



We Partner to Build the New Clean Energy Economy

UTAH PUBLIC SERVICE COMMISSION
Heber M. Wells Building
160 East 300 South, 4th Floor
Salt Lake City, Utah 84111

September 15, 2017

RE: Docket No. 16-035-36 – In the Matter of the Application of Rocky Mountain Power to Implement Programs Authorized by the Sustainable Transportation and Energy Act

Dear Public Service Commission,

On August 15, 2017, Rocky Mountain Power (The Company) filed an Application to Implement Innovative Utility Programs Authorized by the Sustainable Transportation and Energy Plan Act (Application), asking the Public Service Commission (Commission) to approve expenditures of \$450,000 for a Smart Inverter Program and \$250,000 for a Microgrid Program. The Commission invited any interested party to submit comments on the Application on or before Friday, September 15, 2017 and reply comments on or before Friday, September 29, 2017. Utah Clean Energy's comments are in response to the proposed Smart Inverter Program. We appreciate the Company's efforts to accelerate integration of smart technologies into the grid. In the interest of developing a shared understanding of the benefits and capabilities of advanced distributed energy technologies we respectfully request that the utility provide timely updates for interested stakeholders and solicit stakeholder feedback on key research areas related to the Program whenever possible.

Smart Inverter Project – Comments and Recommendations.

Through this Application the Company requests authorization of \$450,000 to collaborate with Utah State University (USU) and Electric Power Research Institute (EPRI) to investigate the capabilities and impacts of smart inverters on the Company's distribution system. The Company further proposes a review of the Company's interconnection policy and potentially revisions to the interconnection policy.

The use of customer-owned distributed energy resource (DER) technologies, including solar PV, battery storage, electric vehicles, and demand response tools, is on the rise. As the Company

notes in this Application, smart inverters can facilitate adoption of higher penetrations of DER and provide additional benefits related to reactive power production and absorption and voltage and frequency ride-through. For this reason it is important that the utility gain experience working with smart inverters and gathering data to understand how to best utilize the capabilities of smart inverters. Products with smart inverter functionality are already available to consumers, so it is important that regulators and stakeholders become familiar with their capabilities in order to make smart decisions and recommendations that result in a cleaner, more resilient, and cost-effective grid.

In the interest of developing a shared understanding of the benefits and capabilities of advanced distributed energy technologies, and of keeping costs low for ratepayers by leveraging existing resources, we respectfully request that the utility involve interested stakeholders in key research areas related to the Program. Specifically, Utah Clean Energy requests that the Company provide stakeholders the following opportunities:

- review preliminary findings from the Smart Inverter Standards and Policy Update when available (research area A);
- review a summary research plan for the Smart Inverter Selection and Laboratory Testing study (research area B), including detailed information about the inverters, batteries, and battery management software to be tested; and
- review the findings from research areas C, D, and E when available.

Utah Clean Energy recommends that this information be distributed and explained through stakeholder meetings, technical conferences, or written reports, and that parties be given an opportunity to provide comments.

Utilities and research facilities across the country are engaged in smart inverter research, and the Company may have been able to identify partners for this Program at a lower cost to ratepayers through a competitive bidding process or by leveraging Federal resources. We appreciate that the Company has proposed an overview of interconnection standards development from other states (research area A, page 7). We recommend that the Company and EPRI leverage existing research, studies and stakeholder input during this phase of the program.

Through the Smart Inverter program, the Company has also proposed a review and potentially a revision of interconnection policies. Utah's interconnection policy was last updated in 2010, and since that time there have been numerous DER market and technological advances which may warrant revisions or updates to Utah's interconnection policies. We do not presume that revisions to Utah's interconnection standards are necessary at this time, but we recommend that the Company work with stakeholders to complete a holistic review of Utah's interconnection standards, rather than presenting edits related to smart inverters in isolation. Last year, Utah Clean Energy engaged the Interstate Renewable Energy Council (IREC) to complete a review of Utah's interconnection standards, and IREC provided a memo with recommendations that was

shared with the Company. The findings from proposed research area F, in addition to the memo from IREC, could serve as a starting point for a more thorough evaluation of Utah's interconnection standards. Utah Clean Energy expects to continue working with the Company to consider revisions to interconnection standards, if it is determined that revisions are warranted.

Stakeholder involvement in smart inverter research is especially important because the findings from this Program will be relevant to other DER proceedings in Utah. For example, on August 28, 2017, the Company and numerous parties representing consumers, public interest groups, the solar industry, and local governments filed a Settlement Stipulation related to the Company's net metering program. If this Stipulation is approved by the Commission, the Company will "promptly file an application to initiate the Export Credit Proceeding to determine the compensation rate for exported power from customer generation systems."¹ During this proceeding, parties may present evidence demonstrating quantifiable costs and benefits of customer generation systems, and technologies like smart inverters could have an impact on these costs and benefits. In order to have a nuanced and sophisticated discussion about the quantifiable costs and benefits it will be important for stakeholders to have access to data gathered for the purpose of this Program and insight into the findings from the Program.

Conclusion.

Utah Clean Energy is generally supportive of the Company's Smart Inverter Program proposal. We respectfully request that the Company facilitate ongoing participation in this program from interested stakeholders by providing regular program updates at key milestones and sharing proposed research plans and preliminary findings for specific research areas with stakeholders. This will create shared learning opportunities for both the Company and stakeholders, and result in more productive future conversations about the capabilities of new technologies to create a cleaner, safer, more affordable and reliable grid.

With best regards,

/s/ *Kate Bowman*

Kate Bowman, Solar Project Coordinator
Utah Clean Energy

¹ Docket No. 14-035-114, In the Matter of the Investigation of the Costs and Benefits of PacifiCorp's Net Metering Program. Page 9 <https://pscdocs.utah.gov/electric/14docs/14035114/296270RMPSettleStip8-28-2017.pdf>

CERTIFICATE OF SERVICE

I certify that on September 15, 2017, a true and correct copy of the foregoing was served upon the following as indicated below:

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/s/ Kate Bowman