

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 8/30/2018

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*Organization: Public Utility Commission of Oregon (OPUC)

Address: 201 High Street SE, Suite 100

City: Salem

State: Oregon

Zip: 97301

Public Meeting Date comments address: 7/26/2018

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.

Load Forecasting - uncertainty

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.

The Public Utility Commission of Oregon Staff (Staff) is eager to learn more about PacifiCorp's load forecast methodology and 2019 IRP load forecast results.

At the July 26, 2018 IRP Public Input Meeting, PacifiCorp stated that it uses two main methodologies to create the load forecast: econometric models for the commercial and industrial forecasts and an end-use model for residential. Staff made two comments related to the Company's approach: 1) Staff requested that PacifiCorp provide Staff with additional data required to evaluate each forecast, and 2) Staff recommended that the Company modify the way it presents data related to its load forecasts to all Stakeholders prior to filing its IRP. Staff submitted information requests on August 10, 2018 that relate specifically to its first comment. This feedback form addresses Staff's second comment—a request for the Company to modify the way it presents its load forecasts and provides data to stakeholders prior to filing its IRP. Staff's feedback includes specific direction for the way that the Company conveys uncertainty, and a more general comment about the opportunity for Stakeholders to provide actionable feedback.

Direction for the Way that the Company Conveys Uncertainty

At the July 26, 2018 Public Input Meeting, a single point-estimate load forecast was presented. As there is considerable uncertainty inherent in model estimation, a single-point load forecast obfuscates interpretations of various forecasts.

* Required fields

Staff requests that PAC present Stakeholders with the data behind the single point-estimate load forecast to allow for more in-depth analysis of the uncertainty in the forecast.

Probabilistic forecasting was mentioned at the July 26th meeting as one such possibility of conveying this uncertainty, but it is not the only possibility. For example, it would be relatively simple for the Company to generate prediction intervals from regression outputs. However PacifiCorp chooses to characterize uncertainty, it should be presented to Stakeholders, fully documented and justified. It is important to note that scenarios varying one important driver like economic growth or natural gas prices do not fully capture model uncertainty in forecasts.

The Opportunity for Stakeholders to Provide Actionable Feedback

Staff appreciates the Company's responses to the August 20, 2018 load forecasting IRs. As Staff reviews the responses, we would like to share initial informal feedback about the opportunity for Stakeholders' to review and provide actionable feedback on the Company's load forecast. Though the Company is relatively early in its IRP process, Staff understands that the load forecast is an early input into the modeling process, and thus it can be burdensome to change later in the process. Rather than requesting changes to the load forecast after the Company files the 2019 IRP, changes to which cannot be acted upon until the next IRP is developed in 2021, Staff wishes to evaluate the models now to make relevant suggestions that may be applied to the 2019 IRP. Additionally, Staff is interested in hearing any ideas from PacifiCorp as to how the load forecast information-sharing and improvement-suggestion process can be optimized.

PacifiCorp Response:

PacifiCorp will discuss incorporation of uncertainty in its high and low load forecast sensitivities in an upcoming Integrated Resource Plan (IRP) public input meeting. Work papers will be included as part of the confidential data discs filed with the 2019 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.

[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.