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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Investigation of the Costs and Benefits of PacifiCorp's Net Metering Program	Docket No. 14-035-114 REPLY COMMENTS TO COMMENTS FILED BY SIERRA CLUB, THE ALLIANCE FOR SOLAR CHOICE, UTAH CLEAN ENERGY AND UTAH CITIZENS ADVOCATING RENEWABLE ENERGY
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Pursuant to the Notice of Comment Period and Scheduling Conference (Notice) issued by the Public Service Commission of Utah (Commission) November 21, 2014, Rocky Mountain Power (“Rocky Mountain Power” or “Company”) hereby files its reply comments responding to the Comments of Sierra Club, the Alliance for Solar Choice, Utah Clean Energy and Utah Citizens Advocating for Renewable Energy (Solar Consortium Comments) on the “net metering load research study being developed and implemented by Rocky Mountain Power.”

BACKGROUND

In response to issues raised by parties and reiterated in the Commission’s order on net metering (NEM) in the Company’s 2014 general rate case (2014 GRC), Docket No. 13-035-184 (“2014 NEM Order”), the Commission opened Docket No. 14-035-114 to examine the costs and benefits of the Company’s net metering program. Recognizing the importance of such issues, the Company designed and is in the early stages of implementing a load study sample to directly assess

the usage characteristics of Utah Residential Distributed Generation customers (NEM customers). The sample design was prepared in support of the Company's load research cost-of-service commitment to provide statistically reliable load estimates for each of the various rate\customer classes to insure proper allocation of intra-jurisdictional costs. The sample design conforms to the standards outlined in the Public Utility Regulatory Policies Act of 1978 (PURPA). Accordingly, it is expected to provide estimates of system peak demand that achieve, at a minimum, $\pm 10\%$ precision at the 90% confidence level.

Based on the Commission's findings in the 2014 NEM Order, the purpose of the load research study is to collect the following data related specifically to residential NEM customers:

- Usage at the times of the peaks—e.g., system, Utah distribution, and noncoincidental peaks;
- Degree of differentiation between Utah Residential NEM customers and Utah Residential non-NEM customers;
- The degree to which energy delivered to the customer from the Company is being offset by energy delivered from the customer to the Company.

The information will aid the Company, the Commission and interested parties in determining if (1) the usage patterns of NEM customers are different from non-NEM customers such that creating a separate tariff for NEM customers is warranted, and (2) the offset of customer-generated energy against billable energy results in an inappropriate shifting of fixed costs from NEM customers to the Company's other customers. The Company's load study design was tailored to address such specific issues. The Company responds to specific points in the Solar Consortium Comments, as follows:

REPLY COMMENTS

A. Expand Scope of Study Design

The Solar Consortium Comments state several concerns about the design of the load

research study. As an initial matter, the Company agrees with the Solar Consortium “that the data collected are of the highest quality [and] are free from gaps and bias ...” but disagrees that the data must be useful “in a variety of applications in the future.” While the Company appreciates the Solar Consortium’s input, the Company notes that its sample was designed to collect data related to the specific topics listed above, in accordance with the Company’s understanding of the intended scope from the 2014 NEM Order. Although the Company will be able to glean additional, hopefully useful, information from this study, it was never intended to be a platform that could provide source information for a “variety of applications in the future”. If that were the intent, the Company would have implemented a study based on a simple random sample design. Simple random designs are ideal for the types of uses which the Solar Consortium is recommending. Stratified random samples, which are those being used by the Company in this case, are wholly inadequate for the type of analysis the Solar Consortium recommends.

The Company’s stratified random sample calls for the installation of load recorders at 62 sites. A simple random sample would require installations at 300 to 600 sites, depending on design criteria. While it is possible that those additional hundreds of sites could enhance the Company’s ability to provide answers to the areas of interest outlined above, it is equally possible that they would not. The simple random sample would be designed to achieve the same design criteria ($\pm 10\%$ precision at the 90% confidence level) as the stratified sample. From a statistical standpoint, no enhancement is achieved. It would, however, allow the Company to disaggregate the sample to provide data on the areas the Solar Consortium is interested in. The question is whether it would be prudent for all Utah customers to pay for the analysis to satisfy the Solar Consortium’s interest when the information the Commission requested can be gleaned without it.

B. Expand Study to Include Commercial NEM Customers on Schedules 23, 6 and 8 and Consider Collecting Data with More Granularity

The Solar Consortium recommends that the load research study be expanded to include commercial net metering customers on rate schedules 23, 6, and 8. The Company's load study was implemented to study the load characteristics of *Residential NEM* customers, for whom the majority of costs are collected through energy charges, and determine if those characteristics warrant the placement of those customers into a separate rate class.

Importantly, the NEM facilities charge at issue in the 2014 GRC was limited to residential NEM customers. Based on the Commission's findings in the 2014 NEM Order, the Commission opened this docket, in part, to investigate whether additional charges on residential NEM customers are warranted.¹ In fact, the Commission's Notice of Technical Conference, issued August 29, 2014 states "[t]he purpose of this Technical Conference is for PacifiCorp to present its plan for performing a load research study focused on residential net metered customers, and its schedule for the study's completion." This notwithstanding, the Company is not opposed to additional evaluation of NEM for customers on Schedule 23, 6, and 8; however, since the majority of NEM customers are residential, and commercial NEM customers are largely subject to demand charges which better reflect the cost of service than relying on energy charges alone, there is no reason not to move forward with the load research study and evaluation for Residential NEM at this time. The Company will work to develop plans for the evaluation of commercial NEM through the course of this proceeding; however, the need for additional load research data on these customers has not yet been established.

¹ *See generally*, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, Docket No. 13-035-184, Report and Order (August 29, 2014).

The Solar Consortium further recommends that the data collected be of at least 15 minute granularity, and that one minute granularity should be considered, as recommended by its consultant, Pecan Street. Data will be collected in 15 minute granularity, and aggregated to the hourly level for cost-of-service purposes, which is consistent with the load research data used for the development of rates for all other types of customers. The collection of one minute data requires 15 times more storage space, as well as frequent visits to the meter, whose memory size is not infinite. As peak load usage is based on hourly intervals, and demand on 15 minute intervals, the collection of one minute data would be unnecessary and excessive.

C. Establish Control Group

The Solar Consortium recommends that a control group be established to compare the Residential NEM load estimates against it. For purposes of this study, the Company intends to use its current Utah Residential Load Study (non-NEM) as the “control group.” This load study, as well as the newly implemented Utah Residential Distributed Generation load study (NEM) will run concurrently, and the non-NEM load study will be stripped of any NEM customers that it is currently tracking. For cost-of-service purposes; however, load estimates will be based on all customers currently included in the Utah Residential Schedule 1 load study, as they are all still served under the same tariff.

The Company agrees with the Solar Consortium that both the NEM and non-NEM load studies should be stratified utilizing the same variable. In this instance, that variable would be average monthly energy delivered to the customer or, more simply stated, the average monthly energy delivered to the customer by the Company. This is the physical measure of energy delivered to the customer before reduction for the amount of energy delivered to the Company by the customer. This variable was not available to the Company at the time the original sample was drawn, so a proxy variable was used, net energy delivered to the customer. Net energy is defined

as billable energy after reduction for energy delivered by the customer to the Company. As stated at the technical conference in this docket on November 5, 2014 (Technical Conference), the Company anticipates that the sample customers will need to be post (re)-stratified once the Company starts collecting the data. This post-stratification will be based on the amount of average monthly energy delivered to the customer over the time period. This aligns the study to the same criteria that was employed in the non-NEM study.

The Solar Consortium also recommends that stratification be based on gross consumption. Gross consumption defines the total amount of energy used by the customer, including that supplied by the Company as well as that supplied by the customer's generation facility. A calculation of gross consumption requires the installation of production-side meters; however, production-side meters are not currently required for residential NEM customers therefore gross consumption data is not available at this time. The Company could, however, post-stratify customers based on gross consumption if the Company was able to collect production meter data from the sample customers.

Since production meters are on the customer's side of the Company's meter, the Company needs approval from the customer in order to install production meters for load research. The sample design for the NEM load study called for the installation of load profile metering on 62 customers. The Company contacted 237 customers (primary and alternate selections) in an attempt to get 62 NEM customers to allow the Company to install production side metering in addition to the Company's normal load research meters. The Company offered to cover the cost of installation of production-side meter bases (which are costs typically incurred by the customer) and to pay the sample customers a \$100 incentive. The Company has obtained permission from 50 of those NEM customers to install production side meters; however, the actual number of sites that have this metering installed will likely be less once electricians evaluate the site. While the

Company made a concerted effort to get customer approval for the Company to install production meters, at this point gross consumption will not be available for the entire initial sample, which would make it difficult to perform any post-stratification of the sample based on this variable.

Notably, in order to address the issues identified by the Commission in the 2014 NEM Order, a gross consumption variable is not needed. The Company is still installing 62 meters on the net metering side and data collected by these meters will be used to provide load estimates for evaluating cost of service.

D. Sample Design and Sample Size Must Reflect the Size and Orientation of Net Metered Systems, as well as Customers' Net and Gross Consumption

Previously, the Solar Consortium had recommended that the Company's load research study be stratified in the same fashion as the non-NEM study. Now it is recommending that the study take into account the system size, orientation, net consumption and gross consumption. These are all stratification variables. The Company does not have ready access to three of these variables including size, orientation and gross consumption. The Company notes that the purpose of the NEM load research study is not to measure the total output of NEM resources, based on size, orientation, or any other such measure of interest. Rather the load research study is intended to provide estimates of time differentiated energy delivered to the customer as well as time differentiated energy received from the customer. These are the pieces of information required by both the Company and the Commission to address the areas/topics listed above. The load research study that was designed and put in place for Utah Residential NEM customers addresses exactly those areas/topics. Moreover, since the purpose of the load research study is to aid in the evaluation of determining the cost of serving Residential NEM customers, the level of detail requested by the Solar Consortium will not likely lead to data that would be useful in the development of rates. Electric rates for service are developed for customers based on class

averages. It is not feasible or likely the Company could develop rates based on the specific characteristics requested by the Solar Consortium.

E. Collect and Disclose Certain Data for Each Study Participant and for Non-NEM Customers

Customer load data, including individual customer load data may be obtained through the discovery process. Because the Company is committed to the privacy of customer-specific data consistent with Company policy, customer **identifiable** data cannot be made available. As such, the Company cannot provide customer names, addresses, accounting information, meter numbers, or any other piece of customer specific information that can be tied back to a specific customer.

While the Solar Consortium recommends that a home audit be conducted for this group to “ensure that its study participants are representative in terms of energy efficiency and conservation measures”, there are no plans to conduct such an audit. The purpose of the NEM load research study is to gain a greater understanding of residential NEM customers, as a whole. As noted above, this level of detail will not likely lead to data that will be used in the development of rates. Designing separate rates based on appliance mix, system orientation, regional location or any other similar variable is not feasible. The questions raised and to be addressed by the study are as follow: (1) are the usage characteristics of Utah residential NEM customers different from those of Utah non-NEM customers, (2) do those differences warrant separate rate treatment. A home audit is not required to answer either of the questions. In similar fashion, and for the same reasons, the Company has no plans to conduct a home audit on residential non-NEM customers.

CONCLUSION

In order to address concerns raised by the Commission, the Company designed and implemented a load research sample on the Company's residential NEM customers. Design criteria for this study mandated that it meet or exceed the current PURPA standard to provide estimates of peak demand that achieve, at a minimum, $\pm 10\%$ precision at the 90% confidence level. The Company will begin implementation of the study on January 1, 2015. The study is intended to provide the data necessary for the Company and the Commission to move forward in their respective decision making processes.

At the Technical Conference, the Company presented the load study design explaining, in part, the way the Company planned to collect the requested data, which is consistent with the methodology the Company uses to collect data for ratemaking purposes from all types of customer groups. Comments were solicited from those attending the conference, and the Company was asked to respond to those comments. In addition to public comments, the Solar Consortium filed comments about the Company's presentation and about the Company's white paper explaining the sampling plans, procedures and selection of its study. The Company appreciates the time and effort expended by all parties in preparing their comments.

The Solar Consortium prefaced its comments by noting its "desire that the data collected are of the highest quality, are free from gaps and bias, and will be useful in a variety of applications in the future." The Company believes that the simplest route to deliver a sample that is providing load estimates of the highest quality is to insure that the customer selection process is without bias. The most effective method to insure that a sample is not biased is to rigorously enforce random selection of study participants. Items such as system size, system orientation, and geographical location, net and gross usage would actually undermine this important process because it would not produce a random selection. In fact, employing the Solar Consortium's recommendations

would arguably be the opposite of random selection. Moreover, this level of detail is not likely to provide any meaningful input into the development of rates.

A general perception of the concerns and recommendations raised by the Solar Consortium is that they address issues peripheral to those the load study is meant to address. The load study addresses the following:

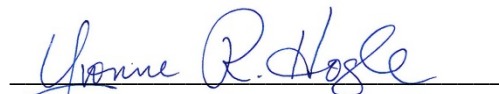
- Usage at the times of peaks;
- Degree of differentiation between Utah Residential DG customers and Utah Residential non-DG customers; and
- The degree to which energy delivered to the customer from the Company is being offset by energy delivered from the customer to the Company.

While the Company appreciates the Solar Consortium's input, the Company is not prepared to incorporate the Solar Consortium's recommendations for the reasons set forth above. The Company would be happy to assist the Solar Consortium design a sample sufficient to provide the answers it seeks so long as the Solar Consortium provides the funding for such a study.

DATED this 19th day of December, 2014.

Respectfully submitted,

ROCKY MOUNTAIN POWER



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CERTIFICATE OF SERVICE

I hereby certify that on December 19, 2014, I caused to be emailed a true and correct copy of the foregoing Reply Comments to Comments Filed by Sierra Club, the Alliance for Solar Choice, Utah Clean Energy and Utah Citizens Advocating Renewable Energy to the following:

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