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Department of Commerce
Division of Public Utilities

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ACTION REQUEST RESPONSE -

To: Utah Public Service Commission
From: Utah Division of Public Utilities
Chris Parker, Director
Artie Powell, Energy Section Manager
Charles Peterson, Technical Consultant
Doug Wheelwright, Technical Consultant

Date: September 15, 2017

Re: **Information Memo**

Docket No. 17-035-12 - PacifiCorp's Semi-Annual Hedging Report

RECOMMENDATION (NO ACTION)

The Division of Public Utilities (Division) has reviewed the Semi-Annual Hedging Report along with the information included as Attachments A – F. The information presented is similar in format and content to previous reports and includes both historical information and a forecast of future hedging activities. The Commission does not have to approve or acknowledge this report and no further action is required. The Division's review has revealed no matters in the report that need Commission attention and recommends no action.

ISSUE

On August 15, 2017, PacifiCorp dba Rocky Mountain Power (Company) filed the PacifiCorp Semi-Annual Hedging Report with the Utah Public Service Commission (Commission). On August 18, 2017, the Commission issued a Notice of Filing and Comment Period with comments due on or before September 15, 2017. This memo should be considered as the Division's comments.

BACKGROUND

During a general rate case, Docket No. 10-035-124, it became apparent that parties did not understand the various products, timing, volume and nature of the PacifiCorp¹ hedging transactions. As part of the settlement stipulation in that General Rate Case, the Company agreed to participate in a Collaborative Process to discuss appropriate changes to PacifiCorp's existing hedging practices. The goal of the collaborative process was to provide a better understanding of the PacifiCorp hedging program and discuss appropriate changes to better reflect customer risk tolerances and preferences.² One of the terms outlined in the stipulation requires the Company to provide a semi-annual hedging report to the Commission.³ The hedging report is to be produced on a semi-annual basis with periods ending in June and December of each year.

The purpose of the report is to provide insights into PacifiCorp's hedging activity for the previous six months, report on the current market conditions and provide an indication of future hedging activities. The current report covers the six month period ending June 30, 2017. The report describes market fundamentals, basis risk, liquidity, energy positions, hedging activity, products, instruments and physical supply. The Company's hedging guidelines are outlined in the current risk management policy.⁴ Due to the specific content, **the hedging report and portions of this memo are considered confidential.**

DISCUSSION

"The Company hedges and procures [REDACTED]

[REDACTED]”⁵ [REDACTED]

¹ Rocky Mountain Power is a dba of PacifiCorp where the hedging transactions originate.

² Collaborative Process to Discuss Appropriate Changes to PacifiCorp's Hedging Practices, March 30, 2012, p. 2.

³ Docket No. 10-035-124, Settlement Stipulation, p. 14.

⁴ PacifiCorp - Energy Risk Management Policy, Approved September 8, 2015.

⁵ Semi-Annual Hedging Report, page 29.

The PacifiCorp hedging program involves both power and natural gas used for power generation [REDACTED] The hedging strategy for electricity is somewhat confusing since the Company is [REDACTED] [REDACTED] [REDACTED] [REDACTED]

The Risk Management Policy identifies a natural gas hedging program with a [REDACTED] [REDACTED]. Within that time period, the Company is allowed to [REDACTED] [REDACTED] Specific transactions may be executed to position the Company [REDACTED] [REDACTED] [REDACTED]

[REDACTED]⁶ While it is a similar concept, it is different than a “dollar cost averaging” program, which is designed to purchase a fixed dollar amount or quantity on a predetermined or prescribed schedule. The Company may also execute hedging transactions in order to correct an exception (such as a limit exceedance) in order to remain in compliance with the guidelines established in the Risk Management Policy. [REDACTED]

[REDACTED]⁷ [REDACTED]⁸

In addition to [REDACTED], the Company uses the [REDACTED] to analyze the potential impact of [REDACTED] [REDACTED] [REDACTED]

The Company provides a summary of the [REDACTED] calculations and the minimum and maximum threshold limits in Confidential Figure 24. As of June 30, 2017, [REDACTED]

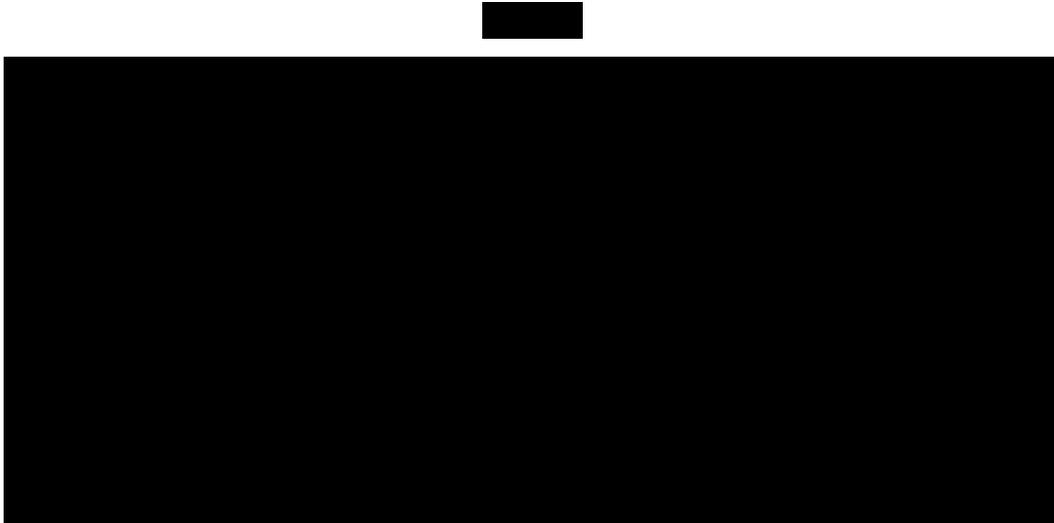
⁶ Semi-Annual Hedging Report, page 29.
⁷ Semi-Annual Hedging Report, page 21.
⁸ Semi-Annual Hedging Report, page 20.

[REDACTED]⁹ [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] calculation includes a number of assumptions and incorporates [REDACTED]
[REDACTED] is an internal model and the assumptions used in the calculations are not readily available, the results cannot be verified or replicated by the Division.

ELECTRIC HEDGING – HISTORICAL AND FORECAST

Since December 30, 2016, [REDACTED]
[REDACTED]
[REDACTED]¹⁰ The electric portion of the hedging program is unique since PacifiCorp [REDACTED]
[REDACTED] Confidential Figure 21 of the hedging report provides a summary of the changes that have occurred in the electric hedging program for the total company since 2010. Chart 1 below has been prepared to graphically show how the electric hedging percentages have changed over the last six reporting periods.



⁹ Semi-Annual Hedging Report, page 21.

¹⁰ Semi-Annual Hedging Report, page 1.

As of June 30, 2017, the total Company has hedged [REDACTED]¹¹ of the year 1 electric requirement, which is similar to the two previous reporting periods.

While the calculated percentage amount for the entire Company is correct, the single percentage calculation does not provide an accurate understanding of the electric hedging activity. The buy requirement [REDACTED] the view of the total Company hedging activities. In order to avoid this distortion and gain a better understanding of the hedging activity, it is important to look at [REDACTED]

[REDACTED] Confidential Attachment F provides a breakdown of the [REDACTED]
[REDACTED]
[REDACTED]

On the [REDACTED] the Company has entered into [REDACTED]
[REDACTED] transactions for [REDACTED]
[REDACTED] In contrast, on the [REDACTED] the Company has [REDACTED]
[REDACTED] The Company has executed [REDACTED]
[REDACTED]

[REDACTED] When reviewed separately, the Company has hedged [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] from Confidential Attachment F is summarized below.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

¹¹ Semi-Annual Hedging Report, page 18, Confidential Figure 21.

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED] Reacting to the price
movement and hedging decisions for electricity can be difficult [REDACTED]
[REDACTED]

The Company typically does not execute [REDACTED]
[REDACTED] This position has changed slightly [REDACTED] As of December 30, 2016, the
Company had [REDACTED] and as of June 30, 2017 [REDACTED]

[REDACTED]
[REDACTED] of the PacifiCorp system. Attachment F
indicates that as of June 2017, the [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

As part of its review of the hedging report, the Division has reviewed the weighted average price of the hedging contracts to the spot market price to determine if there is a premium or discount on the hedging contracts. Chart 2 and Chart 3 below have been produced from the information in Confidential Figure 25 and provide a comparison of the spot price and the weighted averaged hedged power price from year-end 2013 through June 2017. Chart 2 compares the average high load hedged price at [REDACTED] to the average spot market price in the same location.

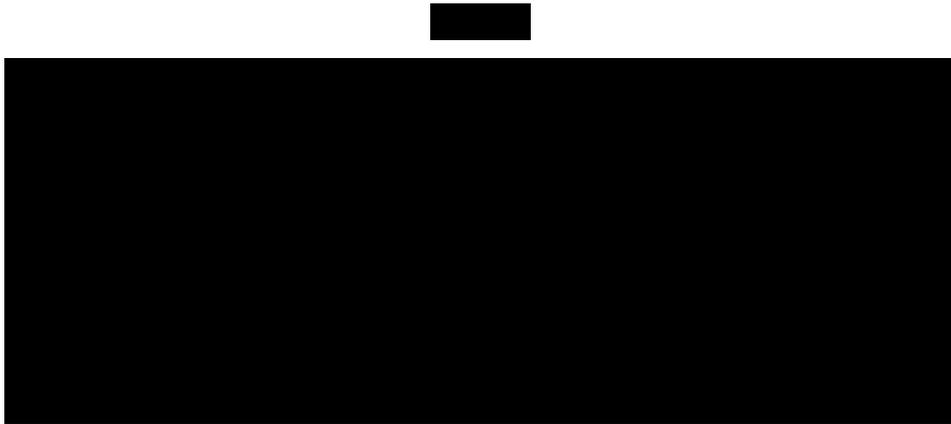
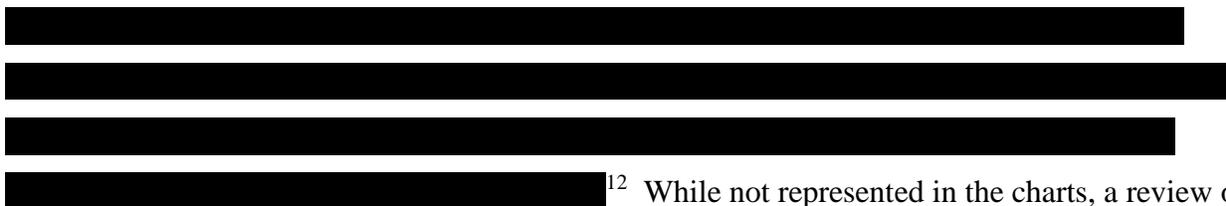
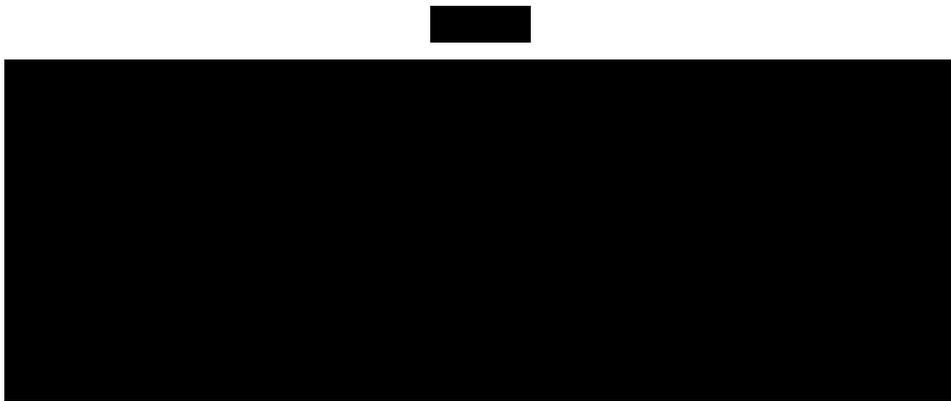


Chart 3 compares the average high load hedged price at [REDACTED] to the average spot market price.



¹² While not represented in the charts, a review of

¹² Semi-Annual Hedging Report, page 23, Confidential Figure 25.

the information in Confidential Exhibit 25 indicates [REDACTED]

For the next six months, the Company's view of the power market is [REDACTED]

[REDACTED] The plan for power is to [REDACTED]

[REDACTED] The Company intends to [REDACTED]

[REDACTED]¹³ In dealing with the [REDACTED]

[REDACTED]¹⁴ This is consistent with what the Company has executed in the past as seen in the historical information provided as Attachment A of the filing.

The Company's Official Forward Price Curve (OFPC) and the IHS electricity price forecast is provided in the Hedging report as Confidential Figure 5. While these two forecasts are included together, they represent different perspectives of the price forecast. The IHS value represents a forecast of the spot or expected price of the commodity on a date in the future. The spot price forecast cannot be transacted upon and represents the IHS view of the future. The OFPC is developed [REDACTED]

[REDACTED]¹⁵ The difference in the calculation of the OFPC and the forecast spot price used by IHS is the primary reason for the difference in these two price forecasts. In order to provide some points for comparison, Chart 4 has been prepared to look at the changes in the Company's OFPC over the last four reporting periods with specific emphasis on how the outlook has changed since the last hedging report.

¹³ Semi-Annual Hedging Report, page 33.

¹⁴ Semi-Annual Hedging Report, page 33.

¹⁵ Response to DPU Data Request 2.3

[REDACTED]

[REDACTED]

NATURAL GAS HEDGING – HISTORICAL AND FORECAST

The Company is exposed to natural gas price risk due to its natural gas-fired generating fleet. Natural gas hedging guidelines have been established to address the exposure to changes in market conditions. During the previous six months, the market price of natural gas prices has [REDACTED] on the east side of the PacifiCorp service territory by [REDACTED] per million British thermal units (MMBtu) [REDACTED]. On the west side of the service territory, natural gas prices have [REDACTED] per MMBtu or [REDACTED].¹⁶

For the forecast [REDACTED] hedging period, [REDACTED] [REDACTED] have been established and are included in Appendix E of the Company’s Risk Management Policy. [REDACTED] [REDACTED] The established ranges for hedging the forecast natural gas requirement are as follows:

[REDACTED]

¹⁶ Semi-Annual Hedging Report, page 1.

[REDACTED]
[REDACTED]

Transactions extending [REDACTED], but must comply with transaction limit approval guidelines. [REDACTED]

[REDACTED]
[REDACTED]

[REDACTED] The natural gas requirement and hedging contracts for [REDACTED] have not been addressed in this report however, the [REDACTED] [REDACTED] are included.

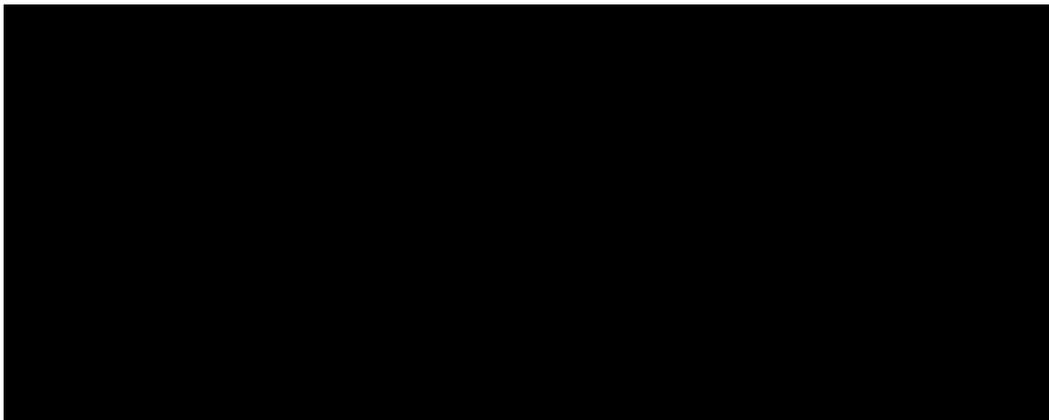
As of June 30, 2017, the Company had hedged [REDACTED] natural gas requirement, [REDACTED] [REDACTED] requirement.¹⁷ [REDACTED]

[REDACTED]¹⁸ The natural gas hedging position [REDACTED]

[REDACTED] is reasonable given the [REDACTED]

Chart 5 has been prepared to graphically show the change in the hedging percentages of natural gas for the last 6 reporting periods.

[REDACTED]



¹⁷ Semi-Annual Hedging Report, page 20, Confidential Figure 23.

¹⁸ Semi-Annual Hedging Report, page 20.

As represented by the chart, [REDACTED]
[REDACTED]

Over the next six months, the Company expectation is that forward prices for natural gas will remain range bound with potential upward trending prices. The Company intends to [REDACTED]
[REDACTED]

For the physical natural gas supply and balancing, the Company's plan [REDACTED]
[REDACTED]

[REDACTED] In order to [REDACTED]
[REDACTED], the Company [REDACTED]
[REDACTED]¹⁹

As part of the review of the hedging practices, the Company has provided a comparison of the weighted average price for the hedged contracts with the weighted average spot market index price in Confidential Figure 26. The hedge price and spot market price comparison has been provided to calculate [REDACTED]

[REDACTED] This information is also useful to compare the [REDACTED]
[REDACTED]

[REDACTED] Chart 6 provides a summary of the average price for hedged contracts [REDACTED] from year-end 2013 through June 2017 compared to [REDACTED]

[REDACTED] in 2013 to [REDACTED] as of June 2017. The chart illustrates how the [REDACTED]
[REDACTED]

¹⁹ Semi-Annual Hedging Report, page 32.

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] which will help to reduce and control the total net power cost.

Confidential Figure 39 provides a summary of the day-ahead and intra-day balancing transactions that were executed during the previous six month period. In reviewing the report, the Division noted [REDACTED]

[REDACTED]
[REDACTED]

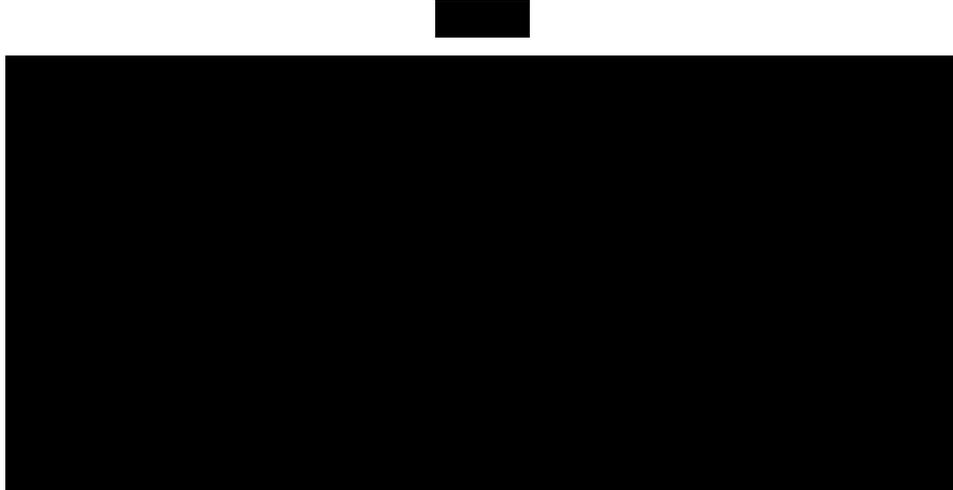
[REDACTED] In response to DPU Data request 2.5, the Company provided the following explanation concerning the number and reasons for [REDACTED]

[REDACTED]

[REDACTED]
[REDACTED] The Division will continue to monitor [REDACTED] transactions in future reporting periods.

Confidential Figure 4 provides a comparison of the Company’s Official Forward Price Curve (OFPC) with the IHS national price forecast. [REDACTED]

[REDACTED] In order to provide comparison of how the Company’s OFPC for natural gas changes over time, Chart 7 has been prepared using the OFPC from the last four reporting periods.



The OFPC included in the current report anticipates [REDACTED]

[REDACTED]

As economic conditions and market prices change, the forecast requirement for natural gas used for electric generation will change. As part of the review of the natural gas forecast requirement, it is useful to compare the actual volume of natural gas consumed to the amount projected in the previous forecasts. In response to DPU Data request 2.1 the Company provided the actual MMBtu consumed in each of the natural gas generating units. Chart 8 has been prepared to provide a visual comparison of the actual natural gas used during the previous 12 months compared to the June 2016 and December 2016 forecasts. A comparison of the forecast requirement to the consumptions provides a better understanding of the actual changes in the natural gas requirement.

[REDACTED]

[REDACTED]

A comparison of the actual natural gas consumption with the accuracy of the previous forecast is also important since [REDACTED]

[REDACTED]

CONCLUSION

The Division has reviewed the Semi-Annual Hedging Report and responses to data requests. The information presented in the current report is similar in format and content to previous reports and includes both historical information and a forecast of future hedging activities. [REDACTED]

[REDACTED]

[REDACTED] the Company is in compliance with the current hedging guidelines for both electricity and natural gas. No further action by the Commission is required.

cc: Jeffrey Larsen, Rocky Mountain Power
Bob Lively, Rocky Mountain Power
Yvonne Hogle, Rocky Mountain Power
Michele Beck, Office of Consumer Services
Cheryl Murray, Office of Consumer Services