

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation:)	
Hybrid Resources and Co-located Resources)	
)	

Docket Nos. ER21-2853

**MOTION TO INTERVENE AND COMMENTS BY THE U.S. ENERGY STORAGE
ASSOCIATION AND THE CALIFORNIA ENERGY STORAGE ALLIANCE
IN SUPPORT OF CAISO’S PROPOSED CLARIFICATIONS TO MARKET RULES
FOR HYBRID AND CO-LOCATED RESOURCES**

Pursuant to Rule 211¹ of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or “Commission”), the U.S. Energy Storage Association (“ESA”) and California Energy Storage Alliance (“CESA”) (together, “the Storage Associations”) hereby submit these Comments in support of the California Independent System Operator Corporation’s (“CAISO”) proposed clarifications to the market rules for hybrid and co-located resources. As detailed herein, both the provisions to enhance market participation by hybrid and co-located resources and to allow the use of multiple aggregate capability constraints by co-located resources at a single generation facility ensure that CAISO’s markets accurately reflect the unique properties of hybrid and co-located resources and will enhance their ability to participate in the CAISO markets.

¹ 18 C.F.R. §§ 385.211 (2021).

I. COMMUNICATIONS

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II. ABOUT THE STORAGE ASSOCIATIONS

A. U.S. ENERGY STORAGE ASSOCIATION

The U.S. Energy Storage Association is the national trade association charged with working toward a more resilient, efficient, sustainable and affordable electricity grid – as is uniquely enabled by energy storage. With more than 200 members, ESA represents a diverse group of companies, including independent power producers, electric utilities, energy service companies, financiers, insurers, installers, manufacturers, component suppliers and integrators involved in deploying energy storage systems around the globe.

B. ABOUT THE CALIFORNIA ENERGY STORAGE ALLIANCE

Founded in 2009 and based in California, 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 for all Californians.

CESA's current membership consists of over 100 member companies across the energy storage ecosystem.

III. MOTIONS TO INTERVENE

The U.S. Energy Storage Association and its members are active participants in CAISO's energy and capacity markets, and own, operate and/or are developing energy storage facilities in California. Accordingly, the ESA has a direct and substantial interest in the above-captioned docket and will be affected by the outcome of this proceeding. Moreover, the interests of the ESA will not be adequately represented by any other party. Therefore, the ESA respectfully moves to intervene in this proceeding.

Similarly, 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 role in energy storage and participatory access to the CAISO and California's electric marketplace. CESA was an active and engaged stakeholder in the CAISO's Hybrid Resources Initiative, as well as other relevant stakeholder initiatives that impact hybrid and co-located resources.

IV. COMMENTS

A. CAISO has effectively removed barriers for hybrid and co-located resources to participate in its markets.

The changes proposed by CAISO recognize the unique properties of hybrid and co-located resources. The Commission has noted how combining energy storage with variable renewable resources effectively functions as a firm baseload resource that has the added benefit

of responding rapidly to changing market needs.² Under the changes proposed by CAISO, hybrid and co-located resources will be allowed to participate in the CAISO markets. ESA and CESA support the removal of operating constraints to ensure that CAISO allows full participation of hybrid resources in its markets.

Moreover, ESA and CESA support the telemetry requirements that CAISO proposes, which includes a new parameter (the “high sustainable limit”). This new parameter requires resources to submit in real time, their maximum output capability, taking into account their state of charge and the immediate performance of their variable resource component. By implementing this new parameter, CAISO ensures that hybrid resources can communicate their availability to the market. In turn, hybrid resources can be dispatched to fully address CAISO’s operational plans in all markets.

Similarly, ESA and CESA concur with CAISO’s exempting hybrid resources from the Resource Adequacy Availability Incentive Mechanism (the “RAAIM”). Currently, the California Public Utilities Commission (“CPUC”) Qualifying Capacity rules discount the capacity of hybrid resources based on their variable component. The CAISO’s RAAIM penalizes resources whenever they perform below an established standard. ESA agrees with CAISO that applying RAAIM would potentially double-penalize hybrid resources for periods of non-performance, due to charging needs and/or the performance of the variable resource. However, hybrid resources do have the capability of responding to incentives to perform at key times—the current exclusion of hybrid resources from the RAAIM does not include them in the incentive structure for this response, which is one area in which the current proposed changes are not complete. However,

² See the discussion of the benefits of hybrid resources in the Hybrid Resource Coalition’s “Comments on Hybrid Resource Reports,” Docket No. AD20-9-000.

CAISO has indicated that they expect this exemption to be temporary while new incentives are developed through the current CAISO Resource Adequacy Enhancements Initiative. ESA and CESA thus support CAISO's proposal to exempt hybrid resources from the RAAIM as an interim measure while it develops resource availability incentives that could apply to hybrid resources.

Lastly, ESA and CESA support CAISO's proposal to enable hybrid resources to participate as flexible capacity resources. ESA and CESA submit that the Commission's Order No. 841 directive that storage resources should be "eligible to provide all capacity, energy, and ancillary services that the resource is technically capable of providing in the RTO/ISO markets" should also apply to hybrid resources, which are capable of participating in the CAISO market as flexible capacity resources and should be eligible to do so.

B. ESA and CESA Support CAISO's Changes in provisions related to aggregate capability constraints for co-located resources.

CAISO has proposed aggregate capability changes that apply to co-located resources only and allow for additional granularity for complex configurations of co-located resources to utilize multiple distinct aggregate capability constraints, within the overall constraint of their interconnection. Current rules set an aggregate capability constraint at the point of interconnection ("POI") of co-located resources with the system. This constraint recognizes that no matter how much energy is produced by resources behind the POI, the amount of electricity delivered to the grid at any given moment would never exceed the interconnection service capacity at the POI. What CAISO is now proposing is an enhancement to the aggregated capacity constraint concept. As proposed, the aggregated capacity constraint would reflect complex configurations of co-located resources and contractual arrangements between generators and off-takers. Although a co-located resource configuration can be as simple as one

battery storage unit and one generating unit located behind a single point of interconnection, it can also be considerably more complex, involving multiple generating facilities and storage units, each with potentially different contractual operating levels. CAISO is proposing that the original POI aggregate capacity constraint remain as the “master” constraint, but that the system also be able to recognize and incorporate into dispatch decisions subordinate aggregate capacity constraints for subsets of co-located resources.

ESA and CESA support this proposal as a change that enables more flexibility for co-located resources operating under distinct contracts while enabling a more efficient dispatch. This gives co-located resources the flexibility to enter into a variety of contractual arrangements with buyers, supporting their ability to be competitive in the marketplace.

V. CONCLUSION

For the forgoing reasons, ESA and CESA respectfully request that the Commission approve CAISO’s tariff provisions that are designed to clarify market rules for hybrids and co-located resources. Moreover, ESA and CESA respectfully request that they be allowed intervention status in this proceeding.

Respectfully submitted,

THE STORAGE ASSOCIATIONS

By,

A handwritten signature in dark ink, appearing to read "Andrew O. Kaplan", is written over a light gray rectangular background.

Andrew O. Kaplan

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, I, Anne O'Hanlon, certify that on this day that I emailed or mailed, postage prepaid, a copy of the foregoing document to all parties on the official service list posted by FERC.

Dated at Boston, MA this 29th day of September, 2021.


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