



State of Utah  
Department of Commerce  
Division of Public Utilities

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## ACTION REQUEST RESPONSE - REDACTED

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: March 17, 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 – E. 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.

### ISSUE

On February 15, 2017, Rocky Mountain Power (Company) filed the PacifiCorp Semi-Annual Hedging Report with the Utah Public Service Commission (Commission). On February 15, 2017, the Commission issued an Action Request to the Division and requested a review for compliance. This memo is the Division's response to the Action Request.

## 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 PacifiCorp<sup>1</sup> 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.<sup>2</sup> One of the terms outlined in the stipulation requires the Company to provide a semi-annual hedging report to the Commission.<sup>3</sup> 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 December 30, 2016. 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.<sup>4</sup> Due to the specific content, **the hedging report and portions of this memo are considered confidential.**

## DISCUSSION

"The Company hedges and procures [REDACTED]  
[REDACTED]."<sup>5</sup> [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

<sup>1</sup> Rocky Mountain Power is a dba of PacifiCorp where the hedging transactions originate.  
<sup>2</sup> Collaborative Process to Discuss Appropriate Changes to PacifiCorp's Hedging Practices, March 30, 2012, p. 2.  
<sup>3</sup> Docket No. 10-035-124, Settlement Stipulation, p. 14.  
<sup>4</sup> PacifiCorp - Energy Risk Management Policy, Approved September 8, 2015.  
<sup>5</sup> 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 [REDACTED]

[REDACTED] The Risk Management Policy identifies a natural gas hedging [REDACTED]. Specific transactions may be executed to position the Company [REDACTED]

[REDACTED]<sup>6</sup> 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]<sup>7</sup>

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

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

<sup>6</sup> Semi-Annual Hedging Report, page 29.

<sup>7</sup> Semi-Annual Hedging Report, page 20.

[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

[REDACTED]  
[REDACTED]  
[REDACTED]<sup>8</sup> As stated above, the electric portion of the hedging program is unique since PacifiCorp [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]<sup>9</sup> Confidential Figure 21 in the hedging report provides a summary of the changes that have occurred in the electric hedging program over time. Chart 1 below has been prepared to graphically show how the electric hedging percentages have changed over the last six reporting periods. An explanation of the [REDACTED]  
[REDACTED]  
[REDACTED]

<sup>8</sup> Semi-Annual Hedging Report, page 1.

<sup>9</sup> Semi-Annual Hedging Report, page 18, Confidential Figure 21.

[REDACTED]

[REDACTED]

As of December 2016, the Company has hedged [REDACTED] of the year 1 electric requirement, however it is important to independently review the hedging activity [REDACTED]

[REDACTED]

[REDACTED] the Company has entered into [REDACTED] transactions for [REDACTED]

[REDACTED] In contrast, [REDACTED] the Company has [REDACTED] The Company has executed

[REDACTED]

[REDACTED] The difference in the [REDACTED]

[REDACTED] is included in the filing as Confidential Attachment F and is summarized below.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED] Reacting to the price movement and hedging decisions for electricity can be difficult [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 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 2012 through 2016. Chart 2 compares the average high load hedged price at [REDACTED] to the average spot market price. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

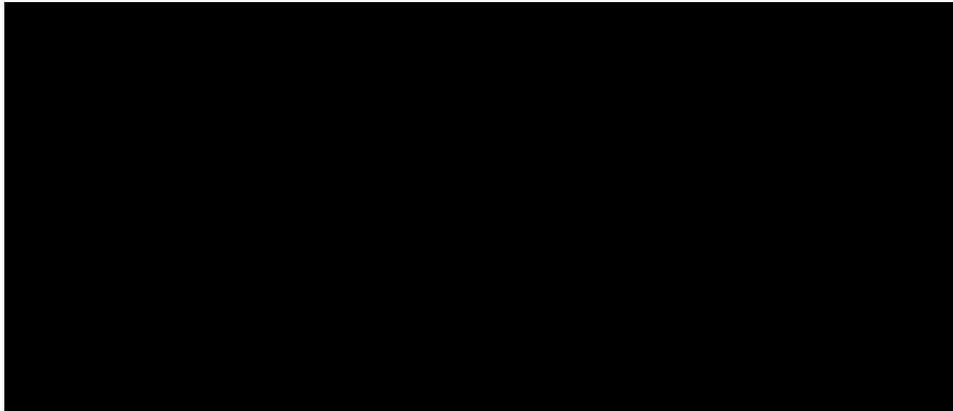


Chart 3 compares the average high load hedged price at [REDACTED] to the average spot market price. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]

10

[REDACTED]

[REDACTED]

While not represented in the charts, a review of the information in Confidential Exhibit 25 indicates [REDACTED]

[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]

[REDACTED] The Company will [REDACTED]<sup>11</sup> In dealing with the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>12</sup> 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 CERA electricity price forecast is provided in the Hedging report as Confidential Figure 5. While these two forecasts

<sup>10</sup> Semi-Annual Hedging Report, page 23, Confidential Figure 25.

<sup>11</sup> Semi-Annual Hedging Report, page 32.

<sup>12</sup> Semi-Annual Hedging Report, page 33.

are included together they represent different perspectives of the price forecast. The IHS CERA 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 that firm's view of the future. This perspective of future prices is slightly different than the Company's OFPC. In response to DPU data request 1.3 the Company provided the following explanation of the difference.

[REDACTED]

The difference in the calculation of the OFPC and the forecast spot price used by IHS CERA 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.

[REDACTED]

[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 million British thermal units (MMBtu) or [REDACTED]<sup>13</sup>.

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]
[REDACTED]
[REDACTED]

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

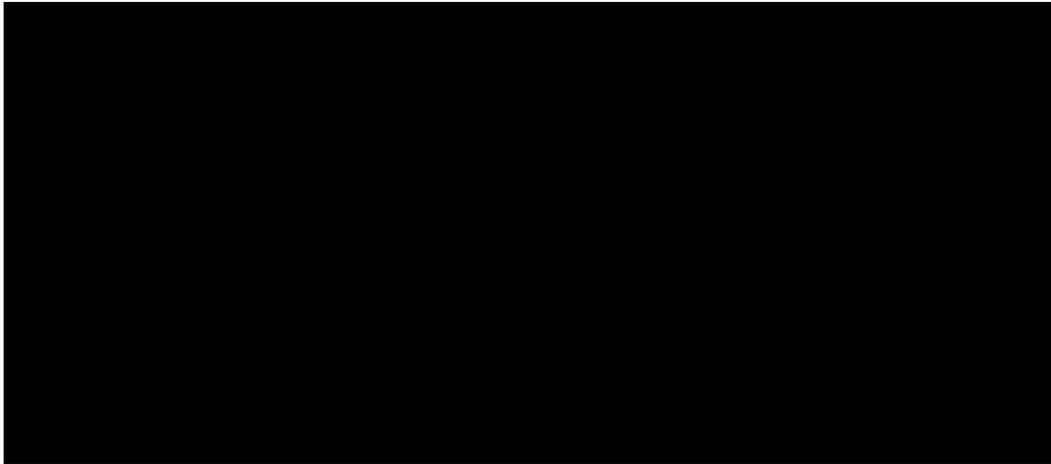
[REDACTED]

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

[REDACTED]

<sup>13</sup> Semi-Annual Hedging Report, page 1.

As of December 30, 2016, the Company had hedged [REDACTED] natural gas requirement, [REDACTED] requirement.<sup>14</sup> The natural gas hedging position [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]<sup>15</sup> [REDACTED]  
[REDACTED] appears to be reasonable given the [REDACTED]  
[REDACTED] Chart 5 has been prepared to graphically show the change in the hedging percentages of natural gas for the last 6 reporting periods. As represented by the chart, [REDACTED]  
[REDACTED]



For the next six months, the Company expects to [REDACTED]  
[REDACTED]  
[REDACTED] For the physical natural gas supply and balancing, the Company's plan [REDACTED]  
[REDACTED]  
[REDACTED] In order to [REDACTED]

<sup>14</sup> Semi-Annual Hedging Report, page 20, Confidential Figure 23.

<sup>15</sup> Semi-Annual Hedging Report, page 20.

[REDACTED], the Company [REDACTED]  
[REDACTED]<sup>16</sup>

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 spot market information and comparison is provided to determine [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 2012 through 2016 compared to [REDACTED]  
[REDACTED]

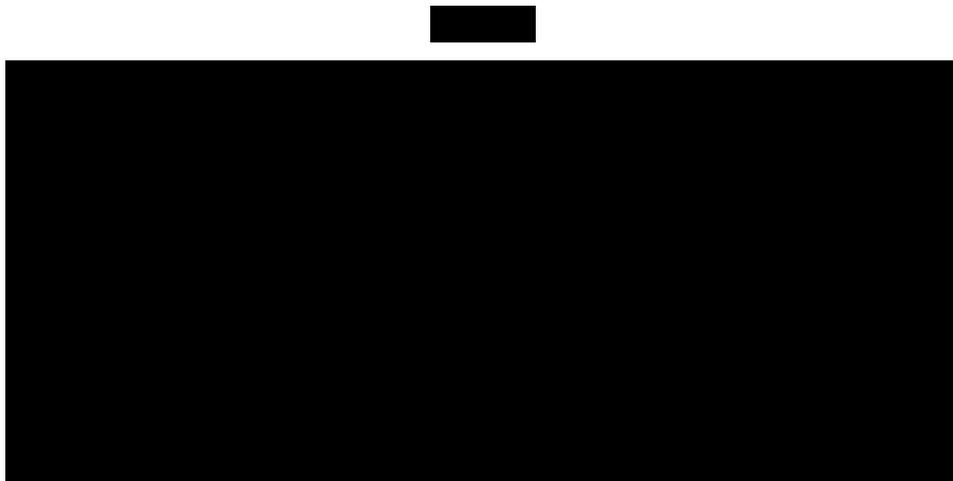
[REDACTED] in 2012 to [REDACTED] in 2016. The chart illustrates how the [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] which will help to reduce the total net power cost.

[REDACTED]

<sup>16</sup> Semi-Annual Hedging Report, page 32.

The Company's Official Forward Price Curve (OFPC) for natural gas is provided as Confidential Figure 4. The OFPC included in the current report anticipates [REDACTED] Confidential Figure 4 also provides a comparison of the Company's OFPC with the IHS CERA national price forecast.

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



On average, the December 2016 OFPC for natural gas prices is [REDACTED]

[REDACTED] The Company is projecting [REDACTED]

For the next six months, the Company's plan is to [REDACTED]

[REDACTED]

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<sup>17</sup> Semi-Annual Hedging Report, page 32.

[REDACTED]

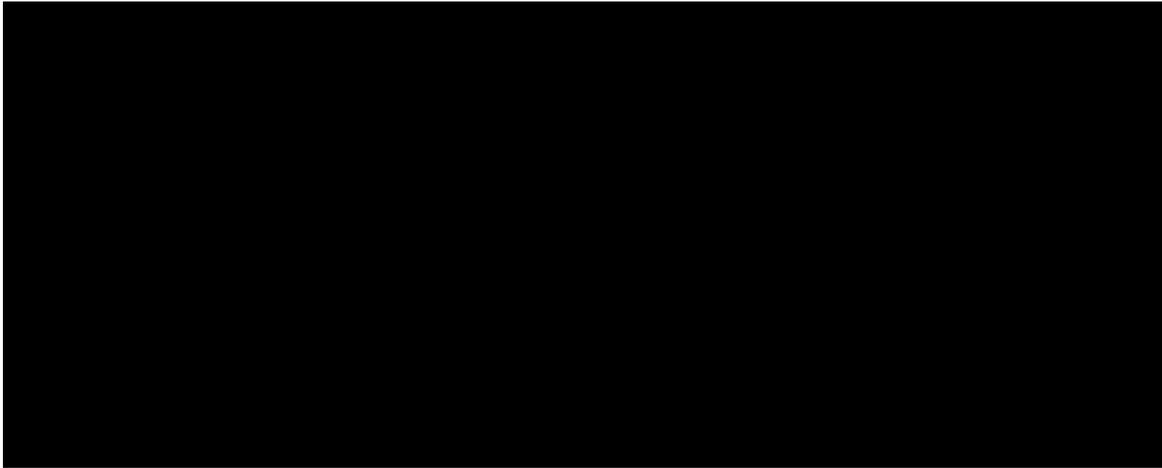
[REDACTED]

As economic conditions and market prices change, the forecast requirement for natural gas used for electric generation will change. Chart 8 below is a comparison of the forecast natural gas requirements included in the current and the two previous filings. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



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 1.1 the Company provided the actual MMBtu consumed in each of the natural gas generating units. Chart 9 has been prepared to provide a visual comparison of the actual natural gas used during the previous 12 months compared to the June 2016, December 2015 and June 2015 forecasts. During the past 12 months the actual usage of natural gas has been [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] For calendar year 2016, the actual usage was [REDACTED]  
[REDACTED]<sup>18</sup>

**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

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<sup>18</sup> 2016 Actual Volume of Natural Gas Consumed [REDACTED]. December 2015 Hedging Report – 2016 Forecast Natural Gas Requirement [REDACTED]. June 2015 Hedging Report – 2016 Forecast Natural Gas Requirement [REDACTED]. December 2014 Hedging Report – 2016 Forecast Natural Gas Requirement [REDACTED].

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