

# PacifiCorp - Stakeholder Feedback Form

## 2023 Integrated Resource Plan

PacifiCorp (the Company) requests that stakeholders provide feedback to the Company upon the conclusion of each public input meeting and/or stakeholder conference calls, as scheduled. PacifiCorp values the input of its active and engaged stakeholder group, and stakeholder feedback is critical to the IRP public input process. PacifiCorp requests that stakeholders provide comments using this form, which will allow the Company to more easily review and summarize comments by topic and to readily identify specific recommendations, if any, being provided. Information collected will be used to better inform issues included in the 2023 IRP, including, but not limited to the process, assumptions, and analysis. In order to maintain open communication and provide the broader Stakeholder community with useful information, the Company will generally post all appropriate feedback on the IRP website unless you request otherwise, below.

Date of Submittal 2022-9-14

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\*Organization: Renewable NW

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Public Meeting Date comments address: \_\_\_\_\_  Check here if not related to specific meeting

List additional organization attendees at cited meeting: \_\_\_\_\_

**\*IRP Topic(s) and/or Agenda Items:** List the specific topics that are being addressed in your comments.

How IIJA programs may affect IRP portfolio outcomes

Check here if you do **not** want your Stakeholder feedback and accompanying materials posted to the IRP website.

**\*Respondent Comment:** Please provide your feedback for each IRP topic listed above.

1. In their last public input meeting, PacifiCorp shared the supply-side resource cost tables for technologies being considered in the 2023 IRP. For OSW, Northern, CA with a CF: 45.0% was selected with a CAPEX of \$5220/kW and Fixed O&M of \$103/kW-year. These estimates are much higher than NREL's detailed analysis provided in the Annual Technology Baseline 2022 which projects Wind Resource Class 12 i.e. Floating OSW with a CAPEX of \$4900/kW and Fixed O&M of \$88/kW-year in 2022. Please provide a breakdown of the additional costs that PAC included in their capex and opex cost assumptions. Also, please provide the source for the cost curves being used to determine the future cost reductions in OSW technology.
2. We are also concerned about the assumptions related to electrical losses in the IRP for Floating OSW and its relation to the Annual Energy Production and the net capacity factor. As per our understanding, the Net Capacity Factor provided in NREL reports is inclusive of electrical losses so assuming an additional 22% electrical losses after the fact is unnecessary and skews the analysis.
3. Please provide a breakdown in appropriate units for the transmission costs provided in Slide 127. Inflated transmission costs could prohibit the model to select OSW in the portfolio modeling and it is essential to provide correct transmission cost estimates to ensure OSW is compared on a level-playing field with other supply-side resources.
4. We are concerned about the implications of an incremental 200 MW offshore wind project as part of the supply-side resource cost table. Based on projected BOEM lease sizes, and the economies of scale for floating offshore wind, it would be far more appropriate for PAC to model a higher incremental capacity addition (800-1200 MW project), with the corresponding CAPEX, OPEX, and AEP.
5. The supply-side resource cost table utilizes Northern California CF, which is slightly less than Southern Oregon. PAC is encouraged to evaluate potential project scenarios from the Oregon Call Areas instead of Northern California.

\* Required fields

6. In addition to the transmission cost assumptions, we would like to understand if PAC will force the model to run both transmission options if the model doesn't select the necessary transmission upgrades. It is key for PAC to run the model with the more extensive grid upgrades given the potential it could open for offshore wind.
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### PacifiCorp Response (9/28/22)

1. The capacity factor (CF) for offshore wind has been updated to 47% for the Brookings Call Area, and 42% for the Coos Bay Call Area. The cost breakdown for offshore wind EPC cost estimates will be posted on the IRP website. In addition to the base EPC cost, PacifiCorp added allowance for funds used during construction (AFUDC), property taxes and capital surcharge.
2. Offshore Wind interconnection costs include "Array Cabling," 26 miles of underwater "Export Cable" from the main offshore collector substation to the coastline, and 5 miles of "Onshore Spur Line" from the coastline to the Point of Interconnection (POI) substation. It is assumed that the capacity factor includes all losses up to the POI.
3. Please refer to the following cost breakdown:
  - a. **1.) Call Area: Del Norte Route:** Del Norte– Sams Valley- Ponderosa (total new transmission 253 miles) (Total Cost \$908.9 m)
  - b. **2.) Call Area: Coos Bay Route 1:** Coos Bay- Dixonville – Ponderosa (total new transmission 235 miles) (Total Cost \$851.6 m)
  - c. **3.) Route 2: Coos Bay- Dixonville – Ponderosa Northern Path** (total new transmission 253 miles) (Total Cost \$960.1 m)
4. The company has added a 1,000 MW offshore wind resource to the supply side resource table.
5. The capacity factor (CF) for offshore wind has been updated to 47% for the Brookings Call Area (near Crescent City, California), and 42% for the Coos Bay Call Area.
6. The Plexos model can be setup to turn on the offshore wind and transmission preferably at one location if it is not selected in the study. The Del Norte location has the higher capacity factor and higher base transmission capability, and would be the likely option to model in a sensitivity to evaluate the indicative economics and portfolio impacts of an offshore wind option. The alternative location could also be run depending on what Plexos selects for both offshore wind and associated transmission in the 2023 IRP.

**Data Support:** If applicable, provide any documents, hyper-links, etc. in support of comments. (i.e. gas forecast is too high - this forecast from EIA is more appropriate). If electronic attachments are provided with your comments, please list those attachment names here.

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**Recommendations:** Provide any additional recommendations if not included above - specificity is greatly appreciated.

\* Required fields

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Please submit your completed Stakeholder Feedback Form via email to [IRP@PacifiCorp.com](mailto:IRP@PacifiCorp.com)

Thank you for participating.

\* Required fields