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Action Request Response

To: Public Service Commission of Utah

From: Utah Division of Public Utilities

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Date: March 19, 2020

Re: **Docket No. 20-035-08**, PacifiCorp's Semi-Annual Hedging Report – Information Memo

Recommendation (No Action)

The Division of Public Utilities (Division) has reviewed PacifiCorp's 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 along with a forecast of future hedging activities. The Public Service Commission of Utah (Commission) has not been asked 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.

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Issue

On February 18, 2020, Rocky Mountain Power (RMP) filed the PacifiCorp Semi-Annual Hedging Report with the Commission. On February 18, 2020, the Commission issued an Action Request to review the filing for compliance with comments due on or before March 19, 2020. This memo represents the Division's comments and replies 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 PacifiCorp¹ hedging transactions. As part of the settlement stipulation, RMP 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 RMP to provide a semi-annual hedging report to the Commission.³ A hedging report is to be produced on a semi-annual basis representing 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 indicate future hedging activities. The current report covers the six-month period ending December 31, 2019. The report describes market fundamentals, basis risk, liquidity, energy positions, hedging activity, products, instruments, and physical supply. The hedging guidelines are outlined in the current PacifiCorp Energy Risk Management Policy.⁴ Due to the specific content, **the hedging report and portions of this memo are considered confidential.**

¹ Rocky Mountain Power is DBA PacifiCorp where the hedging transactions originate.

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

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

⁴ PacifiCorp - Energy Risk Management Policy, approved January 30, 2019.

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Discussion

“The Company hedges and procures [REDACTED] [REDACTED]”⁵ The decisions for when and how much to hedge can be influenced by the guidelines established in the Energy Risk Management Policy, the market strategy established by the PacifiCorp Energy and Trading function, and by [REDACTED] [REDACTED]

The PacifiCorp hedging program involves [REDACTED] [REDACTED] used for power generation. The specific hedging strategy will also [REDACTED] [REDACTED] The hedging strategy for electricity is somewhat confusing since PacifiCorp is [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

The Energy Risk Management Policy identifies a natural gas hedging program with a [REDACTED] [REDACTED] Within that time period, PacifiCorp is allowed to hedge [REDACTED] [REDACTED] Specific transactions may be executed to position the Company [REDACTED] depending on the current market outlook. If there is no specific direction or change in the market conditions or prices, [REDACTED]

[REDACTED] 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 for power or gas to correct an exception (such as a limit exceedance) in order to remain in compliance with the guidelines established in the Energy Risk Management Policy. During the past six months, [REDACTED]

[REDACTED]⁶

⁵ Semi-Annual Hedging Report, page 29.

⁶ Semi-Annual Hedging Report, page 20.

Redacted

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

[REDACTED] The Company provides a summary of the [REDACTED] calculations and the minimum and maximum threshold limits in Confidential Figure 25. Underlying the maximum [REDACTED] limit is a [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] are designed to control [REDACTED]
[REDACTED]⁷

On January 23, 2019, the Company outlined recommended changes to the [REDACTED] and on January 30, 2019, approved the changes to the [REDACTED] The revision [REDACTED]
[REDACTED] for Year 1 [REDACTED] Year 2 [REDACTED]⁸ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁹

[REDACTED] is an internal model – the assumptions used in the calculations are not readily available and the results cannot be verified or replicated by the Division.

⁷ PacifiCorp Hedging Policy Update, January 23, 2019, page 4.

⁸ PacifiCorp Energy Risk Management Policy, approved January 30, 2019, Appendix G.

⁹ Semi-Annual Hedging Report, page 20 and DPU Data Request 1.4.

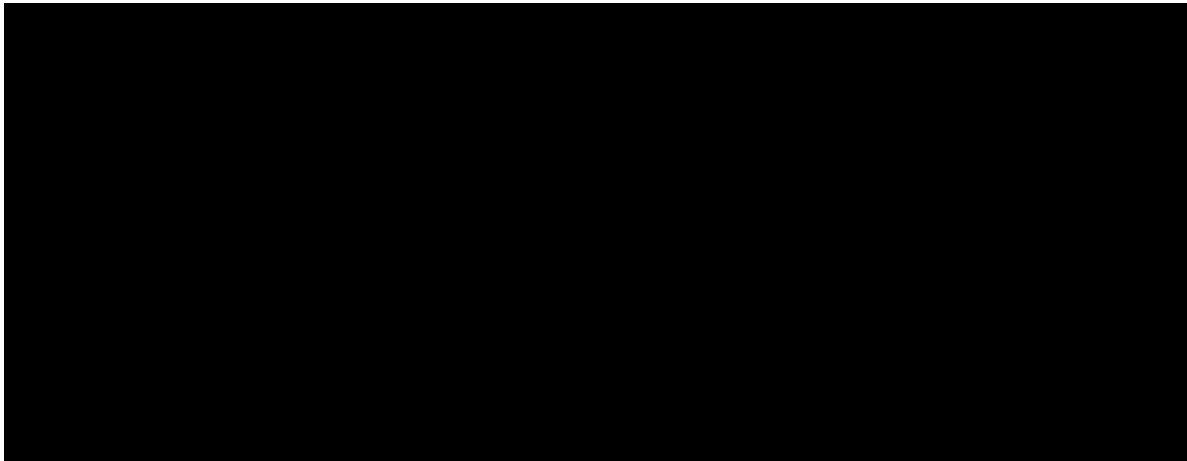
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ELECTRIC HEDGING – HISTORICAL AND FORECAST

Since June 30, 2019, [REDACTED] forward price curve (FPC) for power on the east side of PacifiCorp's system [REDACTED] per megawatt-hour (\$/MWh), [REDACTED] and [REDACTED] per megawatt-hour (\$/MWh), [REDACTED] on the west side.¹⁰

The electric portion of the hedging program is unique since PacifiCorp [REDACTED] [REDACTED] Confidential Figure 22 provides a summary of the changes that have occurred in the electric hedging program for the total Company since December 31, 2014. Confidential Chart 1 below has been prepared to graphically show how the electric hedging percentages have changed over the last six reporting periods.

Confidential Chart 1



As of December 31, 2019, the Company has hedged [REDACTED] [REDACTED]¹¹ While the calculated hedging percentage for PacifiCorp in Confidential Chart 1 is correct, the total Company percentage calculation does not provide an accurate understanding of the hedging activity. [REDACTED] [REDACTED] can distort the view of the total Company hedging activities. In order to gain a better understanding of the hedging activity, it is helpful to look at [REDACTED] [REDACTED]

¹⁰ Semi-Annual Hedging Report, page 1.

¹¹ Semi-Annual Hedging Report, page 19, Confidential Figure 22.

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[REDACTED] Confidential Exhibit F provides a breakdown of the electric hedging activities for the east side and west side of the system and provides a better understanding of the current hedging position for each area.

The Company reports an overall electric hedge [REDACTED]. A closer examination reveals that on the east side [REDACTED] the Company has executed [REDACTED]
[REDACTED]
[REDACTED]. On the west side [REDACTED] the Company has entered into hedging [REDACTED]
[REDACTED]

[REDACTED] hedging activity for Year 1 that has been provided in Confidential Exhibit F is summarized below.

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

[REDACTED]
[REDACTED]
[REDACTED]

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

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[REDACTED]

[REDACTED] As of December 31, 2019, the Company had [REDACTED]

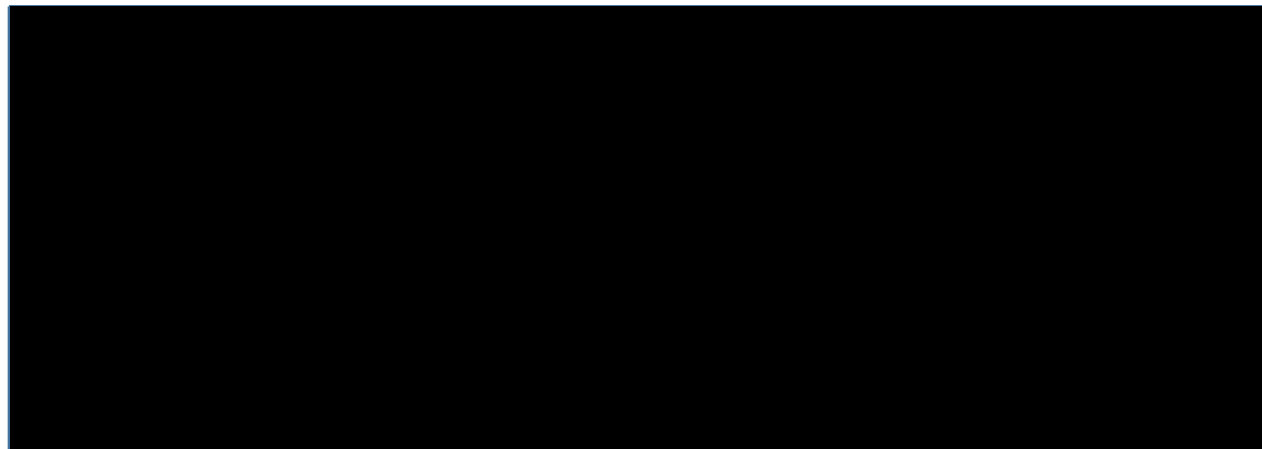
[REDACTED] Based on the information provided in Attachment F, the Company [REDACTED]

[REDACTED]

[REDACTED]

As part of its review of the hedging report, the Division has reviewed the weighted average price of the hedging contracts compared to the spot market price to determine if there is a premium or discount on the hedging contracts. Confidential Chart 2 and Confidential Chart 3 below have been produced from the information in Confidential Figure 26 and provide a comparison of the spot price and the weighted average hedged power price from 2015 through December 2019. Confidential Chart 2 compares the average high load hedged price at [REDACTED] [REDACTED] to the average spot market price in the same location.

Confidential Chart 2



[REDACTED] the Company has entered into hedging contracts [REDACTED]

[REDACTED]

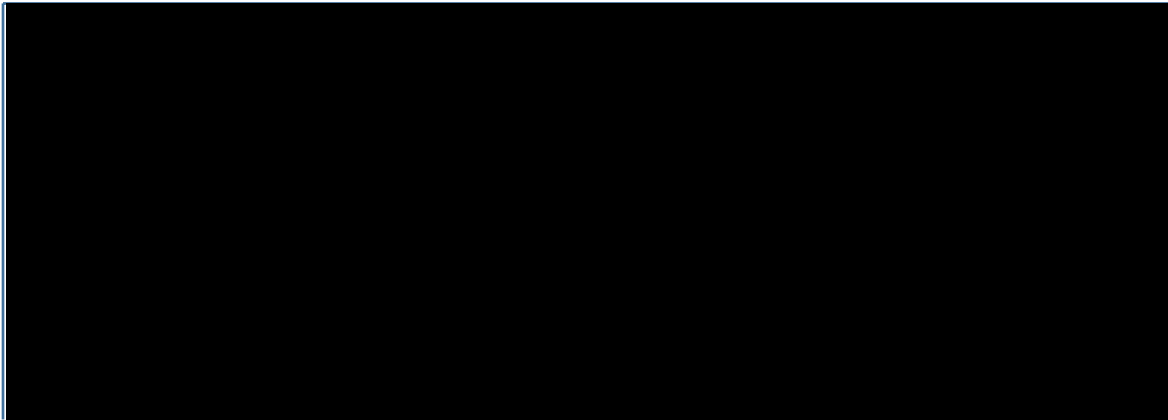
[REDACTED]

[REDACTED]

Redacted

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

Confidential Chart 3



In prior years the Company has been able to enter into hedging contracts [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] While not represented in the charts, a review of the information
in Confidential Exhibit 26 indicates a similar price comparison [REDACTED]
[REDACTED] in the same trading locations.

The PacifiCorp Official Forward Price Curve (OFPC) and the IHS¹² 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 PacifiCorp OFPC is developed [REDACTED] Market forwards represent a view of the market and are derived from contracts that bind counterparties to stipulated

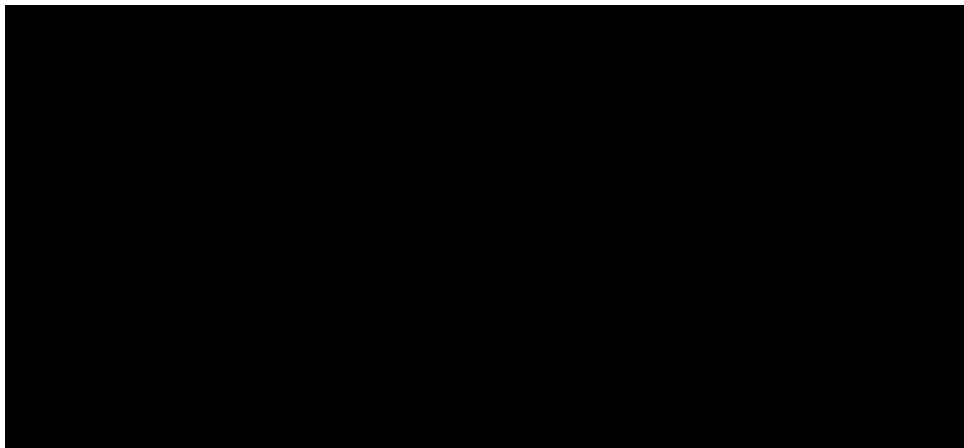
¹² IHS Markit, *North American Power Market Outlook data tables: May 2019*.

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prices and delivery schedules. 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 provided in Confidential Figure 5.

In order to provide some points for comparison, Confidential 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 price outlook has changed since the last hedging report six months ago.

Confidential Chart 4



The prior year's near term projections have not significantly changed. However, the [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] For the next six months, the Company's view of the power market is neutral to slightly bullish and has not changed from the last reporting period.

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

Redacted

[REDACTED] In dealing with the [REDACTED] and in general practice, the Company will continue [REDACTED]

[REDACTED].¹³

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.

NATURAL GAS HEDGING – HISTORICAL AND FORECAST

PacifiCorp 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 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].¹⁴

Forecasted natural gas hedging limits have been established and are included in Appendix E of the PacifiCorp Energy Risk Management Policy. Hedging and hedging limits are designed to [REDACTED]. [REDACTED] The established ranges for hedging the forecast natural gas requirement are as follows:

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

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

[REDACTED] which were previously approved by the Commission.

[REDACTED]

[REDACTED] The natural gas requirement and hedging contracts for [REDACTED]

¹³ Semi-Annual Hedging Report, page 34.

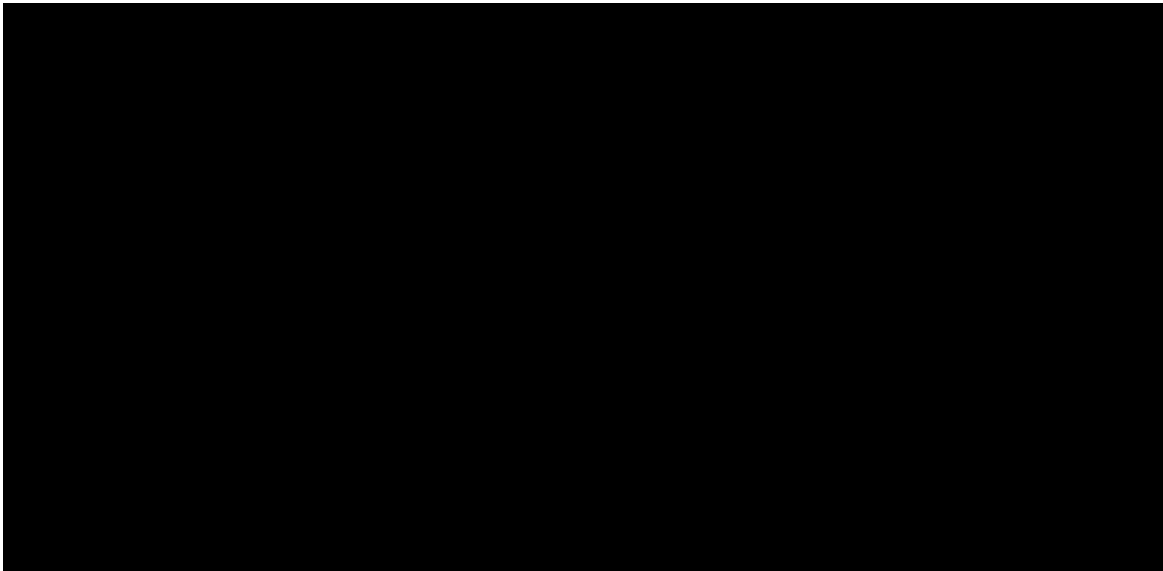
¹⁴ Semi-Annual Hedging Report, page 1.

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have not been addressed in this report; however, the portion of the [REDACTED]
[REDACTED] hedging horizon has been included.

As of December 31, 2019, the Company had hedged [REDACTED] natural gas requirement,
[REDACTED].¹⁵ The natural gas hedging position [REDACTED]
[REDACTED] as of December 31, 2019. The current hedging position
is consistent with the strategy that was outlined in the previous hedging report and has changed
only slightly from the previous reporting period. Confidential Chart 5 has been prepared to
graphically show the change in the hedging percentages of natural gas for the last 6 reporting
periods.

Confidential Chart 5



As demonstrated in Confidential Chart 5, PacifiCorp has maintained a fairly consistent natural gas hedging strategy for some time.

As part of the review of the hedging practices, Confidential Figure 26 provides a comparison of the weighted average price for the hedged natural gas contracts with the weighted average spot

¹⁵ Semi-Annual Hedging Report, page 17, Confidential Figure 22.

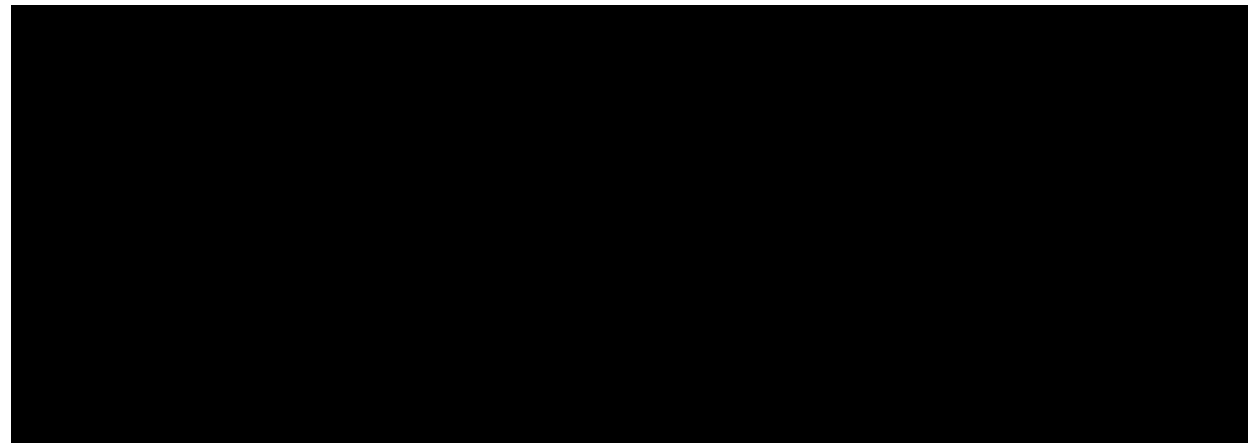
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market index price. The hedge price and spot market price comparison has been provided to calculate [REDACTED]

This information is also useful to compare the price of the hedged contracts to the market price in order to evaluate if the prices paid for hedging contracts have been significantly higher or lower than the spot market price. Confidential Chart 6 provides a summary of the average price for hedged contracts [REDACTED] from year-end 2015 through 2019 compared to the average spot market price. [REDACTED]

[REDACTED] The chart illustrates how the spread between the contract price of the hedged transactions and the spot price has been [REDACTED] in recent years.

Confidential Chart 6



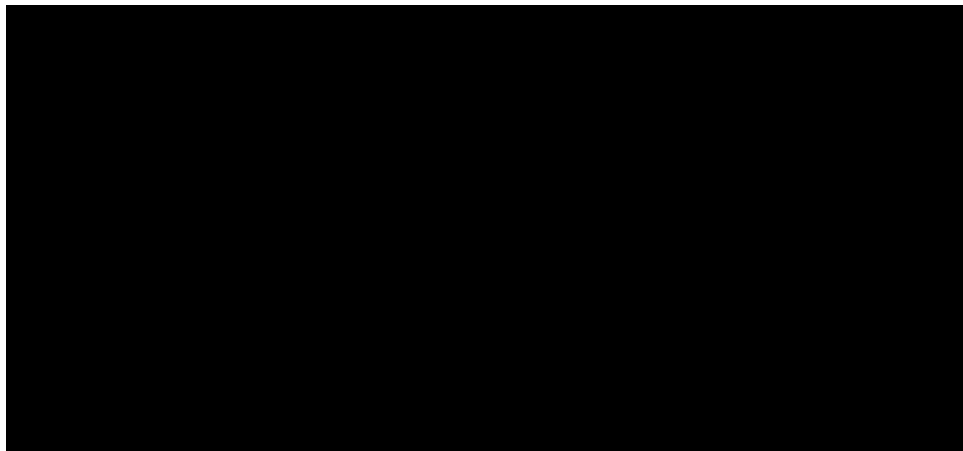
[REDACTED] The recent increase in the weighted average spot price may be due to the increase in market prices that occurred following the Enbridge pipeline rupture in British Columbia.¹⁶ By hedging only a portion of the total natural gas requirement, the Company can purchase the remaining unhedged portion of the gas requirement at the spot market price.

¹⁶ EIA U.S Energy Information Administration, Natural gas pipeline rupture in Canada affects U.S. Energy markets, October 18, 2018

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The Company has provided a comparison of the PacifiCorp OFPC with the IHS national price forecast as Confidential Figure 4. In order to provide a comparison of how the Company's OFPC for natural gas has changed over time, Confidential Chart 7 has been prepared to show the OFPC as reflected in the last four reporting periods.

Confidential Chart 7

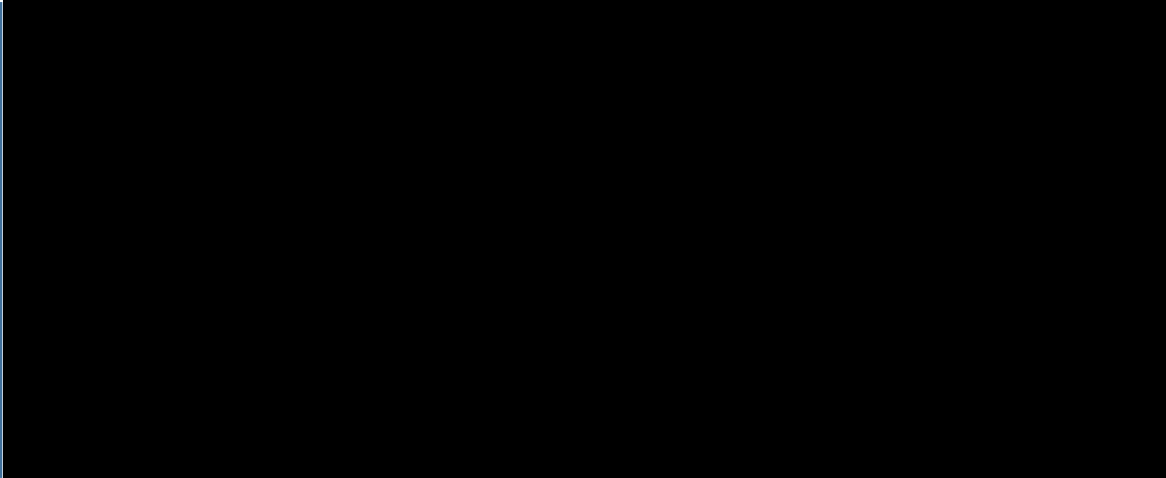


The PacifiCorp OFPC for natural gas is reflecting [REDACTED] [REDACTED] compared to the June 2019 forecast. The longer-range forecast in the OFPC is anticipating natural gas prices that are [REDACTED]

As economic conditions and market prices change, the forecast requirement for natural gas used for electric generation will also change. Confidential Chart 8 has been prepared to show how the forecast natural gas requirement for the next 24 months has changed in the current report compared to the forecast requirement in the last two hedging reports. The forecast natural gas requirement for [REDACTED]

Redacted

Confidential Chart 8



As part of the review of the forecast natural gas requirement, it is useful to compare the historical usage and actual volume of natural gas consumed to the volume that was forecast. A comparison of the actual natural gas consumption with the previous forecast is important since [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

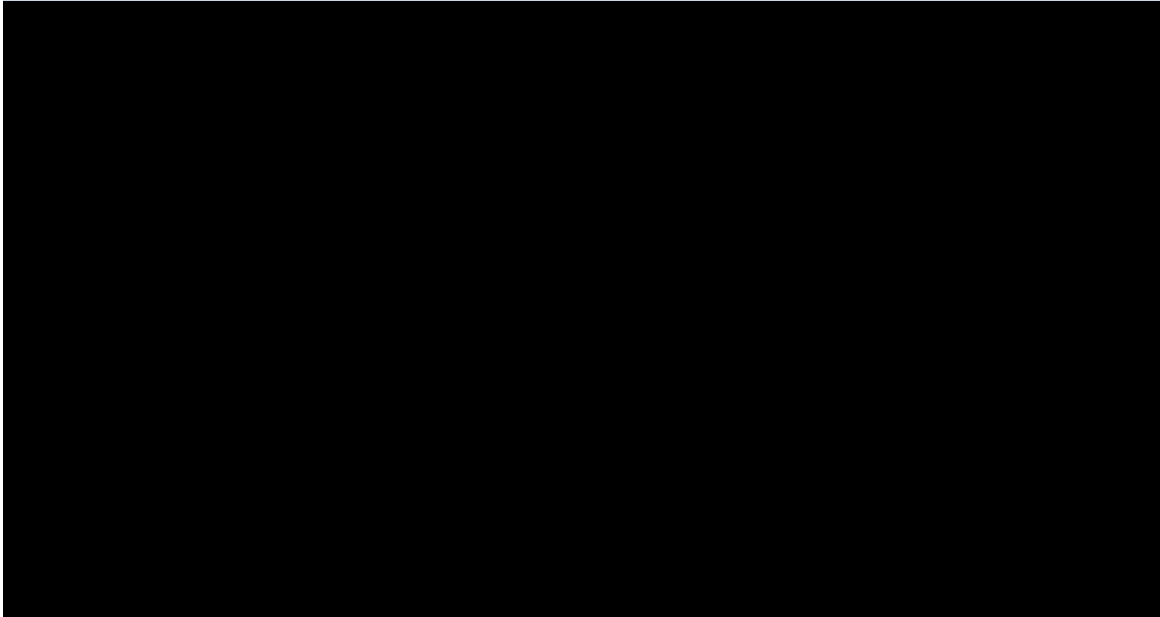
[REDACTED]

[REDACTED] In response to data requests, the Company has provided the actual MMBtu consumed by each of the natural gas generating units. The actual usage has been compared to the most recent natural gas requirement as identified in the hedging reports.¹⁷ Confidential Chart 9 has been prepared to provide a visual comparison of the actual volume of natural gas consumed for the past three years compared to the most recent forecast requirement for the same period.

¹⁷ Actual natural gas usage for each month has been compared to the forecast requirement provided in the semi-annual hedging report. The forecast requirement has been updated with each filing to reflect the requirement identified for the following six-month period.

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Confidential Chart 9



As demand and market conditions change, it is reasonable to expect that the actual usage will vary from the anticipated requirement. The actual usage of natural gas [REDACTED]

[REDACTED]

[REDACTED] The Division will continue to monitor the actual usage compared to the forecast requirement and will also monitor any [REDACTED]

For the next six months, the Company believes current technical indicators show that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] For the physical natural gas supply and balancing, the Company's plan will remain consistent with the past practices [REDACTED]

[REDACTED]

[REDACTED] the Company [REDACTED]

[REDACTED] 18

¹⁸ Semi-Annual Hedging Report, page 31.

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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. As of December 31, 2019, the natural gas and electric hedging activities are within the established guidelines. No further action by the Commission is required.

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Michele Beck, Office of Consumer Services
Cheryl Murray, Office of Consumer Services