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Division of Public Utilities

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ACTION REQUEST RESPONSE

To: Utah Public Service Commission

From: Utah Division of Public Utilities
Artie Powel, Manager
Energy Section
Abdinasir Abdulle, Utility Analyst
Charles Peterson, Technical Consultant

Date: April 21, 2017

Re: Docket No. 16-035-29 (03-035-14) – Rocky Mountain Power's Quarterly Compliance Filing – 23016.Q4. Avoided Cost Input Changes

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RECOMMENDATION (No Action)

The Division of Public Utilities ("Division") recommends that the Public Service Commission ("Commission") take no action on Rocky Mountain Power's ("Company") quarterly compliance filing – 2016.Q4 avoided cost input changes.

ISSUE

On March 31, 2017, the Company filed its Quarterly Compliance Filing – 2016.Q4. This filing reports changes since the Company's 2016.Q3 Quarterly Compliance Filing dated December 30, 2016. On April 3, 2017, the Commission issued an Action Request to the Division requesting the Division to review the application for compliance and to make recommendation. The Commission asked the Division to report back by April 21, 2017. This memorandum represents the Division's response to the Commission's Action Request.

DISCUSSION

Based upon Commission Orders dated October 31, 2005 and February 2, 2006 in Docket No. 03-035-14, the Company is required to provide quarterly updates of its avoided cost indicative pricing, highlighting any changes made to the Proxy and GRID models that are used to calculate Schedule 38 avoided costs. The parties to the proceeding in Docket No. 14-035-140, stipulated and the Commission approved that the Company classify new and updated assumptions as either "Routine Updates" or "Non-Routine Updates." In addition, it has been stipulated that "…parties will file a notice with the Commission within three weeks after the Company files its quarterly compliance filing, to identify which specific assumptions, if any, they intend to contest."

In compliance with these Commission Orders, the Company filed with the Commission its quarterly report for the 2016.Q4 on March 31, 2017. The Division reviewed and checked the accuracy and reasonableness of the calculations in the Company's filing. The Division believes that the Company properly documented the input changes to the avoided cost calculations.

The Company updated several inputs and assumptions to its model since the 2016.Q3 update filing. These updates are all categorized as routine updates. The Company identified one of these routine updates as new and it described it as "Trapped Energy Correction." The Company stated the following regarding this update/correction:

> **Trapped Energy –** Adjust the trapped energy discount settings in GRID to ensure volume attributed to constrained areas is not overstated. In the Wyoming Northeast and PP-GC GRID bubbles, trapped energy represents curtailment of wind or solar resources. To ensure that trapped energy is only assigned to constrained bubbles when other options are unavailable, the trapped energy discount in GRID have been differentiated slightly. The previous modeling had identical discounts and resulted in GRID occasionally assigning trapped energy to these areas when transmission out of these areas was not fully utilized.[1]

[1] Letter from Rocky Mountain Power to the Utah Public Service Commission, page 2, paragraph 5, March 31, 2017.

Based on discussions with the Company, the Division understands that in previous avoided cost filings when excess energy was generated from a specific location, or bubble, (usually from renewable resources and QFs) the GRID model would first seek to put this excess energy in somewhere according to a hierarchy. First, it would try to send the energy to other load areas where there might be a need; failing that it would try to sell it in a wholesale market or back down a generation resource depending on cost. Failing that, the model has previously assigned the excess, or "trapped energy", in an arbitrary fashion to a bubble and assigned an illiquid market cost, i.e., the "identical discounts" referenced in the Company's filing cited above, to a bubble, occasionally not making use of all the available alternatives.[2]

When GRID assigns trapped energy to the Wyoming Northeast or PP-GC bubble, it is assumed that curtailment of resources is necessary and the avoided cost for the excess amount would be zero or reflect the Company's lost Production Tax Credits, if applicable. Under the previous modeling, GRID would occasionally assign trapped energy to the Wyoming Northeast or PP-GC bubbles that could have reached other areas on the Company's system, where it would have been assigned an illiquid market cost rather than designated as curtailment. The new system attempts to resolve this inefficiency in GRID by differentiating between the illiquid market discounts in GRID. An illiquid market price results in a higher avoided cost than curtailment, but since the occurrences are generally rare the overall impact is small. If the QF output is creating trapped energy outside of a bubble where curtailment is necessary, the avoided cost would be higher under the revised modeling. Likewise, to the extent Front Office Transactions or IRP Resources (Resources) are contributing to a trapped energy situation outside of a bubble where curtailment is necessary, the revised modeling increases the value of these Resources during those occurrences. Because these Resources are providing more value (i.e., are lower cost), when these Resources are displaced by a QF, the avoided cost is lower.

Though the Company designated the Trapped Energy Correction as a routine update, the Division believes it is a non-routine update. However, the Division believes that this update is

[2] The Company explained to the Division that there are different ways energy could be considered "trapped." First there is excess energy in the bubble with no available transmission out of the bubble, or no transmission available to another bubble where the energy could be used (transmission constraint). Or there is no transmission constraints, but all of the available markets are full, that is GRID is told that the wholesale markets are capped and no more energy can be sold there, simultaneously with the inability to back down thermal generation.

reasonable. Therefore, based on our review and understanding, we conclude that the updates appear reasonable and are correctly incorporated into the avoided cost calculations.

CONCLUSION

Overall, the input changes made by the Company between this compliance filing and the 2016.Q3 filing **increases avoided cost** pricing on a 15-year nominal levelized basis by approximately $0.07/MWh. This increase represents the cumulative impact of all the changes made by the Company. The incremental impact of each change from the prior step will depend on the order in which the changes are introduced into the model.

Based upon its review, the Division believes that the updates of the avoided cost calculations are reasonable and the avoided cost prices are calculated according to the Commission approved methods. Therefore, the Division recommends that the Commission take no further action on the Company’s filing.

CC: Bob Lively, RMP
Michele Beck, OCS