- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

PacifiCorp’s 2019 Integrated Resource Plan	DOCKET NO. 19-035-02 ORDER

ISSUED: May 13, 2020

SHORT TITLE

PacifiCorp’s 2019 Integrated Resource Plan

SYNOPSIS

We acknowledge that PacifiCorp’s 2019 Integrated Resource Plan (“2019 IRP”) substantially complies with the IRP Standards and Guidelines. For the reasons we discuss in this order, we decline to acknowledge or approve the Action Plan outlined in the 2019 IRP. The implications of this order on other proceedings will be determined in other dockets; we decline to order any additional process in this docket.

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I. INTRODUCTION AND PROCEDURAL HISTORY

On October 18, 2019, PacifiCorp filed with the Public Service Commission of Utah (PSC) its fifteenth Integrated Resource Plan ("2019 IRP"), pursuant to the IRP Standards and Guidelines ("Guidelines") adopted in Docket No. 90-2035-01.[1,2] PacifiCorp requests the PSC acknowledge the 2019 IRP in accordance with PSC rules and fully support the 2019 IRP conclusions, including the proposed action plan ("Action Plan"). PacifiCorp also requests the PSC specifically acknowledge its plan to construct the 400-mile Aeolus-to-Mona transmission line ("Gateway South") segment of its Energy Gateway project.

The Division of Public Utilities (DPU) and the Office of Consumer Services (OCS) participated in the docket and the following parties intervened: the Utah Association of Energy Users (UAE), Utah Clean Energy (UCE), Western Resource Advocates (WRA), Stadion, LLC, Nucor Steel-Utah, the Interwest Energy Alliance ("Interwest"), and Sierra Club.

By February 5, 2020, the following parties filed comments: DPU, OCS, UAE, WRA, Interwest, Sierra Club, UCE, and UCE/Southwest Energy Efficiency Project ("UCE/SWEEP"). On March 2, 2020, PacifiCorp and UCE filed reply comments.

A. Summary of the 2019 Integrated Resource Plan Results

The 2019 IRP presents PacifiCorp's plan to supply energy and capacity to provide for and manage the growing electricity demand in its six-state service territory over the next 20

[1] *See In the Matter of Analysis of an Integrated Resource Plan for PacifiCorp*, (Report and Order on Standards and Guidelines, issued June 18, 1992), Docket No. 90-2035-01. Future references to Guidelines contained in that order will be referred to by the Guideline number. For example, "Guideline 3" will refer to Guideline 3 from page 19 of that order, without referencing the 1992 order each time the Guideline is referred to in this order.

[2] On March 12, 2019, the PSC approved a request by PacifiCorp to extend the 2019 IRP filing deadline from April 1, 2019 to August 1, 2019. On July 29, 2019, the PSC approved a new request from PacifiCorp to extend the 2019 IRP filing deadline to no later than October 18, 2019 due to IRP modeling issues.

years. The report identifies PacifiCorp's preferred least-cost, least-risk plan ("Preferred Portfolio") to invest in a portfolio of power plants, transmission facilities, firm power purchases, and demand side management (DSM) resources, including energy efficiency and direct load control. The 2019 IRP identifies the type, timing, and magnitude of resource additions and provides a short-term Action Plan.

The 2019 IRP includes a coal study, developed as directed by the Public Utility Commission of Oregon (OPUC) in its 2017 IRP acknowledgement order ("Coal Study"). The Coal Study concludes that there are potential customer benefits from accelerating the retirement of certain coal units, and the greatest customer benefits are associated with the potential early retirement of units at the Naughton and Jim Bridger plants.

PacifiCorp selected its Preferred Portfolio,[3] which it identifies as the least-cost plan, adjusting for risk and uncertainty. To serve system-wide peak hour demand over the next twenty years, the Preferred Portfolio identifies cumulative supply additions (both long- and short-term resources) of 1,872 MW of new gas-fired capacity, 3,029 MW of new stand-alone wind resources, 81 MW of new wind resources that includes storage, approximately 5,745 MW of new solar resources that includes storage, approximately 1,365 MW of battery storage, 2,315 MW of incremental energy efficiency, 444 MW of new direct load control resources, and, on average through the 20-year horizon, 1,044 MW of unspecified annual firm power purchases, also referred to as front office transactions (FOT).[4]

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[3] *See* 2019 IRP, Volume I, at 245-262.
[4] *See* 2019 IRP, Volume I, Table 8.18 at 258.

The 2019 IRP Preferred Portfolio includes the early retirement or repowering of 2,043 MW of existing coal resources, the end-of-life retirement of 3,036 MW of thermal resources, and retirement of 282 MW of hydro, 40 MW of wind, and 33 MW of other resources. The Preferred Portfolio also includes the expiration of 1,284 MW of existing wind Power Purchase Agreements (PPAs) and 1,399 MW of existing solar PPAs.[5]

Planned investment in the Preferred Portfolio differs from PacifiCorp's Fall 2018 Business Plan ("Business Plan") primarily due to changes in coal unit early retirement and thermal plant end-of-life assumptions, expiration of wind and solar PPAs, reduced reliance on FOTs, retirement assumptions for hydro and wind resources, and updated DSM resource assumptions.[6] Differences between the 2019 IRP Preferred Portfolio and the Business Plan are associated with the Preferred Portfolio's assumptions of Naughton Unit 3's gas conversion and Cholla Unit 4's 2020 retirement date. These are coupled with a lower reliance on FOTs, on average. There are also differences in the timing of new renewable resources and storage and modest increases in DSM resources.[7]

The Preferred Portfolio and Action Plan include the construction of Gateway South.[8] PacifiCorp requests the PSC acknowledge Gateway South, asserting it is supported by extensive analysis and will allow PacifiCorp to implement system improvements. According to PacifiCorp, completion of this segment will further improve the reliability of PacifiCorp's transmission system, realizes the full 1,700 MW rating of Gateway South, will allow the addition of up to

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[5] 247 MW of coal-fired capacity is retired or converted to gas and then retired. *See* 2019 IRP, Volume I, Table 8.18 at 258.
[6] *See id*.
[7] *See id.*, Table 9.4 at 297.
[8] *See id.* at 74-75.

1,920 MW of renewable resources to the system, and will provide additional flexibility in the use of least-cost resources from eastern Wyoming or southern Utah to serve customer load.[9]

B. The IRP Process and Standard of Evaluation

Utah Code Ann. § 54-1-10 requires the PSC to "engage in long-range planning regarding public utility regulatory policy in order to facilitate the well-planned development and conservation of utility resources." The PSC relies in part on PacifiCorp's IRP process to fulfill this planning requirement to meet the electrical needs of PacifiCorp's Utah service territory. In 1992, the PSC developed and approved the Guidelines to govern the IRP process and has since issued various orders on IRP filings.[10]

Under the Guidelines, we consider whether to acknowledge the 2019 IRP. Acknowledgment of an IRP means it substantially complies with the regulatory requirements of the planning process. Acknowledgment of an IRP does not constitute regulatory approval for any specific PacifiCorp resource acquisition decision or strategy for meeting its obligation to serve. Resource approval and cost recovery are addressed in dockets separate from the IRP.

II. ISSUES ADDRESSED IN COMMENTS

The parties' concerns with the 2019 IRP include: 1) the IRP process (concerns about the timeliness of providing IRP public meeting materials and requests to perform additional case sensitivity runs related to Gateway South and DSM); 2) modeling inputs and assumptions (disagreements about inputs pertaining to prices, forecasts, studies, etc., options considered or

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[9] *Id.*

[10] Information on historic PacifiCorp Integrated Resource Plans can be found at the following link: https://psc.utah.gov/electric/historic-integrated-resource-plans/.

allowed to be optimized by the models and model functionality); 3) requests for additional information in future IRPs; 4) PacifiCorp's reliability modeling; and 5) the final Preferred Portfolio (lack of sufficient analysis concerning the inclusion of Gateway South).

III. PARTIES' POSITIONS ON ACKNOWLEDGMENT OF THE 2019 IRP

Parties' Comments

DPU recommends the PSC acknowledge the 2019 IRP as largely adhering to the Guidelines. DPU also recommends the PSC acknowledge the development of the Action Plan. According to DPU, PacifiCorp followed the Guidelines in developing its Action Plan, but DPU does not recommend the PSC grant approval or acknowledge any particular item or assumption in the Action Plan.

DPU is not persuaded that the IRP model results reflect the true least-cost, least-risk portfolio for reasons relating to transmission modeling, availability of FOTs in future years, and changes in the production tax credit (PTC) deadlines. According to DPU, it appears the focus of the IRP may be on reducing greenhouse gas emissions rather than finding the least-cost, least-risk portfolio.

OCS recommends that the PSC conditionally acknowledge PacifiCorp's 2019 IRP. OCS states while it appears that PacifiCorp has complied with the Guidelines, it recommends the PSC conditionally acknowledge the 2019 IRP contingent upon PacifiCorp providing a customer rate impact analysis and modeling results without Gateway South in the Preferred Portfolio. OCS maintains no analysis was provided in the late stages of the IRP process that explored cases without Gateway South to verify that the new method for endogenous selection of transmission resources produced the most cost-effective result. OCS is concerned that including this new transmission line in every case may undermine PacifiCorp's otherwise robust modeling and calls into question whether the Preferred Portfolio truly represents the most cost-effective solution.

UAE recommends the PSC decline to acknowledge the portion of the 2019 IRP that includes or relies on the inclusion of Gateway South in the Preferred Portfolio. UAE asserts Gateway South has not been properly evaluated relative to lower cost options such as those identified in the Northern Tier Transmission Group's (NTTG) Economic Study Request Report ("NTTG Report"). UAE asserts PacifiCorp's inclusion of Gateway South in its Preferred Portfolio is based on an outdated assumption about the expiration of PTCs.

UAE asserts that PacifiCorp did not compare potential portfolios against a "status quo" benchmark for existing operations and, therefore, failed to properly evaluate resources on a consistent and comparable basis. UAE requests that the PSC decline to acknowledge the 2019 IRP unless and until PacifiCorp offers a comparison of the 2019 IRP Preferred Portfolio with the 2017 IRP Update, which included PacifiCorp's Energy Vision 2020 resources.

UCE recommends the PSC acknowledge the non-DSM related components of the 2019 IRP and offers recommendations to improve the IRP process going forward.

UCE/SWEEP recommends the PSC not acknowledge the DSM portion of the 2019 IRP and find that the DSM values determined in the IRP are not a cap on PacifiCorp's acquisition of DSM resources. UCE/SWEEP asserts PacifiCorp did not compare DSM to other supply-side resources on a consistent and comparable basis as required, and this leads to a preferred portfolio that is not the least-cost, least-risk option. UCE/SWEEP recommends the PSC direct PacifiCorp to acquire additional cost-effective DSM resources, if and when available, and make a number of modifications to the IRP's Conservation Potential Assessment (CPA)[11] process and modeling of DSM resources in the 2021 IRP.

WRA supports acknowledgement of the 2019 IRP. WRA states that the 2019 IRP substantially complies with the regulatory requirements of the planning process. WRA also asserts that the IRP's Action Plan is reasonable.

Interwest recommends the PSC acknowledge the 2019 IRP on the conditions that interconnection queue revisions are resolved and PacifiCorp's issuance of a request for proposals (RFP)[12] is fair and predictable and includes a commitment to acquire renewable energy and storage facilities pursuant to the IRP Preferred Portfolio. Interwest also recommends the 2019 IRP's proposed transmission expansion plans be approved but only with assurances that PacifiCorp will allow for interconnection of the anticipated renewable energy facilities discussed in the Action Plan.

Sierra Club recommends the PSC not acknowledge any transmission expenditures in the IRP's Action Plan unless they are contingent on PacifiCorp's All-Source RFP (AS RFP) process identifying those expenditures as part of a least-cost resource plan. Sierra Club is concerned that there is a disconnect between transmission and generation resource Action Plan items. Sierra Club states the PSC should ensure PacifiCorp's AS RFP procurement process accounts for the incremental transmission costs associated with potential remote generation resources and argues

[11] The CPA is a supplemental study prepared by Applied Energy Group (commissioned by PacifiCorp) and the Energy Trust of Oregon to develop DSM resource potential and cost assumptions specific to PacifiCorp's service territory. PacifiCorp states that the CPA supports the cost and DSM savings data used during the IRP's portfolio-development process.

[12] On April 9, 2020, RMP filed its 2020 All-Source RFP Application. *See Application of Rocky Mountain Power for Approval of Solicitation Process for 2020 All Source Request for Proposals*, Docket No. 20-035-05.

that transmission expenditures included in the Action Plan should be treated as new incremental costs, not as sunk investments for new generation resources to take advantage of at no additional cost.

PacifiCorp's Reply

PacifiCorp asserts its 2019 IRP and Action Plan comply with the Guidelines. PacifiCorp asserts the 2019 IRP's portfolio modeling was robust and the IRP included prudent planning assumptions that led to selection of a least-cost, least-risk Preferred Portfolio. PacifiCorp also asserts that the Action Plan is consistent with the long-term public interest.

PacifiCorp states the selection of the Preferred Portfolio is supported by a detailed analysis that included: 1) a study of PacifiCorp's coal units; 2) a wide range of resource portfolios; 3) a targeted reliability analysis to ensure portfolios have sufficient flexible capacity to meet reliability requirements; 4) evaluation of the resource portfolios to measure comparative costs, risks, reliability, and emission levels; and 5) development of a near-term resource Action Plan required to deliver resources in the preferred portfolio.

PacifiCorp asserts the 2019 IRP benefited from the 2019 IRP Advancements.[13] PacifiCorp states that through its extensive IRP process it was able to develop a Preferred Portfolio that meets its long-term goals of providing reliable and affordable service to its customers.

Pertaining to DSM, PacifiCorp disagrees that it did not meet the Guidelines that require, in part, that it evaluate all resources on a consistent and comparable basis. According to

[13] See 2019 IRP, Volume I, at 18-19.

PacifiCorp, all supply-side resources, including DSM, must compete on the basis of how the resource contributes to meeting peak demand, which includes considerations of reliability and availability across days, months, and seasons.

IV. DISCUSSION, FINDINGS, AND CONCLUSIONS

A. Issues Related to the IRP's Coal Study and Coal Resources

1. Retirement Assumptions Regarding Coal Resources

Sierra Club contends that PacifiCorp's decision to keep Jim Bridger Units 3 and 4 operating through 2037, rather than retiring those units earlier, is not well supported by the evidence provided in the IRP. WRA asserts that portfolios developed to evaluate the accelerated retirement of Jim Bridger Units 3 and 4 demonstrated significant benefits to customers. WRA states that this warrants further analysis in the next IRP cycle. WRA argues that alternative retirement timing for the Hayden Units was not evaluated as part of the IRP.

PacifiCorp acknowledges it incorrectly modeled mine capital costs in the initial series of cases (the P-45 series) upon which the Preferred Portfolio is based, resulting in an approximate $29 million understatement of PVRR for these cases. PacifiCorp states that correction of this error marginally shuffles the order of closely-related IRP cases only in the medium gas/medium CO2 price-policy scenario, resulting in no impacts to the IRP Action Plan and no meaningful net impacts in the front ten years of the IRP study. In addition, PacifiCorp states that Sierra Club bases its Bridger fuel cost assertion on the costs reported to the Energy Information Administration that do not account for non-cash expenses such as depreciation, depletion, amortization, and associated reclamation costs.

PacifiCorp asserts that an ongoing analysis of Jim Bridger Units 3 and 4 is warranted in the 2021 IRP. PacifiCorp states that the Hayden Units were reviewed in the Coal Study and asserts the Hayden retirement analysis was specifically included in five of the ten stacked studies that were fundamental to the initial cases developed for the IRP.

We find PacifiCorp has reasonably conducted an analysis of coal resources and potential future retirements. We recognize PacifiCorp's commitment to conduct an ongoing analysis of coal units in future IRPs. We do not find any violation of the Guidelines in connection with the concerns of Sierra Club and WRA. Considering that the 2021 IRP will continue to evaluate potential future retirements, it is unnecessary to address the issue further in this order.

2. Environmental Compliance Issues Regarding Coal Resources

Sierra Club contends that the 2019 IRP did not capture some of the major regulatory risks facing PacifiCorp's coal units, particularly for potential pollution control retrofits at PacifiCorp's Hunter and Huntington coal plants pertaining to the regional haze-associated Federal Implementation Plan (RH FIP) or the Utah revised State Implementation Plan (RH SIP).

PacifiCorp contends the costs associated with SCRs for Hunter and Huntington were not reasonably foreseeable at the time the Coal Study was developed therefore it was appropriate not to include these costs in the IRP analysis. PacifiCorp asserts that because of the current appellate posture of the RH FIP, compliance with the FIP for these Units continues to be stayed. PacifiCorp states Utah has submitted a revised RH SIP for EPA's consideration that does not require installation of SCRs on Hunter Units 1 and 2 or Huntington Units 1 and 2. Thus, there are currently no requirements for SCRs at these Units.

Given the current appellate status regarding the RH FIP and the RH SIP and the unknown outcome of that process, we find that PacifiCorp reasonably evaluated foreseeable compliance costs for coal unit pollution control. Accordingly, we conclude that PacifiCorp's evaluation of this issue satisfies the Guidelines.

3. Securitization for the Undepreciated Portion of Retiring Plants

According to Sierra Club, PacifiCorp may be influenced in its decision-making process to retire coal resources because of the potential risks of disallowance for remaining asset balances. To reduce this risk, Sierra Club proposes that the PSC investigate securitization as a potential solution, allowing remaining asset balances at existing coal plants to be refinanced upon retirement.

According to PacifiCorp, cost recovery of remaining asset balances did not influence PacifiCorp's analysis of coal retirements. Further, PacifiCorp has previously explored securitization as a means to recover the unrecovered net book balance for its existing coal plants but argues that it presents a unique challenge for a multijurisdictional utility in that unless all six states in which it operates enact securitization legislation and the corresponding state regulatory commissions issue financing orders, securitization cannot move forward. In addition, PacifiCorp contends that there are many other financial risks associated with securitization.

We find that PacifiCorp has adequately evaluated securitization in connection with coal plants. We conclude that until statutory and regulatory requirements related to securitization become more concrete in all the states in which PacifiCorp operates, it would be premature for us to require any additional investigation in the context of the IRP process.

B. Modeling Issues

1. Production Tax Credits

In December 2019, certain PTC deadlines were extended. DPU and UAE argue that those extended deadlines warrant additional analysis. PacifiCorp asserts 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's model. However, PacifiCorp does not address how the revised modeling runs impacted the selection of other resources or transmission alternatives in its revised analysis. PacifiCorp also did not address conducting sensitivities analyses resulting from a possible increase in the Wyoming wind tax.

The PTC issue demonstrates the dynamic nature of IRP processes generally. The PTC extension occurred after the filing of the 2019 IRP. Accordingly, we find PacifiCorp's treatment of the PTC in the 2019 IRP is consistent with the Guidelines. Because resource approval is a separate process from IRP acknowledgment, though, we fully expect that dockets related to resource approval or a certificate of public convenience and necessity would include adequate evaluation of the PTC extension. We also expect those dockets to give meaningful attention to potential future increases in the Wyoming wind tax. This docket, however, is not the appropriate place to determine what would constitute that adequate evaluation.

2. Transmission Interconnection Queue Reform

Interwest recommends that IRP acknowledgement be conditioned on the resolution of PacifiCorp's interconnection queue reform proposal filed with the Federal Energy Regulatory

Commission (FERC) in January 2020.[14] DPU seeks additional information about whether and how the interconnection queue reform proposal will affect the RFP process. DPU also questions whether FERC acceptance of the queue reform proposal would increase or decrease the amount of qualified facilities for the years 2020 to 2023.

PacifiCorp provides an explanation of the queue reform issue and states that its transmission function is aware of stakeholders' concerns related to this issue. PacifiCorp states it will revise its eligibility requirements or evaluation criteria in the RFP to align with any FERC-directed modifications to its proposal if approved, otherwise it will use its current OATT serial queue interconnection processing approach.

This issue provides another example of the dynamic nature of resource planning. Any FERC queue reform will certainly impact some of the issues addressed by the 2019 IRP, but the ongoing nature of that process does not impact whether PacifiCorp substantially complied with the Guidelines in the development of the 2019 IRP. Other dockets, including future integrated resource planning, are appropriate venues to evaluate the implications of the results of queue reform.

3. Addition of a Reliability Resource

Interwest and Sierra Club assert that PacifiCorp arbitrarily added a 500 MW reliability reserve requirement ("Requirement") that is not necessary for reliability purposes.[15] Interwest asserts this addition is redundant, overstates customer costs, and skews the Preferred Portfolio

[14] In January 2020, PacifiCorp's transmission function filed its interconnection queue reform proposal to modify PacifiCorp's current Open Access Transmission Tariff (OATT) to a first-ready, first-served methodology with FERC.
[15] The reliability reserve requirement is identified in the 2019 IRP, Appendix R - Coal Studies at 610-611.

toward a less cost-effective resource mix. Sierra Club argues that PacifiCorp's reliability resource methodology exaggerates PacifiCorp's need for non-variable generation resources to provide ancillary services and therefore assigns greater value to these units.

UCE contends that PacifiCorp's underlying methodology for the Requirement is overly conservative or likely added unnecessary resources. Particularly, UCE asserts that the methodology does not acknowledge the role of the energy imbalance market (EIM) in accounting for reliability needs.

WRA argues addition of the Requirement may distort retirement and resource acquisition timing decisions. WRA recommends that the PSC direct PacifiCorp to conduct a workshop to discuss the appropriate approach for accounting for reliability needs.

PacifiCorp asserts the analysis underlying the Requirement was identified and developed over the course of the public input process with ongoing stakeholder participation. PacifiCorp argues the Requirement is "data-driven, conservative, and demonstrably necessary," and asserts that the results of the analysis "quantified the reliability shortfalls and demonstrated the necessity of both the [Requirement] and the reliability resource methodology"[16]

PacifiCorp argues that the Requirement is not intended to be incremental to the planning reserve margin but rather reflects a buffer to account for variations in forecasted loads, hydro conditions, and generator outages that are not represented in the IRP's deterministic modeling methodology used in the IRP's reliability analysis. PacifiCorp asserts that given emerging trends in resource types, capabilities, and costs, portfolios would not achieve an adequate level of

[16] PacifiCorp's March 2, 2020 Reply Comments at 15.

reliability to meet load and reserve obligations without the Requirement. PacifiCorp contends the diversity benefits associated with EIM participation are included in the flexible reserve study in the form of reduced regulation reserve obligations and that the EIM does not provide any further capacity or reliability benefits.

We find that PacifiCorp reasonably anticipated that its system may become increasingly complex due to the replacement of retired coal plants with renewable resources and that ongoing reliability assessment will continue to be important. We conclude that Guideline 4.h requires that evaluation, and that PacifiCorp conducted its evaluation in compliance with that Guideline. Reliability assessments will only become more crucial as PacifiCorp's resource mix changes in the future, and those assessments must become an increasingly core aspect of future IRP processes.

4. Renewable Resource Modeling

According to UCE, PacifiCorp limits the IRP model's ability to identify and utilize all potential benefits from renewable energy, such as spinning and non-spinning reserves, thereby limiting the ability of existing and new renewable energy resources to compete with traditional resources on a consistent and comparable basis.

PacifiCorp agrees with UCE that an integrated methodology is preferable to adoption of distinct tools and processes, but PacifiCorp is confident in its valuation strategy and the results of that strategy. PacifiCorp asserts that resource technologies are being fairly and consistently compared.

We find that PacifiCorp has provided adequate evidence in this docket to establish that, in general, it is evaluating renewable resources on a consistent and comparable basis with other resources. Modeling capabilities and tools continue to evolve dynamically, and we conclude that the IRP process provides stakeholders an opportunity to discuss and consider developing methods. We decline to impose any additional requirements in connection with this modeling or the IRP process generally.

5. Renewable Resource Cost Assumptions

Sierra Club and Interwest express concern that the solar operations and maintenance (O&M) cost assumptions used in the IRP for solar resources are overstated, citing industry-standard sources for comparative purposes. Sierra Club argues that because the costs included in the IRP modeling were too high, the number of coal resource retirements was understated.

PacifiCorp states that some of the O&M costs cited by Sierra Club and Interwest include estimates used to calculate the low-end levelized cost of energy for single-axis tracking resources as well as costs for fixed-tilt designs. PacifiCorp asserts that all of the solar resources considered in the IRP are single-axis tracking units and argues therefore that the IRP's fixed O&M costs are expected to be higher than the cited estimates. PacifiCorp states that it is confident that its O&M costs for solar are within industry standards.

We find that PacifiCorp appropriately evaluated O&M costs for solar resources that do not include any fixed-tilt designs.

6. Battery Energy Storage Systems (BESS)

UAE is concerned about the scale of PacifiCorp's proposed reliance on BESS resources for reasons including: 1) lack of clarity on how the batteries will interact/integrate with the rest of the system, 2) unknown ongoing O&M costs, and 3) the need to conduct BESS modeling outside of the PaR system. Therefore UAE requests the PSC require PacifiCorp to provide quarterly updates with certain information on BESS.

We conclude that it is outside the scope of our evaluation of the 2019 IRP to consider ongoing reports in addition to what is currently required by the Guidelines. UAE's request does not allege any Guideline violation, and we conclude that the information UAE seeks is discoverable in future IRP dockets.

C. DSM Resource Issues

UCE/SWEEP contends that the 2019 IRP fails to fully consider the benefits and availability of DSM resources, arguing that this leads to a Preferred Portfolio that is not the least-cost, least-risk option. UCE/SWEEP also maintains that PacifiCorp did not compare DSM to other supply-side resources on a consistent and comparable basis, as the Guidelines require, and states PacifiCorp refused to conduct model runs to test the sensitivity of its modeling to the availability of greater quantities of DSM resources.

UCE/SWEEP asserts the amount of DSM resources that the CPA allows into the IRP model are unreasonably low and are of excessive cost, and recommends the PSC direct PacifiCorp to increase DSM targets and spending if the program DSM performance differs from the amounts identified in the 2019 IRP. In addition, UCE/SWEEP contends PacifiCorp must be allowed the flexibility to deviate from the Action Plan between IRPs. UCE/SWEEP also requests the PSC to direct PacifiCorp to make certain other changes to its 2021 CPA and IRP processes.[17]

[17] See Redacted Comments from Southwest Energy Efficiency Project and Utah Clean Energy, February 4, 2020, at 4.

PacifiCorp asserts that low-cost resources such as DSM are not always the most cost-effective resources when all factors, such as capacity contribution timing, resource availability, and impacts on system reliability are considered. PacifiCorp disagrees with the suggestion that the IRP's optimal selections of any resource should be overridden and notes Guideline 4.i requires PacifiCorp to account for DSM targets, procurement, and costs, and to be flexible in the planning process.

PacifiCorp states it is open to working with stakeholders to identify potential improvements to the CPA methodology and other modeling changes, including how these resources are evaluated with the IRP model. PacifiCorp also states it is willing to work with stakeholders to consider and address feedback received through the CPA workshops for the 2021 IRP.

We find PacifiCorp has reasonably evaluated DSM in the 2019 IRP considering all appropriate factors, and that considering factors such as capacity contribution timing, resource availability, and reliability impacts is necessary to comply with the requirement in Guideline 4.b for a consistent and comparable evaluation of resources, including DSM. In addition, since it appears that many of UCE/SWEEP's concerns stem from the CPA, we find that PacifiCorp has appropriately addressed that issue with a commitment to work with stakeholders to identify potential improvements to the CPA methodology and other modeling changes during the upcoming 2021 IRP process.

D. Process Issues – Timeliness of Public Stakeholder Meeting Materials

DPU, UCE, and WRA voice concerns over the timeliness of PacifiCorp's provision of meeting materials prior to scheduled public stakeholder meetings. DPU states that the 2019 IRP does not fully adhere to Guideline 3 because PacifiCorp did not provide meeting materials until immediately before the public meetings. DPU recommends the PSC require PacifiCorp to provide meeting materials at least three full business days in advance of public meetings. UCE recommends the PSC direct PacifiCorp to publish any materials for future IRP stakeholder meetings at least three work days in advance. WRA recommends that the PSC consider requiring PacifiCorp to provide IRP meeting materials at least 48 hours in advance.

PacifiCorp believes that it met the requirements of Guideline 3, asserting that this guideline does not require PacifiCorp to provide materials by a certain number of days in advance of scheduled meetings. PacifiCorp asserts it held an extensive number of public input meetings and was responsive to as many stakeholder requests as possible during the public input process. PacifiCorp states that provision of meeting materials at least three full business days in advance of the meetings is reasonable in most cases and is willing to commit to making its best effort to meet this timeline as long as there is no undue penalty if, despite those efforts, it is not attainable. PacifiCorp also desires to preserve its flexibility to accommodate as many stakeholder requests to study various future scenarios as it can, given time constraints.

Guideline 3 requires "ample opportunity for public input and information exchange." We find that PacifiCorp has made substantial efforts to accomplish that objective. While we decline at this point to amend Guideline 3 by adding in more specific timing requirements, we conclude that PacifiCorp's commitment to provide materials three business days in advance of meetings generally satisfies Guideline 3.

We also find that IRP development is a dynamic process, and it would be bad policy to establish a guideline on this issue so inflexible as to disallow any circumstance where it is not possible to provide materials that far in advance, or where the material at issue should be distributed even earlier to give parties a reasonable opportunity to evaluate it. We find PacifiCorp's practice in connection with the 2019 IRP, and its commitment for future processes, to be consistent with Guideline 3. If a party can demonstrate, in the future, a pattern of unwillingness to provide meeting materials far enough in advance of meetings to allow parties to reasonably prepare, we could consider re-opening the Guidelines to make them more specific.

E. Miscellaneous Requests Related to the 2021 IRP

OCS asserts that because proposed projects in the 2019 IRP Action Plan are projected to cost $7.3 billion, the PSC should require PacifiCorp to provide a customer rate impact analysis, as it has in some past IRPs. PacifiCorp should provide this as part of the 2019 IRP and in all future IRPs when the Action Plan contains large resource acquisitions or changes.

DPU recommends that separate electric vehicle (EV) forecasts, with sensitivity scenarios, be included in the load forecast used in the 2021 IRP. DPU also requests that PacifiCorp address trends in the observed forecast overestimation and provide in future IRP filings graphs and analysis comparing forecasts to actual results, including system load and natural gas prices.

We anticipate rate impact information associated with some of the investments identified in the 2019 IRP will be provided in future dockets related to significant energy resource decisions or CPCNs. Additionally, should a party believe that more information or analysis is appropriate during the IRP process, it is free to seek such information through the IRP process, data requests, or to file a request for agency action with the PSC to modify the Guidelines. We decline to modify the Guidelines at this time to make them more specific in connection with these requests of OCS and DPU. If a party can demonstrate, in the future, a pattern of unwillingness to provide reasonable responses to information requests, we could consider re-opening the Guidelines to make them more specific.

F. The Action Plan

The 2019 IRP includes an Action Plan identifying specific resource actions PacifiCorp intends to take over the next two to four years to deliver resources included in the Preferred Portfolio.[18] PacifiCorp requests that we acknowledge and express support for this Action Plan. Utah Admin. Code R746-430-1 defines "Action Plan" and outlines the contents and supporting information and analysis required. It also states: "Nothing in these rules requires any acknowledgement, acceptance or order pertaining to the Action Plan submitted." Despite that provision, for clarity we state explicitly that we decline to acknowledge or approve the Action Plan submitted with the 2019 IRP.[19] Comments filed by DPU, OCS, and UAE all, in effect, urge us to refrain from acknowledging the Action Plan, at least not without additional analysis. We find ample support in these parties' comments for their recommendation.[20]

1. Inadequate Evaluation of Transmission Alternatives

Several parties challenge the need for transmission resources included in the IRP's Preferred Portfolio. In particular, DPU, OCS, UAE, and Sierra Club question inclusion of

[18] Utah Code Ann. § 54-17-301 requires PacifiCorp to file any Action Plan developed as part of its IRP to enable the PSC to review and provide guidance to PacifiCorp. In addition, Utah Code Ann. § 54-17-302 requires PacifiCorp to obtain PSC approval of any significant energy resource decision before it constructs or enters into a binding agreement to acquire the resource, unless PacifiCorp requests, and the PSC grants, a waiver. Accordingly, Action Plan acknowledgment (just as with the IRP itself) and resource solicitation/acquisition decision approval processes are separate.

[19] Utah Admin. Code R746-430-2(3) also states that any guidance or review of the Action Plan provided in this order is not binding on PacifiCorp.

[20] These deficiencies disproportionately impact the viability of the Action Plan and are not so pervasive in their effect as to cause us to decline to acknowledge the 2019 IRP generally.

Gateway South in the Action Plan. We find two basic deficiencies in the analysis placing Gateway South in the Action Plan. First, PacifiCorp did not model the Preferred Portfolio without the yet-to-be built Gateway South as a presumed component. Second, PacifiCorp excluded from its modeling a potential alternative transmission expansion case evaluated by NTTG in its 2018-2019 Regional Transmission Plan that demonstrated sufficient merit to warrant PacifiCorp's further study.

PacifiCorp asserts that Gateway South's selection in nearly every resource portfolio obviated the need for a counterfactual case without it. That planning rationale might be appropriate for a transmission addition contemplated many years into the planning horizon that would continue to be re-assessed in future IRPs, but it is inadequate support for an Action Plan calling for nearly immediate construction of the line without identifying and justifying selection of the specific resources that will rely on it and, in particular, their geographic locations.[21] In this context, OCS observes Gateway South will cost nearly $2 billion and states: "No analysis was provided in the late stages of the IRP process that explored cases without the [Gateway South] line – to verify that the new method of endogenous selection of transmission resources produced the most cost effective result."[22] We find PacifiCorp's claimed need for transmission upgrades out of eastern Wyoming (albeit at a lower capacity) to meet OATT interconnection service requirements to be insufficient to justify its failure to provide a comparison base case without Gateway South and other counterfactual analyses. Given Gateway South's cost and the

[21] Sierra Club, on page one of its Opening Comments, highlights this "disconnect between the generation and transmission sections of the Action Plan."
[22] OCS February 4, 2020 Comments at 6.

imminence of certification and construction activities related to it, we conclude it would be inappropriate for us to acknowledge the Action Plan of which it is a core feature without meaningful evaluation of scenarios that do not include Gateway South.[23]

Moreover, we expect analyses offered to form the basis of our acknowledgment of this Action Plan, which proposes several billion dollars of new investment, would examine all known, relevant alternatives. In describing the alternative transmission expansion configuration discussed in the NTTG 2018-2019 Regional Transmission Plan, UAE asserts this alternative would save $1.9 billion in capital costs in comparison to Gateway South. Furthermore, NTTG concluded the alternative configuration "demonstrated acceptable system performance."[24] While there may be other consequences associated with the alternative that are not attractive, we lack concrete information because PacifiCorp did not model it. We recognize that NTTG's study scope, purposes, and processes are distinct from those of PacifiCorp in producing the Action Plan. These distinctions, however, do not justify PacifiCorp in ignoring parties' requests that the NTTG alternative be investigated. Moreover, PacifiCorp does not adequately explain why it should not itself have included the NTTG alternative within its 2019 IRP scenario analyses. In the absence of PacifiCorp demonstrating how including the NTTG alternative within the 2019 IRP modeling process would impact the selection of Gateway South and other potential resources in the Preferred Portfolio, we can only speculate as to the outcome. Under these

[23] PacifiCorp's Reply Comments include the statement: "PacifiCorp intends to include a topology chart specifying targeted procurement levels by geographical area on PacifiCorp's electrical system that is based on the 2019 preferred portfolio as part of the 2020AS RFP." PacifiCorp's March 2, 2020 Reply Comments at 9. In taking no action on the IRP Action Plan we, in part, seek to avoid any implication that we at this time sanction any such topology chart.

[24] NTTG 2018-2019 Regional Transmission Plan at 28.

circumstances, we are unwilling to acknowledge the Action Plan that ignores a known, promising, and possibly far less costly alternative to Gateway South.

2. Lack of Analytical Consistency

The 2017 IRP Action Plan included major investments associated with Energy Vision 2020 projects that were interjected late in the IRP process. In acknowledging that IRP, we expressed less confidence in the Energy Vision 2020 elements of the plan because they had not been fully vetted. OCS calculates the proposed projects in the 2019 IRP Action Plan to cost $7.3 billion, over twice the cost of the Energy Vision 2020 projects. Importantly, PacifiCorp did not shore up the Energy Vision 2020 elements of the 2017 IRP preferred portfolio and use that previously-acknowledged scenario as the status quo benchmark for analyzing potential 2019 portfolios. Instead, PacifiCorp's 2019 benchmark assumes the existence of additional costly resources -- which UAE contends are some of the most expensive new resource additions identified in the Preferred Portfolio. As one example, UAE points out PacifiCorp's 2019 IRP benchmark, designated P-01, assumes the addition of Gateway South in 2024, along with various other transmission and generation projects, including 1,900 MW of Wyoming wind generation planned to interconnect with Gateway South. None of these projects were included in PacifiCorp's 2017 IRP preferred portfolio. PacifiCorp's failure to tie the 2019 Action Plan to its most recently acknowledged preferred portfolio impedes meaningful comparison between the major system modifications proposed now and what PacifiCorp advocated just two years ago. Similarly, PacifiCorp's use of a benchmark disconnected from the 2017 IRP preferred portfolio frustrates our ability to evaluate the costs of present and future resources, and the concomitant revenue requirement impacts, on a consistent and comparable basis (see Guidelines 4.b and 4.g.).

The lack of linkage between the extensive capital costs identified in the 2017 preferred portfolio, which we approved with reservations, and the substantial new and additional capital costs inherent in the 2019 Action Plan further supports our decision to decline to acknowledge or approve it.

3. Questions Regarding the Fundamental Objectives of the IRP as Reflected in the Action Plan

DPU views the 2019 IRP as a possible departure from our expressed fundamental objective of least-cost, least-risk planning. Centered on the coal studies PacifiCorp was required to perform by the OPUC, the 2019 IRP modeling scenarios have been strongly influenced if not controlled by them. These studies call for the closure of many coal plants much earlier than indicated in any prior IRPs. DPU concludes: "[t]o this end, it appears the focus of the IRP may be on reducing GHG [greenhouse gas] emissions, rather than finding the least-cost, least-risk portfolio."[25] DPU's concern is illustrated by its analysis showing the projected energy mix of renewables in 2024 in the 2017 IRP was 20%. In the 2019 IRP it is 40%. That is a dramatic shift in planning over such a short interval – a shift that is projected to be implemented within the relatively brief duration of the proposed Action Plan and that is facilitated by the nearly $2 billion Gateway South transmission line in the base case. It may be that the least-cost, least-risk scenario is also a low GHG scenario that includes a 40% reliance on renewable resources by 2024. But that premise has not been established, given our reservations about the limited scope of transmission alternatives examined in the 2019 IRP and the lack of analytical continuity with

[25] DPU's February 4, 2020 Comments at 3.

the last-acknowledged preferred portfolio. For all of the foregoing reasons, we take no action with respect to the proposed Action Plan.

V. SUMMARY AND CONCLUSIONS

As with previous IRPs, we recognize the substantial body of work completed by PacifiCorp in preparing the 2019 IRP in compliance with the Guidelines. We also appreciate the diligence and thoughtful comments provided by all parties. We acknowledge the growing complexity involved in PacifiCorp's preparation of its IRP and parties' participation in the process.

PacifiCorp filed extensive documentation and workpapers with the 2019 IRP. The level of detail is useful and the information provided is well-organized. We commend PacifiCorp for making this information readily available and encourage PacifiCorp to continue to provide such detailed back-up data and workpapers in future IRPs.

After fully considering the 2019 IRP and the parties' comments and reply comments, and for the reasons we have articulated in this order, we acknowledge that PacifiCorp substantially adhered to the Guidelines in the development of its 2019 IRP. We decline, however, to specifically acknowledge or approve the Action Plan.

Declining to acknowledge or approve the Action Plan does not constitute a denial of any specific resource. Whether this order has any impact on resource approval dockets or other proceedings will be evaluated in those separate dockets.

We are not, however, ordering modifications to the 2019 IRP. Considering the timing of the 2021 IRP and other dockets related to resources addressed in the 2019 IRP, we find that would be an inefficient use of utility and regulatory resources. We also take no position on the extent to which this order may impact other dockets.

VI. ORDER

We acknowledge that PacifiCorp conducted the 2019 IRP in substantial compliance with the Guidelines. We decline to specifically acknowledge or approve the Action Plan. The reasonableness and prudence of some of the specific proposed Action Plan items included in the 2019 IRP are being considered in other dockets and will therefore be evaluated independently, based on the evidence presented in those dockets. We decline to order any additional process in this docket.

DATED at Salt Lake City, Utah, May 13, 2020.

/s/ Thad LeVar, Chair

/s/ David R. Clark, Commissioner

Attest:

/s/ Gary L. Widerburg
PSC Secretary
DW#313778

Notice of Opportunity for Agency Review or Rehearing

Pursuant to Utah Code Ann. §§ 63G-4-301 and 54-7-15, a party may seek agency review or rehearing of this order by filing a request for review or rehearing with the PSC within 30 days after the issuance of the order. Responses to a request for agency review or rehearing must be filed within 15 days of the filing of the request for review or rehearing. If the PSC fails to grant a request for review or rehearing within 20 days after the filing of a request for review or rehearing, it is deemed denied. Judicial review of the PSC's final agency action may be obtained by filing a Petition for Review with the Utah Supreme Court within 30 days after final agency action. Any Petition for Review must comply with the requirements of Utah Code Ann. §§ 63G-4-401, 63G-4-403, and the Utah Rules of Appellate Procedure.

CERTIFICATE OF SERVICE

I CERTIFY that on May 13, 2020, a true and correct copy of the foregoing was served upon the following as indicated below:

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