

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION**

Grid Reliability and Resilience Pricing

Docket No. RM18-1-000

**MOTION TO INTERVENE AND COMMENTS OF THE
CALIFORNIA ENERGY STORAGE ALLIANCE**

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CERTIFICATE OF SERVICE

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The California Energy Storage Alliance (“CESA”) appreciates the opportunity to submit these comments in response to the request for comments issued by the Federal Energy Regulatory Commission (“FERC”) on the proposed rule proposal published by the Department of Energy (“DOE”). Overall, while supporting the DOE’s stated objectives to promote resource diversification where appropriate as well as enhanced grid reliability and resilience, CESA is concerned with the atypical and expedited process by which stakeholders are to consider the proposed rule, which lacks some key details, deviates from typical FERC proposed rulemaking processes, and may unduly discriminate against a broad range of resources that could equally or more effectively achieve the DOE’s goals. CESA believes that closer and more careful consideration is needed on whether the proposed rule would even achieve the stated objectives, how the proposed rules may work counter to FERC’s other objectives to foster competitive markets, and more broadly, whether there may be a different, more effective, and more efficient mechanism by which to achieve the DOE’s stated objectives. Instead of predetermining the problem and solution for grid reliability and resilience, FERC must first analyze the grid services and wholesale market performance and then identify whether the current suite of products is being appropriately incentivized and compensated.

Even as CESA is not supportive of the proposed rule, CESA offers comments here that address key recommendations if the proposed rule is advanced or adopted, or if a new proposed rulemaking is initiated that seeks to confirm how best to achieve the DOE's stated goals. Specifically, CESA does not focus its comments here on answering the questions posed in the request but instead underscores how the proposed rule: (1) does not apply to Independent System Operators ("ISOs") or Regional Transmission Owners ("RTOs") without capacity markets; and (2) if adopted, should consider how energy storage and distributed energy resources ("DERs") promote greater reliability and resilience of the grid. While generally concerned about the legal, policy, and economic merits of the proposed rule and the unduly expedited process to adopt the proposed rule, CESA makes these two recommendations for consideration by FERC in its deliberations on whether to advance, abandon, change, or adopt the proposed rule.

I. BACKGROUND.

Founded in 2009, CESA is a non-profit membership-based advocacy group committed to advancing the role of energy storage in the electric power sector through policy, education, outreach, and research. CESA's mission is to make energy storage a mainstream energy resource which accelerates the adoption of renewable energy and promotes a more efficient, reliable, affordable, and secure electric power system. As a technology-neutral group that supports all business models for deployment of energy storage resources, CESA membership includes technology manufacturers, project developers, systems integrators, consulting firms, and other clean-tech industry leaders.

II. COMMUNICATIONS AND CORRESPONDENCE.

Address all communications and correspondence concerning this proceeding to:

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III. MOTION TO INTERVENE IN THIS PROCEEDING.

CESA's current membership consists of 8minutenergy Renewables, Able Grid Energy Solutions, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Bright Energy Storage Technologies, BrightSource Energy, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Energport, Energy Storage Systems Inc., GAF, Geli, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NICE America Research, NRG Energy, Inc., Ormat Technologies, OutBack Power Technologies, Parker Hannifin Corporation, Qnovo, Recurrent Energy, RES Americas Inc., Sempra Renewables, Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Viridity Energy, Wellhead Electric, and

Younicos. CESA's intervention in this proceeding is in the public interest, and CESA's interests will not be adequately reflected by any other party, particularly given CESA's leadership role in energy storage and reliability roles in the CAISO and California electric and grid-related market places. CESA therefore respectfully requests that this motion to intervene be granted.

IV. COMMENTS.

A. **The DOE's proposed rule does not apply to ISOs and RTOs without capacity markets.**

The proposed rule seeks to direct ISOs and RTOs to develop market rules and cost recovery mechanisms for "fuel-secure generation" for which resources with 90-day fuel supply on site are deemed eligible.¹ Regardless of the merits of this proposal, CESA believes that it is important for FERC to determine that this proposed rule would only apply to ISOs and RTOs with centralized forward capacity markets. ISOs like the California Independent System Operator ("CAISO") do not operate capacity markets but instead rely on bilaterally contracted capacity which participates in electric markets via certain obligations. This contracting process is within the jurisdiction of multiple Local Regulatory Authorities ("LRAs") that are generally outside of the jurisdictional purview of FERC for these capacity discussions. The pricing for capacity is also done bilaterally by load-serving entities and their counterparties, which is also outside of FERC jurisdiction. Given the nature by which California plans and delivers capacity, FERC should make a determination that this proposed rule, if advanced or adopted, would exempt ISOs such as the CAISO that do not operate capacity markets.

This exclusion is included in a version of the Notice of Proposed Rulemaking ("NOPR"), but CESA recommends clear confirmation that the CAISO, the Energy Imbalance Market

¹ DOE Notice of Proposed Rulemaking, pp. 11.
<https://www.energy.gov/sites/prod/files/2017/09/f37/Notice%20of%20Proposed%20Rulemaking%20.pdf>

(operated by the CAISO) and all other Western energy markets would be excluded from the provisions of the proposed rule.

B. The DOE’s proposed rule should consider how energy storage and DERs promote greater reliability and resilience of the grid.

Some of the justifications used in supporting the proposed rule was to preserve generation diversity that will benefit customers and to ensure “fuel-secure generation” remains online through cost recovery mechanisms.² However, any mechanism to economically support resources that support the reliability and resilience goals of the proposed rule should also consider the same reliability and resilience benefits that could be provided by utility-scale and distributed energy storage, rooftop solar, demand response, energy generation, or distributed energy resources (“DERs”). Energy storage, for example, can be used in microgrid configurations that are able to island themselves from the rest of the electricity grid during major outages, allowing critical loads at hospitals, military bases, schools, and communities to continue to be served. Energy storage can be modularized and can lower contingency planning needs. In California, San Diego Gas and Electric Company (“SDG&E”) was able to ride through nine hours without grid-supplied power on May 21, 2015 at its Borrego Springs microgrid serving 2,800 customers and fueled by a 26-MW solar facility and supported by a portfolio of battery storage and diesel generators.³ Similarly, in the Dominican Republic, which is located in a region of the world that has been recently hit by a number of powerful hurricanes, energy storage systems were able to provide frequency control to the grid to ensure that the electricity grid

² *Ibid*, pp. 6, 11.

³ “SDG&E microgrid uses solar, storage to avoid outage in small town.” Utility Dive, June 3, 2015. <http://www.utilitydive.com/news/sdge-microgrid-uses-solar-storage-to-avoid-outage-in-small-town/400147/>

remained online during the storms.⁴ Finally, in Australia, energy storage resources have been deployed to ensure continuity of electricity supply during moments when utilities need to temporarily disconnect feeders to maintain lines as well as to prevent bush fires during bushfire “high risk days,” which would otherwise run the risk of overhead assets starting fires.⁵ Similar measures are being initiated in the Northeast and in California to increase the reliability and resilience of the electricity grid.

Altogether, these case studies show how energy storage resources of all shapes and sizes contribute to the increased reliability and resilience of the grid in ways that may effectively meet the goal of fuel diversification and grid reliability. As FERC considers how to achieve the stated goals of the DOE to increase grid reliability and resilience as well as resource diversity, the focus should not be narrowly placed on coal and nuclear generation units, which are centralized units that rely on the lines and wires to deliver their “fuel secure” energy to end-use customers. Rather, there are a number of other technologies such as energy storage that are able to provide sectionalized grid supply during times of broader grid outages and are capable of continuing energy supply during times when lines and wires must be de-energized, allowing modular energy storage resources to be strategically located to enhance grid reliability and resilience. Importantly, in pursuit of these grid reliability and resilience goals, which must be precisely defined, FERC must first define technology-neutral criteria for wholesale market products and grid services to ensure non-discriminatory participation of resources in providing the defined

⁴ “Dominican Republic’s First Energy Storage Arrays Help Island’s Grid to Prevent Blackouts.” BusinessWire, October 17, 2017.
<http://www.businesswire.com/news/home/20171017005627/en/Dominican-Republic%E2%80%99s-Energy-Storage-Arrays-Island%E2%80%99s-Grid>

⁵ “Battery/diesel grid-connected microgrids: a large-scale industry-based case study of future microgrid capabilities.” ABB White Paper.
<https://library.e.abb.com/public/0dd8532d75d14c49a6bc92cb91d71b30/Ausnet%20Services%20GESS%20white%20paper.pdf>

products and grid services. Just as FERC has done over the last several decades, FERC should rely on competitive markets to satisfy identified needs to stimulate innovation and achieve grid reliability and resilience objectives at lower cost and higher performance.

Finally, CESA disagrees with the proposed rule's 90-day fuel supply on-site requirement as being the only means by which grid reliability and resilience can be ensured or enhanced in the event of supply disruptions caused by emergencies and extreme weather. "Fuel" and "on site" must not be defined narrowly such that many resources may be inappropriately excluded from counting their valuable reliability or resiliency values. Consider solar-plus-storage systems, for example, in which the "fuel" comes from solar irradiance while the "on site" requirement can be met by energy storage units that are able to store the fuel for continued power supply during times of outages. Even in cases where energy storage is not paired with a generation resource, these resources can essentially provide similar reliability and resilience benefits by utilizing the grid-supplied "fuel" to power specific end-use customers or community loads during a grid outage.

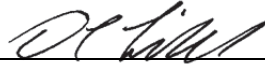
CESA therefore seeks to ensure that FERC considers not just coal and nuclear assets when developing and modifying this proposed rule when there are other resources such as energy storage that can promote resource diversity and enhance grid reliability and resilience.

V. CONCLUSION

CESA supports the DOE's objectives of promoting resource diversification and enhanced grid reliability and resilience, but believes that the current proposed rule lacks the legal, policy, and economic merit that is needed to be adopted. If FERC opts to advance or adopt the proposed rule, CESA strongly recommends that FERC determine that the rule does not apply to the CAISO or other ISOs and RTOs without capacity markets, and that the rule ensure that the

diversification, reliability, and resilience benefits of all types of grid resources are appropriately valued and compensated.

Respectfully submitted,



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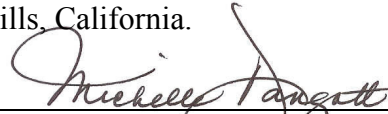
Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

October 23, 2017

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of *Motion to Intervene and Comments of the California Energy Storage Alliance* on all parties of record in proceeding *RM18-1-000* by serving an electronic copy on their email addresses of record and by mailing a properly addressed copy by first-class mail with postage prepaid to each party for whom an email address is not available.

Executed on October 23, 2017, at Woodland Hills, California.



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