SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

UTAH DEPARTMENT OF COMMERCE
Division of Public Utilities

MARGARET W. BUSSE
Executive Director

CHRIS PARKER
Division Director

Memorandum

To: Public Service Commission of Utah

From: Utah Division of Public Utilities

Chris Parker, Director

Artie Powell, Manager

Doug Wheelwright, Utility Technical Consultant Supervisor

Tyler McIntosh, Utility Analyst

Joni S. Zenger, Utility Technical Consultant

David Williams, Utility Technical Consultant

Date: March 31, 2022

Re: **Docket No. 22-035-08,** Division's Audit of PacifiCorp's 2021 Fuel Inventory Policies and Practices

Recommendation (Approve as Compliant)

The Utah Division of Public Utilities (Division) has reviewed the 2021 Fuel Inventory Policies and Procedures of PacifiCorp (the Company) and finds that the Company is generally in compliance with the Public Service Commission's (Commission) directive in Docket No. 09-035-23. The Division recommends the Commission approve the Company's 2021 Fuel Inventory Policies and Procedures as being compliant.

Issue

This memorandum is in response to the Commission's Report and Order in Docket No. 09-035-23, which directs the Division to "conduct an annual audit of the Company's fuel inventory management policies, procedures, and actual practices and provide a summary of its audit and associated findings to the Commission by no later than March 31 of each year for the previous year's activity."[1]

This memorandum does not preclude the Division's analysis of coal inventory levels or any associated net power cost issues in future Energy Balancing Account filings, in a general rate case, or in other regulatory proceedings.

Discussion

In conducting its review, the Division met with the Company's Fuel Resources Department on March 22, 2022 via conference call. The Company and the Division discussed the inventories at each of the Company's owned and affiliated coal plants and discussed plant deliveries, coal supply, and coal consumption.

On the same day, the Company submitted the following confidential documents to the Division for review:

- PacifiCorp Fuel Stock Balance Review (Summary Inventory Data)
- PacifiCorp Coal Inventory – Confidential Review of 2021 Inventory Levels with the Division of Public Utilities
- PacifiCorp Coal Inventory – Policies and Procedures – Updated March 22, 2022
    - Redlined PacifiCorp Coal Inventory – Policies and Procedures – Updated March 22, 2022

In its 2020 audit of PacifiCorp's 2019 Fuel Inventory Policies and Practices, the Division recommended that the Company contract with a third-party consultant to examine and reevaluate the Company's fuel inventory policies and procedures and target inventory levels maintained at each plant.[2] In its 2020 Comments, the Division noted that an update to the third-party review is particularly important in light of the many changes to coal market conditions taking place, such as bankruptcies, changes in coal quality, transportation disruptions, labor disputes, changing generation requirements, and early plant retirements.

[1] Docket No. 09-035-23, *Report and Order on Revenue Requirement*, *Cost of Service and Spread of Rates*, February 18, 2010, p. 106 (2010 Order).
[2] Docket No. 20-035-12, *Comments from the Division of Public Utilities*, March 31, 2020 (2020 Comments).

In 2021 the Company retained Casey Kaptur, formerly from the consulting firm RPM Global (RPM), to assist PacifiCorp with its coal inventory policies and to provide recommendations for PacifiCorp's operated coal plants. In Mr. Kaptur's analysis, the cost of a particular level of coal inventory over a period of time is a function of the initial amount of coal in inventory, the rates at which the coal is delivered and consumed, and to the extent that the inventory levels are at the time insufficient, the cost of foregone generation. [3]

For the review of the 2021 inventories, the Company provided monthly average tonnage levels and end-of-year inventories at each plant, as well as both the previous year's targets and the new adjusted targets. The Fuel Resources Department monitors inventory levels and conducts quarterly aerial surveys for the Company's operated coal plants to determine the stockpile amounts. The Division looked at both historical and average stockpile levels, compared those to the Company's targeted inventory levels, and determined whether the Company met its targeted tonnage levels and days' worth of inventory (days' burn) at each respective coal generating plant. The targeted fuel inventory levels and days' burn are based on recommended target levels that were determined in the analysis contained in the previous report by RPM and the Confidential 2021 Kaptur Study.

The Commission's Report and Order in Docket No. 09-035-23 states the following goals of the Company's coal inventory policy:

> The policy should provide an overall management strategy, flexibility to react to favorable market conditions, documentation requirements for deviations from the policy with an assessment of the costs and benefits associated with deviations, and tracking and monitoring requirements. In response to this policy, the Division should, during the course of its annual auditing, review inventory levels and compliance with inventory policies.[4]

As part of its 2022 audit, the Division reviewed the documents listed at the beginning of this section.

[3] Confidential 2021 Kaptur Study, p. 1.
[4] 2010 Order, p. 105.

Findings

The Division has reviewed the Company's Coal Inventory Policies and Procedures (Policies and Procedures) and has conducted its own analysis of target levels versus actual inventory of coal at the Company's generation plants. The Company's Coal Inventory Policies and Procedures Manual is updated each year. The 2022 Policy and Procedures Manual (2022 Manual), is dated March 22, 2022. The 2022 Manual states that the Company strives to optimize delivered fuel costs and ensure supply reliability, while providing appropriate fuel supplies and qualities based on the particular needs at each generating plant.[5]

In its review, the Division considered issues that affect the Company's fuel inventory levels and its procurement practices in 2021, as well as in 2022. The following concerns made for a challenging year, and the Company's Fuels Department continues to plan around these concerns as part of its longer-term analyses:

- Volatility and a spike in domestic natural gas and coal prices, making inventory more valuable;
- Supply-chain bottlenecks resulting from the COVID-19 pandemic;
- A shortage of labor, including truck drivers, freight loaders, and mine workers;
- An abundance of renewable energy resource at zero-fuel cost, making renewables a first-choice generation source;
- Uncertainty of environmental regulations and ongoing lawsuits;
- The risk profile of geologically complex mines and mine sources, i.e., mechanical issues and an underground flood at one mine;
- General economy-wide inflation (particularly in 2022); and,
- Ongoing contract negotiations.

In addition to the events that transpired in 2021, the Company must factor in other ongoing considerations characteristic of coal-fired generation. This includes: a decrease in coal

[5] 2022 Policy and Procedures Manual, p. 4. Here and elsewhere in the Division's report, the Division paraphrases the Company's Policies and Procedures Manual and other documents to protect confidential information.

production, a shrinking number of coal suppliers, the need to blend lower-quality coal with higher-quality coal to get optimized fuel burn, temporary and/or permanent planned and unplanned plant outages, fluctuating rail rates, and complex third-party coal contracts. The Company's fuel procurement policies and practices provide some flexibility for the Company to react to changing market conditions and to maximize contract opportunities where possible to manage fuel supply risk at the least cost to customers. The Company's procurement strategy protects the Company's shareholders and ratepayers from the risk of paying liquidated damages that might have otherwise been incurred.

The determination of inventory levels involves an evaluation of the trade-offs between the costs of coal inventory against the costs associated with coal shortages, i.e., lost electricity sales and generation replacement costs. The Company employs a diversified coal supply strategy, planning for and managing a multitude of factors, as described above

Recent plant closures, as well as upcoming coal plant retirements identified in the Company's 2021 Integrated Resource Plan (IRP),[6] make it even more difficult to optimize delivered fuel supplies and costs while ensuring an adequate and reliable supply at the lowest cost practicable. In 2021, the Company's Fuel Resources Department did a commendable balancing act accomplishing these objectives, resulting in savings to Utah ratepayers.

Coal Inventories

The Division's audit of coal inventories identified the following key findings:

1. The Company has formal Coal Inventory Policies and Procedures in place that it adheres to. According to the policies in its 2021 Manual, the Company's goal and commitment to provide low-cost power to its customers drives its fuel procurement practices.

2. Taking all plants as a whole, and accounting for the Company's share of inventory at each of its jointly-owned plants, the Company's actual coal inventory was slightly higher

[6] Docket No. 21-035-09, *PacifiCorp's 2021 IRP, Volume I*, September 1, 2021, pp. 14-15.

than its target level for 2021. Inventory was slightly higher on an average monthly basis as well. The Division determined the Company has near-term goals to bring the target levels within range in 2022. The Company provided a rationale for the plants that were outside the short-term target range that complies with the Commission's inventory management goals in its 2009 Order (quoted earlier). For example, temporary planned and unplanned outages can affect coal inventories, causing inventories to rise in certain months while repairs are performed. At other plants, lower inventories may be appropriate to provide the flexibility leading up to plant closures or divestitures of PacifiCorp's contractual interests. Inventory may also exceed target levels in some cases to take advantage of expected price fluctuations or contract opportunities.

3. During 2021, Utah coal inventories were significantly reduced, but by year-end the inventory balance for the Utah plants was slightly above target. Coal suppliers and their transportation contractors experienced difficulties that resulted in delivery shortfalls for the year and are expected to continue in 2022. The Division inquired with the Fuel Resources department about plants with above-target inventory levels and determined that, given the economic risk and tradeoffs at Utah plants, the short-term high level is justified. Other factors that continue to affect inventories at Utah plants are difficult mining conditions and steady reserve depletion. The Company expects inventories to be within target levels next year.

   At the Company's Jim Bridger plant, the Company has a sharing arrangement with Idaho Power that provides flexibility for each company to use the other company's coal supply. This allows the Company to control costs by maintaining flexibility of monthly and year-end supply. In this case, the total plant inventory is a better measure of the plant's inventory status than PacifiCorp's share. On a total plant basis, the inventory at Jim Bridger was within range. The Company appears to be appropriately managing the Jim Bridger inventory.

4. At the Company's Dave Johnston plant in the Powder River Basin, the Company experienced a decrease in coal deliveries and in coal consumption during 2021.

Despite the difficulties, the Company maintained inventory within the target range for six months of the year and ended the year within target.

5. With respect to the Company's joint-owned plants, most plants' end-of-year coal inventories are within the target ranges. However, where the inventories were outside the target ranges, the Company explained that inventory levels may not be fully under the Company's control, especially where the Company is not the operator of the joint-owned plant. To the extent that the Company has control over inventories, inventories may deliberately be outside the target ranges for either operational considerations or to take advantage of contract options, which can minimize overall fuel costs. The Division concludes that the Company acted prudently with regard to the plant inventories that are outside the target range.

With respect to the Division's overall audit, the Division recognizes that the coal industry is facing unprecedented challenges that require some of the Company's coal plants to be either above or below targeted inventory levels in the short term. Where target levels are outside of the targeted levels, the Company has plans in place to bring the inventory stock into targeted levels as soon as practicable.

The Company updated its 2021 Policies and Procedures based on the analysis in the March 22, 2022 report, while considering operational and contract expectations at the various plants. The Division has reviewed the 2022 Manual and finds that the Company is complying with the Commission's directive in its 2009 Report and Order with respect to the Company's fuel inventory policies and procurement practices.

Conclusion

The Division has reviewed the 2021 Policies and Procedures and has evaluated the target levels versus actual inventory of coal at the Company's coal generation plants. The Division determined that the Company is generally in compliance with its policies and procedures and has prudent business reasons for plants that are outside the fuel inventory target ranges. Where inventories are outside of the targeted levels, the Company has plans in place to bring the inventory stock into targeted levels as appropriate.

The Division concludes that: (1) the Company has formal policies and procedures in place for its fuel procurement and coal inventory levels; (2) the Company has generally adhered to its policies and procedures in 2021, and as amended with an effective date of March 22, 2022; and (3) the Company's policies provide flexibility for the Company to react to the changes in the market that the industry faced this past year. The Division recommends the Commission find the Company is compliant with its 2009 Report and Order and with the Company's 2021 Fuel Inventory Policies and Procedures.

cc: Jana Saba, Rocky Mountain Power
Michele Beck, Offices of Consumer Services