ENERGY BALANCING ACCOUNT AUDIT FOR ROCKY MOUNTAIN POWER FOR CALENDAR YEAR 2016 (DOCKET NO. 17-035-01)

PUBLIC EXECUTIVE SUMMARY

PREPARED FOR

Division of Public Utilities
State of Utah

PREPARED BY

Daymark Energy Advisors

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DAYMARK ENERGY ADVISORS
370 MAIN STREET, SUITE 325 | WORCESTER, MA 01608
TEL: (617) 778-5515 | DAYMARKEA.COM

I. EXECUTIVE SUMMARY

In its Corrected Report and Order in Docket No. 09-035-15 issued March 3, 2011 ("EBA Order"), the Public Service Commission of Utah ("Commission") approved the implementation of the Energy Balancing Account ("EBA") to recover the differences between Rocky Mountain Power, a division of PacifiCorp ("RMP" or the "Company") actual EBA costs and approved forecasted ("Base") EBA costs established in the general rate case ("GRC") or cases establishing rates during the EBA deferral period. The Commission found in its Order that an EBA mechanism as modified by the Commission was in the public interest and would result in rates that were just and reasonable.

On March 15, 2017, RMP filed a request to refund $6.5 million to reflect EBA activity in calendar year 2016. The Company's request represents six components, including five credits and one cost. The credits include $11.3 million in EBA deferral, $0.7 million in coal fuel expense savings related to the Deer Creek mine closure, $0.5 million in interest accrued through April 2017, $0.2 million related to adjustments for sales to a special contract customer and $2.9 million in Retiree Medical Obligation savings related to the Deer Creek mine closure. These credits are partially offset by $9.1 million in Deer Creek mine amortization expense. All components represent Utah-allocated amounts. Only $3.3 million of the EBA deferral credit (due to differences in actual EBA costs from January 1 through May 31) and the $0.2 million credit related to the special contract customer were subject to the 70%/30% sharing band. The Company's proposed refund through interim rates effective May 1, 2017 would result in an overall rate decrease of approximately 0.3% for Utah customers.

Daymark Energy Advisors ("Daymark") was retained by the Division to assist in reviewing the Company's application to decrease the deferred EBA rate through the EBA mechanism in Docket No. 17-035-01. The Company is requesting approval to refund $6.5 million in deferred EBA costs covering the differences between EBA costs incurred in calendar year 2016 and Base EBA costs collected in rates during that same period. The scope of our assignment was to ascertain whether the actual costs included in the EBA filing were incurred pursuant to an in-place policy or plan, were prudent and were in the public interest. This report presents the results of and the conclusions from that review. This review was similar to that we performed for the Company's application to approve rate changes to recover deferred EBA costs incurred at the end of 2011 presented in Docket No. 12-035-67, calendar year 2012 presented in Docket No. 13-035-32, calendar year 2013 presented in Docket No. 14-035-31, calendar year 2014 presented in Docket No. 15-035-03 and calendar year 2015 presented in Docket No. 16-035-01.

This executive summary does not contain any confidential information. The remainder of this report does contain significant amounts of confidential information provided by RMP, and it explains the basis for our conclusions. The full report can be provided to parties that have signed the appropriate non-disclosure agreements for receiving material deemed to be confidential by RMP.

The Division is conducting a parallel review and analysis of the EBA deferral filing. Division Staff will be issuing its own report summarizing the results of its review. This report summarizes only the results of Daymark's review and analysis. Thus, the result contained in this report should be considered as complementing the work done by Division Staff.

Actual vs. Base NPC

The NPC categories with the largest variance between Base and Actual values are wholesale sales revenue ($216 million increase) and purchased power expense ($115 million decrease). Daymark's assignment included reviewing the variances in these two categories to understand the underlying drivers of the difference and to ensure that differences can be explained reasonably. We do not consider forecast "accuracy" to be an issue in this review (particularly given the wide temporal mismatch between the 2014-15 test period and the 2016 deferral period), but rather focus on the drivers of difference that are within the Company's control.

The general decrease in net sales and the resulting increase in Actual NPC due to wholesale sales revenue partially offset by decreases in purchased power expenses are generally explainable by market condition differences between the Base NPC forecast for the 2014-15 test period and actual conditions during the 2016 deferral period. Some individual contracts and transactions that contribute to the variance were added to our sample of power physical transactions for review in greater detail.

Outages

One task was to review and assess actual plant outages to ensure that these outages and their cost impact on the EBA charge is appropriate. We examined the information provided as part of the filing and conducted additional discovery.

Our review of forced outages at the Company's thermal plants during the EBA deferral period yielded 16 significant outages that appeared to be avoidable and resulted in unnecessary increases to Company-wide NPC. Of these 16 outages that warranted additional scrutiny, 14 outages demonstrated sufficient imprudence that we recommend reducing EBA costs to reflect replacement power costs related to the outages.

In the case of outages caused by avoidable mistakes or oversight by the Company or its third party vendors, we recommend the adjustment of EBA costs based on the incremental market power costs during the outage period relative to generation costs if the unit had been operating normally. Estimation of replacement power costs is necessarily imprecise because it is impossible to know with certainty the PacifiCorp dispatch, bilateral transactions and market outcomes in the counterfactual scenario with the subject unit online. Our methodology relies on available market data or proxy data, actual Company costs and reasonable assumptions to construct counterfactual scenarios.

OUTAGE	MONTH	EST. LOST MWH	RECOMMENDED EBAC ADJUSTMENT (COMPANY-WIDE NPC)
Outage A	May	7,106	$2,923
Outage B	Oct	6,798	$27,193
Outage C	Mar	25,936	$117,482
Outage D	Mar	680	$3,571
Outage E	Apr	560	$2,525
Outage F	Mar	920	$5,703
Outage G	Apr	420	$2,145
Outage H	Mar	1,160	$8,459
Outage I	Apr	320	$1,573
Outage J	Jul	4,880	$75,090
Outage K	Aug	5,965	$79,387
Outage L	Sep	4,540	$7,113
Outage M	May	5,464	$47,949
Outage N	Jun	14,220	$136,570
TOTAL		**78,970**	**$517,681**

Figure I(ES)-1. Summary of outage-related EBA adjustment recommendations.

The table above summarizes our recommendations with respect to EBA adjustments on a Company-wide NPC basis. The Division's separate report and testimony calculates the impact of our recommended adjustments on RMP's requested EBA recovery amount.

Joy Longwall

We were asked to review recovery effort and abandonment costs associated with the loss of the Joy Longwall at Jim Bridger mine.

Actual NPC includes $20.1 million in expenses related to the loss of a large piece of mining equipment at Bridger Underground Mine, which is included in total coal fuel expense at the Jim Bridger plant. During mining operations in December 2015 part of the Joy Longwall became stuck in soft claystone, initiating a series of escalating recovery efforts and ultimately the decision to abandon the equipment due to unsafe working conditions. The Company's share of abandonment costs, which include book value of the asset, construction work in progress, material and supply inventory items and deferred longwall costs, total $12.5 million. The Company's share of the cost of recovery efforts total $7.6 million.

Daymark was asked to review the information on the record related to the Joy Longwall abandonment and recovery efforts to determine if the recovery of these costs through the EBA is reasonable. It is important to note that while Daymark does not have specific expertise in coal mining operations, Daymark does have extensive expertise in utility operations. At its core, many of the principles of sound operations are equally applicable across a multitude of industries.

It is apparent from the Company's own Root Cause Analysis report that several practices that are fundamental to any operational environment were not sufficiently in place or not followed prior to the initiation of the chain of events leading to the ultimate abandonment of the equipment.

It is our recommendation that based on the available information on the record the Company was imprudent in the management of the Bridger Mine which ultimately led to the unsuccessful recovery efforts and abandonment of the Joy Longwall. We therefore recommend the entire cost of the recovery effort be refunded by the Company to its customers. The EBA deferral request should be adjusted to remove the $12.5 million Joy longwall abandonment expense and $7.6 million in recovery cost on a Company-wide NPC basis.

Natural Gas and Power Transactions

Another Daymark assignment was to evaluate a sample of trading transactions for accuracy, completeness and prudence. From a workload perspective, this task constituted the largest component of our audit. PacifiCorp has settled tens of thousands of transactions during 2016, consisting of power physical and natural gas financial and physical deals. We developed an initial sample of 62 broadly-representative transactions (including 15 transactions related to the Company's hedging program) and accounting entry groupings and conducted extensive discovery on these transactions. We built on knowledge gained from similar review in previous EBA cases, including two visits (in 2013 and December 2015) to the Company's trading headquarters in Portland, Oregon to meet trading staff and witness trading activity.

Between 2012 and 2016, the Company engaged in tens of thousands of transactions on a system-wide basis for natural gas and electricity that settled in the 2016 EBA deferral period. The costs or proceeds of these transactions flow through into net power costs. The transactions fall into three general categories: hedging, system balancing and other. Transactions are also classified as either physical or financial depending on whether physical delivery of natural gas or power is involved.

Based on an initial review of the transaction data and relevant corporate policies, we developed an initial sample of 62 transactions for deeper examination. The initial sample included 12 gas financial, 18 gas physical and 32 power physical transactions. Some sample transactions were targeted for selection based on characteristics identified in the trade capture data. Other transactions were randomly selected to be a broadly representative sample.

The Commission's February 2017 Order in Docket No. 09-035-15 extended the review period between the Company's EBA filing and the DPU's audit report. We utilized the additional review time to not only review a larger initial sample of transactions, but we also were asked to develop a second sample to examine issues in more detail from our preliminary review. Our second transaction sample expanded our review of gas physical transactions by adding an additional 11 deals to our sample. We sampled 15 power physical deals related to wholesale sales revenue and purchased power expense, the key drivers of Base vs. Actual NPC variance. Finally, we extended our review of EIM participation by sampling 9 specific resource bids into the market for detailed review. In total, our transaction sample included 88 deals or groups of accounting entries and 9 EIM resource bids.

For the sample transactions, we submitted detailed data requests for initial data, as well as several targeted follow-up sets. The data requests sought information that would shed light on why the transactions were done, how the terms of each deal fit in with the Company's market view at the time and whether each deal conformed to risk management and corporate governance policies.

Based on our review of the sample transactions and the supporting information provided to us, we find no reason at this time to adjust energy balancing account or net power costs for sample transactions reviewed.

Energy Imbalance Market Participation

We were asked to review the impact of PacifiCorp's second full calendar year of participation in the California Independent System Operator's ("CAISO") Energy Imbalance Market ("EIM"). PacifiCorp's participation in EIM impacts actual NPC in several ways, both directly and indirectly. First, there are direct costs and revenues associated with EIM transactions administered through the CAISO settlement system. As a result of trading energy imbalance through the EIM, the Company's own generation dispatch changes relative to what would have occurred absent the market, impacting fuel and purchased power cost indirectly. These impacts are not precisely quantifiable because they involve comparison to a counterfactual. Estimation of these impacts is necessary to determine if participation in EIM on balance reduces NPC.

The Company has offered testimony that, "participation in the EIM provides benefits to customers in the form of reduced Actual NPC"[1]. The two main sources relied upon for this conclusion are the Company's own analysis showing $19.5 million in inter-regional benefits in the deferral period and CAISO's published EIM Benefits Report estimating a wider subset of benefits attributable to PacifiCorp of $45.5 million. We reviewed the two studies to verify that customers benefit from the Company's participation in the EIM.

Based on our high-level review of public reports produced by CAISO supporting its benefits estimates we have found no reason to challenge CAISO's methodology or its findings that EIM participants benefit significantly from real time imbalance trading facilitated by the market. Daymark performed a more detailed review of PacifiCorp's benefits study, including "spot checks" of the underlying data and calculations for some periods. The methodology employed by the Company is a reasonable estimate of

[1] Direct Testimony of Michael G. Wilding, Page 11, Line 224 – 225.

benefits associated with EIM participation. We find no evidence that it substantially overstates benefits of participation.

In addition to reviewing PacifiCorp's claims that participation in the EIM benefits customers, Daymark also reviewed the Company's approach to bidding its generation resources into the market to ensure that it is maximizing benefits from participation. The review of bid behavior in the EIM is more relevant to this audit than power physical transaction outcomes, as the actual transactions are the result of CAISO optimization and dispatch instructions rather than Company decisions. The Company decision lies in the way it bids its units into the market. We reviewed the Company's overall bidding strategy and also conducted a more detailed review of a sample of particular bids to examine these issues in detail. We found that the Company's bid prices offered in the EIM is consistent with the Default Energy Bids and are reasonably calculated to maximize benefits of EIM participation for customers.