PacifiCorp - Stakeholder Feedback Form

2021 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 2021 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 11/25/2020

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*Organization: WA Utilities & Transportation Commission (WA-UTC)

Address: Click here to enter text.

City: Click here to enter text. State: Click here to enter text. Zip: Click here to enter text.

Public Meeting Date comments address: **11/16/2020** ☐ 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.
PLEXOS benchmarking results, price-policy modeling scenarios, distributed energy resource (DER) questions.

☐ Check here if any of the following information being submitted is copyrighted or confidential.

☐ 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.

I. Public Interest Meeting #5 (11/16) – Presentation questions & comments

1. PLEXOS benchmarking, action plan window results vs. 20-year planning period (slides 5 – 7) – Staff appreciated the modeling team's walkthrough of the PLEXOS benchmarking similarities and differences compared to the SO 2019 IRP preferred portfolio. During PIM #5, the Pac modeling team maintained that PLEXOS's endogenous consideration of reliability and stochastics explained why storage (battery) and utility solar + storage appeared to function as "substitutes." However, staff observes two different substitution trends affecting storage and utility solar + storage over the 20-year planning horizon: 1) storage instead of utility solar + storage during the action plan window and through most of the 2020s vs. 2) solar + storage instead of storage during the 2030s, with an inflection year of 2028. If the locational value of solar + storage yields reliability benefits, one could infer that PLEXOS would always choose solar + storage over standalone storage.
   a. **If PLEXOS benchmarking results differences are primarily due to the LTCE model's endogenous reliability considerations, staff would appreciate further clarification why this difference in model architecture is producing two different substation trends over the 20-year planning period.**

PacifiCorp Response:

Stand-alone storage can be more expensive but is not restricted to locations favorable to a particular co-located technology. Also, co-located battery is assumed to be restricted to charging from the co-located renewable

* Required fields

resource. These advantages and disadvantages can cause the model to correctly optimize different strategies (stand-alone vs. co-located) in different periods.

2. Price-policy scenarios (slide 10) – Staff are accustomed to seeing three descriptors for each scenario (i.e., demand, gas price, GHG price). However, the slide only describes each scenario according to its gas price and CO2 cost. **Is the modeling team incorporating the load / demand forecast into these 5 scenarios? Or do these considerations come later?**

PacifiCorp Response:

The loads assumed in each study are included as part of the base forecast, unless the load itself is a sensitivity. When the load is a sensitivity, they are noted as different than the base assumption.

3. CO2 cost scenarios (slide 14) – Re: SCGHG assumptions, staff is glad to hear PacifiCorp has adopted a 2.5% discount rate as required under WA's CETA. **Staff reminds the company will need to update its SCGHG price scenario for the 2021 IRP to reflect inflation**. The Social Cost of Carbon page on the WA-UTC's external website reflects the SCC in 2019 dollars per metric ton.

PacifiCorp Response:

Thank you for your feedback. PacifiCorp will update the SCGHG price scenario to include inflation.

4. Power price scenarios (slide 15) – **WA staff agree and support the market price recommendation submitted by Oregon PUC staff on Nov 17 and posted to PacifiCorp's Stakeholder feedback web page. WA staff strongly encourage the Pac IRP team to adopt such an Aurora price forecast for purposes of the company's 2021 IRP modeling**. Not doing so may risk the company making planning decisions based upon an artificially low market price forecast that does not consider CETA cost impacts.

PacifiCorp Response:

Thank you for your feedback. PacifiCorp will consider this request balanced with other stakeholder requests and time constraints. The company will comply with all CETA requirements.

II. Distributed energy resource questions related to PacifiCorp's distribution planning

Per the company's request during the Nov 23 bi-weekly IRP touchpoint, staff is re-circulating the following DER discussion questions that pertain to PacifiCorp's distribution planning.

Note: Staff's treatment of DERs in the below questions considers more than just private generation sources that are behind the customer meter. WA-UTC staff expect the **2021 electric IRPs to also consider DER options that require more control/planning on behalf of the utility (e.g., community solar initiatives)**.

1. **How and when will PacifiCorp be able to estimate the allowable level of DERs of different types on the various feeders or substations on their system?**
    a. Note: To adequately answer question 1, Pac will likely need to consider more than just the results from the company's 2020 private generation study.

PacifiCorp Response:

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PacifiCorp addressed this question during a December 7, 2020 phone conversation with staff. During the conversation it was discussed that the ability to estimate the allowable level of DERs on different types on the various feeders and/or substations is currently variable however, it is anticipated that the ability to estimate will become more consistent in the future.

2. **How and when will Pac be able integrate various levels and types of DERs at the IRP level of analysis, keeping in mind DER benefits are often quantified at the sub-hourly level?**

PacifiCorp Response:

PacifiCorp addressed this question as part of a December 7, 2020 phone conversation with staff. During the conversation, PacifiCorp discussed the challenges of quantifying DER benefits and noted that some preliminary efforts to value DER are underway. However, this valuation is generally not included in the IRP.

3. **How and when will Pac be able to value different levels of DERs of different types on the various feeders or substations or system?**
    a. Note: Valuation of DERs and avoided cost calculations will be key, including transmission and distribution avoided (or deferred), ancillary services, and other NEI inputs.

PacifiCorp Response:

This was addressed as part of a December 7, 2020 phone conversation with staff. On the call, PacifiCorp discussed ongoing efforts to value DERs through regulatory and market mechanisms, but noted that these efforts still have details yet to be determined.

How do DERs complement Pac's utility-scale generating resources?

PacifiCorp Response:

This was addressed as part of a December 7, 2020 phone conversation with staff. During the conversation it was discussed that behind-the-meter DERs may or may not complement PacifiCorp's utility-scale resources depending on the weather, time of day, and other factors, as the impact of these DERs on the net load on each feeder can be difficult to predict.

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.

NA.

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

Note: Staff is re-circulating DER questions to get a better perspective of how the IRP process intersects w/ company's distribution planning. The company specifically asked staff to re-issue these questions during the Mon, 11/23, staff-company bi-weekly IRP touchpoint.

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Please submit your completed Stakeholder Feedback Form via email to IRP@Pacificorp.com

Thank you for participating.

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