RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS & OFFICE OF ENERGY RESOURCES

Regarding Power Sector Transformaion

Notice of Inquiry into the Electric Utility Business Model and Request for Stakeholder Comment

COMMENTS OF ALEVO USA INC.

Alevo USA Inc. ("Alevo") thanks the Rhode Island Division of Public Utilities and Carriers ("DPUC") & Office of Energy Resources ("OER") for the opportunity to provide comments that may assist the DPUC and OER in its Notice of Inquiry into the Electric Business Model. With this inquiry, Rhode Island joins more than three dozen states around the United States evaluating how technology impacts the costs, reliability and safety of retail electric service.[1] Alevo recognizes that this inquiry follows a multi-year stakeholder process that culminated with an April 2017 report to the Rhode Island Public Utilities Commission ("Commission") and offers comments regarding how electricity customers in the Ocean State can benefit in the form of lower costs, improved reliability, fewer emissions, and more choices.

ABOUT ALEVO

Alevo is a U.S.-based manufacturer, project developer and systems integrator of lithium-ion batteries. Alevo's corporate headquarters is in Switzerland, with research and development in Germany. Alevo manufactures its batteries in Concord, North Carolina. Alevo batteries have been installed in Maryland to provide frequency regulation service in PJM and are to be installed in a

[1] NC STATE REPORT

Duke Energy microgrid near Charlotte, North Carolina. Alevo has announced additional frequency regulation projects in Lewes, Delaware, and near Austin, Texas.

CONTACT INFORMATION

Appearing for Alevo in this proceeding is:

Benjamin Y. Lowe
Director, Policy and Market Development
Alevo USA Inc.
2321 Concord Parkway South
Concord, NC 28027
Ben.Lowe@alevo.com
704-260-7405

COMMENTS

Alevo respectfully encourages the Commission to consider how energy storage can satisfy each one of those goals. Energy storage is a unique asset, in that it has the characteristics of a generator but can also provide service similar to transmission and distribution assets. It can act as a generator when it injects energy into the grid; it can act as a transmission or distribution asset when it provides voltage support or voltage overload protection to substations; and it can provide value behind the meter to manage demand charges or store the output from on-site generation for later use. Alevo recognizes that cost recovery varies by function. In Rhode Island, the cost of generation is based on market prices, while more traditional cost-of-service mechanisms govern recovery of transmission and distribution service costs. Figure 1 details the multiple or stacked services energy storage resources can deliver.

Figure 1: Energy Storage Stacked Services

Capturing that value for electric customers in deregulated markets is a challenge but not impossible, as regulators are warming to the idea that multi-use assets such as storage can be inherently more cost effective when they have higher utilization rates that single-use assets such as a substation or a distribution line. The Federal Energy Regulatory Commission ("FERC"), for example, has opened the door to energy storage resources being compensated for both market and traditional utility service[2] and so Alevo encourages the DPUC and OER to think creatively how this might apply to Rhode Island electric customers.

Because of its multiple uses, energy storage can lower cost because it reduces the chance of stranded assets. To leverage efficiencies of scale, utility investment is frequently lumpy, meaning that systems are frequently overbuilt to accommodate predicted future growth. Energy

[2] FERC Docket PL17-2

storage enables states to break free of this model, because it is highly scalable and customizable. For example, the traditional response to a substation overload, even if it is just a few hours per day, would be to add the necessary capacity to address the overload plus a reserve margin anticipating future growth. With energy storage, that same symptom could be addressed more efficiently for two reasons.

First, the technology affords the utility an opportunity to build to the overload, and preserve optionality to address future growth. What's important is that new approach reduces the chance that ratepayers would be stuck paying for a stranded asset well into the future. Second, the energy storage resource, when not performing distribution service, can be utilized for other purposes. Per FERC, that same resource could participate in the wholesale market or provide other grid-based services. Energy storage can be cost-effective because the technology enables utilities to reduce the inherent redundancy in their networks caused by the wide scale deployment of single-use assets. Technology is no longer the limiting factor for energy storage resources, given the wide-scale deployments in California and power markets such as PJM Interconnection LLC. Alevo therefore encourages the DPUC and OER to use this opportunity to articulate policies for Rhode Island electric customers to capture the multiple values that the technology can deliver.

3) Are there functions described here that should be provided by an unregulated third party, or through a market-based approach?[3]

Alevo proposes that the DPUC and OER evaluate the benefits of how a third-party energy resource developer could develop a services contract with a distribution utility. This PPA-like agreement for distribution service would enable the utility to call on that asset as necessary (to resolve a substation capacity issue, for example), but then enable the asset to

[3] Commission inquiry, page 3

participate in other functions based on grid needs. The utility could own the asset but it may be against state laws for the utility to participate in the wholesale market. So the distribution services agreement may be the preferred option, the terms of which could be negotiated between the energy storage developer and local utility, subject to state and federal regulatory approval.

CONCLUSION

The DPUC and OER listed three pillars guiding the above-captioned inquiry. Alevo in conclusion connects them with the benefits that energy storage can deliver:

Number	Pillar	Energy Storage Connection
1	Control the long-term costs of the electric system	• Energy storage reduces the need for lumpy, potentially-stranded investments • Multi-use characteristics reduce redundancy created by single-use assets
2	Give customers more energy choice	• Create rate designs that enable utility customers to optimize their energy usage using energy storage
3	Build a flexible grid to integrate more clean energy generation	• Energy storage can be used to enhance power quality and smooth output from intermittent, renewable resources

For the reasons mentioned above, Alevo encourages the DPUC and OER to evaluate how energy storage can deliver value to electricity customers and develop appropriate business models for utilities and /or third parties in Rhode Island.

Respectfully Submitted,

Benjamin Y. Lowe
Director
Policy and Market Development
Alevo USA Inc.
2321 Concord Parkway South
Concord, North Carolina 28027
704-260-7405
Ben.Lowe@alevo.com