

WRA EXHIBIT 3

PacifiCorp's Responses to WRA Data
Requests

WRA Data Request 2.1

Granularity Adjustment. Please refer to Volume I, page 186, Figure 8.2 – Granularity Adjustment Determination. When the Company increases or decreases a resource’s fixed cost as part of the granularity adjustment, does the new fixed cost apply only to incremental resource additions in the next modeling phase or is the entire portfolio redeveloped with the new resource cost?

Response to WRA Data Request 2.1

As part of the granularity adjustment process in each modeling phase, the entire portfolio is redeveloped with the new fixed cost.

WRA Data Request 2.2

Jurisdictional Definitions and Modeling. Refer to Volume I, page 206: “All Washington resource selections are analyzed and optimized assuming the SCGHG price-policy scenario, as required under RCW 19.280.030 for clean energy planning.”

- (a) Is assuming the SCGHG price-policy scenario the only modeling constraint for the Washington jurisdiction?
- (b) Is there a modeling constraint for the Washington jurisdiction related to coal resource allocation?
- (c) Please describe any other modeling constraints for the Washington jurisdiction.

Response to WRA Data Request 2.2

- (a) In addition to the social cost of greenhouse gas (SCGHG) price-policy scenario, in its 2025 Integrated Resource Plan (IRP), PacifiCorp modeled Washington Clean Energy Transformation Act (CETA) obligations, as well as Western Resource Adequacy Program (WRAP) compliance requirements, for the Washington jurisdiction. CETA was represented in PacifiCorp’s modeling by removing Washington from sharing in coal resources beginning in 2026 and by requiring the production of clean megawatt-hours (MWh) to meet Washington’s retail sales on an annual basis as required by CETA clean energy standards from 2030 onwards. Regional WRAP compliance was also modeled for the Washington jurisdiction by requiring sufficient capacity to be allocated to Washington on an annual basis beginning in 2028.
- (b) Please refer to the Company’s response to subpart (a) above.
- (c) Please refer to the Company’s response to subpart (a) above.

WRA Data Request 2.3

Jurisdictional Definitions and Modeling. Refer to Volume I, pages 206-207. Please describe how the Company modeled constraints related to Oregon's and Washington's respective participation in existing coal-fired resources over time.

Response to WRA Data Request 2.3

For a description of how PacifiCorp represented Washington's participation in existing coal-fired resources, please refer to the Company's response to WRA Data Request 2.2. In its 2025 IRP, PacifiCorp modeled compliance with Oregon House Bill 2021 (HB 2021). Oregon participates in existing coal-fired resources through 2029 and is allocated a share of such resources. After 2029, Oregon no longer participates in any coal-fired resources and thus, no longer receives any share of the coal-fired resources.

WRA Data Request 2.4

Preferred Portfolio Emissions. Refer to Volume I, page 236 (Figure 9.13 – 2025 Preferred Portfolio CO2 Emissions and PacifiCorp CO2 Equivalent Emissions Trajectory). Does PacifiCorp report on preferred portfolio emissions by jurisdiction (WA, OR, UIWC) in the IRP or IRP workpapers? If so, please explain where to find this information.

Response to WRA Data Request 2.4

PacifiCorp does not report emissions by jurisdiction for Washington or Utah, Idaho, Wyoming and California (UIWC) for the 2025 Integrated Resource Plan (IRP) preferred portfolio, neither in published 2025 IRP nor in the supporting work papers. Figure P.2 (Oregon greenhouse gas emissions relative to HB 2021 targets) on page 500 of PacifiCorp's 2025 IRP, Volume II, presents Oregon allocated greenhouse gas (GHG) emissions in the 2025 IRP preferred portfolio. Please refer to the confidential work papers supporting the 2025 IRP, specifically confidential folder "Chapters, Appendices, and Input Assumptions/Appendix P - Oregon Clean Energy Update", confidential work paper "LT 155264 ST 157144_IRP_CEP Workpaper.xlsx" for the supporting work paper for Figure P.2.

WRA Data Request 2.5

Preferred Portfolio Energy and Capacity Mixes. Refer to Volume I, page 240 (Figure 9.15 – Projected Energy Mix with Preferred Portfolio Resources and Figure 9.16 – Projected Capacity Mix with Preferred Portfolio Resources) Does PacifiCorp report on preferred portfolio energy and capacity mixes by jurisdiction (WA, OR, UIWC) in the IRP or IRP work papers? If so, please explain where to find this information.

Response to WRA Data Request 2.5

No. PacifiCorp does not report on preferred portfolio energy and capacity mixes by jurisdiction in the 2025 Integrated Resource Plan (IRP) or IRP work papers.

WRA Data Request 2.6

Supply Side Resources.

- (a) Confirm that the “ATB CAPEX Number” used by PacifiCorp in its **Cost Forecasts** tab of the Public_SSR_Database_Summary_Tab_2025 for Solar - 200 MW, Class 1- 10 in 2024—in cell F22—is 1312.744864 (accounting format removed).
- (b) Confirm that the number reported by NREL in the **Summary_CAPEX** tab of the 2024 Electricity Annual Technology Baseline workbook for Utility PV - Class 5 - R&D - Moderate in 2028—in cell N66—is the same number (rounded): 1312.7449.
- (c) Confirm that the capex costs used by PacifiCorp for Solar - 200 MW, Class 1- 10 in the years 2024-2029 (cells F22, G22, H22, and I22 in the **Cost Forecasts** tab mentioned in **2-6.a**) match the capex costs reported in the NREL ATB (cells N66, O66, P66, Q66 in the **Summary_CAPEX** tab mentioned **2-6.b**) for utility scale solar for the years 2028-2032.

Response to WRA Data Request 2.6

- (a) Confirmed.
- (b) Confirmed.
- (c) Confirmed.

PacifiCorp is aware of the difference between the National Renewable Energy Laboratory (NREL) capital expenditure (CAPEX) costs reported in tab “Summary_CAPEX” of NREL’s 2024 Electricity Annual Technology Baseline workbook and the CAPEX costs presented on tab “Cost Forecasts” of PacifiCorp’s “Public_SSR_Database_Summary_Tab_2025” workbook. CAPEX costs in PacifiCorp’s 2025 Integrated Resource Plan (IRP) supply-side resource table were presented in real 2024 dollars (2024\$) based on the technology costs in the first year available, as listed in the supply-side table, while NREL’s CAPEX costs are presented in commercial operation year.

Modeling in the 2025 IRP incorrectly applied factors based on 2024 commercial operation date (COD) technology costs. In the 2025 IRP supply-side resource table, escalation rates for each proxy resource option did not align with the earliest commercial operation year, but instead, all escalation rates began in 2025, rather than in the first year available, as intended. PacifiCorp identified and corrected this error following the completion of the 2025 IRP modeling and has presented this correction in multiple public forums, an example of which is on slides 15 and 16 of the public 2025 Oregon

Clean Energy Plan (CEP) presentation: [OR CEP Meeting 2025-05 May Slides.pdf](#). The impact of this correction on the total resource cost (TRC) for any given proxy resource option is minimal as the CAPEX costs are only a portion of the TRC and the correction had less than a 10 percent impact on CAPEX costs for any given proxy resource option.

WRA Data Request 2.7

Supply Side Resources. Refer to the foregoing question, **2-6**. It appears that PacifiCorp used 2024 NREL ATB reported capex costs to represent the Solar - 200 MW, Class 1-10 capex costs in the year when construction begins, rather than to represent solar capex costs in the year of commercial operation.

- (a) Is this correct?
- (b) Please explain why PacifiCorp shifted the 2024 NREL ATB capex costs by four years for Solar - 200 MW, Class 1-10.

Response to WRA Data Request 2.7

- (a) Yes.
- (b) Please refer to the Company's response to WRA Data Request 2.6.

WRA Data Request 2.8

Supply Side Resources. Refer to the foregoing question, 2-7. Similarly, it appears that PacifiCorp shifted the 2024 NREL ATB reported capex costs for additional resources. Confirm the following:

- (a) PacifiCorp shifted the 2024 NREL ATB capex costs by six years for Wind Class 2-6, 200 MW (compare row 26 of the Cost Forecasts tab of the Public_SSR_Database_Summary_Tab_2025 with row 87 (Land-Based Wind – Class 2 – Moderate) of the Summary_CAPEX tab of the NREL ATB workbook). If not confirmed, please explain.
- (b) PacifiCorp shifted the 2024 NREL ATB capex costs by four years for Wind Class 1- 10, 20 MW (compare row 25 of the Cost Forecasts tab of the Public_SSR_Database_Summary_Tab_2025 with row 84 (Land-Based Wind – Class 3 – Moderate) of the Summary_CAPEX tab of the NREL ATB workbook). If not confirmed, please explain.
- (c) PacifiCorp shifted the 2024 NREL ATB capex costs by three years for Li-Ion, 4-hour, 200 MW battery storage (compare row 54 of the Cost Forecasts tab of the Public_SSR_Database_Summary_Tab_2025 with row 324 (Utility-Scale Battery Storage – 4Hr – Moderate) of the Summary_CAPEX tab of the NREL ATB workbook). If not confirmed, please explain.
- (d) Are there other resources for which PacifiCorp shifted the timing of NREL ATB capex costs? If so, please list them and explain why.

Response to WRA Data Request 2.8

- (a) Confirmed.
- (b) The capital expenditure (CAPEX) costs for Wind Class 1-10, 20 MW, row 25 of tab “Cost Forecasts” of the “Public_SSR_Database_Summary_Tab_2025” workbook are shifted by four years, but the CAPEX costs align with row 123 on tab “Summary_CAPEX” of the National Renewable Energy Laboratory (NREL) annual technology baseline (ATB) workbook (Large DW – Class 1).
- (c) The CAPEX costs for Li-Ion, four-Hour, 200 megawatts (MW), row 15 (not row 54) of tab “Cost Forecasts” of the “Public_SSR_Database_Summary_Tab_2025” workbook, are shifted by three years and align with row 123 on tab “Summary_CAPEX” of the NREL ATB workbook (Utility-Scale Battery Storage - 4Hr).
- (d) Yes. All resources listed on tab “Cost Forecasts” of the “Public_SSR_Database_Summary_Tab_2025” workbook were shifted so that costs are shown in the year-of-contracting as opposed to the commercial

operation year. For further details, please refer to the Company's response to WRA Data Request 2.6.

WRA Data Request 3.1

End Effects. In the 2023 IRP, the Company did not present comparative metrics for end effects (i.e. a portfolio valuation and risk assessment that projects costs of the selected portfolio beyond the planning horizon). However, in the 2025 IRP, the Company presented end effects in Table 9.34.

- (a) Define end effects.
- (b) In the selection of the preferred portfolio, is the consideration of end effects required by any state jurisdictional IRP standards, guidelines, or statutes?
- (c) In detail, explain the method used to calculate end effects in the 2025 IRP. Include a description of all relevant qualitative and quantitative assumptions made by the Company in the calculation of end effects. Explain whether end effects are modeled based on static assumptions from the final year of the planning horizon or from dynamic assumptions and cost escalations after the planning horizon.
- (d) Explain how the calculation of end effects was factored into the Company's ranking of integrated portfolios as shown in Table 9.34.
- (e) Please provide the workpapers showing calculations of end effects for each integrated portfolio variant shown in Tables 9.34, 9.35, 9.36, and 9.37 of the 2025 IRP. If already provided, please explain where to find this information in the Company's work papers.
- (f) Did the Company calculate and/or consider end effects in the 2023 IRP?
- (g) If so, please explain whether and how the end effect calculation methodology changed between the 2023 IRP and the 2025 IRP.

Response to WRA Data Request 3.1

- (a) "End effects" evaluates performance of a portfolio beyond the study horizon.
- (b) No. Consideration of end effects is not specifically required in the selection of the preferred portfolio. However, Oregon standards require that "The planning horizon for analyzing resource choices should be at least 20 years and account for end effects. Utilities should consider all costs with a reasonable likelihood of being included in rates over the long term, which extends beyond the planning horizon and the life of the resource". A list of all state-specific standards and guidelines is included in Appendix B of PacifiCorp's 2025 Integrated Resource Plan (IRP).

- (c) In the 2025 IRP, end effects are based on a static continuation of the costs in the final year of the study horizon, which is the same way end effects is considered in PLEXOS long-term (LT) planning when used. Rather than take a perpetuity approach, as PLEXOS would, PacifiCorp calculated the net present value (NPV) of the final year's revenue requirement as if they continued at a static level for an additional five years.
- (d) Calculation of end effects allowed PacifiCorp to evaluate if a portfolio performed particularly well or poorly in early years of the horizon. If a portfolio was more expensive in early years of the horizon, but much less expensive later this would be important information to consider when evaluating the risk to customers. A portfolio which was less expensive early due to tax credits could become very expensive when tax credits expire, posing a risk to customers.
- (e) The calculation of end effects is contained in cell C79 of all integrated variant short-term (ST) cost summaries evaluated under the "MN" price curve. These files include 2409MN after either .EP., .HH., .SC., .MR. or .LN. in their names.
- (f) No.
- (g) Not applicable.

WRA Data Request 3.2

Integrated portfolio metrics and selection. Refer to Tables 9.34, 9.35, 9.36, and 9.37 of the 2025 IRP.

- (a) On a PVRR basis, confirm that the Integrated Base HH portfolio outperforms the Integrated Base MN portfolio under all price-policy scenarios as shown in tables 9.34-9.37 of the 2025 IRP.
- (b) On a risk-adjusted PVRR basis, confirm that the Integrated Base HH portfolio is the top performing portfolio under the MN price-policy scenario.
- (c) Confirm that the PVRR of the Integrated Base HH portfolio only exceeds the PVRR of the Integrated Base MN portfolio when including the five years beyond the planning horizon.
- (d) Based on its performance relative to the Integrated Base MN portfolio in all PVRR and risk-adjusted PVRR metrics across all price-policy scenarios, explain why the Company did not select the Integrated Base HH portfolio as the preferred portfolio.

Response to WRA Data Request 3.2

- (a) Confirmed.
- (b) Confirmed.
- (c) Confirmed. Due to the expiration of high levels of production tax credits (PTC), the high gas price/high carbon dioxide (CO₂) cost (HH) portfolio becomes significantly more expensive over the final five years of the 21-year horizon, and this higher cost extends into the future. In the past analysis, end effects were considered as either zero or unlimited, where either extreme could have an overlarge effect on portfolio selection. Rather than adopt PLEXOS's extreme unlimited end effects impacts, PacifiCorp used a conservative approach in between zero and unlimited. This inclusion was prompted by stakeholder feedback which was discussed in PacifiCorp's 2025 IRP public input meetings.
- (d) The "MN" price-policy scenario was primarily selected because the final analysis resulted in the "MN" being least-cost least-risk. In addition, other considerations in the 2025 IRP aligned with the selection of the "MN" study as the preferred portfolio.

The value of tax credits was overstated in two ways in the 2025 IRP, impacting the risks associated with the "HH" derived portfolio.

- (1) The “HH” price-policy outcomes include unmodeled risks not directly discussed in the 2025 IRP results. The Company assumed that the investment tax credits (ITC) would be available forever and that the PTCs would be available at the fully expanded Inflation Reduction Act (IRA) level until 2040.
- (2) The 2025 IRP included the full value of the PTCs, rather than using the levelized value of the PTC over the life of the asset. Since the life of wind or solar assets built in 2027 (or later) extends beyond 2045, PacifiCorp did not include the additional years where that asset continues to operate without any tax credits.

Portfolios that include more PTC resources derive a greater portion of their value from the inflated value of tax credits used in the 2025 IRP. This is why the “HH” portfolio is riskier than the “MN” portfolio. As evidenced by recently passed federal law, selecting the “HH” price-policy-driven portfolio due to an assumption that PacifiCorp would capture all the benefits of these tax credits could lead to significantly higher costs for customers.

PacifiCorp partially corrected for this second overstatement by linearly reducing by 20 percent the value of the PTC in each year starting in 2040 (100 percent in 2040, 80 percent in 2041, etc. until it was 0 in 2045). The end effects methodology provided a fuller correction by including the 2045 value of resources, where there are no PTCs, for a further five years.

Finally, in the first five years of the study horizon, inclusive of the near-term action plan window, the portfolios are not materially different regarding selections or annual costs. Please refer to the 2025 IRP, Volume I, Chapter 9 Figure 9.35 and Figure 9.36. Actions and portfolios will continue to be evaluated in the 2025 IRP Update and future IRP cycles.

WRA Data Request 4.1

Jurisdictional Shares. During the July 22 Technical Conference in Docket No. 25-035- 22, PacifiCorp explained that in certain situations it used the SG factor to allocate resource shares. For example, shares of the Natrium facility were allocated to states using the SG factor.

- (a) Using the forecasted loads for each state jurisdiction, provide the SG factor for each state by year for the twenty-one-year planning period.
- (b) Using the forecasted loads for each state jurisdiction, provide the SG factor for the UIWC jurisdiction by year for each year in the twenty-one-year planning period.
- (c) Using the forecasted loads for each state jurisdiction, provide Utah’s share of the UIWC jurisdictional share by year for each year in the twenty-one-year planning period.
- (d) Please identify all Preferred Portfolio resources that were allocated, whether fully or partially, based on an SG factor or a summation of SG factors.
- (e) How were “west-side” resources allocated between Oregon and Washington? Was this done using SG factors? If so, identify and explain.
- (f) When a Preferred Portfolio resource was allocated based on an SG factor, did the allocation vary by year? If not, please explain how the allocation was determined.

Response to WRA Data Request 4.1

- (a) Please refer to the table below for the system generation (SG) allocation factors used for each state in the 2025 Integrated Resource Plan (IRP):

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042 on
California	1.38%	1.35%	1.31%	1.25%	1.20%	1.18%	1.14%	1.13%	1.15%	1.15%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%
Idaho	5.59%	5.49%	5.35%	5.08%	4.93%	4.83%	4.77%	4.74%	4.74%	4.77%	4.76%	4.75%	4.76%	4.76%	4.75%	4.75%	4.76%	4.76%
Oregon	26.88%	26.87%	27.52%	28.22%	29.19%	29.69%	30.19%	30.39%	29.93%	30.05%	30.14%	30.13%	30.06%	30.09%	30.11%	30.10%	30.09%	30.10%
Utah	44.88%	45.46%	45.62%	46.19%	46.00%	46.07%	45.92%	45.93%	46.30%	46.06%	46.05%	46.09%	46.13%	46.08%	46.09%	46.10%	46.10%	46.09%
Washington	7.49%	7.34%	7.10%	6.79%	6.56%	6.44%	6.28%	6.20%	6.27%	6.30%	6.26%	6.26%	6.27%	6.27%	6.26%	6.27%	6.27%	6.27%
Wyoming	13.78%	13.49%	13.10%	12.47%	12.11%	11.80%	11.69%	11.61%	11.61%	11.68%	11.65%	11.64%	11.64%	11.65%	11.65%	11.65%	11.65%	11.65%

- (b) Please refer to the table below for the SG allocation factors used for Utah/Idaho/Wyoming/California (UIWC) in the 2025 IRP:

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
MSP_UIWC	65.01%	65.45%	65.63%	65.79%	65.38%	64.99%	64.25%	63.87%	63.52%	63.41%	63.80%	63.65%	63.60%	63.62%	63.67%	63.63%	63.63%	63.64%	63.64%	63.64%

- (c) Please refer to the table below for Utah’s portion of the UIWC SG allocation factors used in the 2025 IRP:

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042 on
Utah	68.39%	69.09%	69.78%	71.07%	71.60%	72.12%	72.30%	72.44%	72.57%	72.36%	72.41%	72.44%	72.45%	72.42%	72.43%	72.43%	72.43%	72.43%

- (d) All existing resources are allocated based on the currently approved allocation factors for that resource. Natrium was allocated using SG allocation factors.
- (e) Most existing resources were allocated using the SG allocation factors provided above. New, proxy resources on the west side of PacifiCorp’s system were allocated 25 percent to Washington, 75 percent to Oregon. The Company determined that a 75/25 split was indicative of the relative resource needs of Oregon and Washington. This split was supported by the results of PacifiCorp’s Draft 2025 IRP, where Oregon was allocated approximately three times as many generating resources as Washington between 2027 and 2030. Additionally, Oregon’s SG allocation factor is about three times as high as Washington’s in the 2025 IRP.
- (f) All SG allocation factors were modeled as shown in the tables provided above.

WRA Data Request 4.2

Jurisdictional Share Portfolios. In Sierra Club discovery question 2.2(a), the Sierra Club asked PacifiCorp to specify exactly what is done to complete the “final step” of the integration process to ensure energy and capacity compliance and “remedy” any shortfalls. PacifiCorp responded that to remedy a shortfall, it adjusted the allocation of proxy resources or added additional resources.

- (a) Describe in detail how allocations of proxy resources were “adjusted.”
- (b) How did these “adjustments” affect the allocation of proxy resources to other jurisdictions?
- (c) Describe in detail how PacifiCorp determined the size, location, and technology of the “additional resources” added in the final step of the integration process.
- (d) How did these additions affect the allocation of proxy resources to other jurisdictions?

Response to WRA Data Request 4.2

- (a) Allocations of proxy resources were adjusted based on the compliance shortfall identified. If one jurisdiction was over-compliant in a given year while another jurisdiction had a compliance shortfall in that year and both jurisdictions shared in the same resource, a portion of that shared resource may have been taken away from the over-compliant jurisdiction and given to the under-compliant jurisdiction in order to remedy the shortfall.

As discussed in PacifiCorp’s 2025 Integrated Resource Plan (IRP) public input meetings, adjustments to proxy resource shares were made as a final step to ensure reliability and compliance with all jurisdictions in a systemwide view. PacifiCorp has an ongoing goal to minimize exogenous adjustments and made significant progress toward this goal in this planning cycle.

- (b) Please refer to the Company’s response to subpart (a) above.
- (c) PacifiCorp determined the size, location, and technology of the additional proxy resources added in the final step of the integration process by prioritizing the cheapest resource additions where surplus interconnection was available. Please refer to the confidential work papers supporting PacifiCorp’s 2025 IRP, specifically confidential work paper “CONF_Max of Units Base MN.xlsx”, tab “ComplianceAdditions”, which provides a detailed breakdown of the resource additions made in the preferred portfolio and the calculations used to determine the additions.

- (d) Resource additions for compliance shortfalls did not impact the allocation of proxy resources to other jurisdictions as resource additions were incremental to the integration of jurisdictional portfolio results, except as noted in the Company's response to subpart (a) above.

WRA Data Request 4.3

WRAP Compliance. In developing full jurisdictional portfolios, PacifiCorp modeled WRAP compliance as a jurisdictional requirement. Consistent with Figure 8.3 on page 190 of Volume 1, which depicts the transmission system model topology used for the 2025 IRP, identify the WRAP compliance requirements, including planning reserve margin, and resource capacity contributions for all resource types that pertain to each transmission bubble.

Response to WRA Data Request 4.3

Western Resource Adequacy Program (WRAP) compliance was modeled at a state/jurisdictional level, not a transmission bubble level, therefore, there are no compliance requirements at the transmission bubble level.

Please refer to the confidential work papers supporting PacifiCorp's Integrated Resource Plan (IRP), specifically confidential work papers supporting Appendix, confidential file "apdx.K-Capacity.Contribution-WRAP.Values(C).xlsx", which provides resource capacity contribution levels.

WRA Data Request 4.4

WRAP Compliance and Capacity Contribution. In its response to Sierra Club 2.4, the Company states that the increase in wind capacity in the 2025 IRP from the 2023 IRP Update is the result of using WRAP capacity contribution values. Consistent with Figure 8.3 on page 221 of Volume 1 of the 2023 IRP, which depicts the transmission system model topology used for the 2023 IRP and the 2023 IRP Update, provide the planning reserve margin and resource capacity contributions for all resource types that pertain to each transmission bubble as modeled in the 2023 IRP Update.

Response to WRA Data Request 4.4

PacifiCorp's planning reserve margin (PRM) for the 2023 Integrated Resource Plan (IRP) Update was 13 percent. For the PRM by year in megawatts (MW), please refer to PacifiCorp's 2023 IRP Update page 165-168, Table 6.11 and Table 6.12, which present the summer and winter peak system capacity load and resource balance for the 2023 IRP Update. For the resource capacity contributions for all resource types that pertain to each transmission bubble as modeled in the 2023 IRP Update, refer to the Company's response in Sierra Club Data Request 3.4 subpart (c).

WRA Data Request 4.5

WRAP Compliance. In its response to Sierra Club 2.2(c), the Company stated that “any resources on the East in the final integrated portfolio were specifically identified either as economic or necessary for compliance with UIWC WRAP.”

- (a) The answer to Sierra Club 2.2(c) quoted above only references resources on the East side of the system. Do West-side resource also carry this designation (either “economic” or “WRAP compliance”)?
- (b) For each final integrated portfolio (i.e. those listed in Table 9.34 on page 260 of Volume 1), please provide a list of all resources with their respective designations as “economic” or “WRAP compliance.” Include the jurisdiction for which any resource was selected for WRAP compliance. If this has been provided in the Company’s work papers, provide the filenames.

Response to WRA Data Request 4.5

- (a) No. While west-side resources are selected as economic, or for west-side Western Resource Adequacy Program (WRAP) compliance, west-side resources may be selected solely for environmental policy compliance, above a level that would be dictated by economic or WRAP need.
- (b) In PacifiCorp’s 2025 Integrated Resource Plan (IRP), WRAP was a base requirement in all jurisdictional runs. Consequently, PacifiCorp does not have the requested analysis to break out resource selections due to WRAP versus those for economics. PacifiCorp is open to considering a comparable model run for the 2025 IRP Update.

WRA Data Request 4.6

WRAP Compliance. WRA's understanding is that in developing Full Jurisdictional Portfolios—each of which represents a system portfolio under the compliance requirements of a single jurisdiction (WA, OR, or UIWC)—WRAP compliance was modeled for the jurisdiction under consideration, but not for the system as a whole.

- (a) Please confirm WRA's understanding of WRAP compliance modeling as described above. If not confirmed, please clarify.
- (b) Describe in detail how the WRAP compliance requirement for each jurisdiction (WA, OR, and UIWC) was calculated.
- (c) For each Full Jurisdictional Portfolio (WA, OR, and UIWC), identify the total MW added to meet the WRAP compliance obligation included in that Full Jurisdictional Portfolio simulation.
- (d) For each Full Jurisdictional Portfolio (WA, OR and UIWC), identify the additional total MW that would need to be added to meet the WRAP compliance obligation for the system as a whole, not limited to the jurisdiction modeled.

Response to WRA Data Request 4.6

PacifiCorp objects to this data request on the grounds that it would require a special study to produce such information and is therefore overly broad and unduly burdensome. Subject to and without waiving the foregoing objection, the Company responds as follows:

- (a) Confirmed.
- (b) Monthly Western Resource Adequacy Program (WRAP) compliance requirements for each jurisdiction were calculated by multiplying the monthly jurisdictional load in the hour of the system peak by the monthly WRAP planning reserve margin (PRM).

For example, if the Oregon peak load in December is 5,000 megawatts (MW) and the monthly WRAP PRM in December is 16.8 percent, the Oregon jurisdictional WRAP compliance requirement for December is 5,840 MW ($5,000 \text{ MW} * 1.168 = 5,840 \text{ MW}$). Note: this is an illustrative example and the calculation does not reflect the Oregon WRAP compliance requirement for December that was modeled in PacifiCorp's 2025 Integrated Resource Plan (IRP).

(c) PacifiCorp does not have the requested analysis.

(d) PacifiCorp does not have the requested analysis.

WRA Data Request 4.7

Preferred Portfolio Energy and Capacity Mixes. In response to WRA 2.4, PacifiCorp states that it does not report capacity and energy by jurisdiction. However, in response to Sierra Club 2.2(a), PacifiCorp explains that it determines whether an integrated portfolio “would meet energy or capacity compliance for a particular jurisdiction,” so it appears the Company makes these types of calculations even if not reported more generally.

- (a) Please provide the energy and capacity mixes for the WA and OR jurisdictions after remedying any energy or capacity shortfalls in the integrated portfolio.
- (b) Please provide the energy and capacity mix for the UIWC jurisdiction.

Response to WRA Data Request 4.7

PacifiCorp objects to this data request on the grounds that it would require a special study to produce such information and is therefore overly broad and unduly burdensome. Subject to and without waiving the foregoing objection, the Company responds as follows:

The Company’s response to WRA Data Request 2.4 states that it “does not report emissions by jurisdiction for Washington or Utah, Idaho, Wyoming and California (UIWC) for the 2025 Integrated Resource Plan (IRP) preferred portfolio, neither in published 2025 IRP nor in the supporting work papers”. PacifiCorp’s response in WRA Data Request 2.4 specifically addresses reporting emissions by jurisdiction, not capacity nor energy.

- (a) Please refer to Confidential Attachment WRA 4.7 which provides the energy mix for the Oregon jurisdiction. Specifically, refer to tab “OR HB2021” for the Oregon energy mix. For the Washington jurisdiction, please refer to the following public / non-confidential work paper supporting PacifiCorp’s 2025 IRP, file “230812-PAC-apdx.O-Washington.Clean.Energy.Action.Plan-Tbl.O3.and.Fig.O7.CETA.Summary.xlsx”. Specifically, refer to tab “WA CETA Summary” for the Washington energy mix. Please refer to the following confidential work paper supporting PacifiCorp’s 2025 IRP, specifically confidential work paper “CONF_Max of Units Base MN.xlsx”, tab “Jurisdictional Shares”, which provides the capacity mixes for Oregon and Washington. Specifically, refer to columns F and G for the battery capacity and columns P and Q for the generation capacity for Oregon and Washington, respectively.
- (b) The capacity mix for UIWC is provided on tab “Jurisdictional Shares” of confidential work paper “CONF_Max of Units Base MN.xlsx”. Specifically, refer to column H for the battery capacity and column R for the generation capacity for UIWC.

PacifiCorp has not prepared the requested analysis providing the energy mix for UIWC. The energy mix for UIWC may be determined using the capacity mix for UIWC and the generation for a given resource provided on the “Battery” and “Generator” tabs in Confidential Attachment WRA 4.7 CONF.

Confidential information is provided subject to Public Service Commission of Utah (UPSC) Rules R746-1-601–606.

WRA Data Request 4.8

Gateway West. During the July 22 Technical Conference in Docket No. 25-035-22, PacifiCorp stated that 2037 was the earliest in-service date allowed by the model for the Gateway West component of the Energy Gateway Transmission Expansion Program. In the context of providing progress on this program, PacifiCorp's website states the following: "Other segments that are expected to be placed in-service in future years, depend on load growth, economic analysis, IRP results, siting, permitting and construction schedules." However, the IRP, which provides economic analysis and includes forecast load growth, depends on timeframes for siting and permitting.

(a) Please provide the following siting and permitting information:

- i. Progress on the siting and permitting of Segment D3 (Bridger/Anticline to Populus). What remains to be completed before the Company can move this segment forward?
 - ii. Progress on the siting and permitting of the E segment between Populus and Midpoint. What remains to be completed before the Company can move this segment forward?
- (b) PacifiCorp's website indicates an online date for Segment E8 (Midpoint to Hemingway) of 2030. Is Segment E8 still expected to be online by 2030? If not, why not?

Response to WRA Data Request 4.8

(a) Please refer to the Company's responses to subparts i. and ii. below:

- i. PacifiCorp continues to advance applicable environmental protection and mitigation plans required for the written Notice to Proceed (NTP) to be issued by the United State (U.S.) Bureau of Land Management (BLM) pursuant to the Right-of-Way Grant issued in November 2013. Plans being advanced include Special Status Species Plans, Sage-Grouse Mitigation Plan, Migratory Bird Habitat Conservation Plan, and Site-Specific Historic Property Treatment Plans. Analysis of a potential Cokeville, Wyoming area reroute is also being evaluated.

Outstanding tasks required to move forward with Segment D3 will be scheduled to align with the planned in-service date as informed by the Integrated Resource Plan (IRP). These tasks include final engineering design including route refinement and micro-siting, refinement and approval of the plan of development, other environmental plans and studies to be scheduled in advance of commencement of construction, and

acquisition of easements on state and private lands.

- ii. PacifiCorp continues to advance applicable environmental protection and mitigation plans required for the written NTP to be issued by the U.S. BLM pursuant to the Right-of-Way Grant issued in November 2013. Plans being advanced include Special Status Species Plans, Sage-Grouse Mitigation Plan, and Site-Specific Historic Property Treatment Plans.

Outstanding tasks required to move forward with Segment E will be scheduled to align with the planned in-service date as informed by the IRP. These tasks include final engineering design including route refinement and micro-siting, refinement and approval of the plan of development, other environmental plans and studies to be scheduled in advance of commencement of construction, and acquisition of easements on state and private lands.

- (b) Segment E8 (Midpoint – Hemingway 500 kilovolt (kV) line) is expected to be online by 2030 assuming there are no additional environmental, permitting, right-of-way (ROW) acquisition, supply chain and construction delays.

WRA Data Request 4.9

Market Risk. In its second set of data requests, the Sierra Club noted the negative system position for the years 2028 and 2029 in Table 9.12 and asked PacifiCorp whether WRAP penalties for noncompliance were accounted for. PacifiCorp responded that “in actual operations, WRAP shortfalls would be filled with eligible market products that are more economic than the WRAP penalty cost for non-compliance. These market products were not modeled in the IRP”. Please explain in detail the nature of these market products and why the Company believes they will be available.

Response to WRA Data Request 4.9

The Company assumes that the reference to “second set of data requests” is intended to be a reference to Sierra Club Data Request 2.6. Based on the foregoing assumption, the Company responds as follows:

While standard market products, such as Western Systems Power Pool (WSPP) Schedule C Firm Energy, do not directly meet Western Resource Adequacy Program (WRAP) compliance requirements, it is possible that WRAP compliance could be added to purchases from other WRAP participants. Alternatively, WRAP compliance can be achieved using generator-specific contracts. Potential resources could include merchant-owned natural gas plants, slices of Mid-Columbia (Mid-C) hydroelectric projects, or any other resource that can deliver to PacifiCorp’s system. PacifiCorp is in contact with the owners of natural gas fired facilities across the West and routinely secures additional capacity through the annual Grant Public Utility District (PUD) hydroelectric slice auction and expects that some opportunities to secure WRAP-compliant capacity for one or more years in the future will remain available, though the pricing is uncertain.

The shortfalls identified in Table 9.12 were not significant enough to raise concerns as to whether alternate energy sources will be sufficiently available to avoid material penalties.

WRA Data Request 5.1

WRAP Compliance. Full Jurisdictional Portfolios are described as WRAP compliant.

- (a) Please describe in detail how WRAP compliance is incorporated in developing Full Jurisdictional Portfolios.
- (b) Are WRAP compliance requirements binding during the LT phase, ST phase, or both phases for modeling Full Jurisdictional Portfolios?
- (c) Please describe how WRAP compliance is incorporated into the reliability adjustment modeling. For example, when load is modified as a result of a reliability adjustment, are new resources added to meet WRAP compliance based on the new, increased load and planning reserve margin, or is WRAP compliance always dependent on the base load forecast?" Please provide a narrative response.

Response to WRA Data Request 5.1

- (a) In PacifiCorp's 2025 Integrated Resource Plan (IRP) modeling, each jurisdiction is required to be Western Resource Adequacy Program (WRAP) compliant each month within their jurisdictional portfolio. In PLEXOS, a custom constraint requires enough capacity to be built to meet the planning reserve (PRM) requirement. The capacity of each resource is prorated by the resource type capacity contribution provided by WRAP. This ensures the model builds enough capacity in the expansion phase of modeling.
- (b) WRAP compliance requirements are only binding during the long-term (LT) modeling phase. Short-term (ST) modeling is dispatch only and does not contemplate new resource additions.
- (c) The WRAP constraint is not incorporated into reliability adjustments. The custom WRAP constraint is based on the base load forecast. Unserved energy shortfalls as measured in dispatch do not impact the capacity need for WRAP.

WRA Data Request 5.2

Marginal Capacity Contribution Values. As defined on page 177 of Appendix K, “marginal capacity contribution values reflect the expected reduction in loss of load events as a result of a small increase in a given resource, with no other changes in PacifiCorp’s portfolio.” On page 78 of the June 2024 Public Input Meeting, PacifiCorp says that identifying the Loss of Load Probability distribution and marginal capacity contributions will help identify the risk of load shortfalls.

- (a) Please provide a narrative response describing how the marginal capacity contribution values were used in the 2025 IRP modeling.
- (b) Were these values used in performing the reliability adjustment modeling for each portfolio considered? If so, please explain in detail how they were used.

Response to WRA Data Request 5.2

- (a) The marginal capacity contribution values were not used in modeling for PacifiCorp’s 2025 Integrated Resource Plan (IRP). The marginal capacity contribution values are an output of modeling based on specific portfolio selections, and change based on resource mix. As such, they cannot be calculated until a portfolio is developed but are used after portfolio development to analyze portfolio performance.
- (b) No.

WRA Data Request 6.1

Location of Full Jurisdictional Portfolio Resources. Tables 9.5, 9.6, and 9.7 show the Full Jurisdictional Portfolios for Oregon, Washington, and UIWC respectively.

- (a) Please confirm that all resources other than the Natrium nuclear plant shown in Table 9.5 and 9.6 are located on the west side of the PacifiCorp system. If not confirmed, please identify which resources are located on the east side.
- (b) If 6-1(a) is confirmed, please confirm that constraints were imposed to limit resource selection to the West side.
- (c) If 6-1(b) is confirmed, describe all constraints used to limit resource selection to the West side.
- (d) If 6-1(a) is not confirmed, please explain.
- (e) Please confirm that all resources shown in Table 9.7 are located on the east side of the PacifiCorp system. If not confirmed, please identify which resources are not.
- (f) If 6-(e) is confirmed, please answer the following. In modeling the UIWC Full Jurisdictional Portfolio, were constraints imposed to limit resource selection to the east side, or did unconstrained optimization result in the selection of east-side resources only?
- (g) If constraints were imposed to limit resource selection to the east-side in Table 9.7, describe all constraints.

Response to WRA Data Request 6.1

- (a) Not confirmed. Not all resources other than the Natrium nuclear plant shown in Table 9.5 and Table 9.6 are located on the west side of PacifiCorp's system. Proxy resources on the east side of PacifiCorp's system are shown in Table 9.5 and Table 9.6. To see which resources are located on the west side and which resources are located on the east side of PacifiCorp's system in the Oregon and Washington jurisdictional portfolios that were ultimately integrated into PacifiCorp's 2025 Integrated Resource Plan (IRP) preferred portfolio, refer to the confidential work papers supporting the 2025 IRP, specifically confidential folder "Model Reports\Iteration\OR.EP.2409MN.Iterator\Phase 17\LT(145972)", confidential file "(P)_LT_25I.IR.iLT.r21.OR.EP.2409MN.Iterator_145972 v97.2x156 Phase 17.xlsb" (for Oregon), and confidential folder "Model Reports\Iteration\CETA.EP.2409SC.Iterator\Phase 12\LT(145276)", confidential file "(P)_LT_25I.IR.iLT.r21.CETA.EP.2409SC.Iterator_145276

v97.2x97 Phase 12.xlsb” (for Washington). Specifically, refer to tab “Plexos Portfolio”.

- (b) Please refer to the Company’s response to subpart (a) above.
- (c) Please refer to the Company’s response to subpart (a) above.
- (d) While proxy resources in Oregon and Washington’s jurisdictional portfolios were allowed to be built on the east side of PacifiCorp’s system, these proxy resources were not allowed to be allocated to Oregon or Washington and thus, were not integrated into integrated portfolios. Only east side proxy resources from the Utah/Idaho/Wyoming/California (UIWC) jurisdictional portfolios were eligible to be integrated into integrated portfolios on the east side of PacifiCorp’s system.
- (e) Not confirmed. Not all resources other than the Natrium nuclear plant shown in Table 9.7 are located on the east side of PacifiCorp’s system. Proxy resources on the west side of PacifiCorp’s system are shown in Table 9.7. To see which resources are located on the west side and which resources are located on the east side of PacifiCorp’s system in the UIWC jurisdictional portfolio that was ultimately integrated into PacifiCorp’s 2025 IRP preferred portfolio, refer to the confidential work papers supporting the 2025 IRP, specifically confidential folder “Model Reports\Iteration\UIWC.EP.2409MN.Iterator\Phase 20\LT(149346)”, confidential file “(P)_LT_25I.IR.iLT.r21.UIWC.EP.2409MN.NewWRAP.Iterator_149346 v98.9x12.xlsb”, tab “Plexos Portfolio”.
- (f) Please refer to the Company’s response to subpart (e) above.
- (g) Please refer to the Company’s response to subpart (d) above.

WRA Data Request 6.2

Location of Jurisdictional Share Resources. Tables 9.2, 9.3, and 9.4 show the jurisdictional shares of the integrated Preferred Portfolio for Oregon, Washington, and UIWC respectively.

- (a) Please confirm that all resources shown in Table 9.2 and 9.3 other than the Natrium nuclear plant are located on the west side of the PacifiCorp system. If not confirmed, please identify which resources are not.
- (b) Please confirm that all resources shown in Table 9.4 are located on the east side of the PacifiCorp system. If not confirmed, please identify which resources are not.

Response to WRA Data Request 6.2

- (a) Confirmed.
- (b) Confirmed.

WRA Data Request 6.3

Location of Preferred Portfolio Resources. Table 9.10 displays the expansion options and existing unit changes for the Preferred Portfolio. Please create a table similar to Table 9.10 that displays the MW of new resources included in the Preferred Portfolio by east and west sides. So, for example Table 9.10 shows 1,690 MW of utility solar in 2030. The new table would show how much of the 1,690 MW was physically located on the east side and how much was on the west side.

Response to WRA Data Request 6.3

To see the installed capacity (megawatts (MW)) of new (proxy) resources included in the preferred portfolio, separated by east side and west side resources, please refer to the public / non-confidential work paper supporting PacifiCorp's 2025 Integrated Resource Plan (IRP), specifically folder "01.Chapters, Appendices, and Input Assumptions\C9.Ch 09 - Modeling and Portfolio Selection Results", file "(P)_Fig 9.2, 9.16 Tbl 9.8, 9.10 LT_Integrated.MN.Base IntTrans_155264 v101.1.xlsb", tab "Plexos Portfolio".

WRA Data Request 6.4

Existing Resource Shares. Akin to Tables 9.2 to 9.4, please create a table showing the assumed jurisdictional shares for all existing resource types by year for each jurisdiction.

Response to WRA Data Request 6.4

PacifiCorp objects to this data request on the grounds that it would require a special study to produce such information and is therefore overly broad and unduly burdensome. Subject to and without waiving the foregoing objection, the Company responds as follows:

Please refer to Attachment WRA 6.4 which provides the resulting jurisdictional shares for all existing resource types by year for each jurisdiction. Note: these shares reflect allocation assumptions specific to PacifiCorp's 2025 Integrated Resource Plan (IRP) and are not intended to represent any ratemaking decisions. Cost-allocation of existing resources remains outside the scope of PacifiCorp's IRP process.

PacifiCorp did not create or use a table of assumed jurisdictional shares for existing resources during the development of the 2025 IRP. For WRA Data Request 6.4, PacifiCorp took the existing resource allocations included in the confidential Max of Units Base MN work paper (supporting the 2025 IRP, specifically confidential folder "Model Reports\Integration", confidential file "CONF_Max of Units Base MN.xlsx") and applied those allocations to the resources included in the 2025 IRP preferred portfolio. The allocations in the "Max of Units Base MN" work paper for energy efficiency (EE) resources were inclusive of the planning reserve margin (PRM) benefit applied to EE for the purposes of calculating compliance with the Western Resource Adequacy Program (WRAP). These allocations were reduced from 1.169 to 1 for this view of the allocation of nameplate megawatts (MW).

Response to WRA Data Request 6.4

OR Shares by Resource Type and Year, Installed MW																					
Resource	Installed Capacity, MW																				
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Coal	1,194	1,079	1,098	1,035	950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas	1,124	1,230	1,230	1,230	1,291	1,291	1,291	1,291	1,291	1,291	1,291	1,291	1,291	1,291	1,291	-	-	-	-	-	-
Hydroelectric	322	323	328	330	331	338	340	342	346	347	348	349	351	349	350	351	352	354	356	357	356
Wind	1,094	1,182	1,203	1,209	1,213	1,213	1,163	1,171	1,184	1,186	1,191	1,194	1,203	1,193	1,198	1,201	1,108	1,114	1,122	1,124	1,123
Solar	210	316	320	319	319	326	317	319	321	321	322	322	323	320	321	321	299	300	301	301	300
Demand Response	108	108	108	114	114	115	112	112	116	116	117	112	114	113	115	119	118	112	114	120	109
Energy Efficiency	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Other Renewable	8	8	8	9	9	9	9	9	9	9	9	9	9	-	-	-	-	-	-	-	-
Qualifying Facilities	567	574	594	593	582	453	450	440	440	439	438	432	400	399	389	388	387	386	335	328	330
Storage	2	244	249	250	251	256	257	259	262	260	261	262	264	262	263	264	264	266	267	268	268

WA Shares by Resource Type and Year, Installed MW																					
Resource	Installed Capacity, MW																				
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Coal	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas	219	110	108	105	102	99	97	94	93	93	92	91	90	90	89	127	126	124	123	121	-
Hydroelectric	92	90	90	87	84	82	81	79	78	78	77	77	76	76	75	75	74	74	73	72	73
Wind	312	331	329	321	308	295	277	269	266	266	265	263	261	258	255	256	234	233	231	227	229
Solar	55	84	83	81	78	76	74	72	71	71	70	70	69	68	67	67	63	63	62	61	61
Other Renewable	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-
Demand Response	40	40	39	40	40	39	38	38	39	38	38	37	38	37	38	38	38	37	37	38	36
Energy Efficiency	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Qualifying Facilities	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Storage	-	68	67	66	63	62	61	59	58	58	58	58	57	57	56	56	56	56	55	54	55

UIWC Shares by Resource Type and Year, Installed MW																					
Resource	Installed Capacity, MW																				
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Coal	3,001	2,716	2,698	2,534	2,324	3,192	3,192	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	2,667	2,667	2,667
Gas	2,516	2,770	2,771	2,775	2,924	2,927	2,930	2,933	2,935	2,935	2,935	2,936	2,937	2,938	2,940	4,100	4,102	4,104	3,951	3,955	3,953
Hydroelectric	810	812	807	807	810	804	804	804	801	800	799	799	797	801	800	799	799	797	795	796	796
Wind	2,749	2,977	2,958	2,960	2,969	2,883	2,751	2,751	2,742	2,739	2,736	2,734	2,727	2,740	2,738	2,734	2,517	2,512	2,505	2,508	2,506
Solar	1,185	1,976	1,969	1,968	1,969	1,962	1,960	1,958	1,954	1,952	1,950	1,948	1,844	1,846	1,844	1,842	1,801	1,798	1,795	1,563	1,561
Other Renewable	41	41	41	41	41	41	41	41	41	41	41	41	41	20	20	20	20	20	20	20	-
Demand Response	553	553	551	563	565	562	554	554	562	560	562	549	553	554	558	566	563	549	553	565	540
Energy Efficiency	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
Qualifying Facilities	1,265	1,254	1,221	1,216	1,170	1,458	1,452	1,435	1,399	1,357	1,346	1,290	1,119	1,114	1,084	1,067	1,060	1,055	1,050	1,045	1,041
Storage	1	761	757	758	759	755	755	755	753	751	750	750	749	752	751	750	750	749	747	748	748

WRA Data Request 6.5

Stochastic Modeling. How stochastic modeling was conducted is unclear from the Volume I text, with contradictory statements appearing in different places. On page 202, the text suggests that the condition from a single year was repeated 21 times; however, in the same paragraph, it suggests that “random sampling of the annual results may be appropriate.” Just below that the text reads “The cost and risk stochastic measures reported from the Monte Carlo annual draw include...”

- (a) Please describe in detail how stochastic modeling was conducted for the 2025 IRP.
- (b) Were Monte Carlo annual draws conducted? If so, what were the annual draws of?
- (c) If Monte Carlo annual draws were not conducted, how were the risk metrics developed?

Response to WRA Data Request 6.5

There are two distinct types of years being described, which gives rise to the apparent contradiction. First, there are ‘weather years’, which refers to historical years 2006 through 2023. Second there are planning years, which refers to PacifiCorp’s 2025 Integrated Resource Plan (IRP) planning horizon, from 2025 through 2045. Sample years are drawn from history (weather years) and applied to planning years, to give a set of conditions that are applied to planning years.

- (a) Please refer to pages 201 through 203 of the 2025 IRP, Volume I, which describe in detail how stochastic modeling was conducted for the 2025 IRP. Please refer to the Company’s response to Sierra Club Data Request 2.16, specifically Attachment Sierra Club 2.16, which provides copies of the work papers with Monte Carlo annual draws and calculation of the 95th percentile. Additional detail on stochastic modeling is provided in the 2025 IRP, Volume II, Appendix H (Stochastics). A summary of the stochastic modeling is also provided below:
 - 1. PacifiCorp prepared 18 model runs, each representing a historical weather year condition (2006 through 2023). In each run the same historical weather year condition is repeated for every year of the modeling horizon (2025 through 2045). PacifiCorp does not expect any particular weather condition to recur repeatedly, but each year is calculated independently and does not influence the results in other years, therefore, the annual results can be applied to specific samples outside the model, as described below.

2. PacifiCorp performed Monte Carlo annual draws (with replacement) to identify which of the 18 historical weather conditions would be used for each modeling year (2025-2045) of each of fifty stochastic samples.
 3. For each of the 50 stochastic samples, PacifiCorp looked up the annual system variable costs developed in Step 1 for the applicable historical weather condition drawn for each year in Step 2. The present value of revenue requirements (PVRR) of the resulting 21-year stream of annual costs is calculated for each stochastic sample.
 4. The risk adjustment is calculated as 5 percent of the difference between the 95th percentile PVRR and the average PVRR.
- (b) Please refer to the Company's response to subpart (a) above.
- (c) Please refer to the Company's response to subpart (a) above.

WRA Data Request 6.6

Net Revenue: Page 200 of Volume 1 discusses “Reliability Assessment and System Cost.” Under a heading “Resource Value” PacifiCorp develops the concept of “net revenue”. Please describe how net revenue was used in the PLEXOS modeling to identify additional resources to be added by the LT model to address hourly shortfalls identified by the ST model.

Response to WRA Data Request 6.6

Net revenue is a native PLEXOS reporting property, which is leveraged as a measure of resource value, informing the granularity adjustment and acting on resource costs. The adjustment designed to address hourly shortfalls, on the other hand, is the reliability adjustment, and it is applied to load profiles rather than resource costs. For more detail on the granularity and reliability adjustments, please refer to PacifiCorp’s 2025 Integrated Resource Plan (IRP), Volume I, Chapter 8, pages 185 through 187.

WRA Data Request 6.7

Fuel Source Diversity: Under the header “Fuel Source Diversity” on page 204 of Volume 1, PacifiCorp states that it “considers relative difference in resource mix among portfolios by comparing the capacity of new resources in portfolios by resource type, differentiated by fuel source. PacifiCorp also provides a summary of fuel source diversity difference among top performing portfolios based on forecasted generation levels of new resources in the portfolio. Generation share is reported among thermal resources, renewable resources, storage resources, DSM resources and market purchases.”

- (a) Please identify where in the 2025 IRP or provided workpapers we can find the “summary of fuel source diversity differences among top performing portfolios” and the associated “generation share.”
- (b) If this summary and the associated generation share for the top performing portfolios has not been provided, please provide.
- (c) Please describe how PacifiCorp used this information in selecting the Preferred Portfolio over alternatives.

Response to WRA Data Request 6.7

- (a) For a summary of fuel source diversity among top performing portfolios, please refer to Table 9.16 through Table 9.32 in PacifiCorp’s 2025 Integrated Resource Plan (IRP) which present the incremental capacity of each technology type for each integrated portfolio and integrated variant portfolio. The associated public long-term (LT) model report for each of these integrated portfolios contains a capacity mix chart which highlights the annual capacity share of each technology type included in that portfolio. The associated annual generation share for each integrated portfolio by technology type is provided on tab “Cost Summary” included in all public short-term (ST) cost reports.
- (b) Please refer to the Company’s response to subpart (a) above.
- (c) In the 2025 IRP, PacifiCorp considered and reported on fuel diversity, but this was not a factor in selecting the preferred portfolio. Fuel diversity is considered as a part of PacifiCorp’s due diligence as a potential factor not otherwise represented in the core least-cost least-risk analysis.

WRA Data Request 7.1

Data Center Loads. Relative to the base case load forecast in the Draft 2025 IRP, the Final 2025 IRP load forecast removed significant commercial data center load.

Please provide the amount of data center load, in both demand and energy terms, that was removed on a state-by-state basis for each year of the planning horizon.

- (a) Other than removing commercial data center loads and corresponding demand side management effects, did the Company make any other incremental changes to the load forecast between the filing of the Draft 2025 IRP and the Final 2025 IRP? If so, explain the changes.
- (b) Did the changes to the base case load forecast between the Draft 2025 IRP and the Final 2025 IRP above remove any existing data center load?
- (c) Did the changes to the base case load forecast between the Draft 2025 IRP and the Final 2025 IRP remove any incremental data center load expansion plans?
- (d) Was there a size threshold at which prospective data centers were eliminated from the Draft 2025 IRP load forecast?
- (e) Did the load forecast for the Final 2025 IRP include any new commercial data center load? Specifically, did the forecast include additional load for any “shovel-ready” data centers or data centers expected take service from the Company in roughly the next 12-36 months?

Response to WRA Data Request 7.1

The Company objects to this request on the grounds that it seeks customer specific information that is highly confidential, commercially sensitive and cannot be shared without the express written consent of the express written consent of the individual customer. Without waiving the foregoing objection, the Company responds as follows:

- (a) No.
- (b) No.
- (c) No. The changes only removed data center load that is not currently contracted or expected to provide their own resources.
- (d) No.

- (e) No, “shovel-ready” data centers or data centers expected take service from the Company in roughly the next 12-36 months are expected to provide their own resources.

WRA Data Request 7.2

Data Center Load Forecasting. Page 11 of Volume II of the 2025 IRP states, “The development of the forecast of monthly commercial sales involves an additional step; to reflect the addition of a large “lumpy” change in sales such as a new data center, monthly commercial sales are increased based on input from PacifiCorp’s RBM’s.”

For commercial data centers, was there a size threshold at which this “lumpy” load growth was incorporated into the 2025 Final IRP base case load forecast using input from PacifiCorp’s RBMs (for example, new data centers greater than X MWs)?

- (a) Did the Company use regression analysis to forecast any prospective new commercial data center load in the Final 2025 IRP, or was all new commercial data center load provided by RBMs? If regression analysis was used for any portion of the load forecast related to new commercial data centers, please provide workpapers showing the analysis and inputs.
- (b) Were load forecasts for existing commercial data centers adjusted based on commercial class regression variables listed on page 11 of Volume II, such as non-manufacturing and non-farm employment or weather-related variables?
- (c) In developing its Final 2025 IRP base case load forecast, did the Company omit load from industrial or commercial customers currently taking service under special contracts?

Response to WRA Data Request 7.2

Generally, loads greater than 10 megawatts (MW) are reviewed for their potential impact on the forecast.

- (a) No.
- (b) No.
- (c) No.

WRA Data Request 7.3

New Data Center Loads. For each state in the Company's jurisdiction, please provide the tariff, legislation, rule, or other regulation that either (1) mandates commercial data centers bring their own generation resources rather than take service from PacifiCorp, or (2) ensures that all generation, transmission, and distribution costs from such loads will be directly allocated to the large customer.

- (a) If such provisions exist, or are under development, for any state in the Company's service territory, please include the demand threshold (in megawatts) at which data center customers must bring their own generation and whether there are provisions for existing data center expansion plans.
- (b) If such provisions exist for any state and include a demand threshold for prospective customers (above which the customer must bring its own generation), explain why the Company's decision to exclude all new data centers regardless of size is a reasonable modeling assumption. In other words, if a state has established rules mandating that customers over 50 MW must develop their own resources, why is it reasonable to assume that the Company would also deny service to new loads under this size threshold?
- (c) If no such regulations exist for any individual state within PacifiCorp's service territory, please explain why the decision to remove all data center load from the 2025 Final IRP base load forecast was a reasonable modeling decision.
- (d) Does PacifiCorp have authority to deny new service requests from large commercial customers in any jurisdiction it serves, regardless of the reason for denial?

Response to WRA Data Request 7.3

PacifiCorp objects to this request to the extent it seeks legal analysis, opinions, and/or conclusions. PacifiCorp objects to this data request on the grounds that it would require a special study to produce such information and is therefore overly broad and unduly burdensome. Subject to and without waiving the foregoing objection, the Company responds as follows:

In Utah, Utah Code Ann. §54-26 outlines the Large-Scale Electric Service Requirements. UCA §54-26-301(3)(a) requires that the large load contract "ensure that all large load incremental costs are allocated to and paid by the large load customer." Pursuant, to UCA §63G-3-301, the Public Service Commission of Utah (UPSC) recently opened a rulemaking, Docket No. 25-R318-01, to establish the administrative rules effectuating the law. Utah Code Ann. § 54-26-101 defines "large-scale service request" as either new electric service expected to reach a cumulative demand of 100 megawatts (MW) or greater within five years

of the requested initial start date, or additional electric service that is expected to increase a customer's total service level by 100 MW within five years.

In Oregon, House Bill (HB) 3546, Section 2, (a) B, requires the direct assigning of the costs of serving a retail electricity consumer that is a large energy use facility to the retail electricity consumer. HB 3546 Section 2 (1) d defines a large energy use facility as a facility that uses or is able to use 20 MW or more and is primarily engaged in providing a service described under code 518219 of the 2022 North American Industry Classification System.

The tariff provisions of Wyoming, Idaho, Washington and California are not as explicit as the recent legislation passed in Utah and Oregon that data centers must bring their own generation resources or pay for all generation, transmission, and distribution costs. However, they do provide flexibility to the Company to allocate generation and transmission costs to large customers.

In Wyoming, the Final Order of the Company's most recent general rate case (GRC), Docket No. 20000-671-ER-24, the Wyoming Public Service Commission (WPSC) required that any customer requiring more than 200,000 kilovolt ampere (kVA) would enter into a special contract with the Company (Rule 12.I.J). Customers requiring 50,000 kVA or more are required to pay for transmission and distribution upgrades unless the upgrade was already part of the Company's long-term plan and its construction was not accelerated by the Company (Rule 12.I.N). Additionally, Schedule 400 may be used for special contracts.

In Idaho, customers requiring 30,000 kilowatt (kW) or more are required to take service under special service agreements in accordance with the general service rate schedules. Customers requiring 150,000 kW or more must take service under Schedule 400.

California and Washington do not have specific requirements for large customers to take service under special agreements based on load size, but do include "Extension Limits" definitions in the line extension tariffs that limit the application of normal tariff provisions to customers requiring standard construction with projects that will produce sufficient revenues to cover ongoing costs.

- (a) Please refer to the Company's responses above.
- (b) The Company did not exclude all new data centers regardless of size from PacifiCorp's 2025 Integrated Resource Plan (IRP) preferred portfolio. Please refer to the Company's response to WRA Data Request 7.1.
- (c) Please refer to the Company's response to subpart (b) above.
- (d) No.

WRA Data Request 7.4

Data Center Load. The Company announced its decision to remove data center load during the February 27, 2025 Public Input Meeting, the last public input meeting before the Final 2025 IRP was filed. At 1:07 of that meeting, the Company explained that it “expects customers to bring their own resources and transmission” or “pay for those [upgrades] under the arrangement of special contracts”.

Please confirm that the IRP does not predetermine ratemaking treatment or cost allocation methodology of future resources to serve new loads.

- (a) Confirm that the February 27, 2025 Public Input Meeting was the first time the Company announced its decision to remove data center load from the base load forecast.

Response to WRA Data Request 7.4

PacifiCorp objects to this request to the extent it seeks legal analysis, opinions, and/or conclusions. Subject to and without waiving the foregoing objection, the Company responds as follows:

The Integrated Resource Plan (IRP) is not a ratemaking exercise, and indicative allocations are conducted only to the extent required to demonstrate the ability to comply with state and federal policy.

- (a) Not confirmed. The Company introduced this change in the Draft 2025 IRP filed December 31, 2024. Please refer to Chapter 9 of the Draft IRP, page 222, and Appendix A pages 7-8. Also, from the 2025 IRP January 22, 2025 / January -23, 2025 public input meeting, please refer to slide 17 of the publicly available presentation material, “Load forecast update removes loads that fall outside of the traditional IRP planning process”. Significant additional discussion occurred at the February 27, 2025 meeting.

WRA Data Request 7.5

Large Load Request Evaluation. On slide 86 of the September 25, 2024 Public Input Meeting presentation, the Company stated that “PacifiCorp’s base case load forecast includes existing data center load, incremental data center load reflecting expansion plans, and new load that has a high probability of being developed.”

Please provide the internal policies, requirements, or scoring mechanisms used to determine “a high probability of being developed.”

- (a) Does PacifiCorp have any method to determine if a new large load service request has been made by the same prospective customer in multiple jurisdictions or to multiple utilities?

Response to WRA Data Request 7.5

The probability of each project is based on the contract status, current state of the project and PacifiCorp’s regional business managers (RBM) experience with similar past customer projects.

- (a) No, unless the specific customer shares this information.

WRA Data Request 7.6

Large Load Sensitivity Analysis. During the September 25, 2024 Public Input Meeting at 3:02, the Company also stated that “...it’s become relevant...to do some sensitivity analysis around [data center load] above and beyond what is brought into the base load forecast.” The Company then listed three sensitivities including zero new data center load, maximum constrained data center load, and all-in (or unconstrained) data center load. At that time, the base load forecast included “existing, incremental data center load reflecting expansion plans, and new load that has a high probability of being developed.”

Given that the Company removed all data center load in the Final 2025 IRP, please confirm that the 2025 Final IRP load forecast matches the “zero new data center load study” that was planned for the Draft 2025 IRP as of the September 25, 2024 Public Input Meeting. If not confirmed, please explain.

- (a) Please confirm that the only additional data center sensitivity that was run in the Final 2025 IRP matched the “All-in data center load study” referenced in the September 25, 2024 Public Input Meeting.

Response to WRA Data Request 7.6

Confirmed. However, the statements above contain a conflict. The statement: “Given that the Company removed **all** data center load in the Final 2025 IRP” is incorrect. PacifiCorp did not remove all data center load, but it is confirmed that the case “zero **new** data center load study” was used for base assumptions.

- (a) Confirmed. No study was run to remove **all** data center load.