

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 2023-04-28

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*Organization: Utah Division of Public Utilities

Address: _____

City: _____

State: _____

Zip: _____

Public Meeting Date comments address: _____

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.

1. Natrium Plant 2. New Natural Gas Resources 3. New Natural Gas Resources 4. Front Office Transactions 5. Load Forecast 6. Variant P06-No Forward Tech 7. Variant P11-Max NG 8. Table 8.1, p. 223 9. Table 9.9\Coal End-of-life Retirements 10. Load and Resource Balance

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.

Utah Division of Public Utilities. Stakeholder Feedback. 1. Natrium Plant. The Division continues to question the appropriateness of making irrevocable resource decisions (such as the decision to end Hunter and Huntington coal plants by 2032, ten years before their physical end-of-life date) based in part on speculative assessments of new technologies (e.g. the Natrium plant and non-emitting peakers). Parties cannot evaluate the accuracy of, or the assumptions behind, the Natrium costs, as these remain confidential (see draft IRP, Chapter 7, p. 204). The Natrium plant should be considered a possible or provisional resource, not included in the base case, until the costs that are input into the model are available to stakeholders, especially if its inclusion results in other irrevocable resource decisions. The Division requests that a scenario based on the preferred portfolio be run with the Natrium input costs 50% higher than those used in the initial modeling for the draft 2023 IRP. Unless the Company can assure that the cost of the Natrium plant borne by ratepayers will not exceed the specific costs used for the 2023 Draft IRP modeling, please provide a model run assuming a 50% increase in the Natrium capital cost and a 50% increase in the project and operating costs. Please see the Division's March 4, 2022 Comments on the 2021 IRP (Docket No. 21-035-09, pp. 20-29) for reasons why cost overruns should be considered. 2. New Natural Gas Resources. In the 2023 April 13 IRP Public Input Meeting, the Company stated that in most scenarios, new gas is available to be endogenously selected by the model, and that recovery of new gas resource cost is assumed to be achieved in ten years to account for identified risk in investments and new emitting resources. (a). Please identify the assumed recovery period for new gas resources in the 2021, 2019, and 2017 IRPs. If the recovery period in the previous IRPs was longer than ten years, the Division

* Required fields

requests a scenario run similar to P-MN, but with the previously used recovery period(s) for new natural gas. (b). Please describe the data, methodology, and assumptions used to arrive at the 10-year cost recovery (rather than 30- or 40-year cost recovery, or whatever was used in previous IRPs). *The statement is at 2:22:20 of part 1 of the public input meeting, available at: <https://www.youtube.com/watch?v=gPqQSJyO-DE>

3. New Natural Gas Resources. Please clarify the statement on page 240 of the draft 2023 IRP: \u001CFurther, PacifiCorp observed that in the 2020AS RFP there were no bids for new natural gas resources. Therefore, new natural gas proxy resources were not made available for selection in any of Initial Portfolios.\u001D However, Table 8.11 below that quote seems to imply (in the last column) that natural gas proxy resources were allowed. Please explain this apparent conflict.

4. Front Office Transactions. The Division is still somewhat unclear on how exactly the treatment of FOTs was changed for the 2023 draft IRP. The note to Figure 1.10 (Chapter 1, p. 18) states that: \u001CIn the 2021 IRP, higher near-term market purchases were represented by system shortfalls that were assumed to be avoided through market purchases disallowed in the model. In the 2023 IRP this methodology was enhanced to represent the coverage of these shortfalls as market purchases&\u001D Please elaborate on this explanation. At the 2023 April 13 IRP Public Input Meeting, the Company stated that in the 2021 IRP, \u001Cthese exceedances were allowed to represent as deficiencies\u001D and \u001Cif this same change were applied to the 2021 IRP, very simply, those early years would show lower deficiencies and higher market purchases.\u001D* Where would these lower deficiencies appear in the 2021 IRP (in what tables or charts)? For example, would they appear in the system position in the table titled \u001CSystem Capacity Loads and Resources without Resource Additions\u001D (Table 6.11 in the 2021 IRP)? *The statement is at 29:30 of part 2 of the public input meeting, available at: https://www.youtube.com/watch?v=aQZtK-84_qk

5. Load Forecast. The load forecast used in the 2023 Draft IRP is significantly higher in total system projected load than in past IRPs. For example, Table A.1 in Appendix A of Volume II states that the 2028 forecasted system load is 76,681,120 MWh. The 2028 forecasted system load in the 2021 IRP was 66,083,420 MWh. This is a large increase. Much of the increase comes from the projected load in Oregon, namely commercial load. The Oregon commercial load has a CAGR of 7.25% over 2023-2032 (see Table A.10). At the 2023 April 13 IRP Public Input Meeting, the Company stated that the increase was due to confidential projections. The Division\u0019s understanding is that much of this comes from large commercial customers, the sales for which are manually set based on customer information. It is difficult for stakeholders to evaluate this large projected increase for Oregon when the underlying information is confidential. Please say more about whether these are new commercial customers, expansion of existing commercial customers, or other. The total forecast for Oregon in Table A.10 shows a 13.4% increase in 2024, with an additional 7.4% increase in 2025. This dramatic growth when compared to previous IRP forecasts and actual historical growth rates requires more explanation.

6. Variant P06-No Forward Tech, p. 242. Please run a variant similar to that in P06, but where new gas options are allowed, with modified cost recovery periods as described in the Division\u0019s earlier Question 2 above.

7. Variant P11-Max NG. In Variant P11-Max NG, are coal retirement dates held steady from the main case, or are they endogenously re-selected? If the former, it does not make intuitive sense to retire coal plants early, but build new natural gas the same year. Please elaborate.

8. Table 8.1, p. 223. For Dave Johnston 1 and 2, the text on the left says \u001CCoal Ret-2024 thru 2032\u001D, but the chart indicates those units are retired in 2028 at the latest. Which was the latest retirement date available to the model?

9. Table 9.9\u0014Coal End-of-life Retirements. The Division\u0019s understanding is that Table 9.9 reflects end-of-life retirements as dictated by the physical end-of-life of the units (otherwise there would be, for example, early retirements of Hunter and Huntington in 2031 and 2032). Can the Company produce a similar table for Coal\u0014Early Retirements?

10. Load and Resource Balance. In Table 6.11 on pp. 163-4, what are the thermal units that leave the system from 2032 to 2033 under the \u001CThermal\u001D category for the East? The East summer thermal capacity goes from 3,886 MW in 2032 to 2,555 MW in 2033. Do these figures reflect Hunter and Huntington retirements? If so, shouldn\u0019t Table 6.11 instead reflect end of physical life dates, not preferred portfolio early retirement dates? Chapter 6 is supposed to show existing resources. (This was the same issue pointed out in the April public input meeting with regard to Table 6.2.) For reference, Table 6.11 in the 2021 IRP had 3,955 MW for thermal units in the east in 2032, and 3,629 MW in 2033.

* Required fields

If Table 6.11 is mistaken in the 2023 draft IRP, please confirm that no other analysis flowed from the mistaken version of the table.

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

Thank you for participating.

PacifiCorp Response (6/8/23):

- 1.) No irrevocable decisions have been made. Please refer to the 2023 IRP Volume I, Chapter 9 – Modeling and Portfolio Selection Results, variant P05, and also the Acquisition Path Decision Mechanism section of Chapter 10 of the 2023 IRP.
- 2.) The assumed proxy natural gas resource lives for a single cycle combustion turbine (SCCT) was: 2021 IRP, 10 years; 2019 IRP, 35-years; 2017 IRP, 35-years. A combined cycle combustion turbine was given an assumed life of 40 years in 2019 and 2017 IRPs, and 10 years in the 2021 IRP. A 40 year gas life was assumed in variant P24 of the 2023. See the additional natural responses below.
- 3.) The Statement on page 240, “Therefore, new natural gas proxy resources were not made available for selection in any of Initial Portfolios.” is incorrect and should state “gas proxy resources were available for selection”. The 2023 IRP document filed on May 31 includes this correction.
- 4.) Please refer to the 2023 IRP Volume 1 Chapter 6 – Load and Resource Balance on page 163, regarding the Summer L&R labeling which reads, “Uncommitted FOT to meet remaining Need.” This is what is being referred to in the statement regarding the coverage of these shortfalls. The market depth for FOTs in IRP modeling was increased in the in the near-term for the 2023 IRP to cover any shortfalls in summer and winter 2023 to 2027. The market depth for FOTs in IRP was otherwise not changed from the 2021 IRP. Note that the near-term higher need is represented in both the 2021 and 2023 IRPs but is reported differently.
- 5.) New customers are driving the large increase in Oregon commercial load as discussed in the public input meeting on July 14, 2022.
- 6.) In response to this request, a new study variant “P24 Gas 40-year life” results is presented in the 2023 IRP Amended filing of May 31st.
- 7.) The variant study P06 – No Forward tech was limited to replacing new technology, nuclear and non-emitting peakers, and did not re-optimize coal retirements from P-MM study. Also see the response to item 6, above.
- 8.) Table 8.1 on page 223 for Dave Johnston 1 & 2 is mislabeled and should read “Coal Ret 2023 to 2028” instead of “Coal Ret 2023 to 2032”. This has been corrected in the May 31st 2023 IRP Amended filing.
- 9.) Table 9.9 is intended to report the coal retirements (other than for Gas Converted or SCNR) by Study. The Hunter and Huntington retirements are reflected in table 9.10.
- 10.) As stated in the Chapter Highlights (bullet #5) for Chapter 6, the L&R includes retirements from the preferred portfolio. The noted decrease in 2033 is reflective of the Hunter and Huntington retirements from the 23 IRP preferred portfolio as well as changes in the peak contributions from other thermal resources.