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MEMORANDUM

To: Utah Public Service Commission

From: Utah Division of Public Utilities
Philip Powlick
Energy Section
Abdinasir Abdulle, Technical Consultant
Jamie Dalton, Utility Analyst II
Artie Powell, Manager

Date: April 28, 2008

Ref: Docket No. 08-035-T03. Advice Filing 08-03 – Schedule 113 – Cool Cash Incentive Program.

RECOMMENDATION (approval)

The Division of Public Utilities (Division) recommends the Commission approve the proposed Tariff changes, Schedule 113 – Cool Cash Incentive Program for the State of Utah, and the replacement sheets - 113.2 and 113.3 - filed subsequently, with the following recommendation:

- The Company should reconvene the DSM working group with the goals of 1) reaching agreement on the appropriate decrements to assess program performance and; 2) discussing how the design and the incentive structure of the program can be improved and how the program can be monitored going forward.

ISSUE

On April 2, 2008, Rocky Mountain Power (Company) submitted its proposed Tariff changes, Schedule 113 – Cool Cash Incentive Program, along with a supporting economic analysis of proposed schedule modifications. The tariff represents a Demand Side Management (DSM) program that provides dealer and customer incentives to facilitate the sales, purchase and

efficient installation of high efficiency evaporative cooling and air conditioning systems. The program is designed to help reduce summer peak loads.

DISCUSSION

This filing does not revise any of the incentives approved in the final 2007 program tariff. The only change is a change in language in relation to the application deadline from 2007 to 2008. The Division believes that language specifying a specific calendar year for the application dead line will require the Company to file replacement sheets every year even though the Company is not changing anything else in the program. Therefore, the Division believes that, in relation to the application deadline, the language that specifies the specific calendar year (e.g., "2008") should be changed to a generic term such as "current year". This will avoid the necessity of having to make such changes just because it is a different year.

Quantec performed cost-effectiveness tests for the program using Quantec's Demand Impact and Cost Effectiveness (DICE) model. The model distributes the estimated annual kWh savings across the year based on an hourly residential air conditioning load shape for Utah. Each of these hourly savings values is multiplied by the associated hourly avoided-cost from the Company's 2007 IRP 7% residential cooling load factor decrement results. These products are discounted back to the present. Based on its assumptions, Quantec found the program to be cost effective with respect to the required cost effectiveness tests. However, there are two program measures that were found not cost effective on a stand-alone basis. These include the Charge and Airflow measure, and the 15 SEER/12.5 EER equipment incentive. The Company did provide on pages 2 to 3 of its filing a sufficient explanation to justify why these measures should be included. The Company explanation can be summarized as follows. The Charge and Airflow measure provides incentives to HVAC installers who receive best practice installation certification from the North American Technician Excellence, Inc. This helps to ensure that energy efficient HVAC equipment is installed in a manner that maximizes energy efficiency. The 15 SEER/12.5 EER measure was included to increase the support of HVAC contractors in the promotion of high-efficiency cooling equipment. The Company notes that without these

incentives, HVAC contractors are less likely to promote purchase of efficient cooling equipment and associated installation practices. The Division believes that these individual measures should be included since the overall program performance exceeds the required efficiency measures.

However, in reviewing Quantec's cost-effectiveness model attached to the filing, the Division found a disparity between the load factor calculated by Quantec and the 7% load factor derived from the 2007 IRP. Based on Quantec's model included in this filing's data disks, the load factor is calculated at a 9%, decrement, whereas the load used in the filing summary is the 7% 2007 IRP residential cooling factor. The Division asked the Company to perform the cost effectiveness test using the 7% 2007 residential cooling load factor. The results of this exercise, which are attached here, indicate that the results are very similar with TRC (without adder) benefit/cost ratio declining from 3.233 (as filed) to 3.111, the UCT declining from 1.388 (as filed) to 1.442 and the RIM declining from 1.342 (as filed) to 1.291. This indicates that the program passed all five tests under both scenarios. Therefore, the Division concludes that the program is cost effective.

However, the Division believes that there is a lack of definitive criteria regarding appropriate load shape to determine the decrement values and forward price curves in judging program cost effectiveness. It appears that an increase in the load factor will distribute more kWh savings away from the peak period. However, the same increase could also increase the "peakiness" of the system, with the potential to increase market prices for at least part of the peak period to which kWh savings are applied. The net impact of this chain of events on the benefit-cost ratio is ambiguous and would require one to perform a sensitivity analysis. Therefore, the Division recommends the Company to convene the DSM working group with the goal of reaching agreement on the appropriate decrements to assess program performance.

Historically, for comparison purposes, the Company calculated the cost effectiveness of a program using the forward price curve. However, in this filing the Company did not provide this

analysis. The Division believes that this provided a useful comparison and recommends the Company to provide such analyses with future filings of this nature.

In reviewing the Company's filing, the Division also noticed that the net savings from the Central AC program measures are declining (Table 1 of the filing). The Division believes that the Central Air Condition component of the program may have either reached, or is approaching its saturation limit as it relates to meaningful savings as an incentive. In a discussion with the Division on April 25, 2008, the Company indicated that though the gross per-unit savings did not change, it believes that the free-ridership associated with this program has increased resulting in reduced per unit net savings. Since the Central Air Conditioning measures are a major component of the program, the Division thinks that the program design needs to be revised. The Division also believes that a discussion of the methodology for determining free ridership is also in order. Hence, the Division recommends that the Commission order the Company to reconvene the DSM working group to discuss the design and the incentive structure of the program, as well as free ridership issues.

Since the program elements or the tariff did not change from the previously approved tariff, the Division recommends that the Commission approve Electric Service Schedule 113 with the Division's proposed modifications listed above.

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