

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Electric Storage Participation in Regions
with Organized Wholesale Electric Markets

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Docket No. AD16-20-000

COMMENTS OF THE
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
IN RESPONSE TO REQUEST FOR COMMENTS

I. Introduction and Summary of Position

The National Rural Electric Cooperative Association (“NRECA”) appreciates the opportunity to submit comments addressing the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) letter on April 11, 2016, soliciting comments on the applicability of Regional Transmission Organization (“RTO”) and Independent System Operator (“ISO”) market rules to electric storage resources. The Commission’s request reflects a strong interest in the use of electric storage resources and the role and treatment of those resources within organized wholesale markets.

NRECA generally supports the efforts of the Commission to assess the barriers that sponsors of electric storage resources may face in gaining entry into organized wholesale markets. The tariff provisions administered in those organized wholesale markets were not necessarily designed with electric storage in mind and there are opportunities to improve upon existing service through the use of electric storage resources. NRECA recommends, however, that the Commission consider the limits of electric storage resources within these markets as well as the benefits and focus on the primary mission of the organized wholesale markets: **to lower prices and improve service to consumers.** Further, while NRECA recognizes the importance

and value of electric storage, it does not support a one-size-fits-all solution. The Commission should recognize that electric storage resources deployed by NRECA's members will vary, depending on the particular electric cooperative and the market in which it participates. The Commission should not adopt mandates that may interfere with such deployment.

II. Description and Role of NRECA

NRECA is the national service organization for America's Electric Cooperatives. The nation's member-owned, not-for-profit electric cooperatives constitute a unique sector of the electric utility industry with a unique set of challenges. NRECA represents the interests of the nation's more than 900 rural electric utilities responsible for keeping the lights on for more than 42 million people across 47 states. Electric cooperatives are driven by their purpose to power communities and empower their members to improve their quality of life. Affordable electricity is the lifeblood of the American economy, and for 75 years electric cooperatives have been proud to keep the lights on. Because of their critical role in providing affordable, reliable, and universally accessible electric service, electric cooperatives are vital to the economic health of the communities they serve.

America's Electric Cooperatives bring power to 75 percent of the nation's landscape and 12 percent of the nation's electric customers, while accounting for approximately 11 percent of all electric energy sold in the United States. NRECA's member cooperatives include 65 generation and transmission ("G&T") cooperatives and 840 distribution cooperatives. The G&Ts are owned by the distribution cooperatives they serve. The G&Ts generate and transmit power to nearly 80 percent of the distribution cooperatives, those cooperatives that provide power directly to the end-of-the-line consumer-owners. Remaining distribution cooperatives receive power directly from other generation sources within the electric utility sector. NRECA members

generate approximately 50 percent of the electric energy they sell and purchase the remaining 50 percent from non-NRECA members. Both distribution and G&T cooperatives share an obligation to serve their members by providing safe, reliable, and affordable electric service.

NRECA's members participate in all of the organized wholesale electricity markets as well as single Balancing Authority Areas throughout the country. And for this reason, NRECA participates in a variety of Commission proceedings, rulemakings and notices of inquiries on behalf of its members affecting the operation of markets.

III. General Comments

A. Interest of NRECA

NRECA applauds the Commission's efforts to solicit comments from RTOs, ISOs, market participants, and other interested parties on the applicability of market rules to electric storage. NRECA has a direct interest in this proceeding and in any rulemaking proceeding on electric storage resources that the Commission may initiate. While most cooperatives are not subject to the jurisdiction of the Commission directly, many cooperatives are located within, and participate in, organized wholesale markets that are subject to the jurisdiction of the Commission. Further, energy policy established by the Commission through its rulemaking and adjudicative roles influences actions outside of organized wholesale markets and, as such, would impact the operation of electric cooperatives.

B. Accommodating Electric Storage Resources

Market rules are integral to the efficient and cost-effective operation of multi-party regional transmission systems. As evident from the responses filed on May 16th, RTOs and ISOs largely recognize that electric storage resources have characteristics that enable them to perform a wide range of functions and are able to serve intermittently as generation resources, demand response resources, and load modifying resources. As reflected in the RTO and ISO comments,

electric storage resources are valuable in that they can mimic the functions traditionally performed in organized wholesale markets by other resources, but current market rules were not designed with these resources in mind. Many of these rules are not readily applicable to certain electric storage technologies and systems and thus may be too restrictive as applied to electric storage resources currently deployed or planned by electric cooperatives.

C. Member Use, NRECA Involvement

NRECA and several of its cooperative members have deployed electric storage systems, using a wide variety of technologies and applications. Many cooperative members are in the process of identifying ways that electric storage resources can provide tailored solutions for their service needs. Some examples are:

- Great River Energy. Program to control more than 110,000 residential water heaters that can store over 1 GW of electricity;
- Kauai Island Utility Cooperative. Development of a battery energy storage project integrated with a 13-MW solar array; and
- The Community Storage Initiative. A collaborative information sharing and coordinated market development effort for energy storage located in communities, in which NRECA is an active participant.

These existing projects and plans for future deployment of electric storage resources rely more upon the practical and cost efficient uses for such technologies and less upon revision of existing market rules within organized wholesale markets.

D. Integration of Electric Storage Resources

A little over 10 years ago, the Commission solicited comments on demand response resources in Docket No. AD06-2-000. The Commission asked about metering of demand response resources; the potential for demand response as a quantifiable, reliable resource; and, among other topics, the regulatory barriers to improved customer participation in demand response programs. At that time, NRECA commented in favor of demand response resources

and the benefits they offered, while cautioning that the primary objective of organized wholesale markets is to improve service and lower costs, not to ensure 100 percent penetration of demand response resources. NRECA also commented on the limitations in relying on demand response resources to perform a function better served by another resource, whether generation or transmission.

NRECA's position on electric storage systems is similar to the position it took with respect to demand response resources. NRECA urges the Commission to consider the operation of existing electric storage resources in developing new market rules. The Commission should not consider implementing or mandating new market rules that fail to take into account those electric storage systems. While NRECA favors the development of new market rules that shape demand for electric storage and supports the deployment of electric storage resources, those rules must consider electric storage resources installed to date under the existing rules. In particular, cooperatives and other load-serving entities should be able to retain the flexibility to implement electric storage resources on their systems, without the imposition of new regulations that are misaligned with the practical benefits on the resources themselves. For electric cooperatives, electric storage systems are one of several tools available to improve reliability and lower costs. NRECA therefore recommends the Commission approach its task from the perspective of the consumer and consider limited mechanisms to encourage the use of electric storage systems that enhance reliability, grid operations, and integration of variable resources.

IV. Specific Comments

A. Eligibility of Electric Storage Resources to be Market Participants.

The Commission asked the RTOs and ISOs about the eligibility of electric storage resources to be market participants. NRECA is not opposed to the participation of electric storage resources in organized wholesale markets, provided that participation creates value for consumers and the service is provided reliably. ISO New England Inc. (“ISO-NE”) and New York Independent System Operator, Inc. (“NYISO”) report that they do not have market rules specifically for electric storage resources, other than pumped hydro facilities, while Midcontinent Independent System Operator, Inc. (“MISO”) developed a resource category for electric storage resources that is effectively limited to frequency regulation. More to the point, PJM Interconnection, L.L.C. (“PJM”) acknowledges “there are commercial and/or technical limitations that may currently restrict participation of electric storage resources (and in particular batteries and flywheels) in PJM’s wholesale markets.”¹ To the extent that technical limitations imposed by RTOs and ISOs are necessary to ensure reliable service, they should remain. But to the extent that technical or commercial limitations do not serve a necessary purpose, changes should be considered.

B. Qualification Criteria and Performance Requirements.

Undue barriers to participation in organized wholesale markets are not appropriate for resources that are capable of performing a service sought by RTOs and ISOs. Nonetheless, the obligation for those resources to perform as promised should be strict such that performance of these resources is at least as reliable as other resources in the market. Electric storage resources—like all other resources offered into organized wholesale markets—must meet

¹ Response of PJM Interconnection, L.L.C., FERC Docket No. AD16-20-000 at 2 (May 16, 2016).

minimum technical requirements. ISO-NE indicated that electric storage resources could qualify as a Generator Asset, provided that it had an interconnection of 115 kV or more and/or a maximum net output of at least 1 MW and Southwest Power Pool, Inc. confirmed that to qualify a resource must be able to sustain output for a minimum of 60 minutes. As noted above, NRECA members generate approximately 50 percent of the electric energy they sell and purchase the remaining 50 percent from non-NRECA members. Therefore, NRECA and its members value reliable resources and support upholding minimum performance obligations where justified.

C. Bid Parameters for Electric Storage Resources

Versatility is a defining characteristic of recently-developed electric storage systems. It is NRECA's position that the Commission should not mandate bid parameters for specific electric storage resources. Electric storage developers often talk about accumulating a "revenue stack" to support an electric storage installation. In our view, bypassing electric storage systems that are capable of providing a particular service at a low price in favor of a higher-priced electric storage system with ideal characteristics, would not benefit consumers. Rather, decisions to deploy specific types of electric storage systems—or the selection of a specific electric storage technology to meet minimum requirements—should be left to the market participant.

D. Distribution-Connected and Aggregated Electric Storage Resources.

Distribution-connected and aggregate electric storage resources that participate in the RTO and ISO markets represent unique challenges for our cooperative members. Behaving as load sometimes and as generation at other times, electric storage resources that participate in organized wholesale markets have the potential to disrupt traditional transmission and

distribution systems, depending on how they are used. PJM, MISO, and NYISO each indicated in their responses that they are evaluating distributed energy resource participation in the form of electric storage as part of their stakeholder processes. As noted above, NRECA is a participant in the Community Storage Initiative and, as such, has a strong interest in ensuring that integration of distributed generation is compatible with the operation of its members' transmission and distribution systems.

E. When Electric Storage Resources are Receiving Electricity

NRECA believes that there is a need for uniformity to avoid unduly discriminatory treatment of electric storage resources in RTOs and ISOs when they draw energy, but that electric storage resources should nonetheless be responsible for the transmission and distribution services used. As the Commission noted, “depending on where an electric storage resource is connected to the grid and what services it is providing, it may not be clear what price an electric storage resource should pay for the electricity that it receives.”² The answers are not clear. First, an aggregated electric storage system may interconnect with a distribution system—and be treated as load on a distribution system—yet qualify as a demand response resource in an organized wholesale market. Second, there is a potential jurisdictional question since rates for electricity taken from a distribution system are usually retail rates approved by state commissions, while wholesale rates are determined through bilateral agreements and resolution of organized markets. Finally, there is a question of how electric storage resources should pay for the use of distribution and transmission systems because these obligations are location dependent.

² Request for Comments, *Electric Storage Participation in Regions with Organized Wholesale Electric Markets*, Docket No. AD16-20-000 at 6 (Apr. 11, 2016).

V. Conclusion

NRECA supports the deployment of electric storage resources and has participated in initiatives to facilitate their use among the NRECA members. NRECA respectfully requests, however, that the Commission approach any proposed rulemaking to accommodate electric storage resources from the perspective of the consumer. Markets should be designed to serve consumers – consumers should not be required to change their behavior or their expectations to make markets work. Simply put, **the Commission must consider rules in the context of what changes will improve service and lower costs in a transparent manner.** As is the case with demand response resources, electric storage resources are a part of, and can benefit from, organized wholesale markets, but they are not the panacea, and must be deployed in combination with traditional generation resources and transmission infrastructure.

Respectfully submitted,

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