

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

**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
“Consideration of Smart Grid Investments”
and “Smart Grid Information”**

Docket Number: 08-999-05

Comments of:

Brendle Group, Park City Municipal Corporation *Environmental Sustainability Department*,
Environmental Defense Fund, Town of Alta, and Utah Clean Energy

Submitted November 25, 2009

Dear Commissioners:

Please accept these joint comments in response to the Request for Comments issued October 28th, 2009 in Docket No. 08-999-05 submitted by the parties named above (Parties) regarding the adoption of the Public Utility Regulatory Policies Act (PURPA) Electric Standards No. 16 – “Consideration of Smart Grid Investments” and Standard and No. 17 – “Smart Grid Information” enacted by the 2007 Energy Independence and Security Act (EISA 2007). We appreciate the opportunity to provide input on this important matter.

Background

We appreciate and commend the Public Service Commission (Commission) and the Division of Public Utilities (Division) for their facilitation of Smart Grid workshops and investigation of some of the issues surrounding the aforementioned Smart Grid standards. These valuable workshops highlighted several of the challenges facing the nation’s electricity grid and the potential to develop a smarter, more interactive, and secure grid that will further enable the adoption of energy efficiency, renewable energy, electric transportation options, informed customer decision-making, and streamlined utility operations, while also helping to prevent costly outages, distribution inefficiencies, and system failures. Furthermore, the memorandum filed by the Division on October 27, 2009, served as constructive catalyst for these comments. As a point of clarification, none of the Parties had an opportunity to provide input to the draft memo filed by Division prior to its filing, contrary to the last paragraph on page 2 of the

Division memo.

The national electric grid is recognized by many as the nation's most significant technological achievement of the 20th Century, investments in this system have not kept pace with other key industries, i.e. telecommunications, information technologies, and computing. Despite our ever-increasing reliance on the electricity grid, the nation's electricity grids have not benefitted significantly from technological advancements and innovations that could improve this critical system. Consideration of Smart Grid technologies is a prudent approach that will help advance a secure, robust and up-dated grid that can accommodate more clean energy and smart communications for all Utahns. As such, we encourage the Commission to order the adoption of EISA 2007, PURPA Smart Grid Standards 16 and 17, as written.

Standard 16 “Consideration of Smart Grid Investments”

It is our position that adoption of Standard 16 is prudent and in the public interest.

PURPA 111(d) Standard (16)

CONSIDERATION OF SMART GRID INVESTMENTS.

(A) IN GENERAL.—Each State shall consider requiring that, prior to undertaking investments in nonadvanced 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.

As written, the PURPA Standard 16 “Consideration of Smart Grid Investments” requires electric utilities to demonstrate that they first *consider* making investments in Smart Grid technologies before making alternative investments in non-advanced technologies, using criteria including: total costs, cost-effectiveness, improved reliability, security, system performance, and societal benefit. **It is our understanding that the *implementation of Smart Grid technologies is not required by adopting Standard 16, but that the utility must demonstrate that such technologies were considered prior to making other investments.*** This is a reasonable approach that promotes more strategic investments in grid technologies.

We believe the requirement set forth in this standard is reasonable and in the public interest, as it will help ensure prudent investments in the most appropriate technologies, while giving careful consideration rapidly evolving technologies and the challenges, risks, and opportunities of today and the future. Adding consideration of Smart Grid technologies to the decision-making process may prevent investments in technologies that may ultimately increase the barriers to the adoption of a smarter and more secure electricity grid capable of accommodating increased energy efficiency and renewable energy.

In certain cases, investments in non-advanced grid technologies may be appropriate, and may protect ratepayers from costs associated with yet-unproven technologies. However, a failure to *consider* the most current Smart Grid developments and technologies before utility investments are made will put ratepayers at risk of paying for technologies that have a shorter useful life due to becoming obsolete as Smart Grid technologies fully mature. A case in point is the continued investment in AMR meters while new technologies continue to advance. **This may lead to stranded assets and/or lost opportunities with negative ratepayer impacts if it is determined that alternative technologies are more appropriate.** Although the Standard would not require the adoption of any specific technology, better decisions are made and the public interest is served when decisions are transparent and accountable.

Adopting this Standard would create a framework to strategically evaluate Smart Grid technologies and their ability to meet the criteria outlined in the Standard, such as: improved utility system reliability and security, cost-effectiveness, and the like. **Alternatively, adopting the ‘wait and see’ approach may put Utah ratepayers at risk by delaying solutions and upgrades that can improve electric delivery, increase energy efficiency and distributed renewable energy, and reduce outages. Making careful considerations now will protect the interest of Utah ratepayers.** With respect to outages, the Electric Advisory Committee, an advisory committee to the United States Department of Energy reports that:

The second half of the 1990s saw 41% more outages affecting 50,000 or more consumers than in the first half of the decade. It remains victim to outages and interruptions that cost Americans \$150 billion annually – or \$500 for each one of us.¹

Furthermore, adopting Standard 16 will help keep Utah abreast of the best information relating to Smart Grid and may enable Utah to take advantage of current and future funding and research opportunities.

Standard 17 – “Smart Grid Information”

It is our position that adoption of Standard 17 is prudent and in the public interest.

PURPA 111(d) Standard (17) SMART GRID INFORMATION.

(A) STANDARD.—All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider as provided in subparagraph (B).

(B) INFORMATION.—Information provided under this section, to the extent practicable, shall include:

- (i) PRICES.—Purchasers and other interested persons shall be provided with information on—

¹ Electricity Advisory Committee, Smart Grid: Enabler of the new energy economy, December 2008

- (I) time-based electricity prices in the wholesale electricity market; and
- (II) time-based electricity retail prices or rates that are available to the purchasers.
- (ii) USAGE.—Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them.
- (iii) INTERVALS AND PROJECTIONS.—Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.
- (iv) SOURCES.—Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

Standard 17 requires that all electricity purchasers be provided with information about prices, usage, intervals and projections, and sources *to the extent practicable*. Certain methods for sharing information will be more practicable than others and we believe that certain practicable options exist today that would satisfy certain aspects of this Standard. **Adopting Standard 17 will not burden to Rocky Mountain Power (Company) with sharing information that is not practicable, but expands the scope of these opportunities and leads to innovative means to create a more resilient, flexible, and efficient means to generate and deliver electricity.** For example, the Company's existing voluntary Time of Use (TOU) rate schedule presents an existing opportunity to disseminate information about time-based prices. Furthermore, Home Energy Reports, currently being provided to over 20 utility companies across the country, and under consideration by the Company², have the capacity to provide information on usage and sources to both residential and commercial customers on a larger scale (an example Home Energy Report is attached). Lastly, large industrial users and municipal governments in Utah are already, or have expressed interest in, exploring small-scale pilot Smart Grid technologies in conjunction with the Company. Adopting Standard 17 could leverage these efforts and enable the joint exploration of funding opportunities to support these pilot projects.

Comments on the Division's Recommendation

We support the recommendation made by the Division that the Company be directed to follow and evaluate developments from current Smart Grid pilot projects across the U.S. (currently 23 demonstration projects³, with funded pilot and research taking place in 43states⁴) and also share lessons learned by filing a report. However, we request that such findings also be shared with other interested stakeholders at more frequent intervals as developments in the Smart Grid

² Communication from Carol Hunter, Rocky Mountain Power, during DSM Advisory Group meeting (October 4, 2009)

³ U.S. DOE *Smart Grid Introduction: Regulators*, (2009) URL: <http://www.oe.energy.gov/DocumentsandMedia/Regulators.pdf>

⁴ U.S. DOE *Recovery Act Selection for Smart Grid Investment Grant Awards – by State* (2009), URL: http://www.energy.gov/recovery/smartgrid_maps/SGIGSelections_State.pdf

industry occur. We note that this type of regular evaluation of Smart Grid pilot projects by the Company is consistent with the requirement set out in PURPA Standard 16, as this evaluation will aid in the Company's strategic consideration of Smart Grid technologies when relevant investments are needed.

The Division suggests that one reason the Standard should not be adopted is because of lack of finalized standards. We disagree. The development of such standards is being fast-tracked and addressed by the National Institute for Standards and Technology^[1]. There may be instances where the lack of a finalized standard warrants a delay of investment in a Smart Grid technology, or the selection of its non-advanced counterpart. **However, the current lack of finalized standards does not preclude *consideration* of Smart Grid investments before other long term investments are made.** Delayed implementation of Smart Grid technology, or investment on non-advanced technology, would still be consistent with Standard 16 as long as Smart Grid technology had been considered in the decision making process.

With respect to the Divisions' comments on Standard 17, we disagree with the statement that "Meeting this requirement would require full deployment of Smart Grid technologies including interoperability of all components." While we agree that full information distribution may entail deployment of Smart Grid technologies, this Standard requires that such information sharing take place "to the extent practicable." We believe that adopting and complying with Standard 17 can include a strategic, phased-in approach to delivering information where determined to be practicable by the Company, regulators, and interested stakeholders.

Conclusions

Given the extremely rapid technology changes in the energy and information sectors it would be imprudent to not to adopt the PURPA Standard 16 and 17. Consideration of Smart Grid technologies and practicable information sharing represent prudent approaches that will help advance a secure, robust and up-dated grid that can accommodate more clean energy and smart communications for all Utahns. Finally, adoption of these Standards does not require investments in Smart Grid, but that investments are given careful consideration in light of changing technologies. The adoption of the aforementioned Standards represents an approach that is in the public interest. Through their adoption, we believe that these Standards will benefit Utah's ratepayers, businesses, communities, and utilities, while propelling Utah into the 21st Century. For the reasons stated herein, we urge the Commission to rule in favor of adopting Standards 16 and 17.

^[1] For more information visit NIST's *Smart Grid Interoperability Standards Project*, URL: <http://www.nist.gov/smartgrid/>

We thank the Division, Commissioners and the Commission staff for their continued hard work and attention on numerous important energy-related matters, and we are grateful to have the opportunity to weigh in on this issue. Thank you for your consideration of our comments.

Sincerely,

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