BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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| In the Matter of the Application of | : | Docket No. 16-035-36 |
| Rocky Mountain Power to Implement | : | Office of Consumer Services |
| Programs Authorized by the | : | First Data Request to |
| Sustainable Transportation and | : | Rocky Mountain Power |
| Energy Plan Act | : | September 30, 2016 |

Please provide responses to:


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1.1 Please provide copies of all past and future data requests and responses received by or sent from Rocky Mountain Power to any party in this docket. Please include both formal and informal responses.

**Solar and Energy Storage Program**

1.2 The table on page 12 of Exhibit D of the Company's filing presents the Net Present Values (NPV) of the recommended solution and of the three alternatives considered. Please provide:

a. Copies of the spreadsheets used to calculate these NPVs with all formulas intact.

b. Copies of any other workpapers used in the preparation of these NPV analyses (if any are spreadsheets, please leave all formulas intact).

c. Detailed forecasts of Operations Management Administrative General (OMAG) expenses for all four projects.

1.3 Tables on page 6 and page 11 provide high-level capital budgets for the recommended solution and for the three alternatives. Please provide detailed capital budgets for these four projects.

1.4 Please reproduce and provide Figures 1 through 7 from Exhibit D for the following scenarios:

a. Winter peak loading.

b. A typical or average Spring loading.

c. A typical or average Fall loading.

d. A period when loads are at their annual minimums.

1.5 On average, how many days per year would the battery not be needed to address the voltage problem, i.e. not be needed to discharge energy to maintain the transmission system within desired voltage limits. Please provide this for a standalone battery system and for a battery/solar PV combination system.

1.6 Please provide a copy of the load forecast used for the evaluation of the Solar Energy and Storage Program.

1.7 If not included in 1.6 above, please breakout the loads and load forecast by Customer Class, preferably by Electric Service Schedule.

1.8 Please provide any transmission or distribution studies performed which identify/evaluate the voltage problem that this Program addresses and/or any transmission or distribution studies evaluating the potential implementation of a solar/energy storage solution for this voltage problem. Please also provide any transmission or distribution studies evaluating the three alternative projects considered as potential solutions to this voltage problem.

1.9 If the Company were to rebuild the transmission line, at what voltage level would the new line operate? If this rebuilt transmission line operated at a higher voltage, how would this affect WECC path ratings, the reliability of the southern Utah portion of the Company's transmission system (or any portion of the system) and/or a potential increase in wholesale transmission revenue? Were these potential benefits considered in the Company's decision not to pursue this alternative? Please explain.

1.10 What is the assumed life of the batteries for the recommended solution? When would batteries need replacing or refurbishing and at what cost?

1.11 What is the charge/discharge efficiency of the proposed battery system? Have battery charging/discharging losses been included in the NPV analysis? If so, please explain where this can be found in the documents provided in 1.2 above.

1.12 Page 9 of Exhibit D states that one of the risk factors of the recommended project is public acceptance of "multiple 40-feet containers of energy storage devices due to aesthetic concerns". Please explain how many of these 40-foot containers there would be and what the overall footprint would be. A diagram of the layout, an outline of the actual location on a map and pictures of what these containers look like would be helpful.

1.13 Page 7 of Exhibit D states "Rocky Mountain Power does not typically own solar resources due to the Investment Tax Credit disadvantages for investor-owned

utilities". Please explain what these "disadvantages" are. Would the Company be able to obtain any ITC benefits if the solar component of this proposed project is constructed and implemented? Please explain. If there are ITC benefits, have they been included in the NPV analysis of this project?

1.14 Page 3 of Exhibit D states that one of the public interest aspects of the recommended project is "energy arbitrage considering the energy storage device is expected to recharge during off-peak hours which often coincides with lower priced…". Please explain in more detail how this battery project would enable energy arbitrage. Would this energy arbitrage result in any actual cost savings for the Company or for customers? Please explain how these cost savings would be accounted for. Who would receive these cost savings (customers or shareholders)? If actual cost savings through arbitrage could not be achieved under current systems, what would need to change or be added to capture arbitrage cost savings?

1.15 The Company's proposal for its recommended solution includes the use of Blue Sky Funds for the capital/construction costs of the solar facility. Therefore, the cost to the Company of the electricity produced by this solar facility will be considerably less than the average cost of electricity included in the Company's approved revenue requirement (the Company does not need to earn a return on its capital or a return of its capital for this facility). Customers connected to this distribution circuit/substation would be paying for this solar generated electricity at the rates in their appropriate Electric Service Schedule. How will the Company ensure that it does not "over collect" for the sale of electricity from this solar facility?

1.16 Page 3 of Exhibit D states that one of the benefits of the Company's recommended solution is that it "will defer the traditional capacity increase capital investment beyond fifteen years when using present growth rates in this area". Page 15 states that "energy storage is a feasible resolution/deferment to the….transmission line voltage issue". Based on these statements, please explain:

a. If the Company were to choose the transmission line rebuild option, for how far into the future would this alternative solve the "transmission line voltage issue". Please explain different scenarios (voltage levels, etc) for this rebuild and their impact on the costs and the length of deferment of the voltage issue.

b. In the NPV of the non-transmission solutions, have the costs of additional infrastructure (when the capacity of the battery solutions is exceeded) been included in these analyses? In other words, what is the risk that the Company spends $7 million now for the battery solution but then also has to spend $8 million in 15 years for the transmission line rebuild option or if the battery system continues to need to be expanded as load grows, what is the risk that the total cost of the initial battery installation combined with all the needed expansions is considerably more than the $8 million line rebuild?