

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 7/18/2018

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Public Meeting Date comments address: 6/28/2018

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.

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.

All - WUTC staff intends to file feedback after each IRP meeting to keep the lines of communication open and to signal as soon as possible whether there are any concerns. Below are slide-by-slide comments and questions, working from the hard copy of the redacted slides (113 pgs total).

- Slide 6: Randy's overview of what models can and cannot do was very helpful. Thanks!
- Slide 17: PaR does 4-hr blocks and sample weeks over each year in the 20yr planning horizon. What level of temporal detail does SO get to? I see 3-day aggregation, but I'm not sure how else the year is constructed in the model.
- Slide 21: Staff is hoping to see some modeling to account for intra-hour effects and improve on hourly modeling. We understand that this is a heavy lift, and that PAC's system is more complex than other electric IOUs regulated by WUTC, but I was surprised that neither of the IRP modeling tools optimizes the 20 year plan on an hourly basis. Also, are 50 runs enough to capture enough randomly paired 99th percentile and 99th percentile events? I feel like I asked about this and heard that the preferred portfolio gets more vetting through more runs. Is this right?
- Slide 22: Will we discuss at some point what assumptions PaR uses to optimize market transactions?
- Slide 28: Does PaR look at unit-commitment logic and intra-day system conditions? I would have thought that was part of the SO optimization, but I may be off (see slide 17 comment).
- Coal study slides: I appreciate that this information is sensitive, but was surprised that I was asked to return my hard copy of the confidential slides. I'd encourage the company to lean on the systems it has in place – the agreement and WUTC's confidentiality rules – rather than create new hurdles for meaningful participation in the IRP process.
- Slide 57: Where does PAC source, or how does PAC build, its gas price forecast? This is something we're looking at for other IRPs as well, so an overview of the methodology would be helpful, either in a meeting or in the IRP.

* Required fields

- Slide 58: Discussion of emissions policies and pricing might be a good opportunity to highlight the Commission's 2017 IRP acknowledgement letter, which provided some specific guidance on modeling inputs and carbon pricing expectations.
- Slide 61: I didn't understand until recently that PAC's regional haze compliance obligations are only unclear because PAC is trying to negotiate with the EPA rather than comply directly. I don't have an opinion on whether this approach is good or bad, but I would encourage the company to be more clear in its description of the status quo. What are the risks to the company of not complying more expeditiously? What are the benefits?
- Slide 64: What about the Leaning Juniper repowering project caused it to be excluded from Utah's approval? Same question for WY. Is it just the info on slide 65?
- Slide 65: The rationale for PAC's qualifications of the coal study, and its critique of the methodology it was required to follow, seem reasonable. I'm curious about whether that same argument can be made for Leaning Juniper, or whether the nature of repowering means that a one-unit in/out type of analysis is reasonable.
- Slide 70: I understand this to be an analysis of the new WY and related wind (except Uinta) and related transmission – projects that will qualify for 100% of PTCs if completed by the end of 2020. It looks like projects are beneficial in all scenarios through 2036, but not in all scenarios through 2050. What causes the estimated benefits to go down with a longer planning horizon? What variables are moving such that wind in PAC's portfolio becomes less beneficial between 2036 and 2050?
- Slide 74 (and 69): This slide is a great encapsulation of the bids received. Thanks!
- Slide 75: How do the prices and terms of the recently-executed solar PPAs made outside of the RFP process compare with the prices and terms PAC discovered through the RFP?
- Slide 88 & 89: This analysis is interesting and useful. My initial impression is that this is consistent with Council methodology – indeed, using real admin costs instead of an assumed admin adder strikes me as an improvement to the model. I would encourage highlighting this departure from / improvement on the Council's approach within the narrative content of the IRP. Also, we're interested in learning more about this admin costs study. Can PAC / AEG please provide the workpapers and/or supporting data for the figures on slide 89?
- Slide 90: Is it possible to separate Program Delivery from Admin (break the orange bar into two)? Also, can you confirm my understanding that program delivery includes both subcontractor costs and incentive payments. Is this right? Or, is program delivery the incentive, and admin is all other program-level costs that aren't the incentive - PAC and subcontractor?
- Slide 94: I feel like I should know this already, but why is the Energy Efficiency Analysis using 2014 usage data? Is this an input from the most recent building stock assessment?
- Slide 104: Is there any part of the supply curve development where PAC's access to expertise at both ETO/Navigant and AEG allows them to hone their DSM inputs? Do they compare figures and forecast results across the two models to see whether the results come at least reasonably close?
- Slide 107/108: I want to confirm my understanding of the workflow. AEG gives a lot of data to the Customer Solutions Planning team, who aggregates a bunch of load shapes, potential estimates and state-specific usage rates into state-specific capacity and state-specific levelized costs, which can be considered just like supply-side resources in SO. Is this right? Also, what is a one-year capacity factor shape? Is this a more granular representation of the amount and shape of the DSM potential, which gets rounded into an average MW for tables like slide 60?
- Slide 109: As the IRP model gets developed and PAC gains more clarity around which cost bundle might be on the margin, is it possible to re-bundle these bundles such that there's more granularity where it matters, and less where it doesn't? For example, if the marginal selected bundle floats between \$50 and \$70, perhaps bundling everything >\$200 and <\$20 would allow smaller bundles of \$50-55, \$55-60, etc., creating more granularity while potentially keeping model run times about the same.

Please let me know whether providing feedback in this format, and with this detail, is constructive for the IRP team. I welcome any ideas that will make this more useful from the company's perspective.

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.

* Required fields

Recommendations: Provide any additional recommendations if not included above - specificity is greatly appreciated.
[Click here to enter text.](#)

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- Check here if you do **not** want your Stakeholder feedback and accompanying materials posted to the IRP website.

Thank you for participating.