



November 23, 2015

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

RE: Docket No. 15-035-63 – In the Matter of Rocky Mountain Power’s Smart Grid Monitoring Report
Docket No. 08-999-05 – In the Matter of the Consideration of the Amendment of Title 16 U.S.C. 2621(d) and the Addition of Title 42 U.S.C. 6344 by the U.S. Energy Independence and Security Act of 2007

Background

In 2009, in Docket No. 08-999-05, the Commission declined to implement the PURPA Smart Grid Investment Standard,¹ but determined that the Company should be making an informed analysis of smart grid investments, based on the six factors in the standard and other factors as may be appropriate, as a matter of prudence. December 17, 2009 Order, Docket No. 08-999-05, page 13. The Commission directed the Company to monitor the development of smart grid technologies and required the Company to file the results of its monitoring in annual reports. *Id.* at 14.

¹ The Smart Grid Investment Standard states: “(A) IN GENERAL - Each state shall consider requiring that, prior to undertaking investments in non-advanced grid technologies, an electric utility of the State demonstrate to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including (i) total costs; (ii) cost-effectiveness; (iii) improved reliability; (iv) security; (v) system performance; and (vi) societal benefit.” December 17, 2009 Order, Docket No. 08-999-05, page 5 (citing Section 532 of the 2007 EISA, which amended Section 111(d) of PURPA and U.S.C. Section 2621(d)).

The Commission directed the Company to include a discussion of the following in the annual Smart Grid reports:

1. All smart-grid related projects and activities the Company is actually engaged in throughout its system;
2. Smart grid-like activities the Company is either considering or has implemented, which accrue some of the benefits of smart grid;
3. Upgrades or changes the Company is making relative to potential smart grid implementation and the related benefit-cost analyses;
4. A list and description of smart grid pilot projects across the country being monitored by the Company;
5. Smart grid related activities and requirements in the Company's other jurisdictions;
6. The interaction of smart grid, rate structure, and customer behavior; and
7. Vehicle to grid applications.

The Commission also directed the Company "to provide the worksheets and assumptions supporting the Financial Summary or other such analyses validating its results." November 30, 2011 Order, Docket No. 08-999-05, pages 10-11.

On July 1, 2015, the Company filed the latest annual Smart Grid Monitoring Report. The Division filed its response to that report on July 29, 2015, with the following recommendation:

As has been the case in previous years, this year's Report concludes that "Presently the economics to implement a comprehensive smart grid system throughout PacifiCorp are cost prohibitive. The business case indicates that an overarching smart grid vision will not benefit our customers," [Report, page 37]. That there may be a few niches that smart grid-like technologies will be useful to the Company and cost effective to customers that occasionally become available, the general conclusion has been the same for several years: a full-fledged smart grid system is years away, maybe decades. The Company gives no indication that this conclusion will change anytime soon.

This gives rise to the question about the usefulness of continuing to have an annual report that says about the same thing each year. There are some options to consider. The first is to discontinue requiring the Company file a report until such time as there are clear indications that the smart grid landscape has changed in a significant way. (DSM-related projects will continue to be reported separately just as they are today). A second option is to have the Company report every two or three years, instead of every

year. This would give the Company and, perhaps, regulators the opportunity to identify significant changes in smart grid technologies and economics. A third option might be to have the Company report annually on the specific activities it is engaged in with respect to smart grid and then include an in-depth discussion on technology that is on the horizon that the Company is particularly interested in. Finally, the default option is to continue as we are. In any case the Division believes that including extensive DSM-related discussions in this report are redundant to what the DSM groups are doing and should be eliminated. To the extent that smart grid informs DSM, it should be relative to new technologies that are on the horizon or are reaching a point where they might be implemented.

Docket No. 15-035-63, DPU Comments filed on July 29, 2015, pages 6-7 (emphasis added).

The Division's preferred option is the first one: "discontinue requiring the Company file a report until such time as there are clear indications that the smart grid landscape has changed in a significant way." Docket No. 15-035-63, DPU Comments filed on September 16, 2015, page 5. The Office generally concurred with the Division and recommended that the value received from the annual report be weighed against the time and effort put forth in creating, reviewing, and monitoring the report, particularly because, "It seems that little if any significant change to the Company's assessment of the business case for implementing Smart Grid is imminent." Docket No. 15-035-63, OCS Comments filed on July 31, 2015, page 2.

Utah Clean Energy submits these comments in response to the Commission's invitation to comment on the matter of how to treat the smart grid monitoring and reporting requirements going forward. Utah Clean Energy appreciates the opportunity to submit these comments.

The "Smart Grid": What is it?

In its initial order declining to adopt the PURPA smart grid investment standard (and initiating a smart grid monitoring requirement), the Commission clarified its concept of the "smart grid:"

We agree with the Division there is no official definition of Smart Grid. Smart Grid is not any one technology, rather smart grid reflects a series of attributes (e.g., increased use of digital information, dynamic optimization of grid operations, deployment and integration of distributed resources and generation, including renewable resources, deployment of smart technologies, etc.) which support various desired outcomes or objectives such as improving reliability, security, efficiency of the electric grid, or

increasing demand-response or energy efficiency by customers, and the incorporation of renewable energy. As a clarification, smart grid is not simply the installation of smart meters. Metering is just one of the many possible applications which collectively comprise a smart grid. From this definition, it is apparent that the concept of smart grid extends to many utility processes and investments associated with the generation, transmission and distribution of electric power.

November 30, 2011 Order, Docket No. 08-999-05, page 11.

In 2015, the Company organized its report into categories of utility process and investments associated with generation, transmission, and distribution of electric power that demonstrate the breadth of the “smart grid”:

1. Transmission network and operations enhancements
2. Substations and distribution network and operations enhancements
3. Advanced metering, pricing, and DSM (including time-based pricing and demand response)
4. Distributed energy resources and renewable resource enhancements (including smart inverters, electric vehicles, and vehicle to grid technology)
5. Microgrids

The Company’s long terms goals, related to the smart grid, include increasing customer awareness of how the electricity system works and how electricity usage impacts Company investment decisions, giving customers tools to change their electricity usage to their benefit, and optimizing PacifiCorp’s electric system through the application of cost-effective smart grid technologies. 2015 Smart Grid report, page 3.

UCE Comments

Utah Clean Energy recommends that the Commission not eliminate the Company’s smart grid monitoring and reporting requirements. Utah Clean Energy acknowledges the Division’s and Office’s concerns with the utility of the report as currently constituted. However, we believe that tracking smart grid developments is one step in the right direction toward a more proactive and transparent grid modernization process.

Given rapid changes to technology and customer investments and behavior, Utah Clean Energy recommends that, rather than scaling back on “smart grid” requirements, the Commission modify the Company’s current obligations and initiate a directed process, at a time when the “smart grid” (or the utility processes and investments associated with generation, transmission, and distribution of electric power that are encompassed therein) is becoming more relevant than ever. Specifically, Utah Clean Energy recommends that

the smart grid discussion be shifted to one of grid modernization, with the following components:

- **Grid Modernization Workshops.** Both utility and customer-side technologies are changing rapidly. Customer demands are shifting, as is public policy. Our electric grid will have to respond to these shifts. Utah Clean Energy views grid modernization as necessary in order to optimize and extract value from Rocky Mountain Power’s system, for the benefit of all ratepayers.

Utah Clean Energy recommends that the Commission host grid modernization workshops with experts in the field so that regulators, the Company, and stakeholders can benefit from the most current information and best practices. The Regulatory Assistance Project, National Renewable Energy Lab, and Rocky Mountain Institute have all been working extensively on grid modernization and smart grid issues, in addition to experts from within the Company. It would be beneficial to have expert input from groups like these, and their services may be obtained at no or very low cost.

- **Smart Grid Monitoring and Reporting.** With a shift to in-person grid modernization workshops, Utah Clean Energy supports the Division’s proposed alternative of requiring a shorter annual smart grid report, featuring specific smart grid activities the Company is engaged in, along with a discussion of noteworthy technology. Given how quickly there could be activity on certain elements of a “smart grid,” (such as increases in electric vehicle (EV) purchases, expansion of EV charging infrastructure, or the necessity of exploring time of use (TOU) rates for EVs or understanding developments in vehicle-to-grid technologies), it would be beneficial to maintain annual reporting.

The Company’s organizational format for the 2015 report (listed above) presents useful categories for understanding the Company’s smart grid efforts. Without making any prescriptive reporting recommendations at this time, Utah Clean Energy believes these categories may be used as a foundation for the substance of future reports.

It should be noted that the “smart grid” is not an all-or-nothing proposition. There is ample room for test programs and pilot projects under the smart grid umbrella. For example, the Company has limited but useful load control through its DSM programs (cool keeper is one option, but there are other

opportunities currently available through LED lighting, electric vehicle charging, smart thermostats, and emerging technologies) that should not be ignored; PacifiCorp's vendors may be able to suggest additional pilot opportunities; and time of use rates and critical peak pricing pilots are also worth exploring in the near term.

- **Transparent Distribution System Planning.** The Commission should require the Company to engage in more transparent distribution system planning, including a report on this planning process every two to three years. The distribution system is not currently designed or planned to make optimal use of demand response or distributed energy resources (DER), and current planning methods do not look to customer-sided measures to relieve tight capacity situations, whether at the circuit, feeder, or substation levels. Nor do current interconnection procedures specify the installation of equipment that would enable the utility system to achieve the greatest possible system value from customer-sided measures, such as through ancillary services or demand response. Avoiding costs and obtaining benefits may require changes in how the Company plans, builds, and maintains its distribution system, and may involve new or different equipment in the interconnection of distributed resources with the distribution system.

Thus, Utah Clean Energy recommends that the Commission ensure that planning and modification of the distribution system becomes transparent and subject to stakeholder and Commission input so that the capabilities of the distribution system evolve along with the needs and wants of the Company's customers. At this juncture, the Commission should secure a commitment from the Company to provide a minimum level of transparency, documentation, and review of its distribution planning and grid modernization efforts. The collection of data and a process for taking meaningful action based on that data should be paramount. As a result of these efforts, the Company should be better able to utilize its existing assets and ratepayers should be able to avoid stranded distribution costs. Furthermore, the distribution grid of tomorrow should be more efficient, reliable, affordable, clean, and receptive to the role of customers.

- **Interconnection Rules Review Process.** In its 2015 Report, the Company notes that it is in the final stages of updating its interconnection policy for distribution systems to ensure that the standards are well-aligned with the latest industry standards. Smart Grid Report, page 30. If the Company feels

that its interconnection policies are out of date, it may be approaching time to review the Interconnection Rules formally, in a public rulemaking process. As mentioned above, updating the interconnection rules would enable the utility system to achieve the greatest possible system value from customer-sided generation, such as through ancillary services or demand response. By making the process public, the Company could benefit from diverse viewpoints and the best available information.

Interconnection rules and policies impact growing numbers of customers and have the potential to be confusing and very costly. Utah Clean Energy urges caution with any Company policy changes that may impact customer's understanding of their rights and obligations without due process.

Conclusion

Utah Clean Energy appreciates the opportunity to submit these comments in response to the Commission's Notice of Comment Period on this issue.

Respectfully submitted this 23rd day of November, 2015,



UTAH CLEAN ENERGY

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by email this 23rd day of November, 2015, on the following:

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