UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Grid Reliability and Resilience Pricing	)	Docket No. RM18-1-000

REPLY COMMENTS OF ADVANCED ENERGY MANAGEMENT ALLIANCE REGARDING A NOTICE OF PROPOSED RULEMAKING ON GRID RELIABILITY AND RESILIENCE PRICING

Pursuant to 18 C.F.R. § 375.315(b)(2), Advanced Energy Management Alliance ("AEMA")[1] submits these reply comments regarding the Federal Energy Regulatory Commission ("Commission" or "FERC") Docket No. RM18-1-000, Grid Reliability and Resilience Pricing, Notice Inviting Comments ("Docket"). These comments are in addition to comments filed by AEMA in the Docket on October 23, 2017.[2]

AEMA is a trade association under Section 501(c)(6) of the Federal tax code whose members include national distributed energy resource companies and advanced energy management service and technology providers, including demand response ("DR") providers, as well as some of the nation's largest demand response and distributed energy resources. AEMA members support the beneficial incorporation of distributed energy resources ("DER" or "DERs"), including advanced energy management solutions into wholesale markets to achieve electricity cost savings for consumers, contribute to system reliability, and ensure balanced price formation. This filing represents the collective consensus of AEMA as an organization, although

[1] Advanced Energy Management Alliance website: http://aem-alliance.org.
[2] AEMA comments may be downloaded: http://aem-alliance.org/aema-files-comments-doe-nopr-ferc/

it does not necessarily represent the individual positions of the full diversity of AEMA member companies.

I. Introduction

AEMA appreciates the opportunity to provide reply comments regarding the Secretary of Energy's proposed rule. Through the roughly 750 sets of comments the FERC has received in this docket, it is clear that a wide variety of businesses, organizations, and citizens feel strongly about the Secretary's Proposal and that these groups do not agree on how the Commission should move forward on dismissing, implementing, or changing the Secretary's Proposal. However, parties do agree on one issue - the vital importance of the reliability and resilience of the country's electric grid.

Therefore, in these reply comments, AEMA provides a path forward for ensuring and enhancing the reliability and resilience of the grid through less divisive, more competitive, resource-neutral methods, addressing short and long term needs. AEMA recommends that the Commission take the following three actions:

1. *Eliminate barriers to storage and distributed energy resource participation. This may be achieved through finalizing the Storage and Distributed Energy Resource Notice of Proposed Rulemaking, with appropriate changes, and directing ISOs to eliminate any barriers to participation for these reliability and resilience enhancing resources*.[3] The benefits of these resources have been more than demonstrated on the record of this proceeding.

[3] AEMA has filed two sets of comments in the NOPR with several recommendations for how to modify the proposed rule before it is finalized: http://aem-alliance.org/aema-files-distributed-energy-resource-aggregation-rulemaking/ and http://aem-alliance.org/aema-files-supplemental-comments-ferc-storageder-nopr/

2. *Open a proceeding on resilience with the objectives of defining the needs of resilience on a regional basis and how those needs have evolved*, determining whether markets need to better procure resource attributes that contribute to resilience, and if so, directing ISO(s) to develop market-based, fuel and technology neutral mechanisms to increase resilience in their regions.
3. *Direct each ISO/RTO to identify if any near-term, or long-term, challenges to reliability exist in their region*, and, if so, define the specific need and propose fuel-neutral, technology-neutral, market-based solutions to address those challenges.

II. Eliminate Barriers to Storage and DER Participation

Eliminating barriers to storage and DER would strengthen reliability and resilience and can be completed by FERC in the near- to medium-term by finalizing the Energy Storage and Distributed Energy Resource Notice of Proposed Rulemaking[4] ("Storage and DER NOPR"), taking into consideration the important changes recommended by storage and distributed energy resource stakeholders.

Generally, reliability and resilience are two different goals for the grid, and therefore the question of how to achieve reliability and resilience is actually two separate questions. Energy storage and distributed energy resources are already contributing to both reliability and resilience, and the contribution will be enhanced as they are better integrated into markets.

In the Storage and DER NOPR, the Commission pointed out "the participation of electric storage resources in the organized wholes electric markets…enhances reliability" and "improves

[4] Notice of Proposed Rulemaking, *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators,* 157 FERC ¶ 61,121 (2017).

integration of variable energy resources."[5] The Commission then cites multiple studies that have found that distributed energy resources contributed to both reliability and resilience by providing "greater reliability through consumer reliance upon distributed energy resources to provide resilience from bulk power and distribution service interruptions" and "power outage mitigation or critical power support during outages (resilience) and power quality improvement (enhanced reliability)."[6]

These findings demonstrate that reducing barriers to storage and DER in its wholesale electric markets provide a clear path for the Commission to achieve the dual goals of enhancing reliability and resilience through market based solutions. In addition, the Storage and DER NOPR has already reached the final stages for approval by the Commission, including significant stakeholder input providing an efficient way to address the concerns raised in the DOE NOPR.

A strong, diverse representation of parties commenting in this docket noted the contributions that DERs have made and the importance of better utilizing these resources to strengthen reliability and resilience. PJM Interconnection, LLC ("PJM"), referring to the Polar Vortex, explained "all resource types, except for wind and demand response, performed sub optimally during the extreme weather event."[7] The New York Independent System Operator states, "to the extent that additional grid resilience is needed in New York, it appears that

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[5] Notice of Proposed Rulemaking, *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators,* 157 FERC ¶ 61,121 (2017), at page 14.

[6] Ibid, at FN 31, *citing Responses in a High Distributed Energy Resources Future*, at 26-28 (Report 1, Nov. 2015), https://emp.lbl.gov/sites/all/files/lbnl-1003823_0.pdf (Berkeley Lab Report); DNV-GL, *A Review of Distributed Energy Resources: New York Independent System Operator*, at 18 (Sept. 2014) (DNV-GL Report), http://www.nyiso.com/public/webdocs/media_room/publications_presentations/Other_Reports/Other_Reports/A_Review_of_Distributed_Energy_Resources_September_2014; U.S. Department of Energy, *The Potential Benefits of Distributed Generation and Rate-related Issues that May Impede Their Expansion: A Study Pursuant to Section1817 of the Energy Policy Act of 2005* (Feb. 2007), https://www.ferc.gov/legal/fed-sta/exp-study.pdf.; IEA, *Repowering Markets: market design and regulation during the transition to low-carbon power systems*, at 33 (2016)

[7] PJM Interconnection, L.L.C., *Initial Comments of PJM Interconnection, L.L.C. on the United States Department of Energy Proposed Rule,* FERC Docket No. RM18-1, at p 12.

investments in transmission and distributed resources would be a more practical and cost-effective way to provide it."[8] The ISO/RTO Council highlighted the DOE staff report finding that "identifies other categories of assets and resources that also promote reliability and resilience, including, for example, investment in additional transmission infrastructure and electric storage." ,[9] New York Public Service Commission, Electric Power Supply Association, National Electric Manufacturers, and others all highlight the importance of energy storage and distributed energy resources in maintaining reliability.[10]

Once again, eliminating barriers to storage and distributed energy resource participation in wholesale markets based on the record established by the Storage and DER NOPR, provides a path for market-based solutions to bolster grid resilience and reliability.

III. Open a Resilience Proceeding

AEMA recommends that the Commission open an administrative or rulemaking docket to examine resilience on a national, regional, and local basis, incorporating the multiple publicly available definitions of resilience. This proceeding will necessarily address a multitude of matters on a regional basis, including but not limited to, the physical attributes of resilience under a range of circumstances, how those required attributes can be met, the prioritization of those attributes, and whether markets are adequately procuring resources to sufficiently secure

[8] https://nyisoviewer.etariff.biz/ViewerDocLibrary//Filing/Filing1331/Attachments/20171023%20NYISO%20NOPR%20Cmmnts%20Rspns%20RM18-1-000%20Cmplt.pdf

[9] ISO/RTO Council, *Comments of the ISO/RTO Council,* FERC Docket No. RM18-1, at p 6-18.

[10] *See* New York Public Service Commission, New York State Energy Research and Development Authority, New York State Department of Environmental Conservation, and the Long Island Power Authority, *Grid Reliability and Resilience Pricing,* FERC Docket No. RM18-1; Electric Power Supply Association, *Initial Comments,* FERC Docket No. RM18-1; National Electrical Manufacturers Association, *Comments,* FERC Docket No. RM18-1; Attorneys General of Massachusetts, California, Connecticut, Illinois, Maryland, North Carolina, Oregon, Rhode Island, Vermont, and Washington, Connecticut Department of Energy and Environmental Protection, Rhode Island Division of Public Utilities and Carriers, and New Hampshire Office of the Consumer Advocate, *Comments,* FERC Docket No. RM18-1.

and compensate resources with those identified attributes. If an RTO/ISO determines it is not properly procuring and or compensating the resources with attributes necessary to fulfill the resilience requirements of their system, then the Commission should direct them to develop market-based, fuel and technology neutral mechanisms to satisfy those needs. Defining resilience and analyzing the true physical needs of the electric grid was not done in the Secretary's proposal, but framing the problem to be solved in non-political terms is foundational to this effort in order for it to be successful.

As we stated in our initial comments, thorough records should be developed on important details such as co-location with load and the ability to serve load when transmission and/or distribution service is not available. Additional items would include, but not be limited to, islanding and the ability to serve additional load when some portion of transmission or distribution service is not available, and the need and importance of fuel sources requiring no transportation.

IV. Address Specific Near-Term Reliability Concerns

The Commission should require each RTO/ISO to identify whether it faces any specific threats to reliability and to identify those issues. To the extent the Commission agrees with an RTO/ISO that action is necessary to address a near-term challenge to reliability, the Commission can work with the RTO/ISO and stakeholders to set up a process for review and implementation of near term market reforms. If RTOs/ISOs determine that no further action is necessary to ensure reliability in the near-term, then the Commission and stakeholders can fully focus on the other efforts relating to reliability and resilience. This will allow the Commission to ensure that

any reliability concerns brought up by the Secretary's Proposal are vetted, without the devastating market effects of fully implementing the Proposal.

AEMA recommends that the Commission not undertake near-term efforts related to resilience because the multiple definitions of resilience and what contributes to it on a regional level have not yet been defined. Without undergoing the effort to appropriately define those, any near-term efforts to ensure resilience would likely result in unnecessarily high costs to end-use customers without an identifiable improvement in resilience. For example, the Independent Market Monitor for PJM estimates the cost to implement the Secretary's Proposal in PJM at up to $32 billion, representing a 384% increase in total payments for capacity in PJM in 2016.[11] Additional testimony estimates cumulative costs of implementing the Secretary's Proposal at $100.8 billion over 15 years.[12]

V. Conclusion

In conclusion, AEMA proposes that the Commission take a three-pronged approach to ensuring the reliability and resilience of the grid and the fairness and efficiency of its markets:

1. Eliminate barriers to storage and distributed energy resource participation, including finalizing the Storage and DER NOPR with appropriate changes, in order to enhance reliability and resilience in the medium- and long-term;
2. Open a resilience proceeding in order identify resilience needs and implement appropriate market mechanisms; and
3. Ask RTOs/ISOs to identify, if any, near-term reliability needs and the short-term mechanisms that can address those needs.

[11] Independent Market Monitor for PJM, *Comments,* FERC Docket No. RM18-1, at p 5.
[12] Rockland Capital, LLC, Caithness Energy, L.L.C., Moxie Energy, LLC, Ares EIR Management, LLC and Panda Power Generation Infrastructure Fund, LLC, *Comments*, FERC Docket No. RM18-1.

We appreciate the Commission's consideration of these comments and AEMA remains ready to engage in these conversations in whichever direction the Commission takes them. Please reach out should the Commission have any questions or comments regarding this filing.

Respectfully Submitted,

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