

PacifiCorp - Stakeholder Feedback Form

2017 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 2017 IRP, including, but not limited to the process, assumptions, and analysis. In providing your feedback, PacifiCorp requests that the stakeholders identify whether they are okay with the Company posting their comments on the IRP website.

Yes No May we post these comments to the IRP webpage? Date of Submittal 8/24/2016

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Public Meeting Date comments address: 7/20/2016 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.
RFP for Renewables, Renewable pricing, EIM/RSO Expansion, Energy Storage

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

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

The Interwest Energy Alliance ("Interwest") appreciates this opportunity to provide comments as part of the 2017 IRP public process. Thank you for the detailed discussion and expertise available for these meetings. References below relate to the presentations at the public meeting where indicated. We don't indicate all questions in these comments but want to provide specific requests as early as possible, and we will follow up as the public process continues.

New renewables and the RFP: (July 21, Slides 64 et seq.):

We noted that although you had a robust response to the RFP, PacifiCorp chose not to acquire resources and instead to use unbundled RECs to meet RPS compliance. (Slide 68). This discussion is confusing, however, because it is not incorporated into the modeling and scenario analysis. We understand that you have decided not to acquire any new resources from this RFP. (IRP Update Comments, August 19, 2016, Docket No. 15-035-04.) **This decision seems to require more explanation in light of the generous tax credits available to PacifiCorp ratepayers from near-term acquisitions of renewable energy.**

Please include more explanation of the pricing, costs or benefits from purchase of RECs versus REC bundled with energy. You would receive benefits including capacity, energy and reliability support from purchasing contracts for new renewable resources. These benefits should be quantified and compared to the risks and costs of purchasing unbundled RECs in the context and timing of the PTC, ITC, your RPS compliance and the overall IRP. We believe that the benefits of bringing on new emissions-free, zero fuel cost renewable energy will not be adequately evaluated in the modeling, for RPS compliance purposes or for potential cost savings.

We also believe that your discussion does not fully recognize the purpose of RPS statutes. For example, Oregon SB 1547 requires integration of the RPS planning with the IRP planning to develop a plan for the least-cost, least-risk acquisition of resources. Also PacifiCorp is required to use the plan to determine if the costs of constructing a facility or acquiring RECs are consistent with least cost planning (Oregon Revised Statutes 469A.075.6(4)(c) and 469A.075.6(5)).

Therefore, more information about the results of the RFP and how these bids and prices are incorporated into the IRP modeling would be helpful. The analysis should include quantification of the costs and risks of REC purchases compared with purchase of renewables consistent with the RFP results. In addition, your assumptions used for the costs and production capabilities of renewables should be consistent with the results of this RFP. To that end, information about the costs and production characteristics of the bids received (without revealing confidential information, but on a broad aggregated basis) should be disclosed and fully analyzed as part of your renewable assumptions included in the scenario development and modeling. If necessary, please disclose this information on a confidential basis upon request for purposes of verification of your assumptions used in your analysis in this IRP.

Also, in the context of this RFP, to what extent are transmission constraints an impediment to: a) purchasing renewables based on cost-effectiveness (i.e. which would otherwise be cost-effective but cannot be acquired until transmission is available); and b) purchasing renewables for RPS compliance purposes? That discussion would be helpful to promote updated analysis of the costs and benefits of additional transmission expansion as it relates to the IRP, both related to the grid expansion (discussed below) and Gateway development overall. Therefore, some sort of high level description of where transmission constraints currently prevent such acquisitions, and to what extent, would be helpful. Do transmission constraints prevent PacifiCorp from acquiring PTC-eligible wind? What is the plan to enable you to bring ITC-eligible solar online before these benefits are reduced and eventually expire? Also, how does Strategist deal with transmission constraints? Are they clearly identified, with the opportunity costs of such constraints included (i.e. the need to forego cost-effective renewables eligible for tax credits in the near term?) The more clearly the impacts of these constraints are identified the more transparent the IRP.

Regional grid expansion (July 21, Slides 46 et seq.):

Interwest promotes increasing coordination of grid operations in the West, because such coordination will have an impact on the resource portfolios which are reasonably available, reducing costs over time. Coordinated grid operations will likely reduce reserve requirements and integration costs and enable a more geographically and technological diverse set of resources to be made available across your service territory. We understand that the addition of other utilities to the proposed regional grid operation would further reduce costs. Therefore, we ask that you:

- a) Clarify the expected impacts of the CAISO merger on the planning process, reserve margin, system costs, and resource decisions; and
- b) Indicate if the addition of other western utilities changes how PacifiCorp's long-term model is treated;

Energy storage:

Interwest requests that you form a working group on modeling storage systems so that you can fully analyze how to benefit from storage in the resource plan and portfolio development. This is a rapidly changing technologies, with costs dropping faster than expected. See, e.g., Vorrath, Sophie, "Energy Storage Could Reach Big Breakthrough Price Within 5 Years", CleanTechnica, March 4, 2015, <http://cleantechnica.com/2015/03/04/energy-storage-could-reach-cost-holy-grail-within-5-years/>. We believe that you should not rely solely on System Optimizer ("SO") results as your only

indication of whether or not storage resources are part of a least-cost portfolio. SO does not have sufficient temporal and locational specificity to capture many of the benefits of grid-connected storage. For example, SO cannot model sub-hourly behavior of resources, meaning that it cannot capture the value provided by storage facilities used for frequency regulation or voltage support. SO also cannot incorporate the possible transmission or distribution system upgrade deferral or congestion relief benefits of storage, which depend highly on the exact location of a storage system on the grid. Therefore, separate testing and reporting, to supplement your SO analysis, is appropriate to fully analyze these benefits.

Thank you!

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.](#)

Thank you for participating.