ITEM NO. 1

PUBLIC UTILITY COMMISSION OF OREGON
REDACTED STAFF REPORT
SPECIAL PUBLIC MEETING DATE: AUGUST 8, 2024

REGULAR __X__ **CONSENT** ____ **EFFECTIVE DATE** __________N/A__________

DATE: August 1, 2024

TO: Public Utility Commission

FROM: JP Batmale and Will Mulhern

THROUGH: Kim Herb **SIGNED**

SUBJECT: PACIFICORP:
Docket No. LC 82
Determination of Continual Progress in the 2023 Integrated Resource Plan and Clean Energy Plan.

STAFF RECOMMENDATIONS:

Determine that PacifiCorp has not demonstrated continual progress on the actions that will result in projected emission reductions. As remedies, PacifiCorp should be ordered to include an executable action plan in the 2025 CEP and immediately open a new RFP docket with the goal of launching an RFP commensurate with the April 2025 IRP/CEP. In addition to these actions to remedy PacifiCorp's lack of continual progress on the actions to meet HB 2021's emission reduction targets, PacifiCorp should also be ordered to include in the April 2025 IRP/CEP a small-scale renewable resource acquisition strategy that includes timelines.

DISCUSSION:

Issue

Whether the Public Utility Commission of Oregon (PUC or Commission) should acknowledge PacifiCorp's IRP with or without conditions, acknowledge specific portions of the IRP, with or without conditions, or decline to acknowledge the IRP.

Whether the Commission should acknowledge PGE's CEP or decline to acknowledge the CEP and direct the Company to revise and resubmit certain portions of the plan.

Whether the Commission should direct PGE to take any additional actions prior to filing its next IRP or IRP Update or CEP.

Applicable Law

The IRP Guidelines found in Order Nos. 07-002 (corrected by 07-047) and 08-339 clarify the procedural steps and substantive analysis required of Oregon's regulated utilities before the Commission considers acknowledgement of a utility's resource plan.[1] These orders are incorporated in OAR 860-027-0400(2), which requires any IRP to satisfy their requirements.

The utility's IRP should satisfy the IRP Guidelines and Commission rules for its determination of future long-term resource needs, its analysis of the expected costs and associated risks of the alternatives reviewed to meet its future resource needs, and its near-term Action Plan to achieve the IRP goal of selecting the "portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers."[2] This is often referred to as the "least cost/least risk portfolio."

The Commission reviews the utility's plan for adherence to the procedural and substantive IRP Guidelines and generally acknowledges the overall plan if it is reasonably based on the information available at the time.[3] However, the Commission explains: "We may also decline to acknowledge specific action items if we question whether the utility's proposed resource decision presents the least cost and risk option for its customers."[4] The Commission may also provide direction on additional analysis or actions for the next IRP or IRP Update.[5]

In 2021, the legislature passed Oregon House Bill (HB) 2021, codified as ORS 469A.400 to 469A.475, which requires the state's large investor-owned electric utilities (IOUs) and electricity service suppliers (ESSs) to decarbonize their retail electricity sales with consideration for direct benefits to local communities.

---

[1] Order Nos. 07-002 and 07-047. Additional refinements to the process have been adopted: See Order No. 08-339 (IRP Guideline 8 was later refined to specify how utilities should treat carbon dioxide (CO2) risk in their IRP analysis); Order No. 12-013 (guideline added directing utilities to evaluate their need and supply of flexible capacity in IRP filings).
[2] Order No. 07-002 at 1-2.
[3] *Id.* at 1.
[4] *Id.*
[5] OAR 860-027-0400(7), (10).

ORS 469A.415 requires large electric IOUs to, "develop a clean energy plan for meeting the clean energy targets set forth in ORS 469A.410 concurrent with the development of each integrated resource plan," and file the plan with the Commission and Oregon Department of Environmental Quality (DEQ).

ORS 469A.420 outlines the requirements and considerations for the Commission to acknowledge the CEP "…if the commission finds the plan to be in the public interest and consistent with the clean energy targets...."

In addition, ORS 469A.415(6) requires the Commission to ensure that the utilities demonstrate continual progress within the CEP planning period toward meeting the clean energy targets and are taking actions as soon as practicable to reduce emissions at reasonable cost to retail electricity consumers.

Additional requirements for the filing, review, and update of IRPs and CEPs are provided in OAR 860-027-0400.

<u>Analysis</u>

Background
PacifiCorp submitted its 2023 IRP and CEP Update on April 1, 2024. This update followed a Commission decision on March 19, 2024, to acknowledge in part, and not acknowledge in part, PacifiCorp's 2023 IRP. The Commission did not acknowledge the Company's preferred portfolio or CEP and instead invited the Company "to present an IRP Update with revised actions that can serve as the foundation for a refiled CEP, which we will consider for acknowledgement and as a demonstration of continual progress."

The IRP Update and CEP Supplement reflects the impact of significant events that have occurred since the 2023 IRP was filed in May 2023. These events include a stay of the EPA's Ozone Transport Rule (OTR)—which increased the availability of coal generation in Wyoming and Utah—and a finding of liability in the 2020 wildfires. Based on these and other issues, the Company's cancelled the 2022 AS RFP and other plans to acquire new resources over the next few years. The 2022 AS RFP would have brought nearly two GW of new, non-emitting generation online by 2027.[6] The change to resources found in this IRP Update's preferred portfolio differs greatly from what was initially presented in the 2023 IRP.

---

[6] *In the Matter of PacifiCorp 2022 All-Source Request for Proposal,* Docket No. UM 2193, Independent Evaluator's Assessment of Final Draft 2022AS RFP, March 11, 2022, p. 1.

Additionally, in the 2023 IRP Update, the Company states it is not seeking acknowledgement of any actions from the Commission. With regards to the accompanying CEP Supplement PacifiCorp does not believe additional actions or proceedings are necessary at this time.[7] To this end, the Company states that the information presented in its CEP Supplement and the description of actions taken both before and after the passage of HB 2021 demonstrate continual progress. Staff's memo treats the IRP Update and CEP Supplement somewhat separately. We first tackle issues around the CEP Supplement and then provide observations on the IRP Update.

CEP Supplement
Overview

PacifiCorp was asked to use the April 2024 IRP Update to refile the accompanying CEP so as to demonstrate continual progress on the actions that will meet HB 2021's targets.[8] Specifically, the Company was asked to share a revised set of planning activities and near-term actions to demonstrate compliance. Thus, the April 2024 IRP Update and the accompanying CEP Supplement formed the basis for a deferred assessment of continual progress, in place of the originally filed IRP/CEP.[9]

PacifiCorp's filed CEP Supplement presented six, newly proposed levers that could close the Company's forecasted emissions gap.[10] The CEP Supplement did not provide a coordinated strategy around how to deploy these six levers in any sort of combination nor did it provide an understanding of the cost and risk tradeoffs of deploying them.

Staff's response comments described how PacifiCorp fell short. The IRP Update and CEP Supplement revealed an increased emissions trajectory and effectively promised a more comprehensive emission reduction plan in the 2025 IRP/CEP filing using some combination of the identified six compliance levers.

The sections below discuss the following related to PacifiCorp's HB 2021 compliance:

- The demonstration of continual progress and associated recommendations.
- Progress on Small Scale Renewable (SSR) requirement and associated recommendations.
- Other associated issues.

---

[7] LC 82, Oregon Planning Supplement, April 1, 2024, p. 1.
[8] LC 82, Order No. 24-073, p. 9.
[9] *Id.*
[10] See LC 82 CEP Supplement from April 1, 2024 or Staff's Comments from June 12, 2024 for a full description of the six proposed levers.

CEP Supplement: Continual Progress
Overview

In comments on PacifiCorp's recently filed IRP/CEP update, Staff found it challenging to establish the extent to which the Company had demonstrated continual progress on the actions that will result in the forecasted emission reductions to meet HB 2021's targets. This assessment was based on the lack of substantive details around potential near-term actions and the lack of an actual plan using the proposed levers that contained a robust weighing of the tradeoffs around costs, benefits, emissions reductions, and risks. Stakeholders agreed with Staff's assessment with several calling upon the Commission to open a proceeding that would require PacifiCorp to acquire new, non-emitting resources.

In response, PacifiCorp's Reply Comments reiterated the Company's position that it has demonstrated continual progress. PacifiCorp provided six pieces of evidence to support its position:

1) Year-over-year emissions reductions from 2019 to 2022.
2) The ongoing installation of new projects from the 2020 AS RFP (1,900 MW of renewables and 400 MW of storage).
3) Approximately 440 MW of bilateral contracts for energy storage.
4) Efforts to analyze and implement the CEP supplement's levers.
5) Further development of CBIs for the 2025 IRP CEP.
6) Introduction of a six-state preferred portfolio.

Based on this, the Company argued that the Commission had enough information to make a determination of continual progress and no further action was necessary.[11] To this end, PacifiCorp pushed against stakeholder calls for the Commission to open a proceeding that would force the Company to acquire resources. PacifiCorp argue that it is not appropriate for the Commission to do so[12] and that if the Commission were to embark on this path it should first identify a maximum cost per ton of emissions reduction to be used as a type of compliance adder in its 2025 IRP/CEP planning and any procurement efforts.[13]

With regards to a revised CEP that discussed how PacifiCorp would fill the forecasted gap from the IRP Update's revised preferred portfolio, PacifiCorp stated that the Company did not provide a comprehensive CEP compliance update for several reasons including

[11] *Ibid.* p. 6.
[12] *Ibid.* p. 14.
[13] *Ibid.*

uncertainty around "regulations and allocations" along with uncertainty about the HB 2021 cost cap.[14]

Additionally, the Company said that a single compliance strategy would be difficult, due to the numerous decisions necessary to for an overall strategy, "…the most cost-effective HB 2021 solution is likely to involve many types of actions, and the optimal mix of actions is likely to evolve over time as compliance requirements increase moving toward 2040, and as the mix of resources serving Oregon customers evolves."[15]

Staff Position on Continual Progress

In general, Staff supports the six activities cited above by PacifiCorp, along with the Company's ongoing DSM acquisition activities. However, Staff firmly believes these activities and accomplishments do not demonstrate continual progress toward the 2030 emissions reduction targets.

The 2023 IRP Update's greatly adjusted preferred portfolio, with the improved modeling, still leaves Oregon at ~52 percent emissions reduction by 2030 rather than the law's 80 percent target. This emissions gap amounts to an approximately 12,000 GWH energy shortfall, or approximately two to four GW of new nameplate capacity need, depending on how the calculation is done.

While Staff and stakeholders all expressed appreciation of PacifiCorp's recent emissions decrease and the installation of new, non-emitting resources from the 2020 AS RFP, it was noted that they were already baked into the mix. To this end, the observed emission reductions and new resources installed are due to planning prior to HB 2021 and further are not complemented by a strategy and forward-looking actions to close the forecasted emissions gap.

In terms of the breadth of the deficit PacifiCorp is facing with regard to non-emitting resources it is worth putting in perspective the timing and scope of PacifiCorp's most recent large scale resource acquisitions:

Table 1 – Recent PacifiCorp RFP Dockets

RFP Docket	Year Launched	Targeted COD of Selected Projects	MW of Resources
UM 2059	2020	2024 or 2025	1,792 MW of Wind 495 MW of Solar

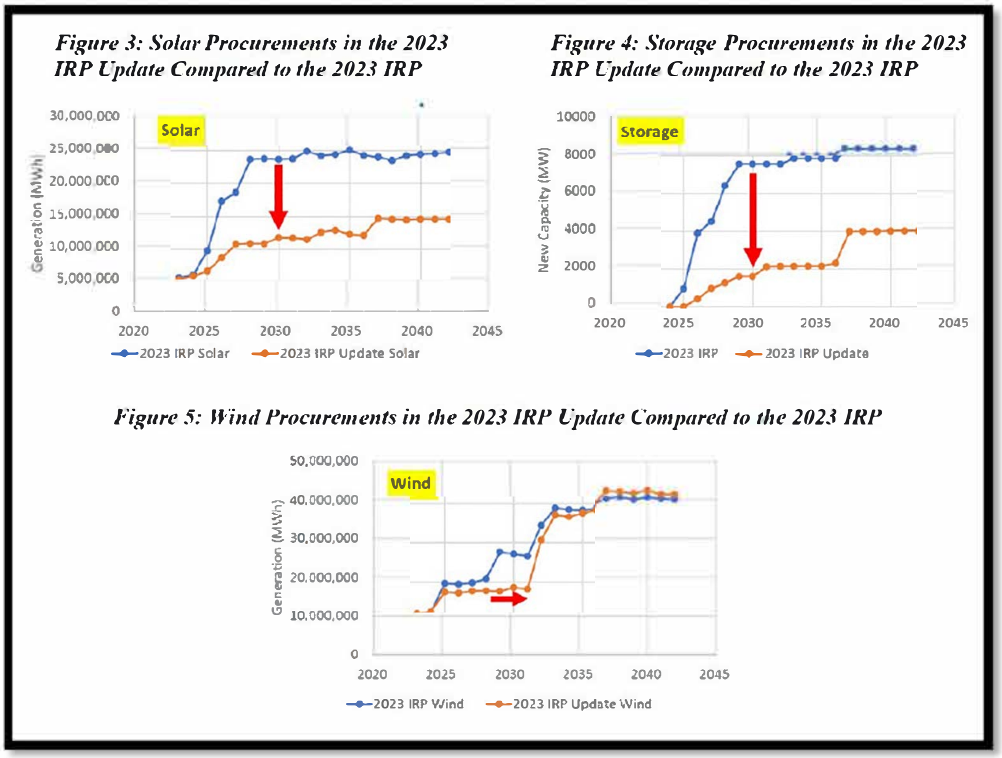
[14] LC 82, PacifiCorp Reply Comments, July 12, 2024, p. 11.
[15] *Ibid.* p. 10.

			1,211 of Solar + Storage 200 MW of Storage [16]
UM 2193	2022	2027 or earlier; 2028 for Long-Lead Time resources.	Up to… 1,345 MW of Wind & Solar collocated with 600 MW of storage [17]

While some actions are being taken by the Company now (e.g., bilateral contract negotiations for storage; discussions with DEQ on allowing QF power to count towards HB 2021 compliance), Staff and stakeholders have little insight into their scope, how they are coordinated with each other, their emission reduction impact, or these actions' relative costs and risks. It is instructive to see the scope of the changes by PacifiCorp between the 2023 IRP and 2023 IRP Update. These group of charts from the Joint Advocates visually captures the breadth of the changes.[18]

[16] LC 82, PacifiCorp 2023 IRP, May 31, 2023, p. 251.
[17] UM 2193, PacifiCorp 2022 All-Source RFP, January 14, 2022, p. 2. This RFP was eventually cancelled and no resources acquired to meet the resource need.
[18] LC 82, Joint Advocates Comments on PacifiCorp's 2023 Integrated Resource Plan Update And Clean Energy Plan Supplement, June 14, 2024, page 6.

Figure 1 – Projected procurement changes between the 2023 IRP and 2023 IRP Update



As stated by Staff and other stakeholders, the Company effectively has no Clean Energy Plan in place to reduce emissions beyond "business as usual," a looming non-emitting resource hole to fill in five years, no commitment to either launch a large-scale procurement to address the impending shortfall, and no description of how it plans to convince six states to adopt a reallocation of existing and proposed new resources to Oregon to meet HB 2021. Further, the Commission and stakeholders must wait until April 2025 to receive a new CEP which, like the 2023 CEP and CEP Supplement in 2024, may only contain options to consider.

In its previous comments Staff noted that PacifiCorp is planning to allocate financial resources, despite being capital constrained due to the wildfire litigation. Specifically, PacifiCorp:

- Seeks to deploy nearly 800 MW of battery storage by 2026, via bilateral contracts, to address a near-term capacity shortfall (now down to between 440 to

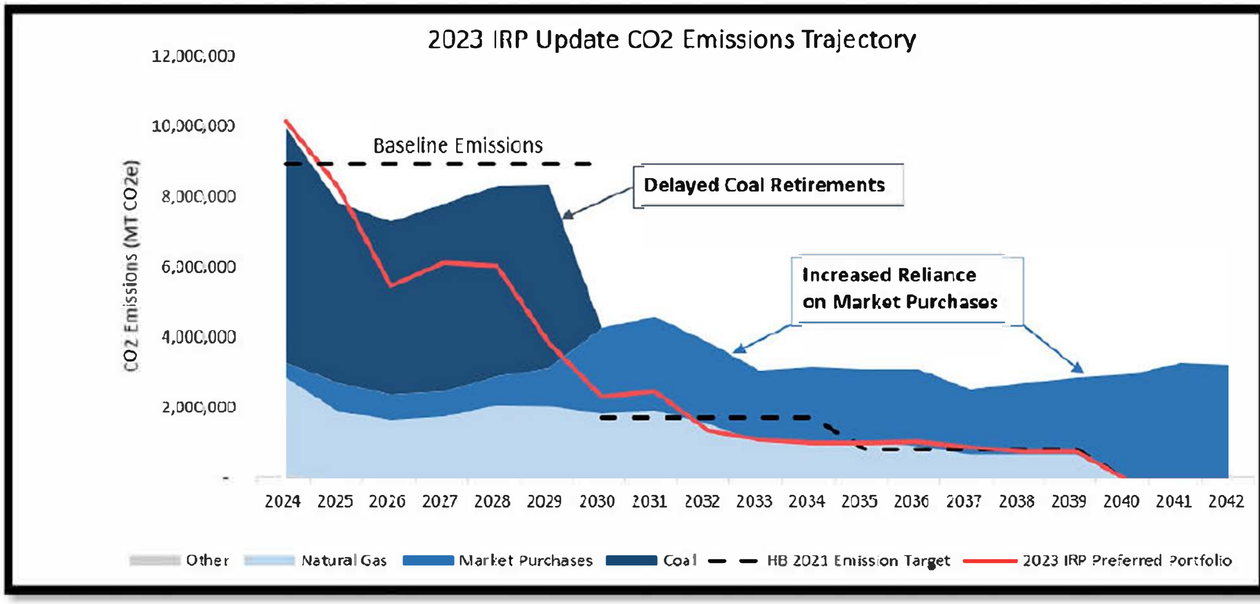
520 MW).[19] It is not known how these resources will be treated by DEQ in emissions accounting.

- Plans to rely more on coal, despite known coal supply issues driving power costs higher and increasing system-wide emissions.
- Plans to increase its reliance on gas-fired peakers based on an assumption that they can and will convert to run on 100 percent hydrogen fuel, which remains highly uncertain.
- Plans to rely on market purchases at very high volumes and at peak times, despite power markets that it characterizes in other dockets as thinning and growing more expensive and volatile.

All of these require an expenditure of funds in the future, much like an RFP for new non-emitting resources. Beyond the back and forth regarding the underlying economics, there are emission impacts. RNW captures the emissions outcomes of PACs proposed actions in the graph below:

[19] LC 82, PacifiCorp Reply Comments, July 12, 2024, p. 5.

Figure 2 – 2023 IRP Update CO2 Emissions Trajectory



As a counterfactual, Staff would assert PacifiCorp had other resource options available to it in 2023 and 2024 when it chose to pursue its current de facto strategy of increased reliance on coal power, higher levels of market purchases, and bilateral storage contracts. The 2022 AS RFP Initial Shortlist contained **[BEGIN HIGHLY CONFIDENTIAL]** [redacted]

[redacted]

[20] UM 1729, OR Standard QF AC Study_2023 07 27 (Solar and Storage), Spreadsheet tab "Table 7 to 8 Comparison", Cell AL32.

[redacted]

[END HIGHLY CONFIDENTIAL]

Table 3 – Forecasted Mid-C market prices

Category	**$/MWH**
[BEGIN HIGHLY CONFIDENTIAL] [redacted]	[redacted] **[END HIGHLY CONFIDENTIAL]**.
2025 Forecasted Mid-Columbia HLH	$101.92
2025 Forecasted Mid-Columbia LLH	$70.75
2025 Forecasted Mid-Columbia FLAT	$88.23

[BEGIN HIGHLY CONFIDENTIAL] [redacted] **[END HIGHLY CONFIDENTIAL]** Yet, the Company chose to take resource actions that increase reliance on market purchases, bilaterally contract for storage at unknown prices, build more gas plants, increase reliance on coal plants and speculative CCUS technology all while falling short of emission reduction targets.

Staff Recommendations on Continual Progress

The Commission has stated that “the purpose of requiring continual progress is to ensure utility action *during the years before* compliance with the relevant target is required, and that a lack of continual progress may not be capable of remedy solely at the time of that eventual compliance determination."[21] With the first target for HB 2021 only five years away, PacifiCorp's current forecast emissions shortfall, and its lack of a plan assessing the tradeoffs to a combination of coordinated actions to address this shortfall until at least April 2025, Staff recommends the Commission find that PacifiCorp is not demonstrating continual progress on the actions needed for meeting HB 2021's targets as it does not appear the PacifiCorp is taking actions, "… as soon as practicable to facilitate rapid reduction of greenhouse gas emissions at reasonable costs to retail electricity consumers."[22]

Since the passage of HB 2021, the Commission has arrived at an interpretation of continual progress that "lean[s] on the robust weighing of costs, risks, and forecasted emissions reductions trajectories that will occur in the IRP/CEP planning process to determine whether utility actions within the planning period are sufficient to constitute continual progress toward meeting the targets."[23] A determination of continual progress also considers both "forward-looking actions identified in the planning process" and "whether utilities are carrying out the actions in their plans."[24]

The Commission's determination of continual progress in PGE's first IRP/CEP (LC 80) is instructive. In Order No. 24-097, the Commission weighed two overarching elements of PGE's IRP action plan with regards to determining continual progress. First, were the items "consistent with achievement of emission reduction objectives at a reasonable cost to customers."[25] And second, "whether there were other opportunities to accelerate actions in the near term at reasonable cost."[26]

Staff finds it of vital importance to order PacifiCorp to engage in two actions to remedy the lack of continual progress.

<u>**First recommendation**</u>: Order PacifiCorp to include an executable CEP-focused action plan in the 2025 CEP, that builds on the 2025 IRP action plan. This CEP action plan would represent the culmination of cost, benefit, and emission reduction analyses and tradeoffs discussion found in the 2025 CEP. Staff believes the Commission and stakeholders need to see and evaluate an executable action plan that details the cost, benefits, and tradeoffs of an actual set of activities to be taken before 2030 to position

---

[21] UM 2273, Order No. 24-002, January 5, 2024, at page. 29.
[22] HB 2021 Section 4(6) codified at ORS 469A.415(6).
[23] *Ibid,* at page 29.
[24] *Ibid,* at page 29.
[25] LC 80, Portland General Electric IRP, Order No. 24-097, April 18, 2024, page 3.
[26] *Ibid.*

PacifiCorp to meet HB 2021's goals. PUC Staff are happy to coordinate meetings and workshops with PacifiCorp and interested stakeholders on this topic between now and April 2025.

Staff has limited concerns about potential overlap or duplication of action plan items between the 2025 IRP and 2025 CEP. Utah has ordered activities to be undertaken that ensure PacifiCorp's process leading up to the release of the 2025 Draft IRP—January 2025—is transparent and allows for meaningful public consultation.[27] This will give Oregon stakeholders a better foothold into the 2025 IRP's preferred portfolio, the 2025 IRP action plan, and the time to necessary to provide input into a 2025 CEP action plan.

Second recommendation: Require PacifiCorp to immediately begin the process of issuing an RFP for non-emitting resources with Commercial Operation Dates (COD) prior to 2030with the goal of launching this RFP commensurate with the April 2025 IRP/CEP and that results in actionable Final Short List by the end of 2026 or sooner. Issuing an RFP in 2025 will raise awareness of market options and position the Company to potentially acquire or contract for non-emitting resources alongside the April 2025 IRP/CEP.

As demonstrated in PacifiCorp's two previous RFP Dockets—UM 2059 and UM 2193—PacifiCorp has a demonstrated history of developing and executing an RFP in and around an active IRP. To this end, a cursory review by Staff finds that many of the elements of PacifiCorp's 2022 AS RFP are still usable. Much like Idaho Power is doing in UM 2317, PacifiCorp could re-use much of its previous RFP to quickly develop and launch an RFP in 2025. Much like past RFPs across all three utilities, PacifiCorp has the option to seek waivers to specific Competitive Bidding Rules that may expedite any RFP process.

Additionally, Staff believes it is critical for the RFP process to result in an analyzed and potentially actionable Final Short List (FSL). This FSL provides information that can function like the bid data from the 2022 AS RFP by giving **[BEGIN HIGHLY CONFIDENTIAL** [redacted] **END HIGHLY CONFIDENTIAL]**. As such, RFP short list data can provide a counterfactual against which Staff can compare PacifiCorp's resource decisions. Second, FSL data from an RFP provides greater optionality to the Commission in the future should more comprehensive action be necessary to ensure PacifiCorp achieve compliance.

[27] Utah Public Service Commission, Docket No. 23-035-10 Order, July 11, 2024.

Staff believes both of its recommendations to be practical and implementable. A CEP with an executable action plan reflecting what is envisioned in ORS 469A.415(4) and (5). Additionally, the launching of an RFP process by April 2025, positions PacifiCorp, the Commission, and stakeholders to understand the cost, risks, and tradeoffs between resource strategies in the 2025 IRP/CEP. As noted above, PacifiCorp has a long and successful history of developing and/or conducting RFPs concurrent with other IRP activities.

Small Scale Renewables (SSR)
HB 2021 requires PacifiCorp to have 10 percent of the Company's aggregate electrical capacity come from SSRs by 2030.[28] SSR energy projects are defined as 20 MW or less in size and statute- or ODOE-approved generation technology.[29] PacifCorp's revised estimate of additional SSR resources requirement for 2030 is 369 MW.[30] While SSRs will contribute toward emission reductions for Oregon, Staff finds that the 2030 SSR requirement falls outside of the law's continual progress paradigm. PacifiCorp previously attempted to launch an SSR RFP; going so far as to hold a bidders conference on January 24, 2024, and proposing the RFP issuance in March 29, 2024. In Staff's February 20, 2024 LC 82 acknowledgement memo, Staff discussed concerns with PacifiCorp's approach to a proposed SSR RFP. These concerns resulted in recommendations around the use of Community Benefits Indicators in scoring and project selection criteria that includes appropriate elements of the current Resiliency Analysis Framework. Additionally, Staff had hoped to discuss the SSR acquisition strategy at the March 5, 2024 acknowledgement meeting. However, PacifiCorp had indefinitely paused its SSR RFP, and no discussion was had.

In the IRP Update PacifiCorp's modeling improvements resulted in a preferred portfolio that better reflected the cost and benefits of Oregon's SSR requirement. While Staff appreciates the improved modeling, the actual activities planned to acquire the 369 MW of SSRs in just five years remains unknown. The Company has only stated that it wants to complete additional stakeholder outreach on the topic and also to wait for the 2025 IRP/CEP to inform any next steps on acquiring these resources over.[31]

The SSR size limitation means PacifiCorp will need ***at least*** 19 new projects to be identified, developed, and energized by 2030. PacifiCorp's 2020 All-Source RFP provides a useful comparison as to timing and process required to secure this number of resources. The 2020 AS RFP was launched in February 2020, presented a Final

---

[28] ORS 49A.210(2)
[29] ORS 469A.210(2)(a) and ORS 469A.025
[30] LC 82, PacifiCorp's 2023 Integrated Resource Plan Update, April 1, 2024, p. 78.
[31] *Ibid.* p. 14

Short List (FSL) for acknowledgement in June 2021, and required projects to come online no later than December 31, 2024, later extended to 2025. This RFP's FSL selected 19 bids, with all but one already having obtained their respective interconnection agreements prior to submitting a bid.[32]

At this time it is unknown if a pool of 19 or more potential SSR projects exists that can be online by 2030, especially the extent to which they may or may not already have signed interconnection agreements. Staff has learned through the Cluster Study process ***and*** through the Oregon Community Solar Program (CSP) that for any sized projects, the securing a new interconnection agreement and energizing a project in PacifiCorp territory in less than five years appears difficult in 2024

Given what Staff understands generally about project development timelines through multiple RFPs and first-hand observations of the interconnection timeline for smaller scale, renewable projects in PacifiCorp territory, it does not believe that PAC is currently positioned to interconnect and integrate over 300 MW of smaller-sized projects in less than four years. PacifCorp must begin to take efforts as soon as practicable to identify the approach, hurdles, costs, benefits, and tradeoffs to meeting HB 2021's SSR requirement by 2030 and beyond.

While not required for continual progress, understanding PacifiCorp strategy and timeline for meeting the 2030 SSR mandate is important, given the large need, the short amount of time remaining, and the potential tradeoffs with other HB 2021 activities.

Staff recommends that the 2025 IRP/CEP include an SSR acquisition strategy. This should include details around resource procurement pathways, address recommendations and concerns raised in Staff's February 20, 2024 memo, and provide insights into how PacifiCorp will improve its interconnection process, building on—but not waiting for—the interconnection reform work being done in UM 2111. This strategy must include a timeline with milestones forecasting procurement actions and interconnection improvements so as to assess PacifiCorp progress over time and to assess how it interacts with other HB 2021 efforts, notably emission reductions, CBIs, and impacts ratepayers. Inclusion of an SSR Strategy in the 2025 IRP/CEP will also allow Staff and stakeholders a chance to digest and comment upon PaciiCorp's approach and avoid the confusion that occurred during the previous attempt to launch an SSR RFP.

Other HB 2021 Issues

[32] UM 2059, PacifiCorp 2020 AS RFP, Independent Evaluator Closing Report Workshop Presentation, June 17, 2021, p. 7.

The Oregon & Southern Idaho District Council of Laborers ("LIUNA") submitted comments requesting additional information from PacifiCorp regarding HB 2021's Responsible Contractor Labor Standards. LIUNA recommended the Commission require PacifiCorp to provide information on what percentage of projects will be subject to the Responsible Contractor Labor Standards and how the Company is considering employment impacts and CBI objectives in its IRP Update.[33]

Staff notes that the first issue will be taken up in any RFP process the Company undergoes to procure resources following the completion of an IRP. Regarding Oregon-allocated resources, which are not sited in Oregon but deliver electricity to Oregon customers, in UM 2193 the Commission ordered PAC to work with Staff to revise RFP language to allow bidders for out-of-state projects to complete the Oregon attestation on labor practices form on a voluntary basis. Staff would work with the Company in any future RFPs to include similar language.

Staff believes LIUNA's requests regarding employment considerations of the IRP Update and progress on CBI objectives should be taken up as part of PacifiCorp's CBIAG. Staff encourages the Company to work with LIUNA and other stakeholders to ensure there are opportunities for input and feedback on the Company's approach to meeting labor-related CBIs in its RFP process.

<u>CEP Recommendation Summary</u>

Continual Progress Recommendations

As noted in previous comments and above, given the complexity of overcoming a forecasted a 12,000 to 18,000 GWH shortfall in non-emitting resources in five years and the fact that PacifiCorp has presented no analysis of a comprehensive strategy with near-term actions to address this looming shortfall, Staff recommends that steps be taken now to either position PacifiCorp to take meaningful resource actions as soon as the end of 2025 or, at the very least, provide the analysis necessary for Staff and stakeholders to discuss in future rate cases resource decisions made by PacifiCorp leading up to 2030. As such Staff recommends:

1. The 2025 CEP must include an executable action plan. This CEP action plan would represent the culmination of cost, benefit, and emission reduction analyses and tradeoffs discussions found in the 2025 CEP.

[33] LC 82, Oregon & Southern Idaho District Council of Laborers Comments, June 14, 2024, p. 2.

2. PacifiCorp immediately request to open a new RFP docket with the goal of launching an RFP commensurate with the April 2025 IRP/CEP and that results in actionable Final Short List.

SSR Recommendation

Given the need for ~369 MW of new SSR resources in just five years, Staff recommends:

1. The 2025 IRP/CEP include an SSR acquisition strategy. This should include details around resource procurement pathways and an explanation of how PacifiCorp will improve its interconnection process. This strategy must include a timeline with milestones forecasting procurement actions and interconnection process improvements. This will allow the Commission and stakeholders to assess the complementary nature and possible tradeoffs between meeting HB 2021's emission reduction targets and capacity mandate.

IRP Update
Overview

PacifiCorp's 2023 IRP Update presents a very different resource mix strategy, resulting in a much higher overall emissions trajectory, than the 2023 IRP. Staff appreciates the modeling improvements reflecting the direction from 24-073, most notably an integrated preferred portfolio that better reflected policy directives across PacifiCorp's six states.

Regarding the actual analysis found in the IRP Update, PacifiCorp noted that the changes in strategy were due to external events (e.g., stay of the OTR; wildfire litigation). Though PacifiCorp is not seeking acknowledgement of the IRP Update, Staff found the analysis and resulting drastic redirection in the IRP Update's near-term resource strategy alarming enough with regards to reliability, cost risks to customers, and achievable emission reduction targets that final comments were warranted.

To summarize, Staff finds that the analysis and strategy in PacifiCorp's IRP Update takes on higher risk and promotes more uncertain actions, including overexposure to the market, expecting that emerging technologies will be available by 2030, and relying on coal and CCUS technologies. At the same time, the Company appears to be undervaluing the role of near-term incremental investment in commercially available non-emitting resources, while failing to analyze or pursue cost containment actions, like the low-cost financing through the US Department of Energy's Loan Program Office's EIR program.

To elucidate the rationale for the position above, Staff offers observations on the following key topics from this IRP Update that should hopefully impact the 2025 IRP/CEP:

- Market Purchases
- Supply Side Resources
- Renewable Costs
- Regulatory Risk

Again, Staff does not recommend further Commission action at this time on these issues. Between Order No. 24-073, these comments, and PacifiCorp's IRP public input process many of these issues should be covered.

Market Purchases

In the IRP Update PacifiCorp continued to increase its reliance on market purchases. The Company's reply comments did clarify that the preferred portfolio's market purchases represent multiple types of market products with varying levels of risk.[34] The Company further asserts that the IRP cannot differentiate between these products. Staff appreciates the additional detail; however, this does not address Staff's two primary concerns. First, PacifiCorp's market purchases have multiplied in the near-term. For example, summer market purchases for 2025 through 2027 have grown from 500 MW to 3,325 between the 2021 IRP and 2023 IRP update.

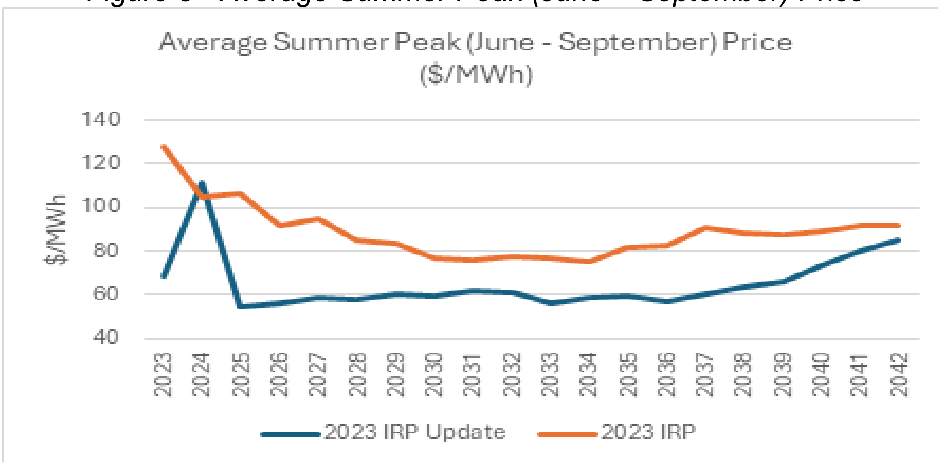
If PacifiCorp anticipates significantly more hydro capacity or a large increase in bilateral contracts, it should specify this in the IRP and provide justification for this projected increase. In absence of this, Staff is left to assume that the increase in unspecified market purchases will be made up primarily of additional forward market purchases. There are two pieces of evidence in the IRP Update supporting Staff's assumption.

First, PacifiCorp increased its Front Office Transaction (FOT) limit in the 2023 IRP update to account for 500 MW of additional capacity from the Wyoming market.[35] The Company states that it updated modeling assumptions to account for potential market purchases from this increased transmission capacity.

Second, PacifiCorp's average summer peak market price decreased in the 2023 IRP Update compared to the 2023 IRP. Figure 1 below demonstrates this decrease.

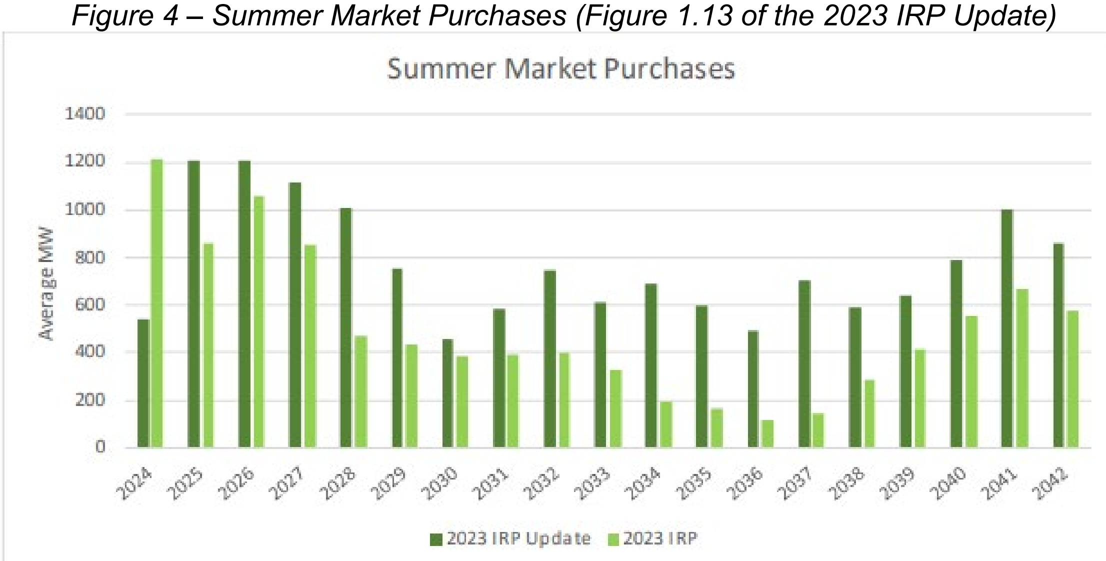
[34] LC 82, PacifiCorp's Reply Comments, July 12, 2024, pp. 23 – 24.
[35] LC 82, PacifiCorp's 2023 Integrated Resource Plan Update, April 1, 2024, p. 11.

Figure 3 - Average Summer Peak (June – September) Price



This decrease correlates with an increase in market purchases during peak summer periods, as shown in Figure 2 below, replicated from the 2023 IRP Update.

Figure 4 – Summer Market Purchases (Figure 1.13 of the 2023 IRP Update)



This indicates to Staff that the model is selecting more market purchases due to lower projected forward market prices, indicating the increase in unspecified market purchases is not due to increase bilateral contracts or hydro slice products.

As Staff outlined in its comments, regional energy markets in the west are tightening, especially during periods of peak demand. This creates tremendous price risk for ratepayers if the Company intends to rely on these market transactions to cover shortfalls during peak periods. The alternative to increasing market purchases would be to explore procurement of non-emitting resources.

Supply-Side Resources

Staff is concerned about the reasonableness of the assumptions PacifiCorp has made around a number of non-traditional, supply-side resources. While Staff appreciates the Company modeling non-emitting resource options that can support necessary GHG emissions reductions, it is concerned that the Company's assumptions underlying the selection of these resources creates significant risk that the Company has not appropriately represented in the RFP. Staff believes this leads to the preferred portfolio relying too heavily on unproven technologies.

Several stakeholders raised similar concerns. In its comments, RNW notes "Optimistic assumptions about the viability of unproven future technology leads PacifiCorp to risky planning decisions." RNW goes on to specifically note concerns with the timing of the Natrium project, the non-emitting peaker assumptions, the availability of green hydrogen, and the feasibility of CCUS in the near-term.[36] The Joint Advocates also take issue with many of these same assumptions, noting that these changes from the 2023 IRP "appear to favor continued coal and gas operations at the expense of clean energy procurements."[37]

While the Company's Reply Comments cite the installation of technology procured through its 2020 AS RFP as evidence of progress toward HB 2021, Staff notes the Final Shortlist for this RFP was acknowledged only two months after HB 2021 took effect.[38,39] This means that PacifiCorp has not conducted an RFP process since HB 2021 became law.

In the 2025 IRP, PacifiCorp needs to better vet these assumptions with stakeholders. Additionally, the Company should run more studies that reflect impacts to the portfolio if these resources do not materialize. While the Company modeled variant studies that do not include CCUS and nuclear, it does not include variants in which hydrogen non-emitting peakers are not cost-effective or are slow to develop. Further, it does not

---

[36] LC 82, RNW's Comments, June 14, 2024, pp. 9 – 11.
[37] LC 82, Joint Advocates Comments, June 14, 2024, p. 23.
[38] UM 2059, Order No 21-437, November 24, 2021, page 1.
[39] See OPUC HB 2021 Implementation Activities, https://www.oregon.gov/puc/utilities/pages/hb2021-implementation-activities.aspx.

model any scenarios in which the necessary hydrogen market does not develop as PacifiCorp is expecting.

Non-Emitting Peakers

The Company's preferred portfolio includes 224 MW of non-emitting peaking capacity allocated entirely to Oregon in 2030.[40] PacifiCorp indicated through the discovery process that this resource is assumed to operate using 100 percent hydrogen fuel.[41] As noted in Staff's comments,[42] and as raised in several stakeholder comments, PacifiCorp has not adequately modeled the risks and full costs associated with hydrogen as a fuel resource. The Company appears to assume the necessary supply of clean hydrogen will be available to operate this resource by 2028 and does not appear to fully account for the infrastructure or energy required to produce and store a significant quantity of hydrogen. Further, the Company's decision to extend the life of natural gas peaking plants from 10 to 40 years on the assumption they will be capable of operating with 100 percent hydrogen fuel is questionable.[43] In the 2025 IRP, PacifiCorp should engage stakeholders to refine its cost assumptions around hydrogen peaking plants. It should also clarify where it is modeling the costs associated with conversion of natural gas plants to 100 percent hydrogen fuel and specify how it is modeling the supply and storage requirements of these resources.

Carbon Capture Utilization and Storage (CCUS)

The Company's preferred portfolio includes CCUS additions to Jim Bridger 3 and 4, which would be installed as early as 2028.[44] Staff raised in its comments concerns with the feasibility of this timing. Several stakeholders also raised concerns with the inclusion of this technology in the 2023 IRP Update. The Joint Advocates noted that in the 2023 IRP "PacifiCorp maintained that CCUS was too speculative a technology to justify inclusion in the preferred portfolio."[45] Further, both RNW and the Joint Advocates point out that PacifiCorp itself indicated at the May 2, 2024 public input meeting for the 2025 IRP that "there is a physical impossibility for us to get this [carbon capture at Bridger 3 and 4] implemented prior to 2030."[46,47] PacifiCorp responded to these concerns in its reply comments, noting that the preferred portfolio does not include CCUS, but allows the option for certain coal facilities to select CCUS resources after further evaluation

---

[40] LC 82, PacifiCorp's 2023 Integrated Resource Plan Update, April 1, 2024, p. 78.
[41] LC 82, PacifiCorp's response to Sierra Club DR No. 50.
[42] LC 82, Staff's Comments, June 14, 2024, p. 10.
[43] LC 82, PacifiCorp's 2023 Integrated Resource Plan Update, April 1, 2024, p. 7.
[44] *Id*. p. 104.
[45] LC 82, Joint Advocates Comments, June 14, 2024, p. 24.
[46] LC 82, RNW's Comments, June 14, 2024, p. 10.
[47] LC 82, Joint Advocates Comments, June 14, 2024, p. 24.

through a front-end engineering design (FEED) study.[48] It further notes that the 45Q tax credits included in the inflation reduction act change the economics of CCUS for the Company.

Staff is confused by PacifiCorp's response given page 104 of the IRP Update directly states "The preferred portfolio selected Jim Bridger 3 and 4 to be converted to CCUS in 2028."[49] Staff agrees with RNW and the Joint Advocates that this timeline is infeasible and is further concerned that PacifiCorp is not transparently stating its approach to CCUS in the 2023 IRP Update. While the Company asserts Oregon's requirement to exit from coal-fired resources by the end of 2029 "renders the specific outcomes of CCUS moot" for Oregon ratepayers, Staff disagrees.[50] PacifiCorp needs more renewable resources in its system to meet Oregon's HB 2021 goals. If costs for these resources are shared across its service territory, they are less costly for Oregon ratepayers. By operating a system that selects coal-fired generation over increased renewable procurement, the Company is choosing a portfolio that will ultimately be more expensive for Oregon.

Natrium
Staff and stakeholders continue to raise concerns that potential delays to the Natrium project will have major implications for the preferred portfolio. In the 2023 IRP Update, PacifiCorp did not provide any updates on the status of the project.

Staff re-emphasizes the importance of having the Company's IRP reflect real events related to the progress of the Natrium project and that the assumptions are updated to reflect any changing real-world conditions. For example, the recently filed Construction Permit Application with the Nuclear Regulatory Commission indicates review of the application will be completed in January of 2025.[51] Does this align with the proposed timeline for Natrium to meet a 2030 COD? Are there any outcomes from this audit that could affect the projected timeline? This is the type of information Staff expects PacifiCorp to communicate about this project in the 2025 IRP.

---

[48] LC 82, PacifiCorp Reply Comments, July 12, 2024, p. 25.
[49] LC 82, PacifiCorp's 2023 Integrated Resource Plan Update, April 1, 2024, p. 104.
[50] LC 82, PacifiCorp Reply Comments, July 12, 2024, p. 26.
[51] See US SFR Owner, LLC – Plan for A General Audit of the Kemmerer Unit 1 Construction Permit Application (EPID No. L-2024-CPS-0000), Page 1, https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML24187A117.

Renewable Costs

In its comments, RNW expressed concern that the renewable resource costs used by PacifiCorp in the 2023 IRP are too high relative to other market sources. In response, PacifiCorp stated the cost assumptions it used for renewable resources are "an average of actual bids from the most recent request for proposal through the year 2029 and then transitions to the NREL price curve."[52] However, PacifiCorp has provided limited transparency into the bid prices used to develop these costs or revealed the methodology used to calculate prices from these bids. This type of analysis is foundational to IRP process and PacifiCorp should be more forthcoming in sharing this information with Staff and stakeholders as part of the IRP development process. While Staff has access to the Initial Shortlist of the cancelled 2022 AS RFP, this information is not available to stakeholders who are not covered by the modified protective order, and Staff has not received any workpapers demonstrating how PacifiCorp used this information to generate its renewable cost projections. These cost projections are fundamental to the IRP review process and should be made available to Staff and stakeholders so adequate analysis can be conducted.

In the 2025 IRP, PacifiCorp should share with Staff and stakeholders workpapers that support its renewable energy price projections. If these workpapers contain confidential information, they should be shared under the modified protective order.

Energy Infrastructure Reinvestment (EIR) Financing
The Joint Advocates raised concerns around PacifiCorp's failure to model potential EIR financing in the 2023 IRP Update. In its comments, the Joint Advocates state "PacifiCorp has yet to incorporate the availability of U.S. Department of Energy financing through the Energy Infrastructure reinvestment ('EIR') program into its resource planning, meaning that PacifiCorp is very likely over-estimating the cost of procuring new, Company-owned resources."[53] Staff agrees with the Joint Advocates that PacifiCorp could have modeled this funding opportunity in its IRP Update, at the very least as a sensitivity to show the economic impact on a set of resources from a Cluster Study.[54]

Staff does not agree with the PacifiCorp reply comments' logic around the treatment of EIR funding opportunities in the IRP. [55] While Staff understands EIR loan opportunities require a competitive application process Staff and stakeholders have expressed a

---

[52] LC 82, PacifiCorp's Reply Comments, July 12, 2024, p. 21.
[53] LC 82 Joint Advocates Comments, June 14, 2024, p. 14.
[54] LC 82, Sierra Club's Round 1 Comments, October 25, 2023, p. 52.
[55] LC 82, PacifiCorp Reply Comments, July 12, 2024, p. 29.

willingness to work with PacifiCorp to develop acceptable approaches to model the likelihood and portfolio impact of a resource receiving an EIR loan. Additionally, it could adopt the Joint Advocates suggested approach and assume only a percentage of proxy resources are eligible for EIR.[56]

Based on the statements from the May 30, 2024 Special Public Meeting, PacifiCorp may not be in a financial position to acquire certain resources for ownership. However, as Staff noted in our previous comments, PacifiCorp continues to: access debt markets;[57] make plans to invest soon in speculative CCUS technology based entirely on performance-based, tax-benefits;[58] and enter into bilateral contracts for storage, with a COD of 2026, at unknown prices.[59]

Yet PacifiCorp did constrain the model in the IRP Update from selecting new resources until after 2027. [60] In short, PacifiCorp's 2025 IRP modeling should not constrain the timing acquisition of some resources over others. It should also transparently describe if or how financing constraints are reflected in the model and allow PLEXOS to evaluate resources on a comparable basis, including with and without federal tax benefits or loan guarantees. In the 2025 IRP, Staff expects PacifiCorp to incorporate EIR loan opportunities, as directed in Order No.24-073.[61]

Regulatory Risk

Many stakeholders raised concerns with PacifiCorp's approach to GHG emissions regulation, noting the Company continues to oppose federal emissions regulations and underestimate the potential for new federal regulations to impact the Company's fossil fuel resources in both the near- and medium-term.[62]

RNW noted in its opening comments that "PacifiCorp is choosing to challenge the very regulations that would make portfolio optimization across a six-state footprint far

[56] LC 82, Joint Advocated Comments, June 14, 2024, p. 30.
[57] Specifically $3.8 Billion in debt financing in April 2024 following the James v. PacifiCorp verdict. See LC 82, Joint Advocated Comments, June 14, 2024, page 17.
[58] LC 82, PacifiCorp Reply Comments, July 12, 2024, page 25.
[59] LC 82, PacifiCorp Reply Comments, July 12, 2024, page 32.
[60] LC 82, PacifiCorp Reply Comments, July 12, 2024, page 25.
[61] LC 82, Order No. 24-073, Appendix B, p. 7,
[62] See State of Utah et al. V. EPA, Case #:23-9509: https://attorneygeneral.utah.gov/wp-content/uploads/2023/07/10th-Stay-Order.pdf.

easier."[63] While the Joint Advocates stated, "PacifiCorp unreasonably assumed that environmental regulations would remain static throughout the planning horizon."[64]

PacifiCorp's quick response in October 2023, to the stay of the US EPA's OTR regulations, appears to have only forestalled for a short time—at what may be greater costs and risks—a continued push from the federal government toward a cleaner resource mix. As the Joint Advocates stated:

> *If the 2025 IRP forecasts, once again, a need for new resources to replace aging fossil fuels subject to increasingly stringent environmental regulations, PacifiCorp will not be able to procure new resources until several years down the line, even if it restarts currently suspended [RFP] that it could have already acquired or been in the process of acquiring new resources based on the 2021 and 2023 IRPs.* [65]

IRP Conclusion
The 2023 IRP Update was an insightful trial run by the Company as it sought to incorporate improvements from Order No. 24-073 into its modeling. Staff appreciates the improvements made, particularly the model improvements that make progress toward selection of a portfolio that demonstrates simultaneous compliance with state-level policies. Staff is concerned that these improvements did not inform the development of a realistic set of achievable near-term action items. Nor did these improvements present analysis which compared long-term planning questions and dependencies that compared the tradeoffs between near-term actions and uncertainties around emerging technology. Specifically, Staff is concerned that the analysis and resulting strategy in the 2023 IRP Update rely too heavily on speculative supply-side resource options and market purchases, without adequately capturing the risks to customers associated with these selections.

Staff also appreciates the work by stakeholders to raise key issues identified in the IRP Update. In particular, Staff appreciates Stakeholders' detailed analysis of federal emissions regulations including Section 111(d) and analysis of the risks created by PacifiCorp's expanded reliance on fossil fuel resources.

Staff is eager to see the Company incorporate the feedback Staff and Stakeholders have provided through the 2023 IRP Update into its 2025 IRP process. Staff reiterates that PAC meet the recommendations and expectations from Order No. 24-073,

---

[63] LC 82, RNW's Comments, June 14, 2024, p. 12.
[64] LC 82, Joint Advocates comments, June 14, 2024, p. 10.
[65] LC 82, Joint Advocates Comments, Jue 14, 2024, p. 10

especially those related to modeling of proxy resource, reducing granularity adjustments, and incorporating federal emissions regulations and financing opportunities.

Staff does not recommend any additional Commission actions related to the IRP Update given Order No. 24-073 already directs the Company to address many of the issues raised by Staff and Stakeholders. Staff has also been actively participating in the Company's 2025 IRP public input process and will continue submitting feedback to the Company through this process.

Conclusion

With regards to the 2023 CEP Supplement, Staff finds that PacifiCorp has not demonstrated continual progress toward meeting the goals of HB 2021. Staff recommends that the Commission order two things. First, order PacifiCorp to include in its 2025 CEP an executable, CEP action plan, that builds on the 2025 IRP action plan. This CEP action plan should be developed with Staff and stakeholders and include the specific information related to SSRs noted above. Second, order PacifiCorp to request that a RFP docket be opened for the purpose issuing an RFP for resources with a COD before 2030. The RFP should be launched commensurate with the April 2025 IRP/CEP and results in actionable Final Short List before the end of 2026.

With regards to PacifiCorp's progress on small-scale renewables (SSRs), while this capacity requirement falls outside HB 2021's demonstration of continual progress, Staff is concerned about PacifiCorp's ability to identify, contract, and interconnect ~369 MW of SSRs in just five years. Staff is also concerned about the lack of visibility into the complementary nature and potential conflicts with HB 2021 activities designed to reduce emissions. Accordingly, Staff recommends that the Commission order PacifiCorp to include in the 2025 IRP/CEP an SSR acquisition strategy that includes timelines.

Finally, Staff found that instructive lessons were learned in the IRP Update, especially from PacifiCorp's attempt to implement direction from Order No. 24-073. Staff finds that the Commission's April 2024 order—along with the ongoing dialogue in PacifiCorp's 2025 IRP public input meetings—covers the necessary improvements for the 2025 IRP and positions the Company well to avoid Staff's perception of shortcomings in this IRP Update. This includes improving the model to reduce granularity and reliability adjustments, improving the transparency of renewable cost projections and incorporating EIR funding into the model, and refining assumptions around speculative supply-side technologies and market purchases.

PROPOSED COMMISSION MOTION:

Determine that PacifiCorp has not demonstrated continual progress on emission reductions. As remedies, PacifiCorp must include an executable action plan in the 2025 CEP and immediately request to open a new RFP docket for the purpose of issuing an RFP no later than April 2025. In addition, PacifiCorp must also include in the April 2025 IRP/CEP a small-scale renewable resource acquisition strategy that includes timelines.