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To: The Utah Public Service Commission

From: Utah Clean Energy
Kate Bowman, Renewable Energy Program Manager

Date: September 18, 2020

Re: Docket No. 20-035-T07
Rocky Mountain Power's Proposed Tariff Revisions to Electric Service
Schedule No. 114, Load Management Program

Introduction & Background

Utah Clean Energy is supportive of utility programs that leverage customer-sited distributed energy resources, like battery storage, to help keep grid costs low, improve grid flexibility, and assist with integrating on-site renewable energy into the electricity grid. We were supportive of the Battery Demand Response Project, funded through STEP, through which Rocky Mountain Power piloted utility control of customer-sited batteries at the Soleil Lofts project.

As described in the Company's application, Utah Clean Energy was provided the opportunity to review a draft advice letter outlining the Wattsmart Batteries Program earlier this year and participated in the August 11, 2020 meeting to discuss the Program proposal in more detail. Utah Clean Energy submitted questions following the August 11 meeting which Rocky Mountain Power has largely addressed. We appreciate that Rocky Mountain Power's Advice No. 20-08 filing on September 3 includes considerably more detail than the draft filing and we appreciate the Company's efforts to collect feedback from stakeholders and incorporate it into the final Program.

The Wattsmart Batteries Program is an important first step to gauge customer interest in allowing utility control of behind-the-meter devices, allow the utility to gain experience operating a fleet of distributed energy resources to provide grid management services, and collect data to understand the benefits of Programs like this. In response to the Company's filing, we provide some final feedback and recommendations for the Commission to consider in its Order on this proposal.

Battery Dispatch

The Dispatch Period that Rocky Mountain Power has defined for this program is very broad and provides the utility with the leeway to dispatch customer batteries up to two full duty cycles of

the battery each day, potentially more than 700 full duty cycles each year. We are concerned that such extensive use of a customers' battery may deter customers from choosing to participate in the program.

Other utility programs that provide an incentive for utility dispatch of customer batteries generally define a much narrower or more specific scope for utility dispatch of the battery. For example, Green Mountain Power in Vermont dispatches customer batteries to meet peak energy needs, and states that "Peaks happen about 5 to 8 times a month and they last an average of 3 to 6 hours."¹ Green Mountain Power also provides different incentives for customers who agree to allow dispatch of their battery for either up to 3 or 4 hours. National Grid in Massachusetts promises that customer batteries will be dispatched no more than 60 times from June – September (an average of 15 times per month) and no more than 5 times from December to March, and for no longer than 3 hours.²

Customers may be hesitant to participate in the program if they are concerned that utility dispatch of their battery will cause it to degrade prematurely. Rocky Mountain Power specifies that eligible battery equipment must have a minimum of 7,500 battery cycle life. If dispatched twice a day, a battery designed to be cycled 7,500 times would reach that threshold in just over 10 years.

We suggest that Rocky Mountain Power might be more successful in enrolling a larger number of customers if they were to specify a more targeted plan for dispatch of participating batteries or an estimate of wear and tear impacts. This will provide customers with some reassurance that participation in the program will not prematurely degrade their battery.

Battery Charging from Grid

Rocky Mountain Power has not clearly specified whether it would be possible for the utility to charge batteries participating in the Wattsmart Batteries Program from the grid. Although the Company "anticipates that initially, participation will come from residential customers with solar," who will charge their batteries with onsite generation, customers who do not have solar are not prohibited from participating.³

¹ Green Mountain Power "Bring Your Own Device" program. <https://greenmountainpower.com/rebates-programs/home-energy-storage/bring-your-own-device/>

² National Grid ConnectedSolutions Battery Program. <https://www.nationalgridus.com/MA-Home/Connected-Solutions/BatteryProgram>

³ Docket No. 20-035-T07, Rocky Mountain Power Advice No. 20-08, September 3, 2020. Page 2

It would be helpful if Rocky Mountain Power clarified whether participating customer batteries could be charged from the grid, and if so, how customer bills would be affected. For example, if a customer battery was charged from the grid during off-peak periods and used to deliver energy to the customer during on-peak periods, some energy will be lost in the process and customers may end up purchasing more energy overall than if they had simply relied on the grid. Further, it is not clear if charging a customer's battery from the grid might raise their overall energy consumption and push them into a higher priced tier of electricity purchases. We recommend that Rocky Mountain Power specify if, and how, customer batteries will be charged from the grid, and how it will affect customer bills.

Battery Dispatch to the Grid

Rocky Mountain Power states that, initially, batteries in the Wattsmart Batteries Program will be dispatched to offset customers' load, rather than exported to the grid. Rocky Mountain Power's application also states that "as the Program evolves and matures, it is the intent to add other capabilities, such as charging batteries during the day with excess solar and exporting the solar energy during peak times, in order to maximize benefits for all parties."⁴

Currently, there is no rate structure that specifies the compensation a customer would receive for exporting power from their battery to the grid. Without understanding how the Company proposes to compensate customers for energy their batteries export to the grid, we cannot assess whether using customer batteries in this way is beneficial or fair to the customers who have purchased the batteries.

Dispatch of customer batteries to the grid may also increase the wear and tear on batteries. If a battery is used only to offset onsite consumption, there is a limit on the daily use of the battery because dispatch of the battery will not exceed the customers' own daily consumption. If the battery is exported to the grid, that limit is removed.

If the Company chooses to begin dispatching customer batteries to the grid in the future, we recommend that the Commission require that Rocky Mountain Power file an Amendment to the program incorporating this change so that parties can review the compensation structure and terms of the program. We also recommend that customers who are already participating in the Wattsmart Batteries Program at that time have the opportunity to review the terms and conditions of the new program before choosing whether or not to opt in.

⁴ Docket No. 20-035-T07, Rocky Mountain Power Advice No. 20-08, September 3, 2020. Page 2

Conclusion

We strongly support the development of a battery storage demand response program for Utah residents and businesses and recommend that the Commission order Rocky Mountain Power to address the questions raised above as a condition of the program approval.

cc:

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Michele Beck, Office of Consumer Services