ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

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September 10, 2018

VIA ELECTRONIC FILING

Public Service Commission of Utah
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

RE: Docket No. 17-035-16
PacifiCorp's 2017 Integrated Resource Plan Update
Reply Comments

Pursuant to the Notice of Filing and Comment Period issued May 3, 2018 in the above referenced matter, PacifiCorp (dba Rocky Mountain Power) submits for electronic filing its reply comments.

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Sincerely,

Joelle Steward
Vice President, Regulation

Enclosures

Response to the Utah Party Comments on PacifiCorp's 2017 Integrated Resource Plan Update

Docket No. 17-035-16

1. INTRODUCTION

PacifiCorp (the "Company") filed its 2017 Integrated Resource Plan Update ("IRP Update") with the Public Service Commission of Utah (the "Commission") on May 1, 2018. The Company's IRP Update was prepared in accordance with the Commission's IRP Standards and Guidelines in Docket No. 90-2035-01.

Consistent with the IRP Update schedule adopted by the Commission, four parties filed comments on July 30, 2018, including the Division of Public Utilities ("DPU"), the National Parks Conservation Association ("NPCA"), Utah Clean Energy ("UCE"), and jointly, UCE and Southwest Energy Efficiency Project ("SWEEP").

In these reply comments, PacifiCorp responds to parties' comments and requests related to coal unit analysis, demand-side management ("DSM"), energy storage, private generation, and other modeling considerations.

II. REPLY TO PARTIES' COMMENTS

DPU Comments

DPU's comments reiterate several of the views expressed in comments filed on October 24, 2017 in response to PacifiCorp's 2017 IRP, which focused on Guideline 3 of the Commission's Standards and Guidelines for IRP acknowledgement. PacifiCorp provided a response to the DPU's recommendations in its reply comments filed on December 15, 2017. In addition to the prior response, PacifiCorp offers a clarification in response to certain items in the DPU's most recent comments.

DPU states in its comments that it has "no way of verifying the results that come from the IRP model runs."[1] However, PacifiCorp has provided workpapers associated with its model runs, including model inputs and outputs, as part of data discs with the IRP Update (and prior IRP) filings. PacifiCorp also offered to walk through its models on-site at PacifiCorp's offices with DPU. In addition, PacifiCorp started its 2019 IRP public input meeting process with a workshop on June 28, 2018 dedicated to discussing its System Optimizer and Planning and Risk models.[2]

[1] Docket No. 17-035-16, Comments from the Division of Public Utilities, July 30, 2018, p.2.
[2] www.pacificorp.com/es/irp/pip.html

DPU also states that in the 2017 IRP Update, "PacifiCorp has added new coal resource action items at each of its Company-owned coal plants, stemming from the Company's June 30, 2018 coal plant analysis."[3] The 2017 IRP Update action plan is unchanged from the 2017 IRP and includes one item related to coal resources, Action Item 5, which includes further study and monitoring of developments that impact the economics of PacifiCorp's coal units for inclusion in future IRPs. PacifiCorp provided a status update to the action plan items in the 2017 IRP Update. As indicated during the 2019 IRP public input meeting process and review of the June 30, 2018 coal plant analysis, PacifiCorp plans to conduct additional unit-by-unit coal plant analysis that will inform assumptions in the 2019 IRP.

NPCA and UCE Comments

NPCA comments focus primarily on PacifiCorp's modeling assumptions related to coal plant retirements. Specifically, NPCA asserts that it has observed trends that include changing market conditions (such as lower cost of renewables, lower gas prices, and lower load projections) that must be evaluated when analyzing coal plant retirements in order for a least-cost, least-risk plan to be developed. In addition, NPCA claims certain plant retirement dates (*i.e.*, those not subject to regional haze requirements) are assumed rather than identified through modeling. PacifiCorp updates its assumptions regarding market conditions as well as costs of operating its plants each IRP cycle. In addition, in the 2019 IRP, PacifiCorp is conducting unit-by-unit coal plant analysis that will inform subsequent coal plant assumptions and regional haze scenarios in the 2019 IRP portfolio modeling.

UCE comments make several requests of the Commission to direct PacifiCorp to take certain actions in the 2019 IRP related to coal plant modeling, the intra-hour dispatch credit, hourly wholesale power prices, supply-side resource cost assumptions, and consideration of energy storage. UCE also requests that the Commission direct PacifiCorp to conduct additional, comprehensive coal unit analysis and ensure that the 2019 IRP compares all resources, including existing coal resources, consistently with and comparably to other resources. As discussed in response to NPCA above, PacifiCorp is conducting further coal plant studies in its 2019 IRP.

Regarding the intra-hour dispatch credit PacifiCorp developed to capture intra-hour value realized when a flexible resource is able to dispatch in the Energy Imbalance Market, UCE requests that the intra-hour dispatch credit in the 2019 IRP be excluded unless the Company includes the credit for all eligible resources and presents it as a sensitivity. UCE also states that if the Company wishes to move forward with it, that the Commission should direct PacifiCorp to include information in the 2019 IRP that explains which resources are capable of providing these intra-hour flexibility benefits and an explanation of how the value of each resource changes when the credit is applied. PacifiCorp indicated in the 2017 IRP Update that it anticipates further exploration and discussion of such credits and application to other eligible resources with robust stakeholder participation as part of its 2019 IRP public input process. To that end, PacifiCorp has discussed this credit during the 2019 IRP public input process and anticipates further discussion and application to other resources.

[3] Docket No. 17-035-16, Comments from the Division of Public Utilities, July 30, 2018, p.3.

UCE recommends that the Commission reject PacifiCorp's new assumptions used to derive hourly wholesale power prices and direct PacifiCorp to omit this change from the 2019 IRP. Specifically, UCE recommends the Company return to using five year Powerdex data in the 2019 IRP and not use data from the California Independent System Operator ("CAISO"). UCE claims that this change disadvantages solar resources for model selection. PacifiCorp will present its updated scalars and discuss their impact on wholesale power prices in the 2019 IRP public input process. PacifiCorp discussed its rationale for the improvement to actual data from CAISO in the 2017 IRP Update in more detail in Chapter 5, Modeling and Assumptions Update. In particular, Figure 5.1 shows hourly pricing profiles under the CAISO data approach that are more aligned with operational experience.

Regarding the supply-side resource table price assumptions for proxy resources, UCE requests that the Commission direct PacifiCorp to update supply-side resource prices for solar resources in the 2019 IRP to align with the price of recently procured resources and include pricing for Power Purchase Agreements (PPA). PacifiCorp will update its supply-side resource table and price assumptions based on its recent market experience with the 2017R Request for Proposals and 2017S Request for Proposals in addition to information gathered by its third-party consultant conducting the study. PacifiCorp will ensure that its supply-side resource alternatives reasonably align with prices observed in these recent competitive solicitations; and therefore, it is not necessary to assume proxy resources are structured as a PPA.

Lastly, UCE recommends that PacifiCorp coordinate a robust stakeholder process and solicit stakeholder input before finalizing 2019 IRP studies to improve modeling of the full stack of value provided by energy storage in future IRPs. As a starting point, UCE recommends establishing technical workgroups to gather stakeholder input related to modeling energy storage and inclusion of the Energy Storage Valuation Framework from Oregon Docket UM-1847 in the 2019 IRP for stakeholder feedback. PacifiCorp will update and expand upon its battery storage studies conducted by reputable third-parties in the 2019 IRP. Regarding UCE's recommendation that PacifiCorp model customer-sited battery storage programs and incentives, PacifiCorp is willing to consider how this might be done for the 2019 IRP and is also working with its vendors for information to be considered in the 2019 IRP process. To date, PacifiCorp has held an energy storage workshop as part of its July 2018 public input meeting and will include additional discussion on energy storage in upcoming 2019 IRP public input meetings and before finalizing the supply-side resource table inputs for battery and energy storage.

Joint UCE and SWEEP Comments

The joint UCE and SWEEP comments focus on the Company's modeling of DSM. First, UCE and SWEEP request that the Commission treat DSM resources modeled in the IRP as a minimum requirement and direct the company to adjust spending and savings goals to maximize energy savings and program cost effectiveness while maintaining savings of at least 1 percent of sales, assuming programs are cost effective, to avoid eliminating incentives for highly cost-effective programs to meet lower DSM values selected in the IRP.

PacifiCorp's IRP continues to identify all energy efficiency resources that are economic compared to resource alternatives. Indeed, energy efficiency remains the primary resource used to meet incremental load growth over the next 10 years. UCE and SWEEP rely on PacifiCorp's historical energy efficiency results and studies from other jurisdictions to argue that PacifiCorp's IRP should include higher levels of cost-effective energy efficiency. However, this assertion is flawed, as achievements and cost-effectiveness from historical years, including 2017, are not necessarily indicative of opportunities in a future year. The dynamic nature of energy efficiency markets, energy codes and equipment standards, and the value of energy efficiency to PacifiCorp's system (e.g. ability for a DSM resource to reduce load during a system need) is the primary reason why the Company updates its Conservation Potential Assessment and IRP resource selections every two years. In addition, it is not appropriate to evaluate one jurisdiction's acquisition of cost-effective energy efficiency based on acquisition levels in another jurisdiction because factors such as the stringency of state building codes, maturity of programs, weather, local policies governing cost-effectiveness calculations, load forecasts, and resource needs of individual utilities can significantly affect the level of energy efficiency planned for and achieved.

As discussed in PacifiCorp's 2017 IRP reply comments, the IRP selects all economic energy efficiency resources, as identified in the preferred portfolio. As such, UCE's and SWEEP's suggested modifications to action item 4a could result in additional costs to customers, which is in direct conflict with least-cost planning principles. Due to the nature of energy efficiency programs, including variable customer participation, PacifiCorp does not have the ability to deliver exact energy savings. Requiring the Company to achieve "at least" the IRP preferred portfolio targets in any given year would effectively require the Company to plan for energy efficiency savings above and beyond those selected in the IRP, and acquire energy efficiency above what is economic to our customers. Otherwise the Company would be at risk of not being in compliance.

Second, UCE and SWEEP joint comments request that PacifiCorp be directed to include a high DSM scenario that includes the acquisition of "all cost effective" DSM resources under the Utility Cost Test as part of the 2019 IRP. However, PacifiCorp's modeling of DSM includes the selection of all economic DSM resources for a given resource scenario. Certain scenarios modeled in the IRP will identify higher levels of cost-effective DSM, reflecting differing need and value. PacifiCorp ultimately develops its IRP Action Plan around the preferred portfolio to appropriately manage cost and risk for its customers.

Third, UCE and SWEEP suggest that PacifiCorp be required to provide an analysis in the 2019 IRP of how the Company is planning for increased demand stemming from the electrification of the transportation and heating sectors. An increase in forecasted demand in electrification would be accounted for in PacifiCorp's load forecast. PacifiCorp plans to conduct a number of load sensitivities in the 2019 IRP including a high load sensitivity.

Fourth, UCE and SWEEP state that PacifiCorp should be required to allow DSM to compete directly with the Company's coal units in the 2019 IRP process. However, PacifiCorp models DSM as a resource that directly competes with other resources when evaluating potential coal retirement scenarios.

Lastly, UCE and SWEEP recommend that PacifiCorp be directed to include additional detail in its Conservation Potential Assessment including information about the percentage of market participants that have already adopted the most efficient technologies through the Wattsmart incentive programs and an estimate of the percent that has not yet adopted the incentivized technology, and discussion of how the Company is planning to address increased demand stemming from the electrification of the transportation and heating sectors.

PacifiCorp includes detailed measure adoption assumption information used in its Conservation Potential Assessment and has shared this information with interested stakeholders as part of the 2019 IRP public input process[4]. With regard to electrification of transportation, to the extent that historical sales to electric vehicle owners are informing actual sales, projections for electric vehicle demand is reflected in the load forecast that informs the Conservation Potential Assessment and associated energy efficiency opportunities are reflected in the results of that study. Similarly, regarding electrification for heating, the Company models sales per customer for the residential class using the statistically adjusted end-use (SAE) model, which combines the end-use modeling concepts with traditional regression analysis techniques. The end-use component combines information regarding Company service territory specific appliance saturations derived from Company-specific residential data with efficiency trends derived from US Energy Information Administration data.

III. CONCLUSION

PacifiCorp's 2017 IRP Update reflects resource planning and procurement activities that have occurred since the 2017 IRP and presents an updated load-and-resource balance and an updated resource portfolio consistent with changes in the planning environment. The 2017 IRP Update also provides a status update for the action plan filed with the 2017 IRP. PacifiCorp appreciates the comments received from parties and will continue to actively support stakeholder participation throughout the 2019 IRP development process to foster constructive dialogue and address parties' requests and recommendations where possible.

[4] The Company's Conservation Assessment Potential Study and the associated detailed measure information and data can be found at http://www.pacificorp.com/env/dsm.html.

CERTIFICATE OF SERVICE

Docket No. 17-035-16

I hereby certify that on September 10, 2018, a true and correct copy of the foregoing was served by electronic mail and/or overnight delivery to the following:

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