Exhibit 1 (RG-1)

Workshop Data Requests

January 22, 2018

Workshop Data Request 1

January 9, 2018 Workshop Data Request - In the stratification process, has the Company considered using actual generation data instead of nameplate capacity?

Response to Workshop Data Request 1

No, actual private generation (PG) system production data sufficient for use in designing a generation sample is not available.

Workshop Data Request 2

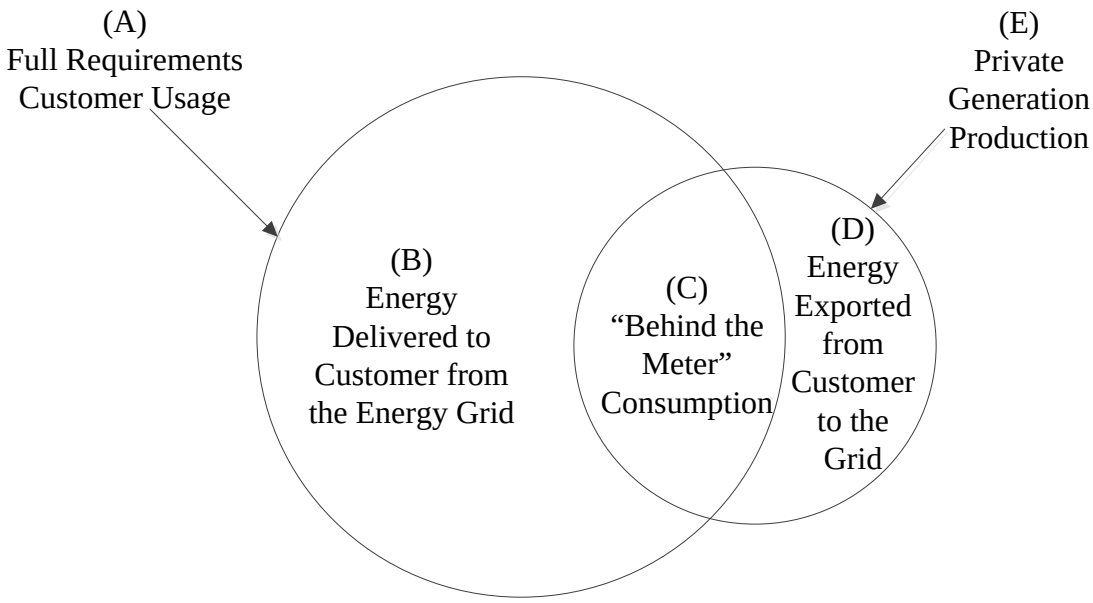
January 9, 2018 Workshop Data Request - How can the results from these samples be used to understand the relationship between consumption and production?

Response to Workshop Data Request 2

Please refer to Figure 1 below.

In order to determine private generation (PG) customer full requirements (A) and behind-the-meter consumption (C), the Company must have customer exports (D), deliveries (B) and PG production (E). Results from the proposed sample design will be used to estimate (E) and develop the missing data(C and A).

Figure 1. Illustration of How Full Requirements Usage Can Be Determined



(B) and (D) are known

(E) can be estimated

(A) Full Requirements Usage = (B) + [(E) - (D)]

Workshop Data Request 3

January 9, 2018 Workshop Data Request - Can the Company consider other system characteristics when developing the generation sample?

(a) Positioning of panels,

(b) Age of the system.

Response to Workshop Data Request 3

In order for a sample to consider multiple characteristics, a multi-dimensional sample would be required. Multi-dimensional sampling involves stratifying the population by two or more variables. With this approach, an increased number of stratifying variables (characteristics such as positioning or age) the number of strata in the design will increase. Since a minimum number of participants are required in each strata, as the

number of strata in the design increases the overall sample size increases, resulting in a corresponding increase in costs.

With that being said, the data necessary to conduct a multi-dimensional sample using panel orientation, tilt and age is incomplete. Currently, the Company has solar panel orientation and tilt data available only for those customers that have submitted an interconnection agreement since June 2017 and for customers participating in the Utah Solar Incentive Program. In total, the Company has private generation (PG) orientation and tilt data available for 10,309 customers or 42.8 percent of the current PG customer population.

Workshop Data Request 4

January 9, 2018 Workshop Data Request - Can the Company consider a higher precision than +/- 10 percent at the 90 percent confidence level?

Response to Workshop Data Request 4

A design accuracy of +/- 10 percent at the 90 percent confidence level was specified in 1978 by the Public Utility Regulatory Policies Act (PURPA) for all major rate classes. Although these federal standards were lifted in 1992, the PURPA specification remains a load research standard and all of the Company's load research projects are designed to this standard. A sample design with accuracy greater than +/- 10 percent at the 90 percent confidence level adds additional costs to the analysis and would be in excess of the industry standard.

As an example, please refer to Attachment Workshop 4-1 which shows a sample design at a precision of +/- 5 percent at the 95 percent confidence level. The required sample design calls for a sample of 172 sites. Whereas, the required number of sites for the sample proposed at the January 9, 2017 workshop (+/- 10 percent at the 90 percent confidence level) is 38 sites; refer to Attachment Workshop 4-2.

Workshop Data Request 5

January 9, 2018 Workshop Data Request - Can the Company separate the production profile sample into residential and commercial?

Response to Workshop Data Request 5

Please refer to Attachment Workshop 5-1 showing a Residential sample, and Attachment Workshop 5-2 showing a Non-Residential sample. Each sample was designed with four strata at the precision of +/- 10 percent at the 90 percent confidence level. Note: in any sample design where the design calls for less than 10 sites in any particular stratum, the Company would add additional sites ensuring at least 10 sites per stratum. This would

result in a sample size of 40 for the Residential sample also require a sample size of 41 for the Non-Residential sample.

Workshop Data Request 6

January 9, 2018 Workshop Data Request - Please provide the calculation / formula for how the Company determined the strata ranges for the proposed generation sample design.

Response to Workshop Data Request 6

Please refer to Attachment Workshop 6-1 (with formulas intact) showing the calculation of strata end points using the Dalenius Hodges method for strata breakpoint determination. Please refer to Attachment Workshop 6-2 which shows the single-dimensional sampling equations used in the Oracle Utilities Load Analysis (OULA) sampling software used by the Company for sample design.

Workshop Data Request 7

January 9, 2018 Workshop Data Request - Can the Company use a six strata sample design? Also, can the Company evaluate forcing the breakpoint between the fourth / fifth strata to be 25 kilowatt (kW)?

Response to Workshop Data Request 7

Please refer to Attachment Workshop 7-1 showing a six strata sample design. Please also refer to Attachment Workshop 7-2 showing a six strata sample design with a 25 kilowatt (kW) breakpoint between the 4^{th} and 5^{th} strata. Note: in any sample design where the design calls for less than 10 sites in any particular stratum, the Company would add additional sites ensuring at least 10 sites per stratum.

If the intent of this question is to create a sample which separates residential customers from non-residential customers by forcing a 25 kW breakpoint, please be advised that there are 570 non-residential customers with a system sizes ranging from 1 kW to 25 kW.

Workshop Data Request 8

January 9, 2018 Workshop Data Request - Address comments regarding the randomness of using the already installed 36 generation profile meters.

Response to Workshop Data Request 8

For the proposed load research study, the Company anticipates using 36 generation profile meters that were previously used for the load research study conducted under

Docket No. 14-035-114. For that research, the Company randomly selected these 36 meters to identify energy production from private generation (PG) customers.

It is a standard practice for utilities to conduct a sample rotation for a load research sample after it has been in place for several years. In continuous load research studies, required by many regulatory commissions, sample rotation is necessary to keep the sample current with the changing utility population. Reasons for sample rotation include, but are not limited to, customers moving in an out of the service territory, changes in usage patterns, housing stocks and demographic changes in the population.

Sample rotation requires the utility to check the existing sample against the current population. This requires that a new sample is designed and compared to the sample in the field.

Workshop Data Request 9

January 9, 2018 Workshop Data Request - Can the Company use customer supplied generation data instead of relying on revenue grade meters?

(a) What issues could the Company have with this approach?

Response to Workshop Data Request 9

Rocky Mountain Power (RMP) presented an overview of the Utah customer private generation (PG) load study during the load research workshop on January 9, 2018 in Salt Lake City, Utah. Delivered, exported and production data is required for the load study.

All Schedule 136 billing meters will have delivered and exported load profile data hence there is no need for a sample load study.

RMP has 36 production meters with production load profile data already installed on Schedule 135 sites. The Company proposed to install an additional 26 revenue grade load research meters to develop a generation profile. The work group also discussed an alternative option of using the customer's inverter data instead of installing production meters. This request response discusses this alternative option.

Using the customer's inverter data is expected to provide cost advantages, which could allow for a larger sample of production data to be available. The average cost to install a production meter is $2,306, which includes equipment and contract electrician costs; whereas, the costs for customer inverter data is expected to negligible.[1]

The following must be addressed when considering this option:

- If the inverter and the revenue grade meter do not have similar measurement accuracy limits, there will be a discrepancy between the two sets of data. The revenue grade

[1] Please refer to the Company's response to Workshop Data Request 13 for additional detail regarding revenue quality production meter costs.

meters are accurate within +/- 0.2 percent.

- The "solar company" must be willing and legally able to provide the inverter data.
- The inverter data must be transferred to RMP in accordance with RMP's security requirements.
- The data should be in interval lengths that can be aggregated to 15 minutes.
- The Company meter and the inverter clocks must be within an acceptable tolerance of each other and must maintain that precision for the length of the study. If they are not within tolerance the data could not be utilized.
- The Company's meter is programmed to adjust its clock according to the old daylight savings time (DST). If the inverter is not programmed to adjust for this daylight savings time, there will be a difference between the two data sets. The work group has to agree to the "shift" the data sets if the DST between the two are different.

To address the concerns above the following is recommended:

- Obtain copies of one year of inverter data from several of the 36 sites that currently have production meters.
- Verify that the inverter interval data length can be aggregated to15 minutes.
- Edit ("shift") the data if the two sets of data are not on the same DST.
- Compare the production meter data with the inverter data.
- Determine the percent discrepancy between the two data sets.
- Share the results with the work group to determine if the RMP should proceed with the use of the inverter data in lieu of installing production meters.

Workshop Data Request 11

January 9, 2018 Workshop Data Request - What would be the required sample size to achieve the same level of precision if the Company did not stratify?

Response to Workshop Data Request 11

Please refer to Attachment Workshop 11. If the Company did not stratify the generation profile sample, it would require 2,927 sites to achieve a precision of +/- 10 percent at the 90 percent confidence level. Whereas, the required number of sites for the sample proposed at the January 9, 2017 workshop (+/- 10 percent at the 90 percent confidence

level) is 38 sites; refer to the Company's response to Workshop Data Request 4, specifically Attachment Workshop 4-2.

Workshop Data Request 12

January 9, 2018 Workshop Data Request - Please provide additional detail on systematic random sampling and why it is used in the Company's sampling process.

Response to Workshop Data Request 12

Please refer to Attachment Workshop 12 for additional detail on systematic sampling. The Company employs systematic random sampling because it is a method which best ensures an even distribution across the entire population from which sample points are drawn, providing a better representation of the population.

Workshop Data Request 13

January 9, 2018 Workshop Data Request - Please provide the cost breakdown of the cost of installing generation profile meters (for the average $2,500).

Response to Workshop Data Request 13

Please refer to the table below which provides the average electrical contractors cost from invoices paid by Rocky Mountain Power (RMP) in 2014 to install production meter bases plus Company Costs to install production meters:

Cost	Labor	Material	Truck	Total Cost
Electrical Contractor (Ave.)	$ 1,524.00	$ 385.10	$ 170.90	$ 2,080.00
Rocky Mountain Power	$ 88.00	$ 138.00		$ 226.00
Total Installation				$ 2,306.00

Workshop Data Request 14

January 9, 2018 Workshop Data Request - Why are there seven generation profile meters for Washington County in the proposed sample when only one is needed to be geographically representative?

Response to Workshop Data Request 14

Seven generation profile meters exist in Washington County due to the random selection process of the generation load research sample design conducted under Docket 14-035-114.

Workshop Data Request 15

January 9, 2018 Workshop Data Request - Is battery storage saturation data available through the Company's residential survey?

Response to Workshop Data Request 15

Yes, 6.1 percent of Utah solar private generation (PG) customers self-reported as having battery storage for their systems.

Workshop Data Request 16

January 9, 2018 Workshop Data Request - Should the Company consider obtaining additional data on private generation customers by:

(a) Adding a survey we send to them,

(b) Adding fields to the application for Schedule 136.

Response to Workshop Data Request 16

(a) The Company does not see how a survey of private generation (PG) customers would provide meaningful input into determining the value of the export credit. The Company believes this would create an unnecessary burden on PG customers and provide limited value to the study.

(b) The Schedule 136 application currently solicits customer information on system tilt and azimuth.

Workshop Data Request 17

January 9, 2018 Workshop Data Request - What level of precision is achieved with the proposed generation sample size of 62?

Response to Workshop Data Request 17

The precision level is estimated to be +/- 8.77 percent at the 90 percent confidence level.

Workshop Data Request 18

January 9, 2018 Workshop Data Request - Has any other utility used nameplate capacity to develop a generation sample?

Response to Workshop Data Request 18

The Company is not aware of other utilities using nameplate capacity to develop a generation sample. Ideally, a population can be stratified by the variable of interest (energy production). However, when the variable of interest is not known an auxiliary variable that is highly correlated with the variable of interest should be used. A highly correlated auxiliary variable enables accurate strata definition and assignment of units to the proper strata.