

PacifiCorp - Stakeholder Feedback Form

2019 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 2019 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 10/17/2018

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Address: 201 High Street Suite 100

City: Salem

State: Oregon

Zip: 97301

Public Meeting Date comments address: 9/27/2018

Check here if not related to specific meeting

List additional organization attendees at cited meeting:

[Click here to enter text.](#)

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

Environmental Policy / Price-Policy Scenarios

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.

Public Utility Commission of Oregon Staff (Staff) appreciates PacifiCorp's presentation and information relating to the Environmental Policy / Price-Policy Scenarios presentation provided at the 2019 IRP Public Meeting held on Sept. 27-28, 2018. Staff offers the following comments requesting further clarity and additional information so as to more meaningfully participate in this process.

1. Staff requests an update on the company's planning efforts regarding California's Updated Renewable Portfolio Standard as that information becomes available.

PacifiCorp Response:

PacifiCorp presented an updated slide regarding California's Renewable Portfolio Standard (RPS) at the September 27-28, 2018 public input meeting. PacifiCorp's preferred portfolio will meet its California RPS requirements, along with all other state RPS requirements. This will be achieved by ensuring targets are met, and if not, forcing incremental renewables or renewable energy credit purchases, as applicable, to achieve such targets.

2. Staff agrees with other parties that the selected Base carbon dioxide (CO₂) price forecast presented on slide 45 that began a carbon price in 2030 was both too low and that 2030 is too late of a start date. PacifiCorp proposed an updated price beginning in 2025 with a 10 percent annual growth rate on slide 15 of the October 9, 2018 conference call. Staff appreciates PacifiCorp's work to incorporate stakeholder feedback regarding the selected Base CO₂ price, however Staff still believes the proposed 2025 start date is still not soon enough given the way policy is trending in PacifiCorp's Western States. Staff encourages PacifiCorp to assume a base CO₂

* Required fields

price that begins no later than 2021 to be consistent with existing policy in California and policies that have been proposed in both Oregon and Washington. Staff also encourages PacifiCorp to increase its price assumptions and assume high, medium, and low carbon prices that are consistent with the allowance price forecasts for the cap-and-trade market administered by the California Air and Resource Board. These assumptions would be consistent with CO₂ price forecasts used by other Oregon public utilities for IRP purposes.

PacifiCorp Response:

PacifiCorp plans to model its medium CO₂ price assumption starting in 2025 which is not reflective of any specific state policy but is reflective of anticipated activity at a federal policy level. PacifiCorp's focus is on federal policy since state-specific policies cannot place a carbon cost or compliance obligation on out-of-state resources. Notwithstanding, PacifiCorp believes that its proposed low, medium, and high CO₂ price assumptions provide a reasonable range consistent with current forecasts from the cap-and-trade market administered by the California Air Resources Board.

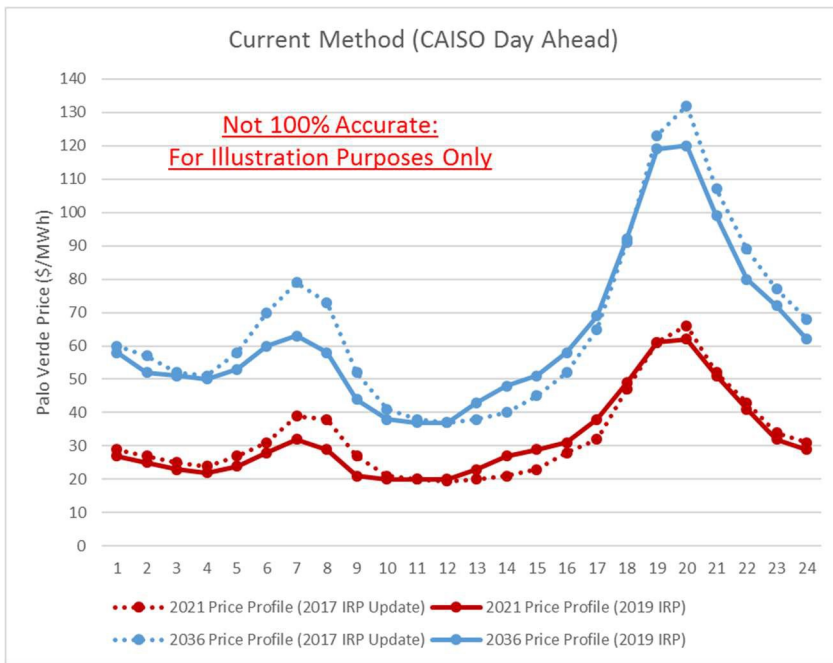
3. Oregon Staff reiterates that it is a worthwhile endeavor for the Company to incorporate interstate carbon regulation as opposed to the single average price of carbon compliance that was presented at the September Public Input Meeting. Western states already have or will likely have carbon legislation soon, while the Eastern states of PacifiCorp's six-state jurisdiction currently have no plans to add a price to carbon pollution. Staff understands interstate carbon regulation is complex to include in the modeling, however it is relevant analysis given policy today. Staff encourages PacifiCorp to determine its own reasonable assumptions regarding how interstate transfers are handled for scenarios that do not assume the single average carbon price across all states.

PacifiCorp Response:

PacifiCorp appreciates staff's feedback, but at this time continues to pursue simplified modeling of prospective carbon policies that are reasonable and generally indicative of potential book-end outcomes. PacifiCorp may consider a sensitivity if staff offers a specific proposal that identifies how a specific interstate policy should be applied. This proposal should identify the point of regulation (upstream such as fuel or down-stream at the point of emissions), applicability to specific resources unique to each jurisdiction, structure for each jurisdiction (tax, cap-and-trade, emission rate, etc.), timing for each jurisdiction, availability of tradeable instruments by jurisdiction (i.e., allowances, credits, offsets), and any other unique characteristics by jurisdiction that could affect resources across and outside of PacifiCorp's system.

4. To give stakeholders a view into the pace of change within the market, for any methodology updates involving the use of data from CAISO in the 2019 IRP, such as the hourly price scalar (slide 50) and the intra-hour credit methodology, Staff would appreciate a direct comparison with the corresponding 2017 IRP Update analyses, as well as summary explanation of any measurable differences between the analyses.

For example, below is a rough (by eyeball) sketch of the hourly price scalars in the 2017 IRP Update, and those to be used in the 2019 IRP. Staff would like to better understand the changes in the hourly shape, such as what factors in the CAISO market have led to the convex shape of the day ahead prices from noon to 4 pm, which previously had a concave pricing shape in the 2017 IRP Update?



PacifiCorp Response:

The graph provided above appears accurate and a reasonable representation of scalars from the 2017 Integrated Resource Plan (IRP) Update and 2019 IRP. The higher prices reflected in the 2019 IRP scalars between the 12:00pm to 4:00pm hours reflect warmer temperatures in the summer months of the California Independent System Operator “CAISO” actual price data informing the 2019 IRP scalars. In addition, 2019 IRP scalars are lower generally over the 24 hour period than the 2017 IRP update due to lower market prices.

Regarding the intra-hour flexible resource credit, the value of the intra-hour flexible resource credit changed due to updated data informing the calculation, and use of actual fifteen minute market advisory schedules in the 2019 IRP calculation compared to proxy fifteen minute market schedules in the 2017 IRP update.

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.

[Click here to enter text.](#)

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

[Click here to enter text.](#)

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

Thank you for participating.