

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
SPECIAL PUBLIC MEETING DATE: November 15, 2022**

REGULAR X CONSENT _____ EFFECTIVE DATE November 15, 2022

DATE: November 8, 2022

TO: Public Utility Commission

FROM: Abe Abdallah

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

SUBJECT: PACIFIC POWER:
(Docket No. UM 2193)
2022 All-Source Request for Proposal Reporting and Final Short List
Sensitivities.

STAFF RECOMMENDATION:

Staff recommends that the Commission approve the list of Final Sort List (FSL) sensitivities and recommended reporting data in Appendix A for implementation by PacifiCorp.

DISCUSSION:

Issue

Whether the Commission should approve Staff's Proposal (Appendix A) for how sensitivities and reporting should be conducted in PacifiCorp's 2022 All-Source Request for Proposal (2022 AS RFP) FSL selection.

Applicable Rule

The Oregon Public Utility Commission adopted competitive bidding rules in OAR Chapter 860, Division 89 in August 2018. These rules 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).

Under OAR 860-089-0400(5)(b), the electric company must conduct, and consider the results in selecting a final short list, a sensitivity analysis of its bid rankings that

demonstrates the degree to which the rankings are sensitive to: (A) Changes in non-price scores; and (B) Changes in assumptions used to compare bids or portfolios of bids, such as assumptions used to extend shorter bids for comparison with longer bids, or assumptions used to compare smaller bids or portfolios with larger ones.

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.

Analysis

Background

In both the 2021 Integrated Resource Plan (IRP) Docket No. LC 77¹ and 2022 AS RFP Docket No. UM 2193,² the Commission provided guidance on sensitivity analyses to be performed on the FSL in PacifiCorp's RFP proceeding.

Order No. 22-178 of PacifiCorp's 2021 IRP directs PacifiCorp to implement a number of sensitivities and analyses for its 2022 AS RFP FSL to address the risks of under- and over-procurement to account for uncertainties associated with:

1. The Natrium project.
2. The potential emergence of offshore wind.
3. The conversion or retirement of units at Jim Bridger.
4. The addition of Qualifying Facilities (QFs) to PacifiCorp's system.³

In Order No. 22-130, the Commission adopted Staff Recommendation 11, which requires Staff and PacifiCorp to work together to define the FSL sensitivities and additional data that will be filed with the Commission for approval.⁴

Order No. 22-130 also directed PacifiCorp to work with Staff to propose reporting to address the information sought by Staff General Recommendations 4 and 7. This direction puts an action on PacifiCorp to describe a proposed reporting approach on

¹ *In the Matter of PacifiCorp, d/b/a Pacific Power, 2021 Integrated Resource Plan*, Docket No. LC 77, Order No. 22-178 at 17-18 (May 23, 2022).

² *In the Matter of PacifiCorp, d/b/a Pacific Power, Application for Approval of 2022 All-Source Request for Proposals*, Docket No. UM 2193, Order No. 22-130 at 13 (Apr. 28, 2022).

³ Order No. 22-178 at 17.

⁴ Order No. 22-130 at 13. The Order requires that the public meeting be held by November 14, 2022, and the list of sensitivities and reporting elements must be filed one week prior to a public meeting. However, the public meeting is scheduled for November 15, 2022, due to calendaring issues. The list of sensitivities and reporting elements will be filed at least one week in advance of the November 15, 2022, meeting.

which it consulted with Staff by the same date the Commission requested RFP sensitivity design.⁵ Recommendation 4 requires PacifiCorp to provide a summary of what projects were ultimately prohibited from selection due to failure to comply with various state mandates. Recommendation 7 requires PacifiCorp to provide a project summary regarding compliance with various state mandates and laws.⁶

After a series of meetings and emails between Staff, PacifiCorp and the IE, Staff arrived at a proposed list of sensitivities and reporting data on November 1, 2022. The list is attached in Appendix A. PacifiCorp has no objections on items in the list.

Discussion on Sensitivities

Table 1 summarizes the sensitivities proposed for the FSL, the description of each proposed sensitivity, and the rationale behind proposing each sensitivity.

Table 1: Sensitivities' Description and Rationale

No.	Sensitivity Name	Description	Rationale
S1	No Market Sales	This sensitivity will run the model with all market sales turned off, as well as an extra run with FSL resources included while market sales are turned off.	This sensitivity will determine whether the portfolio is too dependent upon the assumption of high market prices, and whether PLEXOS might recommend different resources if that is not the case. The alternative run for this sensitivity will examine the value of FSL resources if the opportunity to sell excess generation into the market is eliminated.
S2	Offshore wind counterfactual	This sensitivity will lock offshore wind either in or out of a portfolio optimization, counter to model selection, in the reference case.	This sensitivity will provide insight into what effects the availability of offshore wind might have on selection of the FSL and other resources such as transmission. For example, if transmission resources are allowed to be selected endogenously, a transmission resource such as Boardman-to-Hemmingway (B2H) may not be selected because of offshore wind being made available.

⁵ *Id.* at 11.

⁶ *Id.* at 10-11.

No.	Sensitivity Name	Description	Rationale
S3	Natrium Nuclear Power Plant sensitivities (Counterfactual and Online Delay)	This sensitivity will include Natrium if not selected, or exclude Natrium if selected, as well as add an extra run with FSL resources locked in and Natrium delayed until 2035.	This sensitivity will inform the costs and risks of the FSL if Natrium is either not acquired or is delayed. For example, it will test whether there is meaningful impact on the short term FSL selection and the opportunity to procure more renewable resources earlier than planned in order to mitigate perceived Natrium risks.
S4	Gateway South (GWS) Counterfactual	This sensitivity will remove GWS if it is selected and include it if it is not selected in the RFP FSL portfolio.	This sensitivity will provide additional information about the costs/benefits of the Gateway South transmission line that may be used in prudence review. In combination with information about the GWS cost offset, this sensitivity will help inform how the offset impacts the economics of the GWS line (see sensitivity 5).
S5	No Cost Offset	This sensitivity will remove the effect of the cost offsets applied to the B2H transmission line and GWS after 2024. This analysis does not require a separate model run.	This sensitivity will help inform the impact of removing cost offsets on major transmission lines B2H and GWS. It explores how the absence of cost offsets would affect the economics of each transmission line and ultimately whether it is selected as a least cost/risk resource.
S6	Coal Minimum Take	This sensitivity will remove the assumption that the Huntington plant will not be released from its existing minimum take contract before 2026 and have no minimum take requirement after 2022 instead.	This sensitivity will evaluate the cost to customers of minimum take contracts on Huntington and consider how the units would dispatch differently if those contracts were no longer in place.

Discussion on Reporting

Table 2 summarizes the reporting items that PacifiCorp should provide with the FSL and the purpose of each reporting request.

Table 2: Reporting Items and Purpose

No.	Reporting Identifier	Purpose
R1	Social Cost of Carbon	To show the effect of applying the social cost of carbon to emissions from PacifiCorp’s system with the FSL resources. This will provide transparency on the impact of carbon emissions of the FSL portfolio.
R2	State Mandates and Laws (rejected projects)	To provide a summary of what projects were ultimately prohibited from selection due to failure to comply with various state mandates, by indicating which specific state law or rule resulted in a resource being deemed ineligible. This will help inform whether, and the extent to which, any state mandates, although fully justified, result in the selection of more expensive projects, and where low-cost projects could have been eligible if they complied with certain rules or laws.
R3	State Mandates and Laws (complying resources)	To provide a project summary regarding compliance with various state mandates and law, by providing a matrix of each bid indicating which bids are compliant with each of Oregon, Washington, California, Idaho, Wyoming, and Utah state mandates and laws, as applicable. This will improve the transparency about how projects, and their associated costs, get allocated across different states, based on the requirements of each state.
R4	Transparent Accounting of Transmission Resources	To report a transparent accounting of how the Company expects that each transmission resource, especially each large resource, is funded, the details of the portions allocated to developers and customers, and the reasons for the allocations. This will help bring transparency about how PacifiCorp allocates interconnection and transmission costs for the benefit of customers.
R5	Ownership Diversity and Risk	To show the ownership diversity of the FSL and an explanation of how risk of any lack of diversity is justified. This will inform whether the FSL appears to weigh more heavily toward PPA or toward Company’s ownership, and whether it is more reasonable, for hedging risk purposes, to create a portfolio with a greater diversity of ownership structures.

No.	Reporting Identifier	Purpose
R6	Coal Dispatch	To report coal dispatch in the FSL portfolio by unit by year. This will inform the ability to compare the estimated coal generation dispatch in the RFP with actual dispatched coal generation.
R7	Market sales	To report market sales in the FSL portfolio by year, by market hub. This will inform the transparency on reporting the level of dependence on different market hubs and how forecasting unrealistic market prices may pose a risk.

Discussion on Modeling Inputs and Timing

During the meetings between Staff, the IE and PacifiCorp, a discussion emerged relating to the inputs to the RFP modeling and the timing of 'locking in' these inputs. PacifiCorp intended to use the 2023 IRP inputs in the RFP modeling. Staff and the IE were concerned about the reduced transparency associated with using unacknowledged 2023 IRP inputs in the RFP modeling.

Consequently, Staff requested PacifiCorp to provide a presentation at the November 15, 2022 Special Public Meeting on the 2023 inputs it plans to use.

Staff and PacifiCorp also discussed the issue of the timing to 'lock in' those inputs in the modeling. The timing is important because it affects the fairness of evaluation for benchmark bids and market bids. If inputs are not locked in and continue to change after benchmark and market bids are received, an opportunity for utility bias could be introduced. This is similar to the requirement in the Competitive Bidding Rules for the benchmark bid scores to be locked in before receiving market bids.⁷ However, with the introduction of modeling and bid scoring in Plexos, Staff and the IE believe modeling assumptions also need to be locked in before benchmark bids are received in order to avoid introducing any opportunity for bias.

After some discussions with Staff, PacifiCorp proposed to push out the benchmark bid deadline by three weeks to be able lock down all the inputs to the portfolio optimization model prior to accepting benchmark bids. Both Staff and the IE do not object to this schedule change as it allows the Company to lock in the inputs before benchmark bids are accepted.

⁷ OAR 860-089-0350(1).

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Conclusion

Staff recommends that the Commission approve the list of sensitivities and related reporting in Appendix A and direct PacifiCorp to implement this list of sensitivities on its FSL.

PROPOSED COMMISSION MOTION:

Approve the list of Final Sort List sensitivities and recommended reporting data in Appendix A for implementation by PacifiCorp.

APPENDIX A

PacifiCorp 2022 AS RFP: Sensitivities and Reporting

This document provides a proposal for modeling and evaluation sensitivities in the PacifiCorp 2022 all source request for proposals (2022 AS RFP) Docket No. UM 2193. In both the 2021 integrated resource plan (IRP) Docket No. LC 77 and 2022 AS RFP docket, the Commission provided guidance on sensitivities to be performed in the 2022 AS RFP, directing Staff and PacifiCorp to work together to agree to sensitivities that consider a range of risks, and to report back to the Commission by November 14, 2022.

The sensitivities will inform how the 2022 AS RFP resource(s) selected by Plexos and/or the total benefit to customers may change with different input assumptions and constraining factors. The results of each sensitivity will be published with the Final Shortlist in Docket No. UM 2193.

Because of the significant number of computational resources and people hours required to run sensitivities in addition to the material number of incremental sensitivities requested by Staff, Staff and PacifiCorp have worked together to refine each of the requests subject to reasonable changes. If new knowledge becomes available after the November 15 Commission Workshop, PacifiCorp may update details of these sensitivities only after consulting with OPUC Staff and the independent evaluators.

Reference Case Assumptions

1. All base case assumptions and inputs are applied, as valid, for final shortlist (FSL) determination and price scoring in the following sensitivities, except for the alternative assumptions specified in the descriptions below.
2. Allow Boardman-to-Hemingway (B2H) and other transmission resources to be selected endogenously.

Straw Proposal: FSL Sensitivities

1. No Market Sales: A sensitivity to assess the risk of relying on market sales expectations to provide value in the FSL. This sensitivity is similar to a low market price sensitivity, because it reduces the value available from selling PacifiCorp's energy to market. By disallowing market sales entirely, this

sensitivity serves as a bookend to look at the risks of a portfolio being long to market.

- a. No Market Sales Sensitivity:
 - i. Turn off PacifiCorp's ability to make market sales in Plexos (Market purchases are still allowed).
 - ii. Use reference case inputs.
 - iii. Create an optimal FSL portfolio under the no market sales assumption.
 - iv. Report the NPVRR and near-term resource selection of the No Market Sales portfolio compared to other portfolios.
 - b. No Market Sales Sensitivity With Original FSL Resources:
 - i. Hardcode original FSL resources into Plexos and turn market sales off.
 - ii. Use reference case inputs.
 - iii. Report the NPVRR of the No Market Sales Sensitivity With Original FSL Resources, compared to other portfolios.
2. Offshore Wind Counterfactual: A sensitivity to assess B2H and other resource choices if Offshore Wind is available beginning in 2033. The counterfactual will include offshore wind if not selected in the reference case, and will exclude offshore wind if selected in the reference case. The intent is to evaluate offshore wind economics relative to other resources, including transmission options. This will inform whether the Company should look more closely at the costs and risks of its FSL before proceeding, in light of potential offshore wind availability on the West coast.
- a. Use reference case inputs.
 - b. Lock offshore wind either in (2033) or out of a portfolio optimization, counter to its selection in the reference case.
 - c. Report the Offshore Wind Counterfactual Final Shortlist (FSL) portfolio.
 - d. Report the NPVRR and near-term selection of resources compared to other portfolios.
3. Natrium Sensitivities: A counterfactual scenario will include Natrium if not selected in the reference case, and will exclude Natrium if selected in the reference case. The intent is to evaluate Natrium economics relative to other resources, including associated or impacted transmission options. An additional Natrium sensitivity will assess the economics of a delay in Natrium's commercial online date. These sensitivities will show the impacts to FSL portfolio costs and risks contingent upon Natrium.

- a. Natrium Counterfactual:
 - i. Use reference case inputs.
 - ii. Lock Natrium either in or out of a portfolio optimization counter to selection in the reference case.
 - iii. Report the counterfactual Final Shortlist (FSL) portfolio.
 - iv. Report the NPVRR and near-term resource selection of resources compared to other portfolios.
 - b. Natrium Online Delay:
 - i. Use reference case inputs.
 - ii. Lock in Original FSL.
 - iii. Allow Natrium for selection beginning in 2035.
 - iv. Report the counterfactual Final Shortlist (FSL) portfolio.
 - v. Report the NPVRR and near-term selection of resources compared to other portfolios.
4. Gateway South Counterfactual: A sensitivity will include Energy Gateway South (EGS or Gateway South) if not selected in the reference case, and will exclude Gateway South if selected in the reference case. The intent is to evaluate Gateway South economics relative to other resources, including transmission options.
- a. Gateway South Counterfactual:
 - i. Use reference case inputs.
 - ii. Lock Gateway South either in or out of a portfolio optimization counter to selection in the reference case.
 - iii. Report the counterfactual Final Shortlist (FSL) portfolio.
 - iv. Report the NPVRR and near-term selection of resources compared to other portfolios.
5. No Cost Offset: For Gateway South, B2H, and any other transmission scenarios assuming a cost offset representing required action in the absence of the specified project, additional analysis will report the NPVRR under the assumption that there is no alternative requirement. For example, for Gateway South there is an assumption that in the absence of Gateway South a smaller 230 kV line is required to serve the original Transmission Service Request initiating the need for transmission from Eastern WY to Clover in UT, instead of Gateway South. For the additional analysis, this assumption is suspended and the cost offset for the alternative requirement is removed from the PVRR outcome (a cost equal to the amount of the cost offset is added to the NPVRR of the portfolio with Gateway South to allow for comparison with the no-Gateway South portfolio). No

additional model run is necessary for this analysis as the cost offset assumption is fixed and the Gateway South analysis under item 4, above, will provide the basis for calculating the NPVRR impact. This analysis is requested as an additional data point in the conversation around new transmission resources, what triggers the need for these resources, and when a resource can be determined to be a PacifiCorp system resource instead of a network upgrade attributable to a project developer.

- a. Gateway South No Cost Offset Analysis:
 - i. Remove cost offset from the case including Gateway South, increasing the NPVRR of the underlying model run.
 - ii. Discuss and provide a detailed explanation of why the cost offset is or is not a reasonable addition to the FSL portfolio, including legal basis if applicable.
 - b. B2H No Cost Offset Analysis:
 - i. Remove cost offset from the case including B2H, increasing the NPVRR of the underlying model run.
 - ii. Discuss and provide a detailed explanation of why the cost offset is or is not a reasonable addition to the FSL portfolio, including legal basis if applicable.
6. Coal Minimum Take Modeling: The RFP scoring and evaluation analysis will not include a take-or-pay cost structure for Jim Bridger (after 2023) or Huntington (after 2026) as previously modeled in the 2021 IRP.
- a. All Bridger coal volumes will represent an incremental cost and opportunity for fuel cost savings. Therefore, no sensitivity is necessary.
 - b. The existing Huntington coal contract could potentially be modified in response to environmental laws or regulations that impact the plant's economics, and the proposed Ozone Transport Rule requirements and greenhouse gas pricing in various price-policy scenarios could result in such modifications. Therefore, Staff requests that PacifiCorp model a Huntington sensitivity where the Huntington plant has no minimum take requirement after 2022:
 - i. Use reference case inputs.
 - ii. Lock in the Original FSL.
 - iii. Report the NPVRR and near-term selection of resources compared to other portfolios.
 - iv. Report annual coal generation at Huntington through 2030.

Straw Proposal: Reporting

Throughout the 2021 IRP and 2022 AS RFP, Staff and the Commission have discussed potential reporting that could or should be provided with the 2022 AS RFP Final Shortlist, including:

1. Social Cost of Carbon Reporting: Reporting to show the effect of applying the social cost of carbon to emissions from PacifiCorp's system with and without the Final Short List (FSL) resources.
 - Report emissions from the FSL portfolio and a No FSL sensitivity.
 - Apply the social cost of Greenhouse Gas to all portfolio CO₂e emissions at a 2.5 percent discount rate (multiply the SCGHG times the quantity of emissions in each portfolio).
2. Report on projects that failed to be selected due to failure to comply with various state mandates. Reporting will include:
 - PacifiCorp to create a matrix listing the bids and identifying which bids are non-compliant with certain specific state mandates and laws.
 - PacifiCorp to cite the specific state law or rule and indicate whether the resource was deemed ineligible for the 2022 AS RFP and removed from consideration altogether, or whether the resource was deemed eligible and further evaluated to serve customers in other states.
3. Provide a project summary regarding compliance with various state mandates and laws. Reporting will include:
 - PacifiCorp will provide a summary matrix of each bid indicating which bids are compliant with each of Oregon, Washington, California, Idaho, Wyoming, and Utah state mandates and laws, as applicable.
 - When PacifiCorp files its final shortlist, it will list under protective order, the resources selected to the final shortlist and designate which are intended to serve customer load in all six states, and which are intended for (or otherwise excluded from consideration in) a subset of states based on state laws and regulations.
 - PacifiCorp will list under protective order, identified marginal renewable resource bids that can be procured on behalf of voluntary customers.⁸

⁸ The purpose of the confidential nature is to select a pool of resources from which PacifiCorp can negotiate competitive terms and conditions on behalf of customers while maintaining flexibility to adjust the ultimate beneficiary of a resource in the event additional customer benefit is identified.

4. A transparent accounting of how the Company expects that each transmission resource, especially large resources, will be funded. Reporting will be made for transmission resources that are identified in the interconnection studies (or agreements) associated with resources selected to the FSL and that are required by the FSL resource's interconnection study (or agreement). This includes contingent facilities, network resources, and other resources determined to be necessary for interconnection:
 - The portion that will be paid for by developers.
 - The portion that is expected to be paid for by transmission customers.
 - The portion that is expected to be paid for by electric customers.
 - PacifiCorp to explain how cost allocations are consistent with federal and state rules and should be deemed prudent to PacifiCorp's electric customers.

5. Address ownership diversity and risks. Does the FSL achieve ownership diversity?
 - Describe the extent to which the portfolio is weighted toward PPA or toward PacifiCorp ownership. If it appears heavily weighted toward one ownership type, explain why it is reasonable to not hedge risks, including cost uncertainties and other liabilities, by creating a portfolio with greater diversity of ownership structures.

6. Report coal dispatch in the FSL portfolio by unit by year, provide this data to Staff and the IE, and file it in Docket No. UM 2193.

7. Report market sales in the FSL portfolio by year, by market hub, and provide this data to Staff and the IE and file it in Docket No. UM 2193.