

PacifiCorp - Stakeholder Feedback Form

2021 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 1/3/2020

*Name: Justin Brant

Title: Senior Associate

*E-mail: jbrant@swenergy.org

Phone: 303-447-0078x2

*Organization: SWEEP/Utah Clean Energy

Address: [Click here to enter text.](#)City: [Click here to enter text.](#)State: [Click here to enter text.](#)Zip: [Click here to enter text.](#)Public Meeting Date comments address: [Click here to enter date.](#) Check here if not related to specific meetingList 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.
CPA Work Plan

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.

Thank you for the opportunity to comment on the PacifiCorp 2021 Conservation Potential Assessment Draft Final Work Plan ("CPA"). SWEEP and Utah Clean Energy ("UCE") look forward to continuing to work with PacifiCorp and AEG to develop a realistic and transparent CPA to be used as an input for the 2021 PacifiCorp Integrated Resource Plan.

SWEEP and UCE appreciate the inclusion of stakeholder input so early in the CPA development process; however, PacifiCorp provided a very short timeframe to provide written comments over the period between Christmas and New Year's. In the future, SWEEP and UCE ask that stakeholders be provided with ample time to review and comment on all inputs, assumptions, and draft reports. In addition, SWEEP and UCE request that all inputs, assumptions, and draft output tables (including report appendices) be provided to stakeholders as working Excel spreadsheets broken down by year to ease the review process.

Given the limited review time, SWEEP and UCE have not had the opportunity to review the CPA Work Plan in detail. However, following a high-level review, SWEEP and UCE provide the following comments and suggestions. SWEEP and UCE are happy to discuss its suggested changes in more detail with PacifiCorp and AEG.

Demand Response Potential Comments

* Required fields

1. SWEEP and UCE appreciate that the CPA will examine demand response (“DR”) potential outside of the system-wide summer and winter peak periods to include the local distribution system and new technologies such as energy storage. However, SWEEP and UCE do not believe this analysis goes far enough to assess the potential of DR to provide services to the electric grid beyond capacity. The CPA must also look at potential for DR to offer services such as frequency regulation and contingency reserves. Rocky Mountain Power is already utilizing its Cool Keeper program to provide these services to the bulk electric system, and the CPA must fully assess the potential of DR to provide a range of grid services over multiple timescales. In addition, estimates of the levelized costs of DR should include the full range of grid benefits by providing multiple services, similar to how Rocky Mountain Power quantifies the benefits of the Cool Keeper program.

PacifiCorp Response:

At the 2021 Integrated Resource Plan (IRP) public-input meeting on February 18, 2020 discussed grid services as they relate to specific demand response (DR) measures including applicability of grid services such as frequency regulation and contingency reserve. Please note that in the 2019 IRP, PacifiCorp did apply a credit for operating reserves for DR and also tried to capture additional grid service benefits through ancillary services.

2. Similarly, the CPA should assess the potential for DR to shift load on a daily basis to help with renewable energy integration and provide similar functionality as battery energy storage. Investments in DR can help with the integration of variable renewable resources by shifting load, similar to the analysis proposed in the CPA around battery energy storage.

PacifiCorp Response:

PacifiCorp agrees that certain DR programs have the ability to shift load in a manner that is similar to battery energy storage. To the extent PacifiCorp can control both incremental and decremental dispatch, without time or duration constraints, DR could be very similar to battery storage in this regard. In general, DR tends to result in a combination of load shift and load reduction. While load shift may be predictable, it is often not controllable like battery energy storage. PacifiCorp is open to exploring ways of adapting modeling tools applicable to battery resources to DR programs that provide similar or related functionality. PacifiCorp would note that most DR programs have limited annual interruptions that are more restrictive than a battery - incorporating this and other program parameters that are unique to DR will be important. The February 18, 2020, 2021 IRP public-input meeting discussed grid services as they relate to specific DR measures including applicability of grid services such as load shifting and interruptible load. In the 2019 Conservation Potential Assessment (CPA), the levelized costs for DR programs was adjusted to conform to the California Public Utility Commission’s (CPUC) cost-benefit analysis protocols for California, Oregon, Washington, and Wyoming. Utah and Idaho use traditional methods for levelized cost using the state-specific cost-benefit analysis methodology.

3. As opposed to the methodology in the 2019 CPA, the 2021 CPA should not assign the full cost of DR enabling technologies to the levelized cost for DR. Similar to energy efficiency resources, utilities will often only pay a portion of the cost of enabling technologies or leverage technologies that the customer has already invested in for DR, such as Bring Your Own Thermostat programs or programs utilizing smart EV charging infrastructure. Therefore, the levelized costs of DR programs should be based on realistic program and equipment cost assumptions, instead of assigning the full cost of enabling technologies to DR programs.

PacifiCorp Response:

For the 2021 CPA, PacifiCorp will revisit the costs for all measures and will consider cost assumptions through its CPA stakeholder engagement process. This could include expanding the application of the “bring your own” concept where feasible. At a minimum, this is relevant to Electric Vehicle Supply Equipment, Smart Appliances, and Grid-Interactive Water Heaters.

4. In the 2019 CPA, PacifiCorp did not look at cost savings from the interaction between technologies that can provide both energy efficiency and DR capabilities, such as smart thermostats or grid-connected heat pump water heaters. The CPA should consider the impacts of interactive effects between energy efficiency and DR in all states, including those that use the Utility Cost Test. This could be through an adjustment to the levelized costs of the DR resources as customers will likely pay a higher percentage of costs if a technology will save them money through both energy savings and DR program payments.

PacifiCorp Response:

In the 2019 CPA, PacifiCorp did discount participant costs by 25 percent in California, Oregon, Washington, and Wyoming to account for DR and energy efficiency interactions. For the 2021 CPA, we will investigate the treatment of cost proxies in all states.

5. SWEEP and UCE request more information on the methodology used to treat interactive effects between DR and pricing and rates (“P&R”) measures. As P&R potential is not included in the IRP modeling process, at a high-level it does not appear appropriate to limit DR potential based on P&R interactive effects.

PacifiCorp Response:

Since DR is considered a “firm” resource and pricing and rates (P&R) is a responsive resource, the 2019 CPA did not include interactive effects from DR and P&R. DR is included in the IRP model and P&R are assumed to be accounted for in the IRP load forecast.

Energy Efficiency Potential Comments

1. SWEEP and UCE request that as part of the CPA, AEG develops a Low, Medium, and High Case for Technically Achievable Potential. The cases could be developed by adjusting Market Adoption Rates and levelized cost assumptions, as costs for certain emerging and existing technologies are likely to decline over the CPA period. Distinct cases and multiple DSM supply curves will allow PacifiCorp and stakeholders to test the sensitivity of the IRP modeling process to assumptions about energy efficiency Market Adoption Rates and cost. SWEEP and UCE believe that such an analysis will help PacifiCorp and other stakeholders assess the trade-offs between investments in energy efficiency versus other resources as part of the IRP process. SWEEP and UCE suggest that the High Case should be at or close to the full technical potential of energy efficiency in the CPA, given that the technical potential in the 2019 CPA was very conservative when compared with historical PacifiCorp DSM performance and DSM achievements in other jurisdictions.

PacifiCorp Response:

PacifiCorp will consider this request as the 2021 CPA process progresses.

2. SWEEP and UCE appreciate the use of customized Market Adoption Rates for each jurisdiction. SWEEP and UCE request that PacifiCorp provide assumptions around Market Adoption Rates to stakeholders in a transparent and easily understood manner.

PacifiCorp Response:

PacifiCorp will provide stakeholders an opportunity to review the measure adoption rates during the CPA development process.

3. SWEEP and UCE request that PacifiCorp provide stakeholders with all corrections made to treat resource interactions in a transparent manner, so stakeholder can review these assumptions.

PacifiCorp Response:

PacifiCorp will provide transparency for corrections and “outside” of the model changes that affect the technical potential during the IRP public-input meetings.

4. SWEEP and UCE request an analysis as part of the CPA comparing measure-level levelized cost and supply assumptions from the 2019, 2017, and 2015 CPAs with historical measure-level cost and program achievements in each PacifiCorp jurisdiction. Given that PacifiCorp develops a CPA every two years, SWEEP and UCE believe it would be prudent to compare CPA estimates with actual program performance to identify any potential errors or systematic bias in the CPA. Such an analysis would allow PacifiCorp to ground-truth its CPA supply curves with real program data and will likely provide valuable information to PacifiCorp and the AEG team. In addition, this analysis could be used to modify cost assumptions or market adoption rates to develop alternative energy efficiency cases, as requested above.

PacifiCorp Response:

PacifiCorp will be conducting a subset of this analysis as part of the 2021 CPA. Comparison with historical programs will be performed at the measure level for “Major Measures”, which was defined at the 2021 IRP public-input meeting on February 18, 2020. Comparison with prior CPAs will be made when possible, however due to changing baselines, updated sources, periods of analysis, and available measures will limit the comparison in some situations to a higher level.

Thank you again for allowing SWEEP and UCE to opportunity comment on the PacifiCorp CPA Work Plan. SWEEP and UCE will participate in the January 21 stakeholder meeting to discuss the CPA and are happy to have further discussions with PacifiCorp about any of our comments or suggestions.

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.