

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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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.

Transmission Overview and Updates

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 Transmission Overview and Updates presentation provided at the 2019 IRP Public Meeting held on Sept. 27-28, 2018. Staff offers the following comment requesting further clarity and additional information so as to more meaningfully participate in this process.

PacifiCorp's most recent statement that multiple segments of Energy Gateway may never be needed, even beyond 2024, is surprising to Staff. The Company explained that new line construction is generally spurred by NERC reliability concerns, load growth, or a Transmission Service Request/Agreement in OASIS. To ensure that Staff has the most recent information on the company's planning, we request an explanation of how reliability, load growth, and transmission service requests are influencing the outstanding segments of Energy Gateway.

PacifiCorp Response:

PacifiCorp would like to clarify Oregon Public Utility Commission "OPUC" Staff's interpretation of the company's discussion of Energy Gateway. The Energy Gateway segments continue to be an integral part of PacifiCorp's long term transmission plan and are needed to meet a fundamental part of the region's plans to ensure long-term supply of reliable and affordable energy for existing and future customers. Energy Gateway provides a number of benefits including: long-term rate stability through increased protection from market price volatility into the future, more flexibility and stronger connections across the region to move energy resources from where they are located to where they are needed by customers, provides necessary and required transmission infrastructure, ensuring safe, reliable, efficient and adequate levels of service

* Required fields

that customers need and expect, access to diverse energy resource areas to support customer growth and more efficient use of existing generating resources while encouraging development of new generation including renewable energy resources to support customer needs. As noted in the question above, the timing of the construction of the Energy Gateway segments is dependent on a number of factors including when new generation resources come on line, load growth, compliance with North American Electric Reliability Corporation (NERC) reliability standards, existing generation retirements and requests for interconnection or transmission service.

PacifiCorp's load growth forecast has decreased since the inception of the Energy Gateway projects, but there are a number of areas in PacifiCorp's system where load continues to increase. Customer demand for renewable resources is also increasing. Energy Gateway is well positioned to deliver increased renewable resources to customer load. The company also performs annual reliability assessments. Energy Gateway is a critical piece of the long-term transmission plan in order to provide voltage support and increase the reliability of the transmission system during planned and unplanned outages. PacifiCorp must also plan for the retirement of existing generation assets. Depending on the timing, magnitude of retirements and location of replacement resources, Energy Gateway will play a key role in continuing to serve all customers. PacifiCorp currently has over 9,000 megawatts of interconnection requests in Wyoming, the majority of which are located in eastern Wyoming all of which Energy Gateway segments would support. There are a number of factors that will ultimately decide the timing of the construction of the Energy Gateway segments, but the value the projects bring remains critical to PacifiCorp customers and the region.

The Company should explain why a B2H in-service date has been moved to 2025 from 2026. Further, the Company has not identified a need for B2H in its IRP. Beyond an update of the project sponsor's role and resource need, the Company has not presented a clear case for why B2H is needed but other segments of Energy Gateway are not. The Company should identify the role of B2H as a need or component in its least-cost/least-risk portfolio and why it intends on moving forward with the project. The Company should also explain the size and status of any B2H transmission service requests have been submitted to PacifiCorp.

PacifiCorp Response:

The project schedule and in-service date is driven by Idaho Power as the project manager, and PacifiCorp reflects that information as it is made available. PacifiCorp has not determined a need to move forward beyond the permitting phase of the project and as such is only a party to the current permit funding agreement. As the project moves to permit completion, a determination of next steps will be made based on customer need. To date PacifiCorp has not received any requests for service on the B2H transmission line.

In the last IRP meeting, the Company identified new transmission modeling "enhancements." Staff requests more information on this modeling:

- a. The Company stated the model would have a dozen possible transmission upgrades. Staff requests information on the cost and size of the upgrades.

PacifiCorp Response:

In support of Integrated Resource Plan (IRP) modeling assumptions, possible transmission upgrades were identified for IRP modeling at various amounts of resource placed at transmission topology locations in various years.

- b. WUTC Staff noted at the meeting that these assumptions would be based on a power flow model, and Staff request more information on a power flow model used.

PacifiCorp Response:

PacifiCorp uses Siemens PSS/e software program power flow that utilizes a database model that mimics not only PacifiCorp's transmission system but the entire Western Interconnection. Using this power flow model, PacifiCorp determines the incremental transmission upgrades necessary to support required transfers associated with new resource capacity proposed to be interconnected to PacifiCorp's transmission system without causing reliability issues. In the power flow model the potential retirements and associated transmission upgrades are also taken into consideration to determine any impacts to the reliability of the transmission system.

- c. Staff requests information about whether PacifiCorp will incorporate power flow patterns in this analysis, whether these enhancements consider engineering patterns or not in selecting portfolios, and base assumptions about existing transmission data.

PacifiCorp Response:

As discussed in the response to part b above, the power flow model incorporates power flow patterns under different scenarios such as heavy loads, light loads, etc. and ensures the reliability of the transmission system is maintained under different power flow patterns for different incremental transmission upgrades and its associated new resource capacity.

- d. Staff requests more information about whether B2H is included in the list of upgrades. Staff also requests more information about how B2H upgrade costs have been considered in past IRPs.

PacifiCorp Response:

As the project sponsor, Idaho Power models the project in their IRP. PacifiCorp does not include the project in their list of upgrades at this time. No costs for B2H have been considered in PacifiCorp's IRPs. However, PacifiCorp will develop a portfolio during the portfolio development phase of the 2019 IRP that includes the B2H line. Please refer to the portfolio development matrix reviewed during the September 28, 2018 public-input meeting, specifically case P-22.

- e. Staff requests more explanation about how current available transmission is considered. For example, the supply side resource table now lists five different locations for proxy solar, and the Company indicated that these are five locations where transmission is available. Staff requests more information about where transmission is available, where upgrades would be required, and how current ATC versus required upgrades may be valued in IRP modeling.

PacifiCorp Response:

Please see PacifiCorp's 2017 IRP transmission topology. Transmission is available at these locations. The model will endogenously select transmission upgrades, as needed, where available transfer capability is not available. Please also refer to the company's response above related to Staff's inquiry on the cost and size of upgrades. Selected upgrades can be unique in each portfolio.

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.