

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of PacifiCorp d/b/a Pacific
Power & Light Company's 2023 Electric
Integrated Resource Plan Progress Report**

DOCKET UE-200420

**COMMISSION STAFF COMMENTS REGARDING
PACIFICORP'S
2023 ELECTRIC INTEGRATED RESOURCE PLAN PROGRESS
REPORT SUBMITTED IN COMPLIANCE WITH
RCWs 19.405, 19.280 and WACs 480-100-600 through
-630 AND DOCKET UE-191023 AND UE-190698,
Order R-601**

September 14, 2023

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Executive Summary

These comments from the Washington Utilities and Transportation Commission (Commission) Staff (Staff) highlight the most important issues identified in our review of PacificCorp's d/b/a Pacific Power & Light Company's (PacifiCorp or Company) first 2023 Electric Integrated Resource Plan (IRP) Two-year Progress Report (Progress Report) filed May 31, 2023.¹ In December 2020, the Commission promulgated new rules related to long-range resource planning, and this is the first Progress Report submitted under these rules. As compared to a full IRP, PacifiCorp's Progress Report must adhere to a subset of requirements and reflect changing conditions.²

This document does not represent an exhaustive summary of Staff's analysis, but instead focuses on particularly noteworthy topics and themes. Staff stresses that any planning document represents a snapshot in time. This IRP was developed over a period during which new policies were at various stages of implementation or passage. With this in mind, Staff's recommendations in this document focus on improvements that Staff believes PacifiCorp should make in its next IRP filing in 2025.

The Company's 2021 CEIP remains unresolved in Docket UE-210829, and a Public Hearing is set for September 29, 2023. In terms of timing, PacifiCorp's filed its IRP during the Commission's consideration of the CEIP.³ Additionally, there are modeling considerations (e.g., PacifiCorp's approach to the social cost of greenhouse gas emissions cost adder), originating with the Company's 2021 IRP⁴ and the subject of a follow-on Staff complaint,⁵ that continue to impact the Company's Progress Report. Staff mentions this context up front to highlight the long-running nature of what Staff perceives as PacifiCorp planning deficiencies, some of which remain unresolved four years after the passage of CETA, and two and a half years after the promulgation of relevant Commission rules. Staff details these issues in the portfolio analysis and preferred portfolio section of these comments.

Summary of the Progress Report

Load Forecast Updates

This Progress Report describes a future with a substantially lower electric load forecast than that of PacifiCorp's 2021 IRP, in the Company's Washington service area, but an increase for the system-wide six state Preferred Portfolio (P-MM). PacifiCorp incorporated the impacts of climate change into its analysis in new ways in this Progress Report. The Company developed a future climate change scenario and incorporated climate change aspects into its

¹ [UTC Case Docket Document Sets | UTC \(wa.gov\)](#)

² [WAC 480-100-625\(4\)](#)

³ See [UE-210829](#).

⁴ *In the Matter of PacifiCorp's 2021 Integrated Resource Plan*, Docket UE-200420 (PacifiCorp 2021 IRP) (filed Sept. 1, 2021).

⁵ See [UE-220376](#).

base load forecast, using historical actual weather adjusted for expectations, and impacts from climate change. The Company uses actual 1990 average temperatures *and* projected temperature increases over the 1990 average. Additionally, Staff questions PacifiCorp's approach to its load forecast scenarios relative to increasing penetration of electric vehicles (EV), and its treatment of distributed energy resources (DERs).

Demand-side Resource Assessment Updates

Staff believes the 2023 demand-side resource assessment, which was performed by consultant AEG, was adequate. The potential energy efficiency (EE) curve yields a total cumulative 20-year potential savings of 16,690,252 MWh,⁶ which for Washington represents a total of 14,181 MWh or a 1.3 percent increase, as compared to the 2021.⁷ PacifiCorp incorporated Staff's previous concerns in modeling non-energy impacts (NEIs) by using updated values, rather than proxy NEI measures, in this Progress Report. Staff notes that PacifiCorp continues to use best practices for demand response (DR); in the modeling, DR directly competes with other resources.

Resource Costs

PacifiCorp's resource costs reflect two themes: 1) inflationary and/or supply chain pressures, and 2) mitigation of clean energy cost pressures attributable to the passage of federal legislation, such as the 2022 Federal Inflation Reduction Act (IRA). The cost fluctuations are not confined to clean energy resources; the fluctuations include thermal resources as well. PacifiCorp acknowledges that the IRA is a comprehensive set of clean energy legislation, substantive details of which are still being fleshed out in the form of regulations and other guidance.⁸ Staff recommends more refined modeling that incorporates the IRA tax treatment of select candidate resources and includes calculations for credits and provides more detail around the existing credits.

Portfolio Analysis and Preferred Portfolio

PacifiCorp's Preferred Portfolio (PP) includes acquisitions made during the Company's recent 2020 all-source request for proposals (RFP), which includes 1,792 MW of wind and 495 MW of solar additions, with 200 MW of battery storage capacity. Staff notes that there is a decrease in demand response (DR) compared to other resources. This decline is attributed to the improved accounting for demand response resources and potential overlap with one another.⁹ Further, Staff is concerned about modeling related to the sodium reactor demonstration project. Staff believes that the technology is still untested, and it has already been pushed out by two years. There are some notable shortfalls in the modeling; it appears the Company continues to not include Social

⁶ Summation of EE technical achievable potential from [2023 PacifiCorp CPA efforts](#) (see slides 15-26) as discussed during PacifiCorp's December 1, 2022, public input meeting. ETO separately develops the technical achievable potential for PacifiCorp's Oregon service territory.

⁷ WA cumulative EE savings by sector, [2021 CPA Final EE Measure Results](#), January 2021

⁸ PacifiCorp 2023 IRP Progress Report, p.57.

⁹ PacifiCorp 2023 IRP Progress Report, p. 16.

Cost of Greenhouse Gasses (SCGHG) to its preferred portfolio. Staff believes that this is a continuing issue.

Changing Federal and State Requirements, Economic, and/or Market Forces

Because PacifiCorp has a six-state system, the Environmental Protection Agency’s (EPA) Ozone Transport Rule (OTR) could have an impact on Washington’s load. This is due to the inclusion of Wyoming thermal assets in Washington rates (e.g., Jim Bridger coal plant). Since Wyoming’s thermal assets are not yet subject to OTR compliance obligations, the assets will need to be either included or excluded in the Company’s 2025 IRP, pending the ruling. Staff highlights PacifiCorp’s high-level inclusion of Washington’s Climate Commitment Act (CCA) as an allowance cost on top of the Chehalis natural gas plant in its modeling.

Equity and Transparency

To advance a pro-equity anti-racist (PEAR) landscape in Washington, the Commission has made clear that the advancement of PEAR principles should transcend all of its activities as well as the purview of its regulated companies. Staff prioritizes evaluating whether electric investor-owned utilities (IOUs) have made available underlying data and assumptions in an *easily accessible format* that would enable the “Commission, Staff...and other parties...to understand why the [companies] took the actions [they] did.”¹⁰ While Staff observes PacifiCorp is making marginal progress on this front since the inaugural CETA planning cycle in 2021, Staff believes the Company continues to fall short. Staff believes to achieve improved transparency, PacifiCorp should include clear file names, a master table of contents, and readme files, among other things. The Company should also review relevant Commission orders as they pertain to energy justice and implement corresponding imperatives, as described in the next section that summarizes Staff’s Recommendations.

Summary of Recommendations

Staff’s summary of targeted recommendations for the Company’s next full IRP due January 1, 2025.¹¹

| Topic | No. | Recommendations: |
|----------------------|-----|---|
| Load Forecast | 1 | Include a section in future load forecast chapters that “assess[es] the effect of distributed energy resources on the utility’s load,” as per Commission rule. ¹² Staff believes that the Company must go beyond its current approach, which treats DERs as a simple load forecast decrement. To realize the intent of the <u>DER potential assessment</u> , as |

¹⁰ CETA Rulemaking Order at 60, ¶¶ 172-173.

¹¹ Per [WAC 480-100-625\(1\)](#).

¹² [WAC 480-100-620\(3\)](#).

| | | |
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| | | envisioned per rule, ¹³ Staff recommends PacifiCorp better coordinate its resource planning with distribution planning and refers PacifiCorp to CETA for additional guidance. ¹⁴ |
| | 2 | Expand its treatment of DERs to address potential increases in distributed generation (DG) opportunities and requirements. For example, develop future load growth sensitivities showing impacts of Washington EV adoption with greater granularity. ¹⁵ |
| Resource Costs | 3 | Refine its cost modeling, based on forthcoming IRA implementation guidance, to identify the <u>most likely</u> tax treatment of select candidate resources and/or combinations of resources. |
| | 4 | Clearly delineate in its 2025 IRP supply-side resource table the costs of the Company’s preferred select resources, and/or combinations of resources, based on the most likely tax treatment. <u>Note:</u> Staff observes the existing “credits” column in PacifiCorp’s 2023 IRP Progress Report supply-side resource table is unclear. ¹⁶ Namely, the methodology for <i>how</i> such quantitative credits is calculated and applied to a given resource’s levelized cost of energy is not adequately detailed in any supporting workpapers. |
| | 5 | Include full accounting for the impacts of the IRA in PacifiCorp’s 2025 IRP, including time in the workplan for discussion with advisory group(s). |
| Portfolio Analyses PacifiCorp should develop a preferred portfolio that: | 6 | Removes or (at minimum) delays the Natrium demonstration project from inclusion in 2030 and instead considers procurement of additional renewable and energy storage resources (including DER projects). Staff notes: An adjusted PP could resemble the “No-NUC” scenario in the 2023 IRP Progress Report (i.e., P05-No NUC), which showed the Company could replace Natrium with 895 MWs of non-emitting peaking resources and 400 MW of battery storage during the early 2030s timeframe |

¹³ [WAC 480-100-620\(3\)\(b\)\(iv\)](#).

¹⁴ Pursuant to [RCW 19.280.100](#).

¹⁵ Pursuant to [RCW 19.280.030\(1\)\(m\)](#).

¹⁶ See “Credits” column in PacifiCorp 2023 IRP Progress Report, pp. 184-186 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

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| | | at a slightly higher, risk-adjusted cost. ¹⁷ |
| | 7 | As required by law, incorporate the social cost of greenhouse gas emissions as a cost adder when evaluating and <u>selecting</u> intermediate-term and long-term supply resource options. ¹⁸ Note: If PacifiCorp continues to follow a six-state (i.e., system-wide) resource planning approach, the Company <u>must</u> apply the SCGHG cost adder to Washington supply resources (i.e., utility-scale thermal and clean resources) <u>in addition to</u> WA DSM resources, as the Company did in its 2021 and 2023 plans. |
| | 8 | Addresses all WA clean energy targets out to 2045 via a consistent lowest reasonable cost optimization methodology. |
| Changing Federal and Washington Policy Requirements | 9 | Update its portfolio analysis and preferred portfolio to reflect the EPA’s ultimate inclusion, or exclusion, of the Company’s Wyoming thermal resources for OTR environmental compliance. If the OTR subsequently does <u>not</u> cover Wyoming, Staff expects the lifecycle costs of select PacifiCorp thermal resources currently serving Washington load (i.e., Jim Bridger) would <i>decrease</i> . |
| | 10 | Develop scenarios and preferred portfolio that more accurately reflect the resource allocation characteristics of PacifiCorp’s Chehalis natural gas plant. Namely, if all or most of Chehalis’s generation serves Washington load, Staff would expect the associated CCA compliance (i.e., carbon allowance) costs to significantly decrease because Washington-serving resources are allocated no-cost allowances. ¹⁹ |
| Equity and Transparency | 11 | Provide all data input files to the Commission in native format with appropriate context (e.g., assumptions made by the Company) as appendices or attachments to the final filing or via accompanying data disk(s). Staff emphasizes: Data made available in this accessible manner will facilitate understanding of <i>why</i> PacifiCorp took the actions it did and assist in the independent review of such actions. ²⁰ |

¹⁷ PacifiCorp 2023 IRP Progress Report, pp. 270-271.

¹⁸ [RCW 19.280.030\(3\)\(a\)\(iii\)](#). Emphasis added.

¹⁹ [WAC 173-446-230](#):

²⁰ CETA Rulemaking Order at 60, ¶ 173.

| | | |
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| | | PacifiCorp must make a good faith effort to <u>minimize</u> the amount of data designated confidential in meeting this recommendation. |
| | 12 | Ensure supporting data is easily accessible to interested persons by including contextual aids with the given information. At minimum, the Company should organize its final IRP deliverable by including a master table of contents, readme files, and categorically grouping related data. |
| | 13 | Participate fully in the Commission’s forthcoming distributional equity in planning processes collaborative. |
| | 14 | Thoroughly review all forthcoming Commission orders in relevant PacifiCorp adjudicated dockets (i.e., 2023 GRC, UE-230172; 2021 CEIP, UE-210829) as they pertain to PEAR and implement corresponding imperatives. |

Compliance with Commission Rules

Per WAC 480-100-625, electric IOUs regulated by the Commission are required to file a full electric IRP every four years on January 1, and an IRP progress report two years later. In the Order adopting the Clean Energy Transformation Act (CETA) IRP rules, the final filing date for this set of IRPs was moved to April 1.¹² PacifiCorp filed a two-year Progress Report in Docket UE-200420 on May 31, 2023. The Company’s next full IRP is due to the Commission on January 1, 2025.

A Progress Report is required to update several elements of the most recent full electric IRP, including:

- The load forecast.
- The demand-side resource assessment, including a new conservation potential assessment.
- The resource costs.
- The portfolio analysis and preferred portfolio.
- Any other updates necessary due to changing state or federal requirements, or significant changes to economic market forces.
- Any updates for elements found in the utility’s current CEIP.

Staff has reviewed PacifiCorp’s 2023 Electric IRP Progress Report and found that it includes the above updates required by Commission rule, but much of Staff’s recommendations involve the reasonableness of PacifiCorp’s approaches and assumptions. Staff is pleased that PacifiCorp also included in this progress report other updates that go beyond requirements

outlined in rule, including:

- Significant updates to its climate change modeling.
- Increase analytics in EE and DR.
- Modeling updates of NEIs associated with EE.

While Staff commends PacifiCorp for going beyond the explicit requirements in the rule, many of the following comments highlight significant issues that Staff expects PacifiCorp to address in its 2025 IRP.

Load Forecast Updates

Staff's comments provide analysis regarding how PacifiCorp's load forecast has evolved since the Company's 2021 IRP, as this forecast was one of the few items of the Company's *last* full IRP completed in time for Staff's previous round of plan comments.²¹

Staff's critique of the load forecast informing PacifiCorp's 2021 IRP emphasized three issue areas:

1. modeling COVID-19 impacts,
2. informing the load forecast with meteorological data that does not consider climate change, and
3. decremting DG from the load forecast, but not otherwise considering DG as a modeled resource option.²²

As described in more detail below, Staff questions how the diminishing effects of the pandemic appear to result in differing load forecast trends when comparing PacifiCorp's Washington service territory to its six-state system. Staff finds the adjustments PacifiCorp made to its load forecast modeling following the Company's 2021 draft IRP appear to have addressed the above climate change concern described in Staff's PacifiCorp 2021 draft IRP comments. However, Staff maintains PacifiCorp's continued approach to modeling DG, and more broadly DERs, remains an issue needing corrective action by the time the Company's next full IRP is due.²³

Comparing PacifiCorp's 2021 IRP and 2023 IRP Progress Report load forecasts from the Company's six-state system with its Washington service territory tells two different stories.

²¹ PacifiCorp's 2021 draft IRP, on which Staff provided comments, was due January 4, 2021, per [WAC 480-100-625\(3\)\(a\)](#). However, the Company submitted an incomplete plan by the Commission's 2021 draft IRP deadline, only providing data and analyses for select requirements (e.g., load forecast, conservation potential assessment).

²² See [Staff's Comments Regarding Pacific Power and Light Company's Draft Integrated Resource Plan Submitted in Compliance with RCWs 19.405, 19.280 and WACs 480-100-600 through -630 and Under Consolidated Dockets UE-191023 and UE-190698, Order R-601 \(Staff 2021 PacifiCorp IRP Comments\)](#) (February 5, 2021), p. 5.

²³ January 1, 2025, per [WAC 480-100-625\(1\)](#).

Systemwide, PacifiCorp's 2023 IRP Progress Report illustrates a marked increase in load throughout the 2020s, starting 1.2 percent higher than the 2021 IRP forecast in 2023 and escalating to 16.4 percent higher by 2030. Conversely, PacifiCorp forecasts a *load reduction* in its Washington market that averages approximately 39,000 MWh annually during the second half of the decade.²⁴

²⁴ PacifiCorp 2023 IRP Progress Report, p. 2, Appendix A (Load Forecast, Table A.1). Note: load forecast change is measured at point of generation and is prior to any demand-side management (DSM) decrement.

Table 1 – PacifiCorp's Annual Load Change: 2023 load forecast²⁵ less 2021 forecast (MWh)²⁶

| Year | PacifiCorp System | | WA | |
|------|-------------------|----------|------------|----------|
| | MWh change | % change | MWh change | % change |
| 2023 | 789,940 | 1.2% | (17,310) | (0.4%) |
| 2024 | 3,047,960 | 4.7% | (18,530) | (0.4%) |
| 2025 | 4,642,800 | 7.1% | (29,480) | (0.6%) |
| 2026 | 5,411,390 | 8.4% | (39,130) | (0.8%) |
| 2027 | 7,471,370 | 11.5% | (39,360) | (0.8%) |
| 2028 | 10,597,700 | 16.0% | (39,200) | (0.8%) |
| 2029 | 11,150,620 | 16.7% | (38,590) | (0.8%) |
| 2030 | 11,088,630 | 16.4% | (37,750) | (0.8%) |

PacifiCorp's systemwide load increase between its 2021 and 2023 plans appears intuitive given the diminishing impacts of the COVID-19 pandemic.²⁷ Pandemic states of emergency ended in Washington on October 31, 2022,²⁸ and nationally on May 11, 2023.²⁹ However, the unwinding of lockdown measures appears to yield different trends when comparing PacifiCorp's entire system to its customer base in central and eastern Washington. PacifiCorp indicates load growth in Oregon, Utah, and Idaho are driving its systemwide increase.³⁰ However, the Company offers few details for *why* the drivers in these three states are so strong.³¹ Reasons why PacifiCorp continues to forecast reduced growth in Washington, extending a load forecast reduction trend observed since the Company's 2019 IRP, are not presented clearly in the IRP. Such opaqueness leaves interested parties without crucial data and accompanying narrative regarding how to interpret significant modeling changes between successive PacifiCorp IRPs. The absence of a full explanation of modeling results poses potential transparency issues around data disclosure and information access.³²

While PacifiCorp failed to account for climate change in its 2021 draft IRP,³³ in its delayed 2021 final IRP, the Company subsequently developed a future climate change scenario that appeared

²⁵ Id.

²⁶ PacifiCorp 2021 IRP, Volume II, p. 2, Appendix A (Forecasted Annual Load, Table A.1). Note: load forecast change is measured at point of generation and is prior to any DSM decrement.

²⁷ Id., p. 4, Appendix A.

²⁸ *WA Governor Inslee's COVID emergency order ends next week*. [State's COVID emergency order ends next week | Governor Jay Inslee \(wa.gov\)](https://www.governor.wa.gov/newsroom/inslee-ends-covid-emergency). Accessed: April 25, 2023.

²⁹ *COVID-19 Public Health Emergency (PHE)*. [COVID-19 Public Health Emergency \(PHE\) | HHS.gov](https://www.hhs.gov/emergency-preparedness-response-recovery/covid-19-public-health-emergency). Accessed: April 25, 2023.

³⁰ PacifiCorp 2023 IRP Progress Report, p. 1, Appendix A

³¹ When asked *why* Oregon's average load growth of 5.01 percent per year between 2023 and 2032 is such a departure from previous 2021 IRP projections for that state, PacifiCorp declined to comment on load forecast changes due to private customers. PacifiCorp 2023 IRP public interest meeting, April 13, 2023.

³² *Per WAC 480-100-620(14)* and elaborated further in the additional topic's discussion below.

³³ *See Staff 2021 PacifiCorp IRP Comments*, p. 6.

to comply with Commission rule.³⁴ PacifiCorp continues this modeling trend in its 2023 IRP Progress Report by incorporating climate change aspects into its *base* load forecast. Historical actual weather adjusted for expectations and impacts from climate change now informs the Company's 2023 load forecast. The climate change weather target temperature relies on actual 1990 average temperatures, with projected temperature increases over those average temperatures, as determined by the United States Bureau of Reclamation.³⁵ In terms of climate change modeling, Staff is heartened to see PacifiCorp's progression from incorporating more dynamic meteorological and hydrological data in a separate scenario (2021 IRP) to the Company's base assumptions (2023 IRP Progress Report).

Regarding PacifiCorp's treatment of DERs, including DG, Staff observes the Company's 2023 IRP Progress Report represents a "business-as-usual" approach, largely replicating methodologies undertaken in the 2021 IRP. Staff respectfully claims PacifiCorp did not internalize nor apply any of the DER and DG recommendations Staff provided on the Company's 2021 IRP³⁶ and therefore, repeats those recommendations here.

PacifiCorp's characterization of DERs in its 2023 IRP Progress Report remains too limited and questionable.³⁷ Other than new EE and DR PacifiCorp has identified in its conservation potential assessment (CPA), the Company claims its private generation study forecasts of customer DG (e.g., behind-the-meter installed solar) accounts for the remainder of its DER potential. The utility treats this private generation as a decrement to its load forecast but does not otherwise value DG as a modeled resource.³⁸ PacifiCorp's 2023 IRP Progress Report makes no mention of DG over which the utility has control, such as community solar.

Moreover, Staff believes PacifiCorp overlooked more rigorous load forecast scenarios, which now are required to account for the increasing penetration of EVs in its Washington service territory.³⁹ This requirement specifically links PacifiCorp's IRP development to findings in the Company's most recent transportation electrification plan.⁴⁰ Instead, PacifiCorp's 2023 IRP Progress Report's consideration of electrification adjustments to its load forecasts indicates the Company primarily relied on three national EV forecasts, each representing varying degrees of

³⁴ Per [WAC 480-100-620\(10\)\(b\)](#).

³⁵ See PacifiCorp 2023 IRP Progress Report, p. 5, Appendix A for more detail.

³⁶ See Staff 2021 PacifiCorp IRP Comments, pp. 6-7.

³⁷ [WAC 480-100-620\(3\)\(b\)\(iv\)](#) requires electric IOUs to, "assess other DERs that may be installed by the utility or the utility's customers including, but not limited to, energy storage, electric vehicles, and photovoltaics." WAC 480-100-620(11)(i) further expects utilities to "analyze...DERs to meet system needs" (i.e., as resource options).

³⁸ See PacifiCorp 2023 IRP Progress Report, p. 145. Note: DNV's Private Generation Forecast (2023-2042) is included as Appendix M in PacifiCorp's 2023 IRP Progress Report.

³⁹ Pursuant to [RCW 19.280.030\(1\)\(m\)](#).

⁴⁰ See [UE-220359](#).

aggressiveness.⁴¹ Reviewing the Company's Progress Report, Staff finds no evidence that PacifiCorp considered the impacts that its investments in charging pilots and public charging infrastructure⁴² may have on increasing EV adoption, and thus greater load due to EVs, within its Washington service territory.

For its **2025 IRP**, Staff makes the following load forecast recommendations. PacifiCorp should:

- Include a section in future load forecast chapters that “assess[es] the effect of distributed energy resources on the utility’s load,” as per Commission rule.⁴³ The Company must go beyond its current approach showing DERs as simply a load forecast decrement.
 - To realize the intent of the DER potential assessment, as envisioned per rule,⁴⁴ Staff recommends PacifiCorp better coordinate its resource planning with the Company’s distribution planning and refers PacifiCorp to CETA for additional guidance.⁴⁵
- Expand its treatment of DERs to address potential increases in DG opportunities and requirements. For example, develop future load growth sensitivities showing impacts of Washington EV adoption at a greater granularity.⁴⁶

Demand-side Resource Assessment Updates

A notable strength of PacifiCorp's 2023 IRP Progress Report is the Company's 2023 demand-side resource assessment, performed for the Company by consultant AEG, examining both EE and DR potential both across PacifiCorp's six-state system and its Washington service territory. Staff commends PacifiCorp for the increased analytical rigor employed since the Company's 2021 IRP.

The Company's final technical achievable potential EE supply curves yield a total cumulative 20-year potential savings of 16,690,252 MWh⁴⁷ across PacifiCorp's six-state territory with 1,121,645 MWh attributed directly to Washington.⁴⁸ The 2023 EE technical achievable potential

⁴¹ See PacifiCorp 2023 IRP Progress Report, p. 12, Appendix A for more detail.

⁴² See Staff's Comments Regarding PacifiCorp's Transportation Electrification Plan Submitted in Compliance with RCW 80.28.365, [UE-220359](#) (October 7, 2022), pp. 3-4.

⁴³ [WAC 480-100-620\(3\)](#).

⁴⁴ [WAC 480-100-620\(3\)\(b\)\(iv\)](#).

⁴⁵ Pursuant to [RCW 19.280.100](#).

⁴⁶ Pursuant to [RCW 19.280.030\(1\)\(m\)](#).

⁴⁷ Summation of EE technical achievable potential from [2023 PacifiCorp CPA efforts](#) (see slides 15-26) as discussed during PacifiCorp's December 1, 2022, public input meeting. ETO separately develops the technical achievable potential for PacifiCorp's Oregon service territory.

⁴⁸ WA cumulative EE savings by sector, 2023 CPA [Appendix H – Energy Efficiency Details Results](#), March 2023.

for Washington represents a 14,181 MWh (1.3 percent) increase compared to PacifiCorp's 2021 IRP⁴⁹ and an 11,017 MWh (1.0 percent) increase compared to the Company's 2019 IRP progress report.⁵⁰

Staff believes more sophisticated modeling of NEIs associated with EE measures explains the Company's reversed 2019-to-2021 declining technical achievable potential trend. In the 2021 IRP, PacifiCorp applied a 2017 U.S. Environmental Protection Action (EPA) public health proxy NEI of \$28.70 per MWh to all Washington EE measures in cases which assumed the social cost of greenhouse gas modeling assumptions. At the time, Staff agreed this proxy approach to "layering on" NEIs to CPA results during subsequent portfolio development was acceptable for the 2021 planning cycle.⁵¹ However, Staff also cautioned that proxy NEI measures would not be adequate for future IRPs.⁵² For its 2023 CPA, PacifiCorp directed AEG to map NEIs that varied by Washington measure type and end use (e.g., heating, cooling, exterior lighting).⁵³ Subsequent quantitative impacts ranged from a \$0.01 *decrease* per kWh for a given measure up to \$0.07 per kWh increase.⁵⁴ Staff is pleased to observe changes regarding modeling of NEIs for WA EE measures during the 2023 IRP Progress Report.

PacifiCorp's 2023 CPA included a parallel DR potential assessment that primarily considered measure-based programs controlled by the utility. For Washington, the Company's DR potential assessment surveyed 10 program bundle categories ranging from electric vehicle direct load control (DLC) to grid interactive water heaters across the residential, commercial & industrial, and irrigation sectors.⁵⁵ PacifiCorp continues to model DR directly, where it competes with other resources.⁵⁶ For the 2023 IRP Progress Report, both summer and winter levelized capacity costs (\$/kW), as well as the capacity contributions specific measures afford, determine DR's cost-effectiveness during portfolio optimization.⁵⁷ Staff commends the Company for considering ancillary service benefits like ramp rates and notification requirements associated with select DR measures.⁵⁸ For more discussion of *actual* DR amounts selected by PacifiCorp in its 2023 IRP Progress Report's preferred portfolio, please see the portfolio analyses section of these comments.

⁴⁹ WA cumulative EE savings by sector, [2021 CPA Final EE Measure Results](#), January 2021.

⁵⁰ [Volume 1 – Conservation Potential Assessment for 2019-2038 Executive Summary and Introduction](#), p. 11.

⁵¹ [Id.](#) p. 16.

⁵² [Id.](#) p. 17.

⁵³ Such NEI values were previously developed by DNV GL for PacifiCorp's 2021 Nonenergy Impacts Final Report.

⁵⁴ See 2023 CPA [Appendix E – WA Non-energy Impact Mapping](#), March 2023.

⁵⁵ WA DR program options, 2023 CPA [Appendix J – Demand Response Detailed Results](#), March 2023.

⁵⁶ [Pacific Power & Light Company 2017 IRP Staff comments attachment](#), Docket UE-160353, p. 8 (May 7, 2018).

⁵⁷ See PacifiCorp 2023 IRP Progress Report, pp. 298-299.

⁵⁸ WA DR impacts, 2023 CPA [Appendix I – Demand Response Detailed Assumptions](#), March 2023.

Resource Costs

Updated resource costs comprise the third compulsory area of a two-year electric IRP progress report.⁵⁹ The updated resource costs used in PacifiCorp's 2023 IRP Progress Report reflect two themes: 1) inflationary and/or supply chain pressures escalating resource costs and 2) mitigation of clean energy cost pressures attributed to the passage of recent federal legislation.

Since its 2021 IRP, PacifiCorp notes supply chain disruptions due, in part, to the Coronavirus pandemic and ongoing Russia-Ukraine conflict have resulted in unstable resource costs, characterized by sudden and significant price increases. Supply chain pressures have particularly impacted renewable energy development, with the cost of solar photovoltaic modules, wind turbines, batteries and balance of plant equipment increasing in 2022, deviating from the downward cost trend of the past several years.⁶⁰ Balancing out these renewable energy supply chain inflationary pressures are the cost containment impacts of notable Federal legislation passed during 2021 and 2022, namely the Infrastructure Investment and Jobs Act (IIJA) and the Federal Inflation Reduction Act (IRA). The net effects of these bills include newly structured and extended legacy technology-specific and technology-neutral tax credits for electric generating facilities, energy storage technology, carbon capture use and sequestration, nuclear technologies, and hydrogen production. Tax credits feature the following:

- Extension of wind, geothermal, and solar investment, and production tax credits through 2032.
- Establishment of new tax credits for clean (i.e., green) hydrogen, microgrids, electric vehicle purchases, existing nuclear generation, and the domestic manufacture of solar, wind, and battery components.
- Institution of a new technology-neutral, zero emission generation tax credit in 2025.⁶¹

Comparison of clean energy technology types across consecutive PacifiCorp resource plans yields a mixed-cost picture as illustrated in Table 2.

⁵⁹ Per [WAC 480-100-625\(4\)\(a\)\(iii\)](#).

⁶⁰ See PacifiCorp 2023 IRP Progress Report, p. 171.

⁶¹ Id., p. 57.

Table 2 – Cost of Energy Comparison for Select Clean Technologies in PacifiCorp's 2023 IRP progress report⁶² versus 2021 IRP⁶³

| Resource description | 2021 levelized cost (\$/MWh) | 2023 levelized cost (\$/MWh) | 2023 vs. 2021 percent change |
|-------------------------------|------------------------------|------------------------------|------------------------------|
| Li-Ion Battery (4-hr, 200 MW) | \$153.19 | \$132.32 | (13.6%) |
| Yakima WA (solar, 200 MW) | \$42.80 | \$39.59 | (7.5%) |
| Goldendale, WA (wind, 200 MW) | \$28.99 | \$33.89 | 16.9% |
| Small modular reactor | \$70.84 | \$62.05 | (12.4%) |

The cost mitigation factors afforded by Federal clean energy policy in the form of expanded and extended investment and production tax credits helped drive lower lifecycle (i.e., levelized cost of energy) totals for utility-scale battery, solar, and (as yet untested) small modular nuclear reactors in PacifiCorp's 2023 IRP Progress Report portfolio. In contrast, supply chain induced inflationary pressures imparted a modest increase for utility-scale wind between the Company's 2021 and 2023 plans. Further, thermal resources, namely PacifiCorp's fleet of natural gas plants, have seen marked increases in the levelized cost of energy, primarily driven by rising natural gas fuel prices, as shown in Table 3.

Table 3 – Cost of Energy Comparison for Select Thermal Technologies in PacifiCorp's 2023 IRP progress report⁶⁴ versus 2021 IRP⁶⁵

| Resource description | 2021 levelized cost (\$/MWh) | 2023 levelized cost (\$/MWh) | 2023 vs. 2021 percent change |
|-------------------------|------------------------------|------------------------------|------------------------------|
| SCCT Aero ^a | \$85.32 | \$97.72 | 14.5% |
| SCCT Frame ^b | \$74.44 | \$78.36 | 5.3% |
| CCCT Dry ^c | \$38.41 | \$49.84 | 29.8% |

^a **Simple combined cycle turbine (SCCT) aero** - a resource based on General Electric simple cycle aero-derivative combustion turbines fueled on natural gas.

^b **Simple combined cycle turbine (SCCT) frame** - a resource based on one General Electric 7HA.02 simple cycle frame type combustion turbine fueled by natural gas.

⁶² PacifiCorp 2023 IRP Progress Report, pp. 184-186 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

⁶³ PacifiCorp 2021 IRP, pp. 181-185 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

⁶⁴ PacifiCorp 2023 IRP Progress Report, pp. 184-186 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

⁶⁵ PacifiCorp 2021 IRP, pp. 181-185 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

° **Combined cycle combustion turbine (CCCT) dry** - a combined cycle resource based on one frame-type General Electric 7HA.02 combustion turbine (air-cooled), one 3-pressure heat recovery steam generator, and one steam turbine.

Federal policy changes since PacifiCorp's 2021 IRP (i.e., IJA, IRA) did not provide similar cost containment for thermal resources in the form of investment and/or production tax credits. Hence, PacifiCorp modeled its gas fleet with a cost increase ranging from five to nearly 30 percent, depending on the specific plant type, between the Company's 2021 IRP and 2023 IRP Progress Report. As detailed in the next section of these comments, PacifiCorp's 2023 IRP Progress Report's preferred portfolio reflects the enhanced financial attractiveness of clean energy resources when compared to traditional thermal options.

PacifiCorp acknowledges uncertainty remains an issue with regard to its resource costs informing the Company's 2023 IRP Progress Report, largely because of the complexity and voluminous nature of the Federal IRA. PacifiCorp acknowledges that the IRA is a comprehensive set of clean energy legislation, substantive details of which are still being fleshed out in the form of regulations and other guidance.⁶⁶ Furthermore, key implementation measures remain forthcoming, such as the U.S. Treasury Department's implementation of the IRA's clean energy tax credit provisions, which will address the allocation of bonus credits, the eligibility of certain credits to certain technologies, and other key issues.⁶⁷

Due to this current uncertainty, for its **2025 IRP, Staff makes the following resource cost recommendations.** PacifiCorp should:

- Refine its cost modeling, based on forthcoming Federal IRA implementation guidance, to identify the most likely tax treatment of select candidate resources and/or combinations of resources.
- Clearly delineate in its 2025 IRP supply-side resource table the Company's preferred costing of select resources, and/or combinations of resources, based on the most likely tax treatment.
 - Staff observes the existing "credits" column in PacifiCorp's 2023 IRP Progress Report supply-side resource table is unclear.⁶⁸
 - Namely, the methodology for *how* such quantitative credits is calculated and applied to a given resource's levelized cost of energy is unclear and not adequately detailed in any supporting workpapers.
- Include full accounting for the impacts of the IRA in PacifiCorp's 2025 IRP including time in the work plan for discussion with advisory group(s).

⁶⁶ PacifiCorp 2023 IRP Progress Report pp.57.

⁶⁷ PacifiCorp 2023 IRP Progress Report, pp. 362.

⁶⁸ See "Credits" column in PacifiCorp 2023 IRP Progress Report, pp. 184-186 (Total Resource Cost for Supply-side Resource Options, Table 7.2).

Portfolio Analysis and Preferred Portfolio

Portfolio analysis, namely, modeling, is central to a utility’s resource planning because the IRP’s selected or preferred portfolio (PP) is essentially a numerical solution for how the Company will keep the lights on in the short- and long-term, addressing resource need and balancing supply and demand, given a host of constraints.⁶⁹ In determining this IRP solution, the Company and interested parties must examine a range of forecasts and analyses when identifying options for how to meet customer demand, compare these options, and ultimately decide what resources to build or acquire.⁷⁰

On a six-state, system level, PacifiCorp’s 2023 IRP Progress Report PP accelerates a trend observed in the Company’s 2021 IRP of transitioning from legacy, utility scale thermal resources (i.e., coal, natural gas) to clean energy alternatives (e.g., solar, wind, battery storage) over the 20-year planning horizon (i.e., 2023 – 2042). PacifiCorp’s 2023 PP reflects acquisitions made during the Company’s recent 2020 All-source request for proposals, including 1,792 MW of wind, and 495 MW of solar additions with 200 MW of battery storage capacity, all expected to come online in the 2024-to-2025 timeframe.⁷¹ Figure 1 and Table 4 reflect PacifiCorp’s changing resource mix and highlight cumulative resource type acquisition differences between the Company’s 2023 versus 2021 PPs, respectively.

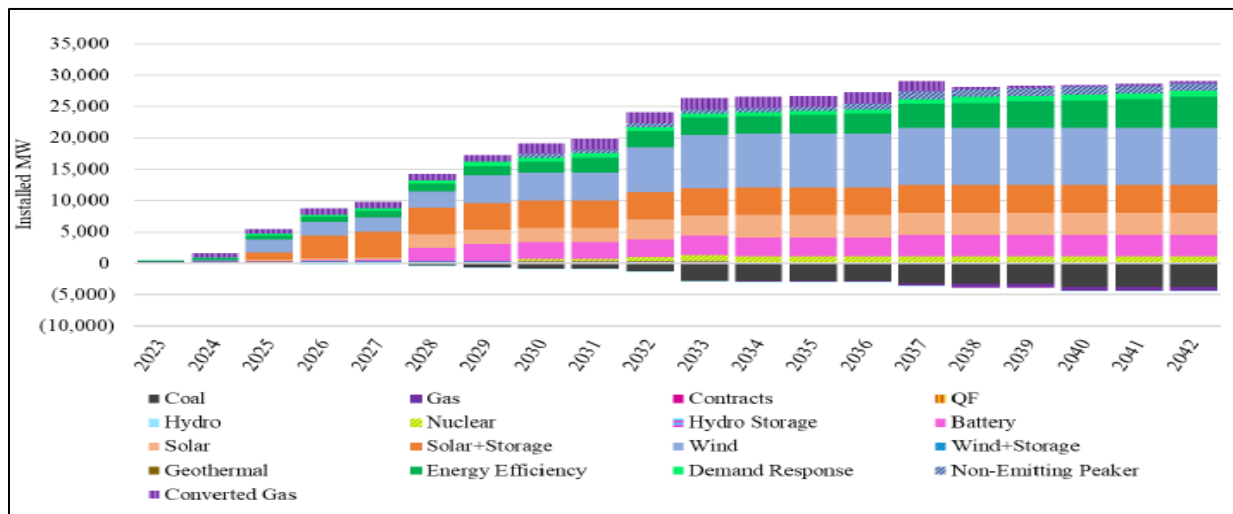


Figure 1. PacifiCorp’s 2023 IRP Progress Report PP (all resources)⁷²

⁶⁹ [RCW 19.280.030](#)(1).

⁷⁰ [WAC 480-100-620](#)(11).

⁷¹ PacifiCorp 2023 IRP Progress Report, p. 10.

⁷² Id., p. 11 (Figure 1.2). Note: Negative installed MW equate to resource retirements.

Table 4 – Cumulative acquisition differences by select resource type in PacifiCorp's 2023 IRP progress report⁷³ versus 2021 IRP⁷⁴

| Resource description | 2021 IRP cumulative acquisition, 2021-40 (MW) | 2023 IRP cumulative acquisition, 2023-42 (MW) | 2023 vs. 2021 percent change |
|------------------------------------|---|---|------------------------------|
| Wind | 3,628 | 9,111 | 151% |
| Utility Scale Storage ^d | 6,181 | 8,095 | 31% |
| Solar ^e | 5,628 | 7,855 | 40% |
| Energy efficiency | 4,290 | 4,953 | 15% |
| Demand response ^f | 2,448 | 929 | (62%) |
| Advanced nuclear ^g | 500 MW in 2028, add'l 1,000 MW by 2040 | 500 MW in 2030, add'l 1,000 MW by 2040 | 0% |

^d Includes batteries co-located with solar generation, standalone batteries and pumped hydro storage resources.

^e New solar resources will mostly be paired with battery storage.

^f PacifiCorp refers to capacity saved from DR as direct load control programs.

^g Advanced nuclear refers to PacifiCorp's NatriumTM reactor demonstration project.

Staff briefly addresses the observed decline in demand response, which is a notable outlier compared to the other clean energy resources generally boasting double digit (or higher) percentage gains between the Company's 2021 and 2023 plans. PacifiCorp claims the *apparent* quick decline in new DR capacity savings between its consecutive plans is primarily due to more rigorous accounting and distinguishing of DR measures within PacifiCorp's broader DSM potential. Within PacifiCorp's 2021 IRP, greater overlap (i.e., potential double counting) existed associated with forecast savings from separate DR resources. Such DR savings double counting has been eliminated in both PacifiCorp's 2023 CPA and its incorporation within the Company's 2023 preferred portfolio.⁷⁵

Of resources featured in PacifiCorp's 2023 IRP Progress Report preferred portfolio, Staff continues to express concern regarding the Company's natrium reactor demonstration project. Staff first identified natrium as a potential item of concern, given this advanced nuclear technology remains untested, when critiquing PacifiCorp's 2021 CEIP.⁷⁶ Compared to PacifiCorp's 2021 IRP, Natrium's activation has been pushed back two years due to various

⁷³ PacifiCorp 2023 IRP Progress Report, p. 2.

⁷⁴ PacifiCorp 2021 IRP, pp. 2-3.

⁷⁵ PacifiCorp 2023 IRP Progress Report, p. 299.

⁷⁶ See [Staff's Comments Regarding PacifiCorp's Final Clean Energy Implementation Plan](#), p. 4.

Submitted in Compliance with RCWs 19.405 and WACs 480-100-640 through -665 and Under Consolidated Dockets UE-191023 and UE-190698, Order R-601 (PacifiCorp CEIP Staff Comments) (May 6, 2022).

regulatory delays (e.g., Nuclear Regulatory Commission permitting) (*see* Table 3). While Staff supports delaying the start date of this still untested technology, Staff maintains only a two-year delay remains overly optimistic. PacifiCorp proposing such a novel technology to serve as a core component of its preferred portfolio in just seven years' time *may* jeopardize the reliability and resource adequacy requirements the Company must meet.⁷⁷ As such Staff encourages PacifiCorp to re-visit the reasonableness of its portfolio development process to understand portfolio implications and permitting requirements if Natrium does not come online by 2030 (*see* section recommendations).

Staff highlights other modeling shortfalls that continue in the current plan. Staff contends PacifiCorp approached modeling the social cost of greenhouse gas emissions (SCGHG) in its 2023 IRP Progress Report the same way the Company addressed this requirement in its 2021 IRP. In both plans PacifiCorp used four different CO2 price scenarios⁷⁸ – zero, medium, high, and a price forecast that aligns with the SCGHG, as required by CETA.⁷⁹ Staff asserts, while the Company *considered* resource selection under the SCGHG price scenario, PacifiCorp clearly states its 2023 IRP Progress Report PP, referred to as P-MM, assumes a medium CO2 price proxy for future carbon emissions policy.⁸⁰ Despite this incongruity, the Company maintains that its 2023 IRP Progress Report PP complies with CETA requirements. Staff respectfully maintains that a plain reading of the law requires “an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options.”⁸¹ **As was the case during PacifiCorp's 2021 IRP cycle, Staff once again concludes that, despite repeated guidance provided to the Company, PacifiCorp's lowest reasonable cost portfolio fails to comply with statute,⁸² rule,⁸³ and order.⁸⁴**

Staff and Commission guidance provided in PacifiCorp's various post-CETA planning dockets⁸⁵ sufficiently elaborates how the Company continues to miss the mark in terms of the SCGHG modeling requirement. However, Staff closes this critique briefly addressing the consequences of PacifiCorp not following Commission guidance regarding SCGHG modeling. Staff references PacifiCorp's own analyses, namely that applying a substantially lower carbon price (i.e., medium CO2 price versus SCGHG) and delaying application of this cost adder,⁸⁶ yields substantively

⁷⁷ Per [WAC 480-100-620\(11\)\(f\)](#).

⁷⁸ PacifiCorp 2023 IRP Progress Report, p. 227.

⁷⁹ [Social Cost of Carbon](#), WA Utilities and Transportation Commission, accessed April 18, 2023.

⁸⁰ PacifiCorp 2023 IRP Progress Report, p. 227.

⁸¹ [RCW 19.280.030\(3\)\(a\)\(iii\)](#). Emphasis added.

⁸² *Id.*

⁸³ [WAC 480-100-620\(11\)\(j\)](#).

⁸⁴ CETA Rulemaking Order at 47-48, ¶¶ 129, 132.

⁸⁵ See [UE-200420](#) (PacifiCorp 2021 IRP, PacifiCorp 2023 IRP Progress Report); [UE-210829](#) (PacifiCorp 2021 CEIP); [UE-220376](#) (Staff's SCGHG Complaint Against PacifiCorp).

⁸⁶ The SCGHG price curve is non-zero at the beginning of PacifiCorp's 2023 IRP Progress Report time horizon (i.e., 2023) whereas the medium CO2 price begins in 2025. PacifiCorp 2023 IRP Progress Report, p. 227.

different portfolio resource selection. PacifiCorp acknowledges such differences in carbon pricing result in variations in both DSM resources and traditional utility supply-side resources, beginning in 2025 and diverging through the end of PacifiCorp's 2023 IRP Progress Report time horizon (i.e., 2042).⁸⁷ Lastly, and perhaps most significantly, Staff concludes that PacifiCorp's failure to incorporate the SCGHG when selecting resource options calls into question whether the Company's 2023 IRP Progress Report solution meets lowest reasonable cost criteria.⁸⁸ PacifiCorp illustrates that when its 2023 IRP Progress Report PP (i.e., P-MM) is run under the SCGHG price policy, the Company's PP "performs less efficiently, resulting in a [present value rate of return] of \$58.24 billion, which is almost \$3 billion more expensive than W-10"⁸⁹ (i.e., PacifiCorp's Washington CETA portfolio).

PacifiCorp's modeling continues to fall short beyond the Company's treatment of the SCGHG. A disconnect remains between PacifiCorp's resource optimization between 2023 through 2042, and how the Company models the final three-year period (i.e., 2043 to 2045). As was the case with the Company's 2021 IRP, PacifiCorp's 2023 IRP Progress Report only covers a twenty-year time horizon (i.e., 2023 – 2042). PacifiCorp fully admits "the last three years to reach the 2045 [100 percent clean electricity standard] are beyond the Company's current 20-year study period." To model the 2045 standard the Company continues to, "extrapolate the last three years of data based on the already optimized and established trajectory."⁹⁰ Staff interprets this explanation as PacifiCorp simply "extending the line" to 2045. PacifiCorp's decision to optimize a resource portfolio through 2042 and not 2045 stands in marked contrast to the modeling decisions and underlying analytics that inform both Avista Corporation's⁹¹ (Avista) and Puget Sound Energy's⁹² (PSE) 2023 IRP progress report portfolio optimizations.

For its **2025 IRP**, Staff makes the following portfolio analyses recommendations. PacifiCorp should develop a preferred portfolio that:

- Removes or (at minimum) delays the Natrium demonstration project from inclusion in 2030 and instead considers procurement of additional renewable and energy storage resources (including DER projects). Staff notes:
 - An adjusted preferred portfolio could resemble the "No-NUC" scenario in the

⁸⁷ PacifiCorp compares its 2023 IRP Progress Report PP (i.e., P-MM) to its Washington CETA portfolio (i.e., W-10 CETA). PacifiCorp 2023 IRP Progress Report, pp. 317 – 319, *emphasizing* Figure 9.60.

⁸⁸ Pursuant to [RCW 19.280.030\(1\)\(j\)](#) and per [WAC 480-100-620\(11\)\(a\)](#).

⁸⁹ PacifiCorp 2023 IRP Progress Report, pp. 339. Emphasis added.

⁹⁰ PacifiCorp 2023 IRP Progress Report Volume II, Appendix O, PDF p. 407.

⁹¹ *In re Avista Corporation's 2023 Electric Integrated Resource Plan Progress Report*, Docket UE-200301 (Avista 2023 IRP Progress Report) (filed January 3, 2023), workpaper "200301-PRiSM_8.0_Expected Case_120622_PRS.xlsx," "Selection Summary" tab.

⁹² *In re Puget Sound Energy's 2023 Electric Integrated Resource Plan Progress Report*, Docket UE-200304 (PSE 2023 IRP Progress Report) (filed March 31, 2023), workpaper "200304-App_I_Output_Portfolio Output Summary.xlsx," "Data" tabs.

2023 IRP Progress Report (i.e., P05-No NUC), which showed the Company could replace Natrium with 895 MWs of non-emitting peaking resources and 400 MW of battery storage during the early 2030s timeframe at a slightly higher, risk-adjusted cost.⁹³

- Incorporate the social cost of greenhouse gas emissions as a cost adder when evaluating and selecting intermediate term and long-term supply resource options.⁹⁴ Staff notes:
 - If PacifiCorp continues to follow a six-state (i.e., system-wide) resource planning approach, the Company must apply the SCGHG cost adder to WA supply resources (i.e., utility-scale thermal and clean resources) in addition to WA DSM resources, as the Company did in its 2021 and 2023 plans.
- Addresses all WA clean energy targets out to 2045 via a consistent lowest reasonable cost optimization methodology.

Changing Federal and State Requirements, Economic, and/or Market Forces

The impacts of changing Federal and Washington requirements as well as economic or market force dynamics on a utility's planning comprise the fifth required component of an electric IOU's two-year progress report.⁹⁵ Staff previously critiqued PacifiCorp's handling of the impacts of significant federal legislation (i.e., IJJA, IRA) and supply-chain inflationary pressures within the Resource Costs section of these comments. This section stresses pending impacts of the Federal Ozone Transport Rule (OTR) and Washington's landmark Climate Commitment Act (CCA).

The Environmental Protection Agency (EPA) formally proposed the Ozone Transport Rule on April 6, 2022, and finalized the rule on March 15, 2023, pending publication in the Federal Register. This new rule is focused on the reduction of nitrogen oxides (NOx), precursors to ozone formation, and has been proposed to cover 22 states including, for the first time, western states, Utah, Nevada, and California. EPA has deferred a decision on Wyoming until December 2023.⁹⁶

As the EPA's decision whether or not to require OTR compliance in Wyoming remains pending as of the filing of PacifiCorp's 2023 progress report, the Company's 2023 preferred portfolio conservatively included OTR environmental compliance costs in the operation of its Wyoming thermal assets.⁹⁷ This modeling decision by PacifiCorp is material to Washington as the Jim Bridger coal plant, which will be converted to natural gas, is currently in Washington rates.⁹⁸

⁹³ PacifiCorp 2023 IRP Progress Report, pp. 270-276.

⁹⁴ [RCW 19.280.030\(3\)\(a\)\(iii\)](#). Emphasis added.

⁹⁵ *Per* [WAC 480-100-625\(4\)\(b\)](#).

⁹⁶ PacifiCorp 2023 IRP Progress Report, p. 39.

⁹⁷ *See Wash. Utils. & Transp. Comm'n v. PacifiCorp*, Docket [UE-230172](#) (PacifiCorp 2023 General Rate Case).

⁹⁸ *See Wash. Utils. & Transp. Comm'n v. PacifiCorp*, Docket [UE-230172](#) (PacifiCorp 2023 General Rate Case).

PacifiCorp conducted a 2023 IRP Progress Report modeling scenario where its Wyoming thermal assets were not subject to OTR compliance obligations (i.e., P09-No WY OTR). This scenario proved to have a \$630 million lower cost than the Company's 2023 PP over the twenty-year resource planning horizon (2023 – 2042).⁹⁹ Hence, whether the OTR will ultimately apply to Wyoming appears to have significant cost-effectiveness implications for PacifiCorp resources currently serving Washington load.

Staff views PacifiCorp's consideration of Washington's Climate Commitment Act (CCA) in its 2023 IRP Progress Report as generalized.¹⁰⁰ PacifiCorp simply states all of its 2023 IRP Progress Report scenarios, including its preferred portfolio, apply an allowance cost to the Chehalis natural gas plant (i.e., PacifiCorp's sole thermal resource located within Washington).¹⁰¹ Staff maintains treating the CCA allowance cost as a carbon tax applied "across the board" ignores important cost containment provisions built into the Washington Department of Ecology's CCA rules.¹⁰² Namely, the CCA rules allocate no cost allowances to cover electric utilities' thermal generation originating within Washington that serves Washington load, as those utilities are subject to the Washington Clean Energy Transformation Act.¹⁰³

To better reflect new Federal and Washington policy impacts in its **2025 IRP**, Staff makes the following modeling-focused recommendations. PacifiCorp should:

- Update its portfolio analysis and PP to reflect the EPA's ultimate inclusion, or exclusion, of the Company's Wyoming thermal resources for OTR environmental compliance. If the OTR subsequently does not cover Wyoming, Staff would expect the lifecycle costs of select PacifiCorp thermal resources currently serving Washington load (i.e., Jim Bridger) would *decrease*.
- More accurately model the resource allocation characteristics of PacifiCorp's Chehalis natural gas plant. Namely, if all or most of Chehalis's generation serves Washington load, Staff would expect the associated CCA compliance (i.e., carbon allowance) costs to significantly decrease.

Equity and Transparency

While not plainly required per rule, Staff wish to comment briefly on the equity considerations of PacifiCorp's 2023 IRP Progress Report, considering recent Commission activity. To advance a pro-equity anti-racist (PEAR) landscape in Washington, the Commission has made clear that the advancement of energy justice principles should transcend all of its activities as well as the

⁹⁹ PacifiCorp 2023 IRP Progress Report, p. 276.

¹⁰⁰ Id., pp. 39, 73.

¹⁰¹ Id., p. 227. The modeled allowance cost starts at \$58/ton in 2023 and was commissioned by the WA Department of Ecology as part of its CCA Regulatory Impact Analysis for [WAC 173-446](#).

¹⁰² [WAC 173-446-230](#):

¹⁰³ Per [WAC 173-446-230](#)(1).

purview of its regulated companies. To date, the Commission has circulated such guidance via general rate case (GRC) and/or CEIP orders. Staff acknowledges no Company-specific orders in these realms yet apply to PacifiCorp.¹⁰⁴ For this reason, Staff initially describes equity considerations in the form of data disclosure and transparency requirements that have already been communicated to PacifiCorp planning team(s).

As part of its planning reviews, Staff prioritizes evaluating whether electric IOUs have made available underlying data and assumptions in an easily accessible format that would enable the “Commission, Staff, and other parties...to understand why the [companies] took the actions [they] did.”¹⁰⁵ While Staff observes PacifiCorp making marginal progress on this front since the inaugural CETA planning cycle in 2021, Staff believes the Company continues to fall short on this issue in two important ways.

As part of its 2023 IRP Progress Report, PacifiCorp does include, as confidential support files, spreadsheet workbooks derived from the Company's 2023 IRP PLEXOS results supporting its PP through 2042 (not 2045).¹⁰⁶ However, in general, these filenames are not intuitive, include an abundance of hard coded (i.e., value pasted) data, and lack supporting metadata (e.g., master indexes) that would greatly facilitate examination of these Company supplied data. Staff notes even PacifiCorp's March 31, 2023, filed IRP Progress Report narrative lacks a table of contents. Second, “the utility should minimize its designation of information in the IRP as confidential.” In general, PacifiCorp *entirely redacted* its 2023 IRP Progress Report workpapers filed with confidential designations rather than selectively blacking out only the information that is truly proprietary.¹⁰⁷

A core tenet of energy justice is the opportunity for interested parties, especially those who have been historically marginalized, to participate in and have meaningful impact on decision-making processes.¹⁰⁸ Staff contends that for a wide spectrum of participants to contribute meaningfully to a utility's resource planning, those parties need to be able to access and understand the analytical data that informs such decision-making.

Staff closes this equity discussion highlighting the Commission's final order in Avista Corporation's 2022 GRC. The order stresses the importance of addressing equity in all public interest considerations. Staff believes that the imperatives outlined in this order are highly relevant to the work and analysis contained in integrated resource planning:

¹⁰⁴ As of the filing of these Staff comments, PacifiCorp's 2023 WA GRC (UE-230172) and 2021 CEIP (UE-210829) remain ongoing.

¹⁰⁵ CETA Rulemaking Order at 60, ¶¶ 172-173.

¹⁰⁶ Reference PacifiCorp's 2023 IRP Progress Report workpapers (filed April 17, 2023) in [UE-200420](#).

¹⁰⁷ Per [WAC 480-07-160\(5\)\(c\)\(iii\)](#).

¹⁰⁸ *In Washington Utilities and Transportation Commission versus Cascade Natural Gas Corporation*, Docket UG-210755, Final Order 09, at 18, ¶ 56 (2021 Cascade GRC Final Order) (Aug. 23, 2022).

Recognizing that no action is equity-neutral, regulated companies should inquire whether each proposed modification to their rates, practices, or operations corrects or perpetuates inequities.

[Avista] processes or procedures...should consider and implement energy justice and its core tenets. The core tenets of energy justice are:

- *Distributional justice, which refers to the distribution of benefits and burdens across populations. This objective aims to ensure that marginalized and vulnerable populations do not receive an inordinate share of the burdens or are denied access to benefits.*
- *Procedural justice, which focuses on inclusive decision-making processes and seeks to ensure that proceedings are fair, equitable, and inclusive for participants, recognizing that marginalized and vulnerable populations have been excluded from decision-making processes historically.*
- *Recognition justice, which requires an understanding of historic and ongoing inequalities and prescribes efforts that seek to reconcile these inequalities.*
- *Restorative justice, which is using regulatory government organizations or other interventions to disrupt and address distributional, recognition, or procedural injustices, and to correct them through laws, rules, policies, orders, and practices.¹⁰⁹*

Additionally, linking equity and planning, the Commission found that:

The issue of equity, broadly, and the need to consider distributional equity in planning processes affects all utility companies regulated by the Commission. The development of a plan for distributional equity requires input, collaboration, and buy-in from persons and parties not included or represented in Avista's general rate case. Lastly, the importance of this work demands a shared burden of responsibilities and a process that shares and allocates power inclusively. For the above reasons, the Commission...will facilitate a broader Commission-led collaborative involving all regulated utilities and interested persons.¹¹⁰

Therefore, to better reflect **equity mandates as they relate to electric resource planning** in Washington, in its **2025 IRP, Staff makes the following recommendations**. PacifiCorp should:

- Provide all data input files to the Commission in native format with appropriate context (e.g., assumptions made by the Company) as appendices or attachments to the final filing or via accompanying data disk(s). Staff emphasizes:
 - Data made available in this accessible manner will facilitate understanding of *why* PacifiCorp took the actions it did and assist in the independent review of such actions.¹¹¹
 - PacifiCorp must make a good faith effort to minimize the amount of data

¹⁰⁹ *Wash. Utils. & Transp. Comm'n v. Avista Corp.*, Dockets UE-220053, UG-220054, UE-210854 (Consolidated), Final Order 10/04, ¶¶ 73-74 (December 12, 2022).

¹¹⁰ *Id.*, ¶ 77. Emphasis added.

¹¹¹ CETA Rulemaking Order at 60, ¶ 173.

designated confidential in meeting this recommendation.

- Ensure supporting data is easily accessible to interested parties by including contextual aids with the given information. At minimum, the Company should organize its final IRP deliverable by including a master table of contents, readme files, and categorically grouping related data.
- Participate fully in equity-related collaboratives.
- Thoroughly review all forthcoming Commission orders in relevant PacifiCorp adjudicated dockets (i.e., 2023 GRC, UE-230172; 2021 CEIP, and UE-210829) as they pertain to PEAR and implement corresponding imperatives.

Summary of Public Comments

As of the date of this filing, there are no interested parties or persons comments submitted in the docket.¹¹²

¹¹² 09/14/2023.