

# PacifiCorp - Stakeholder Feedback Form

## 2023 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 2023 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

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\*E-mail: Sophie.hayes@westernresources.org

Phone: \_\_\_\_\_

\*Organization: Western Resource Advocates

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Public Meeting Date comments address: **June 10, 2022**  Check here if not related to specific meeting

List additional organization attendees at cited meeting: \_\_\_\_\_

**\*IRP Topic(s) and/or Agenda Items:** List the specific topics that are being addressed in your comments.

Jim Bridger modeling, energy mix disclosure, GHG reporting, confidentiality designations, load forecasting, natural gas resources, hydrogen

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.

### 1. Reiteration of Recommendations from WRA's Comments on the 2021 IRP

#### Modeling the Jim Bridger plant:

- Address Idaho Power's intended 2028 exit from the Jim Bridger plant by assuming that any future costs beyond Idaho Power's exit are borne entirely by PacifiCorp customers.
- Evaluate options for Jim Bridger other than retrofitting the plant to continue to burn coal (from the Powder River Basin), including early retirement scenarios.
- Model only existing take-or-pay contracts. Projected take-or-pay contracts should not be assumed.
- Develop an alternative mine plan with lower minimum-takes to mitigate the fuel cost risk borne by customers.

Energy mix disclosure with transparency about null power: PacifiCorp should not infer that null power is renewable in its energy mix reporting. PacifiCorp should visually identify the amount of forecast energy generation from null power (that is, Idaho, Utah, and Wyoming's allocated shares of eligible generation). This amount should not be labeled as renewable in any figures representing PacifiCorp's projected energy mix (unless and until PacifiCorp is directed to retain the renewable attributes associated with that energy); rather, it should be designated as null power. Without this clarification, PacifiCorp is misleading the public, and it is impossible to accurately understand the energy mix projected to serve PacifiCorp customers over time.

\* Required fields

GHG reporting: PacifiCorp’s GHG accounting assumes that direct emissions associated with renewable energy generation is zero. However, when PacifiCorp sells RECs, it loses the right to claim these zero emissions attributes (someone else has purchased the exclusive right to claim them). This practice leads to emissions double-counting because both PacifiCorp and off-system REC purchasers are claiming the zero-emissions attributes of generation from PacifiCorp’s renewable resources. For example, corporations with sustainability goals frequently use unbundled RECs as emissions offsets against their grid-supplied energy mix in reporting emissions reduction progress. This issue may be remedied by assigning an emission factor to null power, which would increase the overall emissions intensity of PacifiCorp’s resource mix but would avoid double-counting. WRA recommends that PacifiCorp make reasonable efforts to forecast annual MWh of null power (consistent with Commission direction to sell RECs) and apply an emissions factor to those annual MWh. WRA recommends PacifiCorp use the most current fossil fuel emissions rate for the WECC region as reported by the EPA (available at <https://www.epa.gov/eGRID/data-explorer>).

## 2. Questions & Requests for Additional Information

Confidentiality designations. At what level of granularity can PacifiCorp provide non-confidential information about the capacity factors of its coal units/plants over the planning horizon?

Load forecasting. Please provide more information about how the 20-year normalized weather forecast relates to the climate change/Reclamation Study case. For example, does PacifiCorp use the temperature estimates in the Reclamation Study to increase temperatures relative to the 20-year normalized case, or is the climate change case developed independently of the 20 year normalized weather case?

Natural gas resources. The Utah Commission has directed PacifiCorp to allow the capacity expansion model to select new natural gas resources. Given the growing risk of investing in fossil fuel infrastructure and the climate impacts of continuing to burn fossil fuels, we recommend that any new natural gas resource additions be modeled with a depreciable life that ends by 2050.

Hydrogen. Please provide detailed information on when different types of natural gas facilities can be accommodated to burn clean hydrogen. Please explain how this timeline corresponds to when PacifiCorp can have a reliable supply of clean hydrogen delivered to hydrogen-burning plants. Please provide additional information about how PacifiCorp might use excess renewable energy to produce hydrogen. Where would production facilities be? What is a feasible timeline of the Company’s ability to produce clean hydrogen with excess renewable energy? What are the cost and load assumptions the Company is using to model this?

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**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.

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**Recommendations:** Provide any additional recommendations if not included above - specificity is greatly appreciated.

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Please submit your completed Stakeholder Feedback Form via email to [IRP@PacifiCorp.com](mailto:IRP@PacifiCorp.com)

Thank you for participating.

\* Required fields

Pacificorp Response (08-19-2022)

### **Modeling the Jim Bridger plant –**

Regarding Idaho Power’s share of the Jim Bridger plant, Idaho Power has not yet engaged in substantive discussions on an exit date. PacifiCorp recognizes that accommodating Idaho Power’s exit would necessarily impact operations at Jim Bridger, as PacifiCorp would have to either increase its share or retire resources ahead of when it has previously projected. Given the sensitivity of these negotiations, PacifiCorp does not intend to model portfolios that identify how it would address Idaho Power’s share of the Jim Bridger plant in the 2023 IRP.

Regarding coal supply options for Jim Bridger, PacifiCorp will be evaluating several options as part of providing a long-term coal supply plan for Jim Bridger that will be completed at the same time as the 2023 IRP. While future take-or-pay contracts and major retrofits to burn coal from the Powder River Basin are possible fuel supply options, other options that will be evaluated will not include either of these elements. Potential plans for the Jim Bridger mine will necessarily be part of the overall fuel supply options considered and will vary depending on the other fuel sources under consideration.

### **Energy mix disclosure with transparency about null power -**

PacifiCorp agrees to include a system generation mix chart in the 2023 IRP publication that is informed by renewable energy credit (REC) entitlement from system resources to the extent that information is known at the time of the filing. The chart will distinguish renewable generation with and without RECs based on existing purchase arrangements and executed REC sales. PacifiCorp cannot reflect Idaho, Utah and Wyoming share of the system renewables as null power as suggested unless there is an existing REC sale agreement to substantiate that position.

### **GHG reporting -**

PacifiCorp appreciates the thoughtful recommendation for energy mix and emissions accounting. PacifiCorp agrees to make a reasonable effort to forecast annual MWh of renewable energy without RECs but will not apply emissions to energy without RECs in its emissions forecast. This treatment is only one of several possible alternatives for fuel mix accounting and is not universally adopted by PacifiCorp states. For example, this emissions accounting methodology is inconsistent with state emissions reporting to California Air Resources Board and Oregon Department of Environmental Quality.

### **Confidentiality designation -**

Unit and facility capacity factors are confidential. Average annual capacity factor across the coal fleet would not be confidential.

### **Load forecasting -**

The 20-year normal weather case and the climate change case use the same historical weather period (2002 – 2021) but use different percentiles of the data in order to produce the weather forecast used in each case.

The 20-year normal case is based on the average temperature (50th percentile) expressed as heating degree day (HDD) and cooling degree day (CDD) impacts and peak producing weather impacts within the energy forecast and peak forecast, respectively.

\* Required fields

The Reclamation Study provides the expected climate change case temperature increase over 1990 average temperature. The climate change case uses the data from the 2002 – 2021 historical period and adjusts the percentile of the data to achieve the expected target average annual temperature and calculate the HDD and CDD impacts and peak producing weather impacts within the energy forecast and peak forecast, respectively.

### Natural gas resources –

PacifiCorp is continuing to consider how to represent new natural gas resource options. Modifications to depreciable life are one possibility. For natural gas facilities that are capable of fuel switching to hydrogen or another renewable fuel, modifications to depreciable life may not be necessary.

### Hydrogen –

Equipment manufacturers have not indicated when conversion of existing natural gas combustion turbines to hydrogen will be available. The potential to convert existing boilers to hydrogen is also currently being researched. Manufacturers are currently offering some smaller natural gas combustion turbines that are 100% hydrogen-capable, and expect to offer 100% hydrogen capable turbines across their product lines in the next few years. See GE for example: <https://www.ge.com/gas-power/future-of-energy/hydrogen-fueled-gas-turbines>

The location and timing for delivery of green hydrogen to a hydrogen-fueled generating facility has not yet been determined. The primary requirements for hydrogen production are access to electricity, water, and a storage facility. Due to the relatively low volumetric energy content of hydrogen, pipeline transport of hydrogen is more difficult than natural gas, so consumption close to the source of production can be beneficial. The specific timing will depend, at least in part, on the size, number, type and location of resources submitted in bids to future requests for proposal for new energy resources. Hydrogen delivery considerations are not expected to significantly increase the typical development timeline for a new thermal generating facility.

PacifiCorp intends to address the potential for hydrogen electrolysis load in a future public input meeting. Diurnal and seasonal variation in hydrogen production can make use of lower cost energy, including potential curtailments of renewable resources. Hydrogen electrolysis that is interruptible at short notice may also provide operating reserves that can provide additional value.