE would ultimately still be responsible for making the least cost, least risk procurement decisions.

As a result, Staff recommends the Commission include an additional condition that PGE use the 250 MWa efficient frontier portfolios results as the primary rank order for which to pursue resources under this procurement (see Staff's Condition 4 below).

Beyond the basis for the ranking/order of procurement, Staff also has concerns with PGE's stated interest in potentially carrying on the procurement into next year. From the start of this procurement PGE has stated that it intended to wrap up the procurement by the end of this year. The compressed docket schedule was predicated on this timeline, and allows for several months in which to conclude negotiations.

Further, given the size of the final shortlist, Staff has concerns about the ability to ensure a fair and reasonable course of action in the negotiation process. This would be exacerbated with an ongoing pool of resources for PGE to pick from as conditions change. For example, PGE could potentially just wait out certain bidders under this scenario, throwing a wrench into the overall order of procurement. Bidders would also have no certainty on when decisions would be made. Given the uncertainties and flexibilities with this final shortlist, Staff has already recommended the IE oversee the negotiation process (See Staff's Condition 1), but under this new PGE scenario, the IE would need to be asked to oversee the negotiations indefinitely to address the concern. That is an untenable ask.

In addition, PGE's proposal to continue contracting final shortlist resources after the end of the year raises concerns regarding IRP/RFP planning integrity. PGE is currently in the midst of a 2023 IRP planning process that will result in a new IRP being submitted in March of next year. Accompanying the IRP, PGE will submit its first Clean Energy Plan outlining plans for HB 2021 compliance. An ongoing final shortlist could undermine these planning efforts as stakeholders, Staff, and the Commission try to assess PGE's need and options for HB 2021 compliance. This concern is also consistent with some of the reasoning behind Staff's Condition 2 to limit the procurement to 250 MWa. To the extent PGE seeks to acquire final shortlist projects above the 250 MWa, the procurement will be treated as a separate procurement from this docket and may be subject to the competitive bidding rules.

Finally, the acknowledgement decision is made at a point in time, and as the time between acknowledgement and procurement grows larger, the connection between the acknowledgement decision and procurement becomes more tenuous and less relevant as circumstances evolve.

Given all of the above, Staff recommends the Commission include an additional condition noting that final resource selection under this procurement will be completed by the end of the calendar year. Setting a completion date as a condition of acknowledgment allows more than five months and is in alignment with PGE's previously intended timeframe. To the extent PGE decides to acquire resources beyond the final shortlist following the Commission's July decision meeting, that procurement

will need to be pursued separate from this docket and may be subject to the competitive bidding rules. See Staff's Condition 5 below.

- **<u>Condition 4</u>: PGE will use the 250 MWa efficient frontier portfolios results as the primary rank order for which to pursue resources under this procurement.**

- **<u>Condition 5</u>: PGE will complete final resource selection by the end of the calendar year 2022.**

Items With An Eye Towards Future RFPs
Staff's previous comments noted issues that could result in potential changes for future RFPs. Those items included the price and non-price scoring split, the use of ELCC in a non-price scoring element, long-lead-time resources, IE recommendations for future RFPs, and RFP cadence and scheduling. Each of these is taken in turn below.

- *<u>Price/non-price scoring split</u>*: The RFP process included significant discussion of the price/non-price scoring split. PGE originally proposed a 60/40 split.[109] Staff recommended a 70/30 split which the Commission adopted.[110] And, the Commission later made changes to the scoring that resulted in approximately an 81/19 scoring split.[111] The Commission directed PGE to also conduct sensitivities around the scoring split.[112] Using the results of the RFP, PGE conducted sensitivities using a 60/40, 70/30, and 90/10 split.[113] Material effects on the final shortlist were not noted in this case. Given the amount of time and effort that was put into adjusting the scoring for this RFP, the result does raise questions about how much to focus on refining proposed RFP scoring splits up front in the future. Either way, Staff recommends continuing to direct utilities to provide scoring split sensitivities in future RFPs as an informative backstop.

- *<u>Use of ELCC in a non-price scoring element</u>*: The Effective Load Carrying Capacity (ELCC) was a key input into the level capacity ratio non-price scoring element of the RFP. Staff and stakeholders raised concerns about the ability of bidders to self-score given that the ELCC is calculated through PGE's Sequoia

[109] PGE's Request for Commission Approval to Engage Independent Evaluator and Application for Approval of Proposed 2021 All-Source RFP Scoring and Modeling Methodology. Page 19.
[110] Staff Memo on Scoring and Modeling Methodology Approval, September 29, 2021, pages 17-19. See also, Order No. 21-320 adopting Staff's recommendations.
[111] Order No. 21-460. Pages 4-6.
[112] See Order No. 21-320 adopting Staff's recommendations.
[113] PGE's Request for Acknowledgement. Page 20.

model.[114] The Commission required PGE to provide a calculator to bidders to help facilitate the calculation.[115] To further assess the use of the ELCC, the Commission also asked PGE to provide an analysis comparing each bids' ELCC estimation using the calculator tool, as compared to the actual ELCC values PGE publishes for bids with the initial shortlist.[116]

PGE provided that analysis on April 1, 2022, but it only included the actual ELCC values.[117] Staff followed up with PGE through data requests to get the comparison originally requested as well as more context to inform the comparison.[118] Staff noted that there were discrepancies between the actual and estimated ELCCs for multiple bids in that analysis.

Both PGE and the IE found that the ELCC-related non-price scoring element did not materially affect the final shortlist. With that said, it is clear that there were discrepancies in the estimated and actual ELCC values, so the concern regarding whether a bidder can accurately estimate their ELCC is still important to further address. Towards that end, the Commission has already directed that PGE consider ways to allow bidders to most accurately calculate ELCC for self-scoring bids in future RFP processes assuming PGE intends to pursue the use of the ELCC as part of a scoring element in future RFPs.[119]

Staff notes that PGE's response to OPUC Information Request 012 included some initial ideas from PGE to help bidders more accurately estimate their ELCC in future RFPs. For example, PGE offered the possibility of discussing the impact of transmission and interconnection designs on ELCC as part of pre-issuance workshops.[120] If PGE is interested in pursuing the use of the ELCC as part of a scoring element in future RFPs, Staff would expect PGE to pursue these, as well as other ideas to ensure bidders could more accurately estimate the ELCC.

- *Long-lead-time resources*: There was a lot of attention paid to long-lead-time resources during the RFP process, including adjusting the scoring and modeling methodology with their competitiveness in mind.[121] One long-lead-time resource

[114] Staff Memo on Draft RFP Approval, September 29, 2021, page 25. See also, Staff's Memo on Scoring and Modeling Methodology Approval, November 19, 2021, Pages 7-9.
[115] Order No. 21-460. Pages 3-4.
[116] Staff Memo on Draft RFP Approval, September 29, 2021. Page 10.
[117] PGE's 2021 All-Source Request for Proposals: ELCC Compliance Filing.
[118] See OPUC Data Request Nos. 9-13.
[119] See Order No. 21-460 adopting Staff's recommendations.
[120] PGE Response to OPUC Information Request 012.
[121] Staff Memo on Draft RFP Approval, September 29, 2021, pages 19-21. See also, Staff's Memo on Scoring and Modeling Methodology Approval, November 19, 2021, pages 30-33.

ultimately made it onto PGE's final shortlist. But, the long-lead-time resource was largely included to increase the diversity of the list – and not because of its competitive scoring.[122] As a result, continued conversation may be needed regarding the ability of long-lead-time resources to compete in future RFPs.

- *IE recommendations for future RFPs*: The IE included multiple recommendations in the IE's Closing Report for future RFPs.[123]

    - First, due to several bid disqualifications on interconnection-related grounds, the IE "encourage[s] PGE to pursue measures to reform and speed its interconnection queue process – this could include moving to a cluster process or other reforms."[124] The IE noted that PGE appeared to already be working on this and recommended PGE reach out to developers to develop solutions that work for all parties.[125]

    - Second, the IE noted that many proposals in this RFP, and other RFPs the IE has been a part of, seek to utilize existing transmission service reservations for the output of a renewable facility with a countervailing generation schedule on as-available basis. Given transmission as a scarce resource, the IE "encourage(s) PGE to accommodate these sorts of proposals in future RFPs, including for their own resources.[126]

    - Finally, the IE provided a recommendation regarding the operation of the Competitive Bidding Rules as it relates to approval of an RFP's scoring and modeling methodology. The IE explained: "We would recommend that in situations such as this where the methodology is not part of the IRP acknowledgement the IE, at a minimum, conduct an informal review of the methodology, perhaps submitting a memo to the Commission, in advance of the approval hearing so that they can weigh in on key factors in advance before they are locked down via approval."[127] The IE had raised the review challenges the scoring and modeling methodology presented in previous comments and Staff also provided some discussion of this issue in its previous Staff Report.[128]

---

[122] IE's Closing Report, filed with Request for Acknowledgement. Page 27.
[123] IE's Closing Report, filed with Request for Acknowledgement. Pages 3-4.
[124] Id. Page 3.
[125] Id. Page 3.
[126] IE's Closing Report, filed with Request for Acknowledgement. Page 4.
[127] Id.
[128] Staff Report on Draft RFP Approval, September 29, 2021, pages 42-44.

Staff appreciates all of the IE's recommendations. Regarding the first recommendation, PGE is working on it and Staff has been engaged in those conversations. Regarding the second recommendation around optimizing the use of transmission, Staff believes the recommendation is worth considering for future RFPs and will ask PGE to explore the idea in its next RFP.

Regarding the third recommendation, the IE's recommendation is noted. Staff continues to believe, as stated previously, that a separate strategy outside of this docket is needed to consider all of the issues that have surfaced across RFP dockets regarding the operation of the competitive bidding rules. Staff would note that since the adoption of Competitive Bidding Rules in AR 600 every resource acquisition has thoroughly tested, modified, or simply sought to work outside of the rule's envisioned processes. With regards to a revised RFP process, Staff looks forward to addressing this collectively with all parties so as to develop a transparent and fair process that works for all stakeholders while protecting ratepayers. With regards to acquisitions in between RFP processes, Staff will look to utilize project benefit, cost, performance, and risk information from RFP shortlist projects to assess the ratepayer value of resources acquired outside an RFP.

- *RFP cadence and scheduling*: PGE presented this procurement process to the Commission as one that brought substantial urgency, primarily for projects to have an opportunity to take full advantage of the Production Tax Credit (PTC). Taking that into account, Staff and parties agreed to a compressed docket schedule with some challenging turnaround times.[129] Due to PGE delays in bid scoring, the schedule also had to be renegotiated and a late in the process Final Shortlist Errata filing (which also required an IE Closing Report update) put further pressure on an already compressed schedule.[130,131] In the midst of the RFP approval process, PGE also introduced pursuit of affiliate interest bids which drove substantial Staff and stakeholder work in the docket, and a parallel docket, as the affiliate transaction had not yet been approved.[132]

  RFP scheduling and review challenges are not new.[133] Further, PGE has already expressed its interest in an accelerated and streamlined RFP processes in the

[129] Staff Scheduling Letter, August 3, 2021.
[130] Staff Scheduling Letter, March 31, 2022.
[131] Staff Scheduling Letter, June 3, 2022.
[132] See Staff Memo on Draft RFP Approval, November 19, 2021, pages 28-30; Order No. 21-460, pages 4-5; PGE's Notice of Intent to Submit Affiliate Bid, December 17, 2021; and PGE's Notice of Withdrawal of Affiliate Bid, February 25, 2022. See also Docket No. UI 461.
[133] See, e.g., Docket No. UM 2059 - PacifiCorp's 2020 All-Source RFP: Order No. 21-437, pages 11-12, adopting Staff recommendations for time to review scoring and modeling methodology and utility

future to assist in HB 2021 compliance.[134] Staff believes the HB 2021 implementation docket (Docket No. UM 2225) that a discussion of those ideas should occur in that docket.[135] Staff would consider a joint proposal from the utilities for evolving Oregon's competitive bidding process if the utilities had one.

Staff would continue to add here that moving forward, it will be important for the utilities – including PacifiCorp and Idaho Power – to proactively identify an RFP scheduling and cadence that ensures a fair and transparent process for stakeholders, respects everyone's limited resources, meets the demands of HB 2021, and continues to protect ratepayers.

Conclusion

Staff recommends that the Commission acknowledge PGE's final shortlist with conditions. Staff proposed five conditions for Commission consideration (listed below). These conditions are aimed at focusing PGE's proposed procurement approach and ensuring a fair and transparent negotiation process.

Summary of Staff Conditions for Commission Consideration

- **Condition 1**: **PGE shall ensure Bates White will continue to serve as Independent Evaluator through final resource selection. The Independent Evaluator would monitor all contract negotiations and file a final resource selection closing report with the Commission no later than 30 days after final resource selection.**

- **Condition 2: The final shortlist is acknowledged to the extent it is used to procure at the 250 MWa level.**

- **Condition 3: If not provided prior to the Commission's acknowledgement decision, PGE must file, within one week of the acknowledgement decision, a designation of its preferred portfolio for the 250 MWa procurement level. This shall include the specific projects, the total MWa expected from those**

workpapers; Staff Memo on Acknowledgement of PAC's 2020 AS RFP Final Shortlist, October 12, 2021; pages 10-12.

[134] See PGE's Response to OPUC Data Request No. 46. See also PGE's May 10, 2022, comments on Staff's Planning Framework Straw Proposal in Docket No. UM 2225 (pages 2-3) and PGE oral comments made at the May 31, 2022, Commission Meeting (timestamp 39:00 – 46:25).

[135] Staff Memo on Threshold Planning Framework Issues for the first Clean Energy Plans, May 23, 2022, page 16.

projects, how the portfolio analysis and sensitivities support the presented preferred portfolio, and any other relevant data to support the preferred portfolio.

- **<u>Condition 4</u>: PGE will use the 250 MWa efficient frontier portfolios results as the primary rank order for which to pursue resources under this procurement.**

- **<u>Condition 5</u>: PGE will complete final resource selection by the end of the calendar year 2022.**

PROPOSED COMMISSION MOTION:

Acknowledge PGE's final shortlist, subject to the conditions set forth in the Summary of Staff Conditions in this memo.

Docket No. UM 2166