

PacifiCorp - Stakeholder Feedback Form

2015 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 2015 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 8/14/2014
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Public Meeting Date comments address: Supply side costs generally, carbon costs and fuel price hedging benefits of renewables 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.
[Click here to enter text.](#)

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.

Costs for wind energy should reflect recent cost reductions and capacity value increases available in the Eastern side, Wyoming in particular, which are likely to be similar to the costs available throughout the Central region of the US, in the wind-rich plains states. Xcel Energy recently found additions of wind and solar energy along with natural gas to be less expensive than simply adding natural gas as replacement resources for retiring coal units in its RFP results reported in 2013. The wind bids were touted to provide emission-free energy to its customers at an equivalent, levelized natural gas price of approximately \$4.26/MMBtu for twenty-five years thereby helping reduce customer exposure to potential increases in natural gas prices and future greenhouse gas regulation.

See PSCo 120-Day Report, 2011 ERP, cited below, pp. 10-15, and Table 9, Bid Portfolio Summary, p. 40 (PDF page 42).

PacifiCorp should model similar costs for wind, with 38% capacity values based on Wyoming wind potential. PacifiCorp should perform a trigger point analysis to reflect what price points would result in additional penetration of wind energy, for substantial (greater than 250 MW) capacity amounts to be acquired prior to 2020.

Utility-scale PV solar average energy prices have fallen from \$0.21/kWh in 2010 to \$0.11/kWh at the end of 2013. Weighted average PV system prices fell 15 % in 2013 to a low of \$0.25/kWh. PacifiCorp modeling should reflect these low prices. PacifiCorp should perform trigger point analysis to reflect what price points

* Required fields

would result in additional penetration of significant amounts of utility-scale solar energy by 2018 and 2020, in part to capture the incentive tax credit higher valuables which expire soon.

Wind and solar energy offer multiple benefits including cost predictability, financial risk hedge benefits (including fuel price hedge and market price response), environmental benefits, including reduced water use and water pollution, reduction in CO₂ and criteria pollutants, along with significant economic benefits. Solar energy can offset higher operating costs of natural gas-fired facilities and supplement base load generation to help meet peak demand.

Public Service Company of New Mexico recently published RFP results, which should be comparable to those available in PacifiCorp service territory, at least in Utah. See attached, described in more detail below. Also, recent QF proposals which have been contracted also reflect higher capacity factors.

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.

PSCo 2013 120-Day Report is found at

http://www.xcelenergy.com/staticfiles/xcel/Corporate/Corporate%20PDFs/Redacted_Version_120DayReport_REVISED_FINAL.pdf.

Utility scale solar prices found at Figure 1, "Falling Prices for Utility-Scale Solar PV Projects, U.S. Dep't of Energy, "Progress Report: Advancing Solar Energy Across America" (Feb. 12, 2014),

<http://www.energy.gov/articles/progress-report-advancing-solar-energy-across-america>.

Public Service Co of New Mexico (PNM) has issued recent RFPs which also reflect low wind and solar prices: wind at \$ 37/MWh. 40 MW of PV solar was acquired for \$68.20/MWh. See attached, pdf pages 78, 123-26 and 142 (public RFP results) from Patrick J. O'Donnell testimony, PNM's Application for 2014 Procurement Plan. Some highlighting included for convenience.

Recommendations: Provide any additional recommendations if not included above - specificity is greatly appreciated. Include these low costs and higher capacity factors for wind and solar energy reflected in the most recent RFPs in your modeling assumptions. Include trigger point analysis for wind and utility scale solar energy.

In addition to the Sec 111d assumptions, include carbon costs, with a mid-range of \$56/tonne (based on Federal Social Cost of Carbon, with a 3% discount rate)

And a sensitivity of \$80/tonne (federal Social Cost of Carbon with a 2.5% discount rate) and

A sensitivity case of a high carbon price of \$125/tonne (federal Social Cost of Carbon with a 3% discount rate), in order to provide some bookend information

When modeling for 111d, is it possible to reverse the order of the assumptions, so that renewables are the first input, essentially reversing the order of application of each Building Block? If some limits are required to avoid overstating possible renewable assumptions, the trigger point analysis could potentially provide a rational limitations. In other words, to the extent of the trigger point, what is the modeling result if renewables are added first to comply with Sec. 111d?

Thank you.

Thank you for participating.

* Required fields