ORDER NO. 20-186

ENTERED Jun 8, 2020

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

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In the Matter of PACIFICORP, dba PACIFIC POWER, 2019 Integrated Resource Plan.	ORDER

DISPOSITION: 2019 INTEGRATED RESOURCE PLAN ACKNOWLEDGED WITH CONDITIONS AND ADDITIONAL DIRECTIVES

This order memorializes our decision made and effective at the May 7, 2020, Special Public Meeting concerning PacifiCorp, dba Pacific Power's 2019 Integrated Resource Plan (IRP). We acknowledge PacifiCorp's action plan and add conditions to recognize that certain issues remain and will be considered further when additional analysis is produced in PacifiCorp's request for proposal (RFP) proceeding in docket UM 2059. We include directives for several workshops or public meeting reports to occur before the 2021 IRP is filed, and we also include directives for certain information to be included in the 2021 IRP filing.

I. INTRODUCTION

PacifiCorp's IRP gives a step-by-step view of the considerations that go into least-cost, least-risk planning for PacifiCorp's complex, six-state system. Through the IRP development process, PacifiCorp sought stakeholder input and explained major decision points that lead to the IRP's conclusions. The IRP supports informed decision-making on resource procurement by providing an analytical framework for assessing resource investment tradeoffs, including supporting subsequent RFP bid evaluation efforts.

PacifiCorp's 2019 IRP reflects significant analytical advances in least-cost, least-risk planning, particularly in its economic analysis of existing coal units and transmission upgrades. Portfolio analysis found customer value in transitioning from higher cost coal-fired generators to renewable resources, transmission and, for the first time, energy storage. As its IRP development progressed, PacifiCorp achieved a high level of engagement with stakeholders across the states it serves.

We acknowledge PacifiCorp's IRP as consistent with our integrated resource planning guidelines, and PacifiCorp's action plan as a generally reasonable set of next steps, but we explicitly condition our acknowledgment on continued examination of the reasonableness of PacifiCorp's resource procurement and associated transmission investments. The 2019 IRP did not fully address our concerns and questions over the scale, combination and timing of new supply side resources and transmission. This is particularly true in relation to the potential for future market conditions to undermine the long-term customer benefits that PacifiCorp projects, and to create customer rate pressure at a time of severe economic disruption. In this order, we direct PacifiCorp to analyze additional risks in the RFP docket so that we can engage with PacifiCorp in informed decision-making on the reasonableness of the portfolio that results from its all-source resource procurement.

Based on analysis in the RFP docket, we will consider the size of PacifiCorp's resource procurement, aiming for renewable energy acquisitions that will contribute optimally to meeting PacifiCorp's capacity need while balancing near-term capital costs and the introduction of market risks that could undermine the portfolio's economic value. Similarly, we acknowledge the Gateway South transmission line only insofar as it is selected in the RFP docket in connection with generating resource bids, where it will compete with the costs and benefits of almost a dozen other transmission upgrades paired with different generating resources. As always, PacifiCorp must continue to ensure its actions remain reasonable. In this order, we highlight several checkpoints and additional analysis to be performed in the next year.

We will consider this analysis in the RFP docket.[1] PacifiCorp has proposed to run an open procurement process that uses IRP-like modeling to evaluate resource bids from a wide variety of technologies to produce a best cost/risk outcome. PacifiCorp has explained that its RFP selections will likely differ from its IRP preferred portfolio. While this flexibility from IRP to RFP allows PacifiCorp to adapt to changing resource prices and maximizes the value of competitive procurement for customers, it introduces much of the complexity of the IRP into RFP analysis. We appreciate that PacifiCorp, Staff, and stakeholders have deeply engaged with this IRP for almost two years, and we recognize both the challenge and the necessity of sustaining this engagement through the RFP process.

[1] Some conditions in this order also require compliance filings to be made in this docket, or in both the IRP and RFP dockets. Because the 2021 IRP is to be filed in April 2021, we do not expect to take any more action in this docket.

II. IRP REQUIREMENTS AND PACIFICORP'S 2019 IRP

A. Overall Purpose

The IRP is a road map for providing reliable and least-cost, least-risk electric service to the utility's customers, consistent with state and federal energy policies, while addressing and planning for uncertainties.[2] The primary outcome of the process is the "selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers."[3] After selecting a "best cost/risk portfolio," the utility develops a proposed "Action Plan" of resource activities to undertake over the next two to four years to implement the plan.[4]

B. IRP Guidelines

Our IRP guidelines cover thirteen aspects of IRP process and content. A full discussion of how PacifiCorp addresses the IRP Guidelines in its 2019 IRP is provided in Appendix B of the IRP.[5] We briefly address the first two guidelines, which set forth the key substantive and procedural requirements for IRPs.

1. Guideline 1 – Substantive Requirements

Guideline 1 describes the primary substantive requirements of an IRP. The first subpart covers resource options, and provides that all resources are to be evaluated on a comparable basis. PacifiCorp describes its resource options by major category, with utility-scale supply-side generation, demand-side management (DSM) programs, transmission resources and market purchases.[6] PacifiCorp explains that wind and solar will dominate U.S. capacity additions for the next decade due to federal and state tax credits, declining capital costs, and improved technology performance that have put wind and solar "in the money" in areas of high potential. PacifiCorp states that new wind resources were given particular attention after the 2017 IRP selected a combination of wind and transmission resources. PacifiCorp also evaluated energy storage options of at least one MW, including pumped storage, stand-alone lithium-ion batteries, as well as co-

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[2] *In the Matter of Investigation into Integrated Resource Planning*, Docket No. UM 1056, Order No. 07-002 at Appendix A, Guidelines 1-13 (Jan 8, 2007) corrected by Order No. 07-047 (Feb 9 2007); *In the Matter of Investigation into* the *Treatment of CO_2 Risk in the Integrated Resource Planning Process*, Docket No. UM 1302, Order No. 08-339 (Jun 30, 2008) (refining Guideline 8 addressing environmental costs).
[3] Order No. 07-002 at Appendix A, Guideline 1.
[4] *Id.* at Guidelines 1 and 4.
[5] 2019 IRP Volume II at 38.
[6] 2019 IRP at 125.

located solar and co-located wind.[7] The combustion turbine types and configurations were unchanged from the 2017 IRP.

The second subpart of Guideline 1 provides that an IRP must consider risk and uncertainty. PacifiCorp explains that its modeling approach assesses the comparative cost, risk, and reliability attributes of resource portfolios. PacifiCorp describes its IRP modeling as consisting of three basic steps used to select a preferred portfolio: coal studies, portfolio development, and final portfolio screening.[8] PacifiCorp uses a capacity expansion model, System Optimizer (SO), to produce portfolios. In the 2019 IRP, PacifiCorp produced over 50 different unique resource portfolios informed by the coal studies. PacifiCorp uses the Planning and Risk model (PaR) to perform stochastic risk analysis of the portfolios produced by the SO model. For top-performing resource portfolios, PacifiCorp develops PaR studies to evaluate cost and risk with four distinct price-policy scenarios: medium gas/medium carbon dioxide (CO_2), high gas/high CO_2, low gas/zero CO_2, and the social cost of carbon. PacifiCorp also developed eight sensitivity cases designed to highlight the impact of specific planning assumptions. The sensitivities are informative in nature and are not considered for selection of the preferred portfolio.

The third part of Guideline 1 states that the primary goal of an IRP is the "selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers." This guideline states that net present value of revenue requirement (NPVRR) is the main cost metric, and that utilities must balance cost and risk over at least a 20-year planning period. PacifiCorp's 2019 IRP uses a 20-year planning horizon, from 2019 through 2038. The SO model operates by minimizing operating costs for existing and prospective new resources, subject to system load balance, reliability and other constraints. PacifiCorp evaluates cost and risk metrics reported from PaR, comparing portfolios based on expected costs, low-probability high-cost outcomes, reliability, and CO_2 emissions.

The final part of Guideline 1 requires the IRP to be consistent with the long-run public interest as expressed in Oregon and federal energy policies. PacifiCorp explains its IRP mandate is to assure, on a long-term basis, an adequate and reliable electricity supply at a reasonable cost and in a manner consistent with the long-term public interest. PacifiCorp seeks to account for state commission IRP requirements, the current view of the planning environment, corporate business goals, and uncertainty. Part of its planning environment is known policies, including SB 1547.[9]

[7] 2019 IRP at 37.
[8] 2019 IRP at 171.
[9] ORS 757.518 (2019).

2. *Guideline 2 – Procedural Requirements*

Guideline 2 describes procedural requirements, stating that the public should have substantial involvement in IRP development.[10] PacifiCorp states it hosted 18 public input meetings, from mid-2018 to the end of 2019. Staff and stakeholders commented favorably on PacifiCorp's feedback form process and written responses to questions, as well as the way that PacifiCorp incorporated many stakeholder points into IRP development.

Our proceeding to review PacifiCorp's filed IRP involved an eight-month process in which Staff, stakeholders, and PacifiCorp filed three sets of detailed comments and we held three Commission workshops to discuss issues with each other and all the parties. Staff released a memo for the final May 5 and 7, 2020 public meetings that summarizes stakeholders' comments more fully than this order, and also lists Staff's recommendations.[11] We received comments from the following: Commission Staff, Oregon Citizens' Utility Board (CUB), Northwest Energy Coalition (NWEC), Alliance of Western Energy Consumers (AWEC), Renewable Energy Coalition (REC), Renewable Northwest, Sierra Club, Northwest and Intermountain Power Producers Coalition (NIPPC), Small Business Utility Advocates (SBUA), Swan Lake North Hydro, City of Portland, Multnomah County, and Gail Carbiener.

C. Action Plan

According to our IRP Guidelines, the action plan should detail the resource activities the utility intends to undertake over the next two to four years to acquire the resources reflected in the preferred portfolio of supply-side and demand-side resources.[12]

Our review of PacifiCorp's action plan focuses on four categories of actions: (1) existing resources; (2) new resources; (3) transmission; and (4) DSM, which includes energy efficiency. The existing resource actions include (in chronological order): Naughton Unit 3 natural gas conversion by the end of 2020; Cholla Unit 4 retirement by the end of 2023, and earlier if possible; Jim Bridger Unit 1 retirement by end of 2023; Naughton Units 1-2 retirement by end of 2025; and Craig Unit 1 retirement by end of 2025.

The new resources actions have two components. First, PacifiCorp will seek to sign power purchase agreements (PPAs) for Utah preference customers. Second, PacifiCorp will issue an all-source RFP to procure resources that can achieve commercial operations

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[10] Guideline 2 also requires regulated energy utilities to prepare and file IRPs within two years of acknowledgment of the utility's last plan. *See also* OAR 860-027-0400(3). We acted on PacifiCorp's last IRP on December 11, 2017, and PacifiCorp filed its 2019 IRP less than two years later, on October 18, 2019.
[11] Staff Report for the May 7, 2020 Public Meeting (Apr 17, 2020).
[12] Order No. 07-002 at Appendix A, Guideline 4.

by the end of December 2023 (subsequently changed to 2024). This RFP is currently in the draft review phase in docket UM 2059.

There are seven transmission action items. The most significant item is Gateway South, a 400-mile, 500-kv transmission line from Wyoming to Utah. As filed, PacifiCorp seeks to build Gateway South by the end of 2023. Four items are designated as reinforcements: Utah Valley, North Utah, South Utah, and Yakima, Washington. PacifiCorp also has two large transmission projects in the planning phase: Boardman to Hemingway and Gateway West segments, and PacifiCorp plans to continue participating in those projects.

The category of DSM focuses on energy efficiency and demand response. For demand response, PacifiCorp seeks to acquire cost-effective demand response in Utah, targeting approximately 29 MW of incremental capacity from 2020 through 2023. For energy efficiency, PacifiCorp provides annual energy efficiency procurement targets for energy and capacity. PacifiCorp also plans to continue its work on energy efficiency bundling methodologies in the 2021 IRP.

D. Acknowledgement

Our acknowledgment of an IRP means that the Commission finds that the utility's plan is reasonable at the time of acknowledgment.[13] In the past, we have declined to acknowledge specific action items if we are not satisfied that the proposed action is part of a portfolio representing the best combination of cost and risk for customers.

Acknowledgment is not a guarantee of cost recovery, nor is consistency with an acknowledged plan a requirement for recovery of resource costs in rates. Acknowledgment provides guidance for later ratemaking proceedings, which are the forum for the Commission to make its ultimate decision to approve or disapprove a resource procurement as prudent and recoverable in customer rates. Consistency with an acknowledged plan may be used as evidence in support of favorable ratemaking treatment, but the utility still must demonstrate that its actions remained reasonable, particularly in light of any material changes in the facts, circumstances and assumptions that supported IRP acknowledgment.

III. DISCUSSION

A. PacifiCorp's Portfolio Analysis

In this section, we discuss some of the stages of PacifiCorp's portfolio development process that attracted attention in the 2019 IRP. We first describe the coal studies that occurred prior to portfolio development. Next, we describe PacifiCorp's resource

[13] Order No. 07-002 at 16 (Jan 8, 2007).

portfolios that meet projected gaps in the load and resource balance. This step is followed by portfolio analysis, including PacifiCorp's targeted reliability analysis. The final steps in the process are PacifiCorp's comparative analysis of different portfolios, its selection of a preferred portfolio, and its development of an action plan.

After considering comments on various aspects of PacifiCorp's portfolio analysis, we include conditions that direct certain additional analysis in PacifiCorp's next IRP, and we acknowledge PacifiCorp's portfolio analysis because it reasonably captures the comparative cost, risk, reliability and emission levels of portfolio options.

1. Coal Studies

In our order on PacifiCorp's 2017 IRP, we adopted a request from Staff and stakeholders for PacifiCorp to study the economics of retiring its coal units.[14] We directed PacifiCorp to use System Optimizer to consider individual unit-specific retirement scenarios and to report on the resulting cost difference from the base case. We reviewed the initial analysis in September 2018 and provided direction on next steps, with a collaborative process for stakeholder input and a request that PacifiCorp explain how it planned to apply key information learned from the coal analysis into the 2019 IRP so that coal retirement is fully explored as a resource option.[15]

PacifiCorp provided the updated, publicly available coal analysis in this docket in December 2018.[16] The unit-specific analyses were a straightforward view of the benefit or cost of near-term retirement of individual units, and identified Naughton 1-2, Hayden 1-2, Bridger 1-2 and Craig 2 as providing the largest potential benefits from 2022 retirement. PacifiCorp then conducted "stacked" retirement analyses, which assessed combinations of coal unit retirements. Those analyses began with an evaluation of the retirement of the two least economic coal units (Naughton 1-2) and then layered in retirements of the next least economic units, one at a time (Jim Bridger 1, then Hayden 1, and then Craig 2). PacifiCorp also conducted an initial reliability assessment and concluded that retirement cases can degrade system reliability and that additional analysis was needed to determine the resource mix and costs to alleviate capacity shortfalls. PacifiCorp filed a notice with a four-month extension for filing its 2019 IRP to enable it to resolve the reliability challenges and complete the coal studies.[17]

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[14] *In the Matter of PacifiCorp's 2017 Integrated Resource Plan*, Docket No. LC 67, Order No. 18-138 (Apr 27, 2018).
[15] Order No. 18-360 (Sep 28, 2018), *modified by* Order No. 18-424 (Oct 30, 2018) (extending the deadline by four weeks).
[16] PacifiCorp's Compliance Filing in Accordance with Order No. 18-360 (Dec 5, 2018).
[17] PacifiCorp's Notice of Extension of 2019 IRP Filing Date (Jan 28, 2019).

In May 2019, PacifiCorp presented updated coal analysis which added an incremental 500 MW of flexible capacity to address reliability issues. The updated analysis continued to show the greatest potential customer benefits from accelerating retirement of the Naughton and Jim Bridger units.[18] PacifiCorp explained that it would complete additional analysis in the IRP to include alternative operational scenarios for existing coal units (*i.e.*, gas conversion, reduced operating minimums, and seasonal operations), assessment of implementation and resource adequacy risk, and employee and community transitions (*i.e.*, staging of potential early coal retirements).

In the filed IRP, PacifiCorp explains the coal studies informed the plan by driving coal retirement assumptions in the initial portfolio development step.[19] More than half of the 2019 initial portfolios explored variations in early retirement timing for Jim Bridger 1-2 and Naughton 1-2 to realize cost savings. PacifiCorp also incorporated retirement assumptions for units that were not the focus of the coal study, but showed benefits of early retirement, such as Cholla 4 and Colstrip.

a. Comments

Stakeholders broadly supported PacifiCorp's coal analysis and agreed with how PacifiCorp carried over early retirement years from the coal studies to the IRP portfolios. Stakeholders did raise two concerns with specifics of the coal analysis on the Jim Bridger units. First, CUB states that Selective Catalytic Reduction (SCR) costs should be excluded from coal studies because they potentially distort the results. CUB explains that SCR requirements in the past have largely been negotiated away, and going forward it is unlikely that any coal unit could justify a large capital investment such as SCR.

Ultimately, Staff, CUB, and Sierra Club support the coal analysis that is incorporated into the 2019 IRP, but ask for new coal analyses in the 2021 IRP where they may be able to change some of the modeling assumptions. Staff and Sierra Club (with support from NWEC and CUB) request that we direct PacifiCorp to include in its 2021 IRP development an updated economic study of retirement dates for all the coal units on PacifiCorp's system. Staff explains that an economic study should accomplish the same goal that the unit-by-unit study accomplished in the 2019 IRP. The unit-by-unit study hand picked different retirement years to be re-run in the model and Staff is open to a study approach that may be more optimal, such as modeling that evaluates different retirement years on its own (endogenously). Staff also requests specific consideration of earlier retirement dates for Jim Bridger 3 and 4 reflective of the corrected portfolio analysis in the 2019 IRP. Sierra Club requests that updated coal analysis be done in 2020, with an update on how the company is responding to the rapid and dramatic

[18] PacifiCorp's Study Results and Supporting Materials of the Updated Coal Analysis (May 16, 2019).
[19] 2019 IRP at 197.

changes in the U.S. economy (demand and commodity updates) brought about by COVID-19.

PacifiCorp commits to evaluate economic early retirement dates and commits to heavily engage stakeholders in that work beginning in the public input process during 2021 IRP development. PacifiCorp hopes to have a more robust process than the unit-by-unit modeling runs. PacifiCorp is exploring its modeling options and will update stakeholders on modeling tools in summer to fall 2020.

An additional future uncertainty addressed by Staff is PacifiCorp's Multi-State Protocol (MSP) that provides for Oregon exit dates from coal units, and also describes nodal pricing as an upcoming development for PacifiCorp's net power costs filings. Staff requests a condition in this order requiring PacifiCorp to work with stakeholders in the early stages of 2021 IRP development to determine the type of analysis or sensitivity that would best allow the company to consider and assess the future cost-effectiveness of specific coal units including Hunter, Huntington, and Wyodak if nodal pricing and the Energy Day Ahead Market (EDAM) are realized, with the goal of including such an assessment in the 2021 IRP. Staff also suggests that PacifiCorp could provide a workshop for Oregon Staff to discuss the Oregon-specific economics of coal retirements or exit dates in the 2021 IRP and onward under nodal pricing, EDAM, and expected changes to resource allocation. NWEC supports Staff's conditions.

b. Resolution

Early in the coal studies development process we expressed our expectation that early retirement would be considered as a resource strategy in the 2019 IRP and that retirement dates in the IRP would be determined using thorough analysis that identifies which retirement dates provide optimal value to ratepayers. We engaged with the coal analysis in four different public meetings from August 2018 through May 2019 to ensure the scope of the coal studies would answer our questions, that the process would include stakeholder feedback, and that the results would be transparent. We find that the coal studies met our goal of informing the 2019 IRP by carrying over retirement dates with the highest identified customer benefits. The coal analysis consistently showed customer savings from early retirement of units at the Naughton and Jim Bridger coal plants located in Wyoming. PacifiCorp reasonably incorporated a range of early retirement years for these units into its portfolio development process.

We adopt Staff's condition for updated coal analysis on a timeline that informs the 2021 IRP because we view the coal analysis as a fundamental input to the IRP portfolios.[20] Because PacifiCorp's 2021 IRP will be filed in 10 months (April 2021), we do not

[20] *See, e.g.,* 2019 IRP, Appendix R Coal Studies at 597, 607 (identifying Hayden 1 and 2 and additional Jim Bridger units as high cost).

require a special coal update prior to the 2021 IRP. We leave this condition flexible, with the direction that PacifiCorp is to include in its 2021 IRP development process an updated analysis identifying the most cost-effective coal retirements individually and in combination. For SCR assumptions, PacifiCorp is to work with stakeholders on the judgement calls where SCR can be reasonably avoided or not. PacifiCorp is to update its inputs for correct Jim Bridger cost assumptions, as well as update its assumptions to reflect changes to the economy associated with COVID-19.

Regarding the EDAM and nodal pricing workshop, we understood PacifiCorp's view to be that nodal pricing will not materially affect its coal units and that modeling EDAM is premature. We adopt a compromise condition whereby PacifiCorp is to provide a workshop or update for the Oregon Commission on PacifiCorp's timeline and sequence for incorporating nodal pricing and other MSP issues and EDAM into its IRP process.[21]

2. Load and Resource Balance

PacifiCorp's IRP assesses its load and resource balance on a capacity and energy basis over the first ten years of the planning horizon. PacifiCorp estimates its electricity demand with its load forecast, which shows a compound annual growth rate system-wide over a ten-year period of 0.87 percent.[22] The coincident peak forecast is the annual maximum hourly load, and PacifiCorp shows a forecast of almost 11,000 MW total system-wide demand in 2028.[23]

PacifiCorp selected a 13 percent planning reserve margin level as the percentage of incremental generation, above what is needed to meet firm system demand, necessary to ensure reliable service in light of outages and uncertainties.[24] After accounting for the 13 percent target planning reserve margin, load growth, coal unit retirements from the preferred portfolio, and energy efficiency savings from the preferred portfolio, PacifiCorp assesses its capacity surplus or deficit.

PacifiCorp's IRP depicts the capacity deficit along with the amount of the deficit that PacifiCorp projects can be served by front office transactions (FOTs). FOTs are proxy

[21] To the extent necessary to accommodate any *ex parte* restrictions associated with the MSP or other pending contested cases, while reasonably engaging the information needs of both Commission Staff and Commissioners/Administrative Hearings Division, this workshop or update may need to be conducted in two parts.
[22] 2019 IRP Volume II at 1.
[23] 2019 IRP Volume II at 3.
[24] PacifiCorp must hold approximately six percent of its resources in reserve to meet contingency reserves, and the Flexible Reserve Study identifies a regulation reserve requirement of 531 MW. PacifiCorp states this sums to 10.5 percent to 11.5 percent of operating reserves before considering longer-term uncertainties such as extended outages (transmission or generation) and customer load. The planning reserve covers PacifiCorp's short-term operating reserves plus includes additional reserves to improve reliability.

resources used in the IRP portfolio development process to represent firm forward short-term market purchases for summer and winter on-peak delivery. FOTs are recognized as sufficiently firm, for planning purposes, to count toward the planning reserve margin (non-firm system balancing purchases, by contrast, are not counted). The IRP contains a Western Resource Adequacy Evaluation that examines market depth for FOTs; based on that study, for the 2019 IRP, PacifiCorp established a maximum availability of 1,425 MW of FOTs.[25] In the 2019 IRP, PacifiCorp identifies capacity deficiencies ranging from 746 MW to 1385 MW during the July summer peak from 2020 to 2027, and assumes that the deficit over that period can be met entirely by FOTs.[26] Using its IRP model, PacifiCorp then assesses whether procuring new resources, rather than relying on FOTs, produces a lower cost, lower risk portfolio. Based on this analysis, the 2019 IRP shows PacifiCorp relying significantly less on FOTs than did the 2017 IRP.

PacifiCorp also reports its energy balance, but states that the usefulness of the energy balance is limited because it does not address the cost of the available energy. Outside of peak periods, PacifiCorp economically dispatches its resources based on load and market conditions. In periods when variable costs of its system resources are less than the prevailing market price for power, PacifiCorp makes off-system sales that reduce customer costs. Consequently, PacifiCorp's energy balance reflects these economic balancing sales and purchases and depicts a significant energy surplus until the summer of 2026, when a seasonal short energy position first appears without the addition of incremental resources to the portfolio.[27] The incremental resources in the preferred portfolio contribute to significant economic balancing sales on an annual basis for the duration of the analysis.[28]

PacifiCorp models qualifying facilities as part of the power purchase agreement (PPA) resources in its load resource balance. PacifiCorp shows an overall declining level of Qualifying Facility (QF) resources, with contract expirations shown around 2021, 2025, 2033 and 2037.[29] PacifiCorp does not forecast any contract renewals for the QFs.

a. Comments

AWEC argues that PacifiCorp has not identified a capacity need. In response, PacifiCorp states that the 60 percent decline in FOTs from the 2017 IRP is largely driven by the improving economics of renewable resources, displacing FOTs as a mechanism to meet system need. Staff notes that the preferred portfolio includes several gigawatts of new resources in 2023, yet the load resource balance study shows that the company does not

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[25] 2019 IRP Volume II at 139.
[26] 2019 IRP Table 5.12 at 115.
[27] 2019 IRP Figure 5.10 at 123
[28] PacifiCorp Final Comments at 8 (Apr 1, 2020).
[29] 2019 IRP Figure 5.2 at 108.

have a strict need for new capacity that cannot be met by available FOTs until around 2028. Staff finds that, while the acquisition of resources in advance of need can potentially be part of a portfolio that best balances cost and risk under certain circumstances, the risks of such a strategy increase with each additional year the resources are moved ahead of a strict capacity need. PacifiCorp responds that in 2024 it has a capacity shortfall of approximately 950 MW and that the resources in the preferred portfolio total just over 730 MW of capacity contribution.

Staff questions PacifiCorp's capacity contribution calculation and whether it is appropriate for inclusion in the load resource balance study. Staff requests a condition in this order directing PacifiCorp to include additional explanation of how the capacity contribution of renewables was calculated for the 2019 IRP. NWEC supports Staff's requested condition, and requests a directive for a detailed consideration of hybrid resources such as solar and/or wind plus battery storage. PacifiCorp agrees to provide a presentation as part of the 2021 IRP public input process.

REC argues that PacifiCorp should assume that all QFs will renew their PPAs. REC explains that the vast majority of QFs continue to sell to their interconnected utility and that these QFs provide a real capacity benefit to PacifiCorp. Staff requests the following multi-part condition be added to this order: (1) affirm that QF renewals do provide some capacity value to PacifiCorp's system, given the high historical renewal rate, with consideration that QFs currently may look for other opportunities to sell power if conditions change; (2) direct Staff to investigate whether there are ways to provide the utility greater assurance of continued QF power through contractual or other means; (3) provide direction that, if the company's next IRP does not forecast QF renewals as part of the preferred portfolio, then it should provide an informational sensitivity showing the impact of QF renewals on the preferred portfolio, inclusive of reporting on the types, quantities, and durations of resource deferrals in comparison to the preferred portfolio; (4) announce its intent, by March 1, 2021, to decide in docket UM 2000 or docket UM 2011 the question of whether to provide immediate capacity payments for QFs renewing their contracts; and (5) direct PacifiCorp that, if the decision in docket UM 2000 or docket UM 2011 requires the continuation of capacity payments immediately after QF contract renewal, the company should file a proposed capacity avoided cost rate for renewing contracts, along with all workpapers used to develop the rate, with its avoided cost filing made concurrently with the next IRP pursuant to OAR 860-029-0080(3).

b. Resolution

As discussed below on the RFP action item, we ask PacifiCorp to bring its capacity needs and the economics of its energy position into greater focus through updates and analysis in the RFP docket. We ask Staff to work with the company and the Independent

Evaluator (IE) to come to an understanding of PacifiCorp's capacity needs, the economics of its energy position, and the advantages and disadvantages of greater reliance on FOTs so that we can more fully consider the size of PacifiCorp's procurement. Through PacifiCorp updating its econometric forecast for load and commodity updates, updated coal unit retirements, and the effects of new resources, we will gain a better view of PacifiCorp's capacity needs and the range of its energy position relative to different market prices. We recognize that PacifiCorp's capacity needs could be met with FOTs, rather than with new resources, and because not all of our concerns or questions relating to PacifiCorp's proposed acquisition were answered in the IRP process, we require additional sensitivity analysis and request additional explanation of how PacifiCorp has balanced the near-term cost and optionality benefits of relying on available FOTs against the reliability gains and projected long-term economic benefits of new resource additions.

We adopt the condition on capacity contribution of renewables, as requested by Staff and NWEC. We direct PacifiCorp to provide a workshop or presentation on how it calculates the capacity contribution of renewables (including solar and wind co-located with battery storage) for its 2019 and 2021 IRPs.

Regarding the QF issues, we accept PacifiCorp's commitment to produce a sensitivity or other explanation of the impact of renewing QFs on its load resource balance and direct PacifiCorp to include this in its 2021 IRP. We appreciate Staff and REC showing us a process for linking the quantification of QF capacity with the valuation of that capacity in avoided cost rates. We expect that QF renewals provide some capacity value and will consider this issue further in other proceedings.

3. Reliability Resources and Modeling Impacts on the Coal Units

Following the coal studies and identification of the load resource balance, PacifiCorp completed a portfolio-development process where its capacity expansion model produces a range of different portfolios that meets projected gaps in the load and resource balance or replaces FOTs. A new aspect of the 2019 IRP is that PacifiCorp conducted targeted reliability analysis on top performing portfolios. PacifiCorp states that every resource portfolio selected significant levels of renewable resources that did not fully address capacity shortfalls. PacifiCorp concluded there was an incremental need for 500 MW of reliability resources in order for System Optimizer to consistently create portfolios that would be found reliable. PacifiCorp added that flexible capacity to top portfolios.[30]

[30] 2019 IRP, Appendix R, Coal Studies at 610-11.

a. Comments

Sierra Club raises concerns with the extra reliability resources and reserve requirements. Sierra Club is concerned that the reliability modeling approach is poorly supported, increases portfolio costs, and may bias the analysis towards retaining existing coal units. Sierra Club is specifically concerned that the reliability modeling was a decisive factor in the company's decision to pursue the near-term retirement of only one Jim Bridger unit rather than all four units. Staff also questions whether 500 MW is the correct amount of reliability resources to include as incremental to the company's 13 percent reserve margin. PacifiCorp responds that the 500 MW is consistent with its operational practice where it holds capacity in reserve for contingency, forecast error and intra-hour variability totaling approximately 16 percent of peak load.

Sierra Club raises a related concern about whether PacifiCorp has underestimated Jim Bridger fuel costs. Staff requests a condition in this order so that PacifiCorp will provide a presentation to Staff, Commissioners, and any interested stakeholders who have signed the protective order in this docket regarding the coal mine costs at Jim Bridger and the drivers for the Jim Bridger coal price forecast within 120 days of this docket's acknowledgment order. NWEC supports this condition.

b. Resolution

We adopt Staff's condition with flexibility for PacifiCorp to conduct a workshop anytime in 2020 and for information sharing to occur between parties in a format convenient for participants. During our deliberations we questioned whether this information exchange could occur in an already planned workshop on net power costs. That workshop has since been held, however, and we note that it did not address the specific issue of Jim Bridger fuel price forecasts applicable to the planning timeframe.

We appreciate Staff's and stakeholders' close examination of PacifiCorp's reserve requirements. We find that PacifiCorp reasonably allowed for additional flexible reserves, given its initial reliability analysis in this IRP, but we also agree with Staff and stakeholders that, for future IRPs, PacifiCorp needs to improve the analytical foundations for incorporating additional reliability resources into the IRP. We will continue to follow PacifiCorp's different categories and amounts of reserve requirements in the 2021 IRP as its modeling changes.

B. PacifiCorp's Preferred Portfolio and Action Plan

1. PacifiCorp's Preferred Portfolio Overall

PacifiCorp uses its portfolio analysis to develop a least-cost, least-risk preferred portfolio that includes the best combination of resources to meet customer load requirements over the 20-year study period. The preferred portfolio, as filed, includes accelerated coal retirements and investment in transmission infrastructure that will enable 6,400 MW of new renewable resources by the end of 2023. The preferred portfolio in the action plan time horizon includes nearly 3,000 MW of new solar resources, more than 3,500 MW of new wind resources, nearly 600 MW of battery storage capacity (all co-located with new solar resources), and more than 700 MW of incremental energy efficiency and new direct load control resources. The preferred portfolio also includes the 400-mile Gateway South transmission line, planned to come online (originally by the end of 2023, later updated to 2024 in response to PTC extension), to connect southeastern Wyoming and northern Utah.[31]

Staff explains that at the end of 2019 (after the IRP was filed), the Production Tax Credit (PTC) was extended by one year, extending eligibility to wind facilities that begin construction in 2020 and come online by 2024.[32] In addition, the value of the PTC for the extension year is 60 percent of the PTC, compared to the 40 percent PTC for facilities that begin construction in 2019 and come online by end of 2023. PacifiCorp responds that the PTC extension increased the value of previously selected Gateway South wind resources and also created incentives for wind to be selected by the IRP model. PacifiCorp explains that new wind resources offering bids into its all-source RFP may be more competitive than shown in the IRP.[33]

2. Action Item 1 – Existing Resources

Action Items 1a-1e describe the near-term actions PacifiCorp plans for its coal units. PacifiCorp will convert Naughton Unit 3 to natural gas by the end of 2020. PacifiCorp plans to close five coal units by the end of 2025. PacifiCorp characterizes the retirement schedule for Cholla 4 as 2020-2023.[34] PacifiCorp states it will initiate the process of retiring Cholla Unit 4 as soon as practicable, but will remove Cholla Unit 4 from service no later than January 2023, and earlier if possible.

PacifiCorp plans to close Jim Bridger Unit 1 by the end of 2023, instead of 2028 as previously planned in the 2017 IRP. PacifiCorp has also moved forward the retirement dates for Naughton Units 1 and 2, planning retirement at the end of 2025, instead of the 2029 date in the 2017 IRP. Lastly, PacifiCorp will retire Craig Unit 1 by the end of 2025, the same schedule as the 2017 IRP.

[31] 2019 IRP at 209.
[32] Staff Initial Comments at 25 (Jan 10, 2020).
[33] PacifiCorp Reply Comments at 47 (Feb 25, 2020).
[34] 2019 IRP at 23.

a. Comments

CUB supports acknowledgment of this action item. Multnomah County supports the action item while also stating that PacifiCorp should target more rapid and ambitious coal retirements.

Staff explains that while the action item uses a range of retirement dates for Cholla Unit 4 closure, PacifiCorp recently announced that it will close Cholla Unit 4 in 2020.[35] Staff supports the 2020 announcement because PacifiCorp identified 2020 as the most cost-effective date for Cholla Unit 4 in the 2017 IRP. Staff states that a delay until 2023 would have caused excess expense for customers. Staff recommends in the future, PacifiCorp should be prepared to achieve the most cost-effective retirement date for each unit. Staff also recommends that PacifiCorp make its best estimate of when Cholla (and any other unit) will actually retire, and use that date in any upcoming RFP analysis.

b. Resolution

We acknowledge PacifiCorp's actions for existing resources. We specifically address Cholla Unit 4 retirement. When evaluating near-term retirement dates for Cholla 4, PacifiCorp identified 2020 consistently in its three most recent planning processes. PacifiCorp's action item uses a date range of 2020-2023 for Cholla 4, but the coal studies and the 2019 IRP preferred portfolio identify the end of 2020 as the most economic retirement year for Cholla 4.[36] The 2017 IRP preferred portfolio and the 2017 IRP Update also selected year-end 2020.[37] We find this record continues to support a 2020 closure date as the least-cost action. We recognize that particularly retirement of co-owned units or units operated by a third-party is complex, perhaps adding uncertainty to timeframes, but we also note that planning analysis has pointed to end of 2020 closure for several years, giving PacifiCorp ample time to have taken these actions as well as to proactively work with the impacted workforce and communities.

3. Action Item 2 – New Resources

PacifiCorp plans two actions for new resources. First, PacifiCorp will issue an RFP to secure resources for customer preference (voluntary green) programs in Utah. Second, PacifiCorp will issue an all-source RFP to procure resources that can achieve commercial operations by the end of December 2023.

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[35] Staff Comments at 63 (Jan 10, 2020).
[36] 2019 IRP at 98, 278.
[37] *PacifiCorp 2017 Integrated Resource Plan Update,* Docket No. LC 67 at 78-80 (May 1, 2018) ("Overall, the increase in present-value system costs in each price-policy scenario does not support converting Cholla Unit 4 to natural gas at the end of April 2025.").

a. Customer Preference RFP

PacifiCorp intends to sign three PPAs for Utah preference customers. Staff requested that we include conditions in this order requiring PacifiCorp to file additional information on these acquisitions to allow Staff to review rate and system impacts. PacifiCorp opposed Staff's requested condition language to the extent that it would apply to Utah contracts and to the extent it would require workpapers to be filed before the acquisition is complete.

During our May 7 deliberations, Staff and PacifiCorp developed and agreed on modified language that we adopt. We acknowledge Action Item 2a subject to the condition that PacifiCorp files all relevant workpapers for resource acquisition and rate setting in any customer preference RFP with the Oregon Commission in this docket at the time it files a request for waiver or notice of exception under the competitive bidding rules or within 30 days of acquisition of the resource, whichever occurs first.

b. All-Source RFP

As filed, Action Item 2b describes PacifiCorp's plan to issue an all-source RFP for resources to come online by end of 2023. Separately, in February 2020, PacifiCorp filed an application, docketed as UM 2059, for selection of an IE in accordance with our competitive bidding rules. In April 2020, PacifiCorp filed its draft version of the 2020AS RFP. We will review the draft RFP at the July 2, 2020 Special Public Meeting.

i. Comments

This action item generated significant stakeholder comment and engagement. Staff requests several conditions be included in this order. First, Staff requests that the item reflect the extension of PTCs through December 31, 2024. PacifiCorp states this change has been reflected in the RFP, which states that projects must achieve a commercial operation date no later than December 31, 2024, with a note explaining that full Investment Tax Credit (ITC) benefits for solar resources require an online date by December 31, 2023.[38]

Second, Staff requests that PacifiCorp conduct an additional analysis to address the risk of future market prices that are different than PacifiCorp's market forecast, as well as a future market with lower prices resulting from PacifiCorp's procurement of up to 6 GW of renewable resources. Staff recommends a condition requiring PacifiCorp to conduct additional analysis and provide the results in this docket and in the RFP docket before we consider acknowledgment of an RFP final shortlist. PacifiCorp responds that it will use

[38] *In the Matter of PacifiCorp, dba Pacific Power, Application for Approval of 2020 All-Source Request for Proposal*, Docket No. UM 2059, Final Draft 2020AS RFP (Apr 22, 2020).

updated price curves when evaluating bids in the 2020 all-source RFP and that these price curves will be developed assuming construction of 2019 IRP preferred portfolio resources. NWEC generally supports the extra analysis requested by Staff. AWEC recommends the RFP not be acknowledged both because PacifiCorp fails to demonstrate a capacity need and because the action item is too open-ended and non-specific to be acknowledged.

Staff also requests a condition limiting procurement under the RFP to no more than 110 percent of the resources selected to come online in 2024. In response, PacifiCorp proposes to target its procurement of resources to no more than the amount necessary to meet shortfalls in its projected capacity position, accounting for planned resource retirements and incremental energy efficiency savings. PacifiCorp offered that if the final shortlist contains resources contributing capacity in excess of that capacity position, it would identify the marginal bids that would be eliminated from the final shortlist if it were capped at levels necessary to meet its projected capacity position and provide support for why these resources nonetheless should be procured when seeking acknowledgement of the final shortlist.

ii. Resolution

We acknowledge this action item with conditions based on Staff's recommendations. Acknowledgment is our finding that it is reasonable for PacifiCorp to issue an all-source RFP, but it is not acknowledgment of procuring the full preferred portfolio. We will rely heavily on the RFP process for additional analysis on the proper scope of PacifiCorp's procurement. Our conditions on this action item include:

- <u>Updated Load and Market Forecasts:</u>
  - <u>Updated Price Curves:</u> PacifiCorp will use updated load and market forecasts at all relevant times (in the initial and final shortlist).
  - <u>New Resources</u>: All relevant RFP analysis will include the portfolio and market impacts of adding the selected new resources (modeled from the resources selected in the 2019 IRP preferred portfolio or in the shortlist itself).
  - <u>Oregon Preference Customers:</u> PacifiCorp will work with Staff to identify Oregon preference customer and make best efforts to estimate demand and the impact of that demand on PacifiCorp's capacity need.
- <u>Off-System Sales Sensitivities</u>: Staff will work with the IE, Commissioners, and PacifiCorp to define sensitivities that highlight customer impacts from futures having significantly fewer off-system sales than assumed in the IRP, or significant reductions in off-system sales revenues, due to lower market prices, lower loads, higher WECC-wide renewable additions, or other factors.
  - <u>Preview after the Initial Shortlist</u>: A stakeholder process for initial scoping of the sensitivities should occur this summer. We request a summary of the

sensitivities by September 2020, with indicative analysis based on the initial shortlist to be produced while the cluster study is underway and filed before the end of 2020.
    - Final Shortlist: Complete results will be required with the final shortlist. When presenting sensitivity analysis, PacifiCorp will identify how its proposed acquisition would be modified in the sensitivity case, to give an indication of how variability affects PacifiCorp's underlying analysis.
- Customer Impacts/Revenue Requirement Analysis:
    - PacifiCorp will file, with the RFP shortlist and with the indicative analysis described above, a year-by-year revenue requirement analysis of procurement of the shortlist for the base case and any other futures and sensitivities, including the off-system sales sensitivities described above.

We understand that several inputs affect the margin on PacifiCorp's off-system sales, including the amount of load within PacifiCorp's system and in other markets, the seasonal and hourly market price for power, the dispatch cost of PacifiCorp's generating resources, the location and timing of forecast sales, the carbon price forecast, and the natural gas price forecast.[39] We noted that the analysis described in Staff's requested condition is a reasonable starting point, but we are open to suggestions on how to consider any of these inputs in an analysis that identifies a level of off-system sales that poses a higher level of risk to customers, and the cost impact to customers if projected sales are not realized. This extra analysis should not be contentious, in part because it will not be used to determine our conclusion. We are seeking bookends to test the modeling against a wider range of futures.

Along with the above conditions, we note that, if the all-source RFP results in a shortlist that contains materially higher greenhouse gas emissions than the preferred portfolio of mostly renewable, storage, and demand-side resources, this would present an emissions risk factor that was not considered in the IRP, would be difficult to consider for the first time in the RFP, and would need to be examined to determine if it runs counter to Oregon policy and Governor Brown's Executive Order 20-04, signed on March 10, 2020.

Finally, we decline to adopt a condition capping the RFP because the size of the procurement can be considered in the RFP docket when we have the additional analysis. PacifiCorp has shown there is a wide range of discretion and judgment in the company's energy position relative to market and in the balance between long-term resources and FOTs. We do not acknowledge any particular level of resource procurement, and look to

[39] Staff Initial Comments at 26 (Jan 10, 2020) ("The market price forecast is an important factor in IRP modeling because market prices affect the economics of new resources. If market prices are high, new resources look more affordable in comparison."). Staff considered two inputs that cause the 2019 IRP to have a higher market price forecast than the 2017 IRP, a higher carbon price that starts in 2025, and higher natural gas prices due to liquefied natural gas (LNG) exports.

PacifiCorp to justify its shortlist size in light of the bids received, portfolio analysis, and the additional RFP analysis we have required to improve our visibility into the market risks of over-procurement.

We further note that, in response to Staff's recommended condition capping the shortlist at 110 percent of the preferred portfolio, PacifiCorp offered a condition under which it would target an amount of resource procurement to meet its identified capacity need (presumably, on a capacity contribution basis), and would identify and separately justify selected bids that resulted in more capacity than needed. Although we expect PacifiCorp's proposed analysis would aid in our evaluation of RFP portfolios, and we encourage it, we do not regard it as a meaningful limit on the level of procurement resulting from the RFP. This is because, depending on resource capacity contributions, procurement to meet PacifiCorp's capacity need could exceed the resources in the preferred portfolio by a significant amount. Further, because PacifiCorp arguably could meet a portion of its capacity need with FOTs rather than with new resources, PacifiCorp must continue to justify the compelling economic benefits of new resource procurement, even if it falls below PacifiCorp's projected capacity need.

4. Transmission Actions

PacifiCorp states that the preferred portfolio includes near-term transmission investment to facilitate the delivery of new renewable energy resources to PacifiCorp customers. The transmission action items include construction of Gateway West, the 400-mile transmission line planned to come online by the end of 2023 (now 2024) to connect southeastern Wyoming and northern Utah. The preferred portfolio and the action plan also include near-term transmission upgrades in Utah and Washington.[40] PacifiCorp seeks to continue its participation in the development agreement for Boardman to Hemingway, and seeks to continue permitting efforts for the remaining segments of Gateway West.

a. Comments

Transmission action items also generated substantial stakeholder feedback. NWEC noted that an important question still on the table is whether careful portfolio development and sequencing of new renewable acquisition, coal retirement and enhanced demand side management can defer or avoid new transmission builds. Sierra Club argues there is a disconnect between the generation and transmission sections of PacifiCorp's action plan and that PacifiCorp is asking for acknowledgement of billions of dollars in transmission projects on the basis of the possibility that it might develop generation resources that

[40] 2019 IRP at 247.

would require those transmission projects. For similar reasons, AWEC recommends non-acknowledgement of Gateway South.

At our May 7 deliberations, Staff and stakeholders made three main recommendations. First, Staff recommended that we not acknowledge transmission items listed in the action plan that are substantially complete. PacifiCorp was agreeable to removing such items from its request for acknowledgment.

Second, Staff recommended that we acknowledge with conditions the transmission items such as Gateway South that are dependent on selection in the RFP.

Third, for the large projects such as Boardman to Hemingway and the remaining segments of Gateway West, NWEC requested new analyses in the 2021 IRP. NWEC requested a full non-wires assessment for the remaining elements of Gateway West. NWEC also requested the 2021 IRP include the potential system benefits and the full set of commercial arrangements with Idaho Power Company and the Bonneville Power Administration concerning Gateway West and Boardman to Hemingway.

b. Resolution

As recommended by Staff and agreed to by PacifiCorp, we decline to acknowledge the transmission projects that are already under construction.

We adopt Staff's other recommendations, including Staff's recommendation to acknowledge transmission items such as Gateway South only insofar as they are selected in the RFP. Our acknowledgement here is more limited than a typical acknowledgement, because the RFP is an immediate and clear next step that will test the costs and benefits of all generation-dependent transmission upgrades against each other.

The RFP contains an interconnection topology, and generation projects will be sorted by their enabling transmission upgrades. Regardless of whether a particular transmission upgrade was included in this action plan, we will fully consider the costs and benefits of all transmission and generation combinations presented in the RFP. We will pay particular attention to the revenue requirement cost of each combination. For a major expenditure like Gateway South that has moved forward in time, we will examine the near-term customer costs.

For the third category of conditions relating to non-wires alternatives, we accept PacifiCorp's offer of a Commission workshop before the 2021 IRP is filed. The workshop should address how PacifiCorp's IRP relates to its long-term transmission plan. We would like to explore whether the IRP examines the economics of different transmission upgrades and the long-term transmission plan such that we could or should acknowledge a transmission upgrade in the IRP based on economics. PacifiCorp noted at the public meeting that transmission upgrades that are driven by contractual or OATT requirements are more the company's concern (and less of a state-Commission concern), and we would like to discuss how PacifiCorp may be able to differentiate the drivers of transmission upgrades going forward. We would also like to begin a discussion about what an alternatives assessment such as a non-wires assessment requested by NWEC would look like in the IRP. We indicated concern over PacifiCorp frontloading customer costs of transmission, and we would like to have better visibility into plans for transmission projects that will involve our acknowledgement and will have significant retail customer costs, and how an alternatives assessment could consider lower cost options.

5. *Customer Resource Actions – Action Item 4*

PacifiCorp includes action items for demand response and energy efficiency. For demand response, PacifiCorp seeks to acquire cost-effective demand response in Utah targeting approximately 29 MW of incremental capacity from 2020 through 2023. For energy efficiency, PacifiCorp provides annual energy efficiency procurement targets for energy and capacity. PacifiCorp also plans to continue its work on energy efficiency bundling methodologies in the 2021 IRP.

a. Comments

Staff, CUB, and NWEC commented on these action items. For demand response, commenters recommended that we affirm that acquiring all reasonable and cost-effective demand response is a high priority for the Oregon Commission. Commenters asked whether PacifiCorp's demand response RFP may be coordinated with the all-source RFP. Commenters asked for conditions so that PacifiCorp is directed to work with stakeholders on the results of the demand response RFP. Commenters recommend that PacifiCorp continue to engage Staff and interested stakeholders in discussion and review of PacifiCorp's methodology for demand response cost-effectiveness and in discussion of additional demand response programs.

For energy efficiency, Staff recommends we acknowledge PacifiCorp's targets. Staff requests a condition that PacifiCorp will look at the bundling process for efficiency measures in the IRP and work with stakeholders to make improvements.

Staff also raised the issue of Class 3 DSM, which is price response and load shifting such as time-of-use pricing plans, critical peak pricing plans, and inverted block tariff designs.[41] Staff recommends that PacifiCorp conduct a Class 3 DSM workshop.

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[41] 2019 IRP at 105.

b. Resolution

We acknowledged the items in Action Item 4 with conditions. For energy efficiency, we adopted Staff's updated, more flexible condition on energy efficiency bundling. Specifically, PacifiCorp should work with stakeholders and Staff in the 2021 IRP development process to select two to four bundling strategies in an effort to identify the highest level of cost-effective energy efficiency by state and across the system. The collaborative decision process should consider bundling energy efficiency measures by energy cost, capacity contribution cost and measure type, as well as potentially by other metrics. The company should report on the collaborative process, bundling methods chosen, and any results in a filing before the filing of the 2021 IRP. PacifiCorp may hire a third party to conduct this analysis if needed due to resource constraints, but should coordinate with stakeholders on the scope of the work and timing.

For demand response, we agreed that we are committed to cost effective and reasonable demand response, as refined by CUB. We adopted Staff's conditions, including a modified condition that:

- PacifiCorp pursue demand response acquisition with a demand response RFP. To the extent practicable, the demand response bids may considered with bids from the all-source RFP.
- PacifiCorp should work with non-bidding stakeholders from Oregon and other interested states to determine whether PacifiCorp should move forward with cost-effective demand response bids, or with a demand response pilot, or both.
- PacifiCorp and/or Staff are to provide an update on demand response efforts at a regular public meeting before the 2021 IRP is filed.

For Class 3 DSM time-of-use pricing, PacifiCorp agreed to provide a stakeholder workshop during 2021 IRP development. We ask that the 2021 IRP summarize the timeframes and participation rates of any existing or planned Class 3 DSM pilots or schedules.

6. Front Office Transactions

Action Item 5 describes PacifiCorp's normal business practice of acquiring market purchases for balancing its system. We acknowledge this item.

7. Sale of Renewable Energy Credits (RECs)

Action item 6 describes PacifiCorp's normal business practice to manage RECs. For sales of RECs, PacifiCorp plans to sell RECs that are not required to be held and/or retired for meeting regulatory requirements, such as state Renewable Portfolio Standard (RPS) compliance obligations. For purchases of RECs, PacifiCorp plans to issue short-term RFPs for PacifiCorp's Oregon, Washington and/or California state RPS compliance obligations. PacifiCorp plans to conduct a sale of RECs or purchase on an ongoing basis and based on availability.

Staff sought clarification of the language in the action item. PacifiCorp explained that as a multi-state utility, its different states have varying levels of RPS requirements and some states do not have RPS obligations. PacifiCorp states this action item is intended to allow it to sell RECs allocated to eastern states without a RPS to generate incremental revenue for those states. PacifiCorp generally retains RECs for the western states for RPS compliance purposes, but requests flexibility to manage its RECs based on opportunities it sees in the market.

We acknowledge this action item and accept PacifiCorp's agreement to add detail to this language in the 2021 IRP to more clearly explain its REC management for states with and without RPS requirements management of RECs.

8. Climate Adaptation Plan

Staff recommended that PacifiCorp include a climate adaptation plan in its next IRP. Staff requests that PacifiCorp explain how it is planning for expected climate changes in its service territory. Staff suggests resilience modeling, modeling of more extreme weather and assessment of vegetation management.

PacifiCorp prefers a Commission workshop and/or rulemaking that would allow a holistic approach. PacifiCorp seeks more specific identification of the objectives for a plan and the information to be included.

We adopted a requirement that PacifiCorp include a proposal for the scope of a potential climate adaptation study in its 2021 IRP. We agree with Staff that a climate adaptation plan is appropriate given that climate change will impact PacifiCorp's system in ways that the company should already be aware of and preparing for, and that Oregon policy encourages us to consider climate change impacts. Because PacifiCorp's 2021 IRP is planned to be filed in less than a year, we are comfortable scaling back Staff's original condition. With the next IRP, PacifiCorp will include the scope for a climate adaptation plan. This will also allow PacifiCorp to use its next IRP process to solicit stakeholder feedback on the scope of its plan. Additional discussion in the 2021 IRP of adaptation actions already taking place in the course of normal business, such as changes to modeling inputs such as heating and cooling days or water constraints, is encouraged in the meantime.

9. Consideration of Ongoing IRP Requirements

As an IRP housekeeping matter, we seek to reduce the Oregon compliance items that PacifiCorp carries forward in each IRP. We ask PacifiCorp and Staff to review the

Oregon compliance list, to determine which items they both agree are no longer relevant or necessary, and to provide an update on the list in the 2021 IRP docket. If certain items are not agreed upon or require our review, we ask Staff to bring those to a public meeting before the 2021 IRP.

IV. ORDER

IT IS ORDERED that the Integrated Resource Plan filed by PacifiCorp is acknowledged with conditions as described within this order.

Made, entered, and effective Jun 08 2020.

Megan W. Decker
Chair

Letha Tawney
Commissioner

Mark R. Thompson
Commissioner