PacifiCorp - Stakeholder Feedback Form

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 call, 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 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 post appropriate feedback on the IRP website based on your selection below.

Date of Submittal

*Name: Jon Martindill Title:

*E-mail: jon@npenergyca.com Phone:

*Organization: NP Energy LLC

Address:

City: State: Zip:

Public Meeting Date comments address: 07-18-2024 ☐ Check here if related to specific meeting

List additional organization attendees at cited meeting: Nick Pappas, Max Greene, James Himelic

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

Carbon Capture and Storage

☒ Check here if you want your Stakeholder feedback and accompanying materials posted to the IRP website.

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

RNW seeks additional information and due diligence from PacifiCorp regarding its application of carbon capture and storage (CCS) in its 2023 IRP Update. The 2023 IRP Update extends and expands reliance on existing fossil infrastructure, including significant increases in CCS at PacifiCorp\u0019s coal units. RNW seeks additional due diligence on the compliance risk and economic risk of relying on CCS to prolong coal plant operations and reduce emissions. There are many technical barriers to overcome for effective CCS, as well as a variety of lifecycle emissions and local pollutants that make continued coal operations inherently risky. In addition, the economics of coal plan operations remain sensitive to a variety of 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.

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

Please provide specific information on the following questions: 1) What is the plan for the captured carbon? Is there a specific storage or utilization plan? Are the costs of storage and/or utilization included in the economic analysis? 2) Has PacifiCorp performed a sensitivity analysis on the economics of CCS? To what extent is this selection sensitive to CCS efficiency, coal fuel costs, and carbon storage/utilization costs? 3) What data source(s) informed NVE\u0019s estimate of $32.71/kw-year for fixed costs to operate a 330 MW CCUS retrofit? NREL ATB 2024 estimates a range of $148-$161/kw-year for a similar retrofit installed in 2028. 4) Are air quality impacts from coal trans included in your analysis?

* Required fields

Please submit your completed Stakeholder Feedback Form via email to IRP@Pacificorp.com

PacifiCorp Response (8/28/2024):

PacifiCorp's 2023 IRP Update identified the Jim Bridger units 3 and 4 carbon capture project as a potential economic benefit to customers. This analysis relied upon high-level proxy costs in the economic modeling which needs to be validated by a front-end engineering design (FEED) study before advancing a carbon capture project. The Company is pursuing a FEED study that will evaluate the capture, transport and storage of CO_2 from Jim Bridger units 3 and 4.

1. The FEED study will evaluate an option for transport and storage of the CO_2. Cost for transportation and storage are accounted for in the economic modeling.

2. The company used a single set of CCUS cost inputs and is aware that many of the factors used to determine those cost inputs are highly uncertain. We have not yet conducted a specific analysis for the breakeven point for coal fuel cost, efficiency, etc., due to the significant amount of uncertainty surrounding these factors. The FEED study identified above is expected to provide better information on possible outcomes so that such analysis could be conducted in the future.

3. The NETL 2023 Report – "Eliminating the Derate of Carbon Capture Retrofits" includes cost items that PacifiCorp does not take into account in fixed operations and maintenance cost. However, those line items are being included in the total cost of the project.

4. The company has three plants where coal is received via rail: Bridger, Dave Johnston and Hayden. The company operates Bridger and Dave Johnston while Hayden is operated by Xcel Energy. For plants operated by the company, dust suppression is applied to all the trains where required (those loaded from Powder River Basin origins). This would include all coal destined for Dave Johnston and some of the coal destined for Jim Bridger. That dust "topper" is purchased on a $/ton rate and applied at the mine as the coal is loaded in the cars. IRP modeling is based on the delivered cost of coal, and includes both rail and dust suppression, as applicable. The company doesn't have direct control of the Hayden trains, so it does not have details for that plant, though it expects practices are similar.

Thank you for participating.

* Required fields