BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Approval of Revisions to Back-Up, Maintenance, and Supplementary Power Service Tariff, Electric Service Schedule 31	**DOCKET NO. 13-035-196**

DIRECT TESTIMONY OF CHRISTINE BRINKER
ON BEHALF OF SOUTHWEST ENERGY EFFICIENCY PROJECT

HEARING EXHIBIT 1.0

May 22, 2014

Q. Please state your name and business address.

A. My name is Christine Brinker. My business address is Southwest Energy Efficiency Project, 2334 N. Broadway, Suite A, Boulder CO 80304.

Q. By whom are you employed and in what position?

A. I am employed by the Southwest Energy Efficiency Project ("SWEEP") as a Senior Associate in the Industrial Efficiency and Combined Heat and Power Program. My qualifications are included as Exhibit 1.1.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Southwest Energy Efficiency Project.

Q: What is SWEEP's interest in this docket?

A: SWEEP is a not-for-profit public interest organization dedicated to advancing cost-effective energy efficiency in a six-state region that includes Utah, Arizona, Colorado, Nevada, New Mexico, and Wyoming. SWEEP considers combined heat and power (CHP, also known as cogeneration) to be an important efficiency resource that provides economic, environmental, and security benefits to Utah businesses and residents. SWEEP has been active in promoting CHP policy best practices since 2003.

Q: Why and how should the Commission ensure fair and reasonable Partial Requirements rates?

A: Combined heat and power (CHP) systems help large businesses and industries in Utah reduce their energy costs, manage their own energy supply, improve electricity reliability, and meet corporate efficiency and sustainability goals. The potential economic advantages and energy cost savings from CHP allow Utah businesses to invest more money in jobs, exports, and innovation.

Utah citizens and ratepayers benefit from CHP too—even those that don't have CHP of their own—through increased efficiency, reduced overall emissions, diversification of electricity supply, and a more robust and resilient energy system.

Partial Requirements rates are an important factor in determining the relative cost-effectiveness of a CHP application. This proceeding will determine the level and structure of rates affecting existing and future CHP facilities served by Rocky Mountain Power in Utah, and thus affect the economic viability of existing and future CHP opportunities. The economic decision to invest in CHP will be most accurate if the Commission sets the applicable rates as close to their true value as possible.

I support Rocky Mountain Power's goal to "reflect adequate and accurate costs for the provision of such services."[1] The level and structure of each component of the Partial Requirements tariff needs not only to ensure that other ratepayers are not providing cross-subsidies to CHP owners, but also, conversely, that CHP owners are not providing cross-subsidies to other ratepayers. The structure and amount of each element of the Partial Requirements tariff should reflect the true cost of providing this service—where possible,

[1] Rocky Mountain Power, *Application of Rocky Mountain Power for Approval of Revisions To Back-Up, Maintenance, And Supplementary Power Service Tariff, Electric Service Schedule 31*, December 4, 2013.

based on transparent and market-based rates. As such, several elements of the proposed tariff may warrant closer scrutiny or revision.

Q: Have you reviewed the proposed changes to the Partial Requirements tariff (Electric Service Schedule 31) as explained in the Application, the direct testimony of Joelle Steward on behalf of Rocky Mountain Power, and the associated Exhibits?

A: Yes, I have.

Q: What aspects of the proposed Partial Requirements tariff do you wish to address in your direct testimony?

A: As described in more detail below, I have concerns and suggestions on the following elements of the proposed Partial Requirements service:

1. The new requirement that all applicable customer generators be placed on the Partial Requirements tariff, rather than continuing to offer each business a choice between Partial Requirements and Full Requirements service;

2. The level and price methodology of the generation reservation component of the Backup Facilities charge;

3. The basis of Excess Power rates; and

4. The basis and time periods of Maintenance Power rates.

Q: What are your reactions to Rocky Mountain Power's proposal to require any customer with onsite generation that meets the applicability to take service under this schedule?

A: Moving all onsite generation users onto the Partial Requirements tariff is a mandatory one-size-fits-all approach which reduces flexibility and reduces businesses' ability to choose what is best for their particular situation. I support continuing to allow customers the option of choosing the Full Requirements Service Schedule 8 or 9.

Q: If, as you recommend, some onsite generation users continue to be able to choose the general service rate, how would Rocky Mountain Power recover its costs of providing backup, maintenance, supplemental, and excess power to these users? Would these costs be shifted onto other customers?

A: The Full Requirements rate is already designed to account for rises and falls in aggregated individual facility energy use and demand. Demand and energy charges are in place in the commercial and industrial rates to compensate the utility for the costs of predicted or unpredicted increases in demand.

I am mindful of the Commission's duty to protect customers from paying unjust cross-subsidies, and I believe that continuing to allow the choice between the Partial Requirements and Full Requirements services would be consistent with this duty while continuing to protect some degree of business choice and flexibility.

Q: Let's turn to the newly proposed generation component of the Backup Facilities Charge. First, do you think that Rocky Mountain Power's own reserve margin of 13% is an accurate and appropriate basis for the generation component for customer generators?

A: No, not necessarily. The 13% reservation, as proposed, would be broadly applied to every single generator on the Partial Requirements tariff regardless of their actual forced outage rate. This means that any CHP system that has a forced outage rate of less than 13%—which is probably most of them[2] [3]—would be paying more than its fair share. In effect, it would penalize the highly reliable generators.

Rather, the generation reservation charge ought to reflect the actual likelihood of a customer generator requiring backup power. In other words, it needs to be priced in a way that reflects the real forced outage rate of the customer generators. If each of the four customers on Schedule 31 and the three that would be moved onto it all have a forced outage rate near 13%, then I would agree it is a reasonable amount; if most have lower forced outage rates then it is set too high.

Q: Next, is the price methodology for the generation reserve component appropriate?

A: I'm not sure that it is. The generation component of the Backup Facilities Charge seems to carry the assumption that Rocky Mountain Power will ramp up one of its own thermal

[2] "Estimated availability of gas turbines operating on clean gaseous fuels, like natural gas, is in excess of 95 percent." From: Environmental Protection Agency, *Technology Characterization: Gas Turbines*, December 2008, page 18, http://www.epa.gov/chp/documents/catalog_chptech_gas_turbines.pdf.

[3] The availability factor of natural gas engines >800 kW is 91.2%, the forced outage rate is 6.1%, and the scheduled outage rate is 3.5%. "Environmental Protection Agency, *Technology Characterization: Reciprocating Engines*, December 2008, page 19, http://www.epa.gov/chp/documents/catalog_chptech_reciprocating_engines.pdf.

units to supply the customer's backup power when needed. In reality, Rocky Mountain Power may fire up one of its own units or it may go to the market and buy the power at the market rate. It should be using whichever costs less at the time, and it should be passing this real-time cost on to the customer generator. These costs should be transparent rather than hidden within a broadly-applied rate.

Continuing this line of thought, I recommend that customer generators be given the option of purchasing backup power from Rocky Mountain Power at the actual market price at the time it is needed and thereby avoid the fixed generation charge. This would be an accurate, specific, and economically-sound method that would ensure that customer generators are paying neither more nor less than their fair share, and are not either subsidizing or being subsidized by other utility ratepayers.

As explained in the report and analysis "Standby Rates for Combined Heat and Power Systems: Economic Analysis and Recommendations for Five States" by the Regulatory Assistance Project (see full report included as Exhibit 1.2):[4]

> "Under this approach, the standby customer would purchase backup capacity and energy from the utility only on an as-needed basis. Such purchases would be priced at market prices at the appropriate trading hub. In addition, the customer would pay a share of any transmission and ancillary services costs, as well as a small administrative fee to cover the utility's procurement cost.
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> RMP's Energy Exchange Program Rider (Schedule 71) provides payments to participating customers at market-based prices for voluntarily reducing electricity consumption when called upon by the utility. The same data source for these hourly market prices could be used to price backup and maintenance energy under a market supply option for standby service."

[4] Regulatory Assistance Project, "*Standby Rates for Combined Heat and Power Systems: Economic Analysis and Recommendations for Five States*," February 2014, www.raponline.org/document/download/id/7020.

Q: Let's turn to the next issue you identified—Excess Power. Please elaborate on your concerns.

A: Excess Power rates are set at twice the level of the supplementary rates (and therefore twice the level of general rates). I would like to see elaboration of how this value was determined and its relation to the cost of service. Even if Excess Power rates will not often be used, at face value the rates seem both arbitrary and high. If excess power rates are meant to compensate the utility for power and energy it wasn't expecting to have to provide, these rates should reflect the actual incremental costs the utility incurs to acquire the unplanned-for power from the market, plus a share of any transmission and ancillary services costs and a small administrative fee to cover the utility's procurement cost. As noted above, perhaps the same data source used for the market-based hourly pricing in RMP's Energy Exchange Program Rider (Schedule 71) could be used for Excess Power.

Q: Finally, please address your concerns and recommendations about the proposed Maintenance Service rates and time periods.

A: Clearly, every customer will need to take its equipment offline at occasional times during the year for routine inspections and preventive maintenance, in order to keep their system running reliably. These maintenance periods can be pre-arranged and pre-scheduled at a mutually-agreeable time between the utility and the CHP customer. I have two concerns about the proposed Maintenance Service:

1. First, the rate for scheduled Maintenance Service is set at one-half of the applicable Backup Power Charge. While this isn't necessarily excessive, it does seem arbitrary as it lacks an evident cost justification. There must be further clarification on how that value was determined and its relation to the cost of service before there is sufficient evidence to support this proposal. If the system marginal cost when Maintenance Service is incurred is less than half of the Backup Power Charge, then the CHP customers would be overcharged.

2. Second, in the proposed tariff, a customer may schedule Maintenance Service for up to 30 days per year, either in one continuous period or in two continuous 15-day periods. It would be more reasonable to use up to their maximum of 30 days of Maintenance Service per year without the limitation of grouping those days into either one or two blocks. As long as these periods are still prearranged and prescheduled to be at a mutually-agreeable time, allowing CHP users this extra flexibility and consideration should not substantially encumber the utility.

Q: Please summarize your findings.

A. My recommendations are outlined in the table below.

Problem	Recommended Solution
As proposed, applicable customers will no longer have a choice between Partial Requirements and the Full Requirements service, thus limiting their ability to choose what is best for their particular business.	Continue to allow a choice. In the event a customer generator chooses Full Requirements, recover the costs to serve it through the full Requirement's applicable demand charges and energy rates.
Using RMP's 13% reserve margin to determine the generation component is overly broad and unreasonable, doesn't take into account the actual forced outage rate of a customer generator, and penalizes highly reliable CHP systems.	Use a percentage that more closely reflects the actual expected forced outage rate, perhaps based on the recent forced outage rate of the seven customers who would be on Schedule 31 once approved.
The generation component does not clearly and transparently reflect the actual cost of acquiring capacity to serve a customer's backup needs, especially at times when RMP purchases this capacity from the market rather than using its own generation.	Consider giving customers the option of purchasing backup power from RMP at the actual market price at the time it is needed (plus reasonable and cost-justified transmission, ancillary, and administrative expenses), thereby avoiding the fixed generation charge.
Excess Power rates, set at twice the otherwise applicable rate are not evidently cost-based and therefore appear arbitrary.	Make the Excess Power rates equal to market prices at the time it is needed plus reasonable and cost justified delivery and administrative costs.
Maintenance Service rates, set at half the otherwise applicable rate are not evidently cost-based and therefore appear arbitrary.	Approve costs only after an examination and finding demonstrating their relationship to and justification in terms of the actual cost of providing this service. Also, allow flexibility to use the 30 days of maintenance in more than only two 15-day blocks per year.

Q. Does this conclude your testimony?

A. Yes, it does. I appreciate the opportunity to provide these comments.