GARY R. HERBERT
*Governor*

SPENCER J. COX
*Lieutenant Governor*

# State of Utah
## DEPARTMENT OF COMMERCE
## Office of Consumer Services

MICHELE BECK
Director

To: Utah Public Service Commission

From: Office of Consumer Services
Michele Beck, Director
Béla Vastag, Utility Analyst
Alex Ware, Utility Analyst

Date: February 4, 2020

Re: PacifiCorp's 2019 Integrated Resource Plan - Docket No. 19-035-02

**Background**

On October 18, 2019, Rocky Mountain Power (RMP) filed PacifiCorp's 2019 Integrated Resource Plan (IRP) with the Public Service Commission of Utah (PSC). The PSC issued a Scheduling Order on November 6, 2019 setting a schedule for comments on the IRP filing, with initial comments due February 4, 2020. Accordingly, the Utah Office of Consumer Services (OCS) submits these initial comments on PacifiCorp's 2019 IRP.

**Recommendation Concerning Acknowledgement**

The OCS recommends that the Commission conditionally acknowledge PacifiCorp's 2019 IRP. In contrast to the 2017 IRP process where the OCS criticized PacifiCorp for violating Utah IRP Guideline 3[1], PacifiCorp did facilitate the required public input and information exchange during the development of the 2019 IRP. Additionally, it appears to the OCS that PacifiCorp has also complied with all of the other IRP Standards and Guidelines as outlined in the Commission's Report and Order in Docket No. 90-2035-01. However, the OCS recommends a conditional acknowledgement because PacifiCorp has not provided requested analyses concerning the Gateway South transmission line and customer rate impacts[2]. As part of an acknowledgement Order, the OCS recommends that the Commission require RMP to provide additional analysis to stakeholders, as outlined below in these comments.

[1] See OCS Comments in Docket No. 17-035-16 on October 24, 2017 at: https://pscdocs.utah.gov/electric/17docs/1703516/297569InitalCommOCS10-24-2017.pdf

[2] See attached discovery requests OCS 2.1, 2.2, 3.1, 3.2 and 4.1.

**Utah's Standards and Guidelines for Integrated Resource Planning for PacifiCorp**
As part of our analysis of PacifiCorp's IRP, the OCS reviewed RMP's compliance with the IRP standards and guidelines ordered by the Commission in Docket No. 90-2035-01.[3] In the IRP's Appendix B, PacifiCorp has provided a listing of the standards and guidelines as well as comments on how they were addressed.[4] The OCS conducted a cross-reference review of PacifiCorp's compliance comments and agrees that PacifiCorp's 2019 IRP generally complies with Utah's standards and guidelines.

**The 2019 IRP Public Process Was Extended Due to the Coal Unit Analysis**
Typically, PacifiCorp's public IRP process takes approximately 9 months, starting in June of the prior year and ending in March, just before the final IRP is filed with state commissions. The 2019 IRP process was unusual in that it lasted 17 months, from June 2018 to November 2019. There were a total of 18 meetings with many being two day events.

The 2019 IRP was scheduled to be filed on April 1, 2019 given that the PSC's Order in Docket No. 09-2035-01 requires that IRPs be filed by March 31 in odd numbered years.[5] On March 12, 2019, the PSC approved PacifiCorp's request for an extension of the filing deadline to August 1, 2019. The OCS supported the filing extension because PacifiCorp needed more time to perform its analyses. Additional time was needed due to the complexities surrounding performing analyses of unit-by-unit early retirement of coal-fired generating units, including the need to carefully assess the system reliability impacts of potential stacked coal unit retirements.

On July 29, 2019, the PSC approved PacifiCorp's second request for an extension of the filing deadline, this time to October 18, 2019. PacifiCorp had discovered a modeling error with one of its coal plants. The OCS also supported this second filing extension because of the importance of having an accurate early retirement analysis of the coal units. As noted above, PacifiCorp continued to hold public stakeholder meetings during this extended period where it took stakeholder input and provided detailed information on the progress of the IRP modeling efforts.

**The 2019 IRP Action Plan Proposes Major Changes to PacifiCorp's System**
The Action Plan outlines immediate (in the next 2 to 4 years) actions that PacifiCorp will take to deliver the near term outcomes detailed in the preferred portfolio. The 2019 IRP Action Plan includes the following:

- Early retirement of five coal units
- 5,000 MW of new wind, solar and battery resources
- A new 400 mile, 500 kV transmission line

[3] https://pscdocs.utah.gov/electric/90docs/Report%20and%20Order%2090-2035-01%206-18-92.pdf, p. 36.
[4] https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2019_IRP_Volume_II_Appendices_A-L.pdf, p. 47.
[5] March 31, 2019 fell on a Sunday which pushed the filing deadline to Monday, April 1, 2019.

As noted above, 2019 IRP development process was exceptionally lengthy due to the addition of PacifiCorp's economic analysis of its coal units.[6] This economic analysis determined that several coal units could be closed early to reduce costs for ratepayers. As a result of further modeling, PacifiCorp determined that it should immediately take action to begin to close five coal units. Per the Action Plan, the five units that would close between January 2023 and December 2025 are: Cholla Unit 4[7], Bridger Unit 1, Naughton Units 1 & 2 and Craig Unit 1.

To replace the power from these closed coal units and to meet the forecasted load growth of about 6% from 2019 to 2025[8], PacifiCorp's Action Plan calls for the procurement of the following resources by the end of 2023:[9]

- 2,400 MW Solar
- 2,000 MW Wind
- 600 MW Batteries

Most of the wind resources are to be located in Wyoming which requires the construction of Gateway South, a new 400 mile, 500 kV transmission line which is a segment of the PacifiCorp's long-planned Energy Gateway project[10]. Completion of the wind farms and the transmission line by the end of 2023 would enable the new wind to qualify for 40% of the production tax credit (PTC).

**The 2019 IRP Action Plan Will Require Significant Capital Spending, Increasing PacifiCorp's Rate Base Which Will Impact Customer Rates**

As described above, the 2019 IRP Action Plan calls for PacifiCorp to invest in 5,000 MW of new resources and a new 400 mile transmission line, all to be in-service by December 31, 2023. The projected capital costs of these new facilities are as follows:[11]

**2019 IRP Action Plan Capital Spend**

| | |
|---|---|
| **Solar, Wind & Batteries** | **$5.5 billion** |
| **Transmission[12]** | **$1.8 billion** |
| **Total** | **$7.3 billion** |

6 See Appendix R – Coal Studies found in Volume II of the 2019 IRP.

7 On December 27, 2019, PacifiCorp announced it would close Cholla 4 by year end 2020, see: https://www.sltrib.com/news/2020/01/08/pacificorp-will-close/

8 See Tables A.1 and A.2, page 2 & 3 of the 2019 IRP Volume II.

9 See Case Study Fact Sheets, Case P-45CNW, page 279 in Volume II of the 2019 IRP. Resources shown in red font are in the 2019 IRP Action Plan.

10 OCS notes that this transmission line is included in all the cases considered for the preferred portfolio and PacifiCorp did not provide a base case without the Gateway South line for comparative purposes as further explained later in this memo.

11 Capital costs from the 2019 IRP data files, specifically StaBuild and TieBuild spreadsheets.

12 Transmission costs do not include a reduction for a revenue contribution from wholesale customers.

This capital is to be expended in the near term, i.e. in the next three years. Because this capital spend is expected to happen in the very near term and is of such a large magnitude, the OCS is concerned about its impact on customer rates. The OCS asked PacifiCorp to provide an estimate of the customer rate impact of the preferred portfolio, like it has done in previous IRPs. However, in response to Data Request OCS 4.1, PacifiCorp stated:

> *The Company objects to this request because it asks the Company to perform new analysis that has not been performed for the 2019 IRP. The Company objects to this request because it is overly broad and unduly burdensome.*

In its response to OCS 4.1, PacifiCorp also referred the OCS to Table L.66 of the 2019 IRP, entitled "10-year Average Incremental Customer Rate Impact". This table did not contain the requested customer rate impact information. It provided only relative changes in customer costs between the preferred portfolio and other cases considered in this IRP. The OCS asserts that any IRP analysis when the preferred portfolio includes large resource investments should include a comparison of customer rates between the preferred portfolio (or just the additions from the Action Plan) and a base year (such as 2018 or 2019 in this instance).

PacifiCorp has provided such analyses in the past as demonstrated by the table and figure below:[13]

***10-year Customer Rate Impact***

Table 8.4 reports the 10-year customer rate impacts for the eight case portfolios by $CO_2$ tax scenario. Rate impacts are expressed as the 10-year cumulative percentage increase relative to the 2010 forecasted system full revenue requirements.

**Table 8.4 – Portfolio Comparison, 10-year Customer Rate Impact**

| | 10-year Customer Rate Impact (Cumulative Percentage Rate Increase, 2011 - 2020) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $CO_2$ Tax Scenario, $/ton | | | | | | | | | | | |
| Case | None ($0) | Percent Spread Relative to Lowest Case | Rank | Medium ($19 -$39) | Percent Spread Relative to Lowest Case | Rank | Low to Very High ($12 - $93) | Percent Spread Relative to Lowest Case | Rank | $CO_2$ Scenario Average | Percent Spread Relative to Lowest Case | Rank |
| 1 | 22.62% | 0.05% | 2 | 39.64% | 0.09% | 4 | 33.56% | 0.08% | 2 | 31.94% | 0.07% | 2 |
| 3 | 22.57% | 0.00% | 1 | 39.55% | 0.00% | 1 | 33.48% | 0.00% | 1 | 31.87% | 0.00% | 1 |
| 4 | 22.88% | 0.30% | 5 | 39.84% | 0.30% | 6 | 33.78% | 0.30% | 6 | 32.17% | 0.30% | 5 |
| 5 | 22.68% | 0.10% | 4 | 39.65% | 0.10% | 5 | 33.59% | 0.10% | 4 | 31.97% | 0.10% | 4 |
| 6 | 23.26% | 0.69% | 7 | 39.92% | 0.37% | 8 | 34.01% | 0.53% | 8 | 32.40% | 0.53% | 7 |
| 7 | 22.66% | 0.08% | 3 | 39.62% | 0.08% | 2 | 33.56% | 0.08% | 3 | 31.95% | 0.08% | 3 |
| 9 | 22.89% | 0.31% | 6 | 39.85% | 0.31% | 7 | 33.79% | 0.31% | 7 | 32.18% | 0.31% | 6 |
| 15 | 24.06% | 1.49% | 8 | 39.63% | 0.09% | 3 | 33.75% | 0.27% | 5 | 32.48% | 0.61% | 8 |

[13] Table 8.4 is from page 217 of PacifiCorp's 2011 IRP and Figure 4.1 is from page 26 of PacifiCorp's 2017 IRP Energy Vision 2020 Update, filed August 2, 2017.

PACIFICORP – 2017 IRP ENERGY VISION 2020 UPDATE

**Figure 4.1 – Total-System Change in Annual Revenue Requirement Due to the New Wind and Transmission ($ million)**

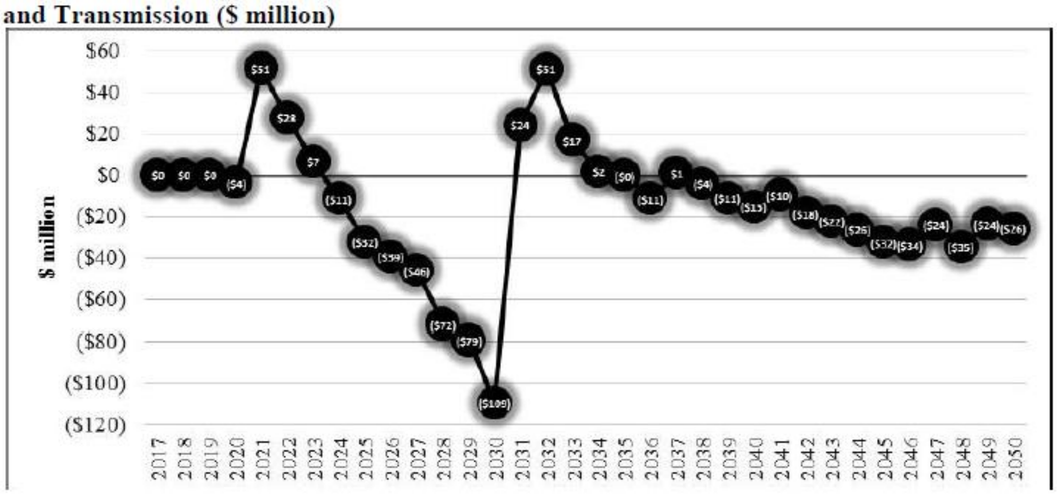


Table 8.4 shown above, from the 2011 IRP, is the last time PacifiCorp included in its IRP an estimate of ratepayer impact of all new resources in the preferred portfolio as compared to the revenue requirement of a base year (i.e. a year preceding the IRP Action Plan). Importantly, the 2011 IRP called for the near-term acquisition of a large resource, what is now the Lake Side 2 gas plant. The 2013 and 2015 IRPs did not have any new large resource acquisitions in the Action Plan. Because of this, the OCS was not concerned that this detailed customer rate impact analysis was missing from the 2013 and 2015 IRPs. The 2017 IRP Action Plan included the large Energy Vision 2020 projects, though inserted in the IRP in the final hour of the 2017 IRP public stakeholder process. As part of the 2017 IRP regulatory process, after the initial IRP was filed, PacifiCorp did provide Figure 4.1 above showing the impact on revenue requirement of the new 2020 wind and transmission projects.[14] In addition, the impact of these 2020 projects on customer rates was also explored in great detail in two proceedings running concurrent with the 2017 IRP docket, in Dockets No. 17-035-39 and 17-035-40.

The OCS notes that the proposed projects in the 2019 IRP Action Plan are projected to cost $7.3 billion or over twice the cost of the Energy Vision 2020 projects. As such, it is essential that PacifiCorp provide similar customer rate impact analyses as part of this IRP.

The OCS recommends that in its Order on the 2019 IRP, the PSC should require PacifiCorp to provide additional customer rate impact analyses for the 2019 preferred portfolio as requested by the OCS and similar to what PacifiCorp has provided in the past as shown in the table and figure above. In addition, the OCS requests that the PSC require PacifiCorp to provide this customer rate impact information in all future IRPs when the Action Plan contains large resource acquisitions or changes. The OCS notes that in other jurisdictions, e.g. Oregon, PacifiCorp readily provides information when requested by a commission.

[14] This type of customer rate impact chart was filed in the 2017 IRP docket, 17-035-16, in August 2017 as part of PacifiCorp's Energy Vision 2020 Update.

## PacifiCorp Included the Gateway South (GWS) Transmission Line in All Cases and Did Not Provide a Base Case Without the Line for Comparative Purposes

PacifiCorp included a new 400 mile transmission line, estimated to cost nearly $2 billion, in every case considered for the final preferred portfolio. No analysis was provided in the late stages of the IRP process that explored cases without the GWS line – 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. Even PacifiCorp acknowledges in its response to Data Request OCS 2.1, "there is broad stakeholder interest in understanding how the preferred portfolio and system costs might be impacted if GWS is assumed to be removed from the preferred portfolio."

OCS 2.1, which is attached to this memo, requested that PacifiCorp run a case using the parameters of the preferred portfolio case but remove the GWS transmission line as a resource option. However, PacifiCorp's response to OCS 2.1 did not remove GWS but instead included a smaller version of the GWS line, a 230 kV transmission line along the same route as GWS and costing approximately $1 billion. PacifiCorp claimed FERC would require it to build this line due to one 500 MW project in its transmission service request (TSR) queue[15]. In an additional data request response, OCS 3.1, PacifiCorp identified this project as queue number 2594.

The OCS reviewed the TSR queue and discovered that the referenced 500 MW project is the only project not submitted by PacifiCorp (i.e. PAC Merchant) with a point of receipt (POR) in Wyoming (WYOEAST, WYOCENTRAL or WYONORTH).[16] More importantly, it is the only listed project with a point of delivery (POD) at the Utah end of the GWS line, the Clover Substation (MDWP), in the entire TSR queue. It is unknown if this project will ever be constructed and that the 230 kV line will be required for it.

For these reasons the OCS recommends that in its Order on the 2019 IRP, the PSC should require PacifiCorp to model the preferred portfolio case without the GWS line and provide the resulting 20-year portfolio matrix, the various PVRRs, and the customer rate impacts for stakeholder review. Without this analysis, neither the PSC nor stakeholders can have confidence that the selection of PacifiCorp's preferred portfolio is the best choice.

## Summary and Recommendation

The OCS recommends that the PSC conditionally acknowledge PacifiCorp's 2019 IRP with acknowledgement contingent on PacifiCorp providing the customer rate impact analyses and the modeling results without the Gateway South transmission line as described above. OCS further recommends that the PSC provide clear direction that for all future IRPs, PacifiCorp should 1) include customer rate impact analyses comparing the preferred portfolio and other scenarios to a recent base year, and 2) provide robust modeling to justify

---

[15] PacifiCorp's TSR can be found here: http://www.oasis.oati.com/woa/docs/PPW/PPWdocs/TSR_Queue.xlsx

[16] A copy of the TSR queue filtered for Wyoming PORs is attached to this memo.

the inclusion of any large new resource(s), including new transmission lines, by providing a clear comparison between the preferred portfolio and a base case without the new resource(s).

CC: Chris Parker, Division of Public Utilities
Joelle Steward, Rocky Mountain Power
Distribution List