

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee the
Resource Adequacy Program, Consider
Program Refinements, and Establish
Annual Local and Flexible Procurement
Obligations for the 2019 and 2020
Compliance Years.

Rulemaking 17-09-020
(Filed September 28, 2017)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON TRACK 1 PROPOSALS**

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In accordance with the *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge* (“Scoping Memo”), issued on January 18, 2018, the California Energy Storage Alliance (“CESA”)¹ hereby submits these comments on the Track 1 proposals submitted by parties in the Resource Adequacy (“RA”) proceeding and discussed in informational workshops held on February 22-23, 2018 at the California Public Utilities Commission (“Commission”).

¹ 8minutenergy Renewables, Able Grid Energy Solutions, Adara Power, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Brenmiller Energy, Bright Energy Storage Technologies, BrightSource Energy, Brookfield Renewables, 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., Engie, Fluence Energy, GAF, Geli, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., IE Softworks, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Iteros, Johnson Controls, Lendlease Energy Development, 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, Parker Hannifin Corporation, Pintail Power, Qnovo, Range Energy Storage Systems, Recurrent Energy, Renewable Energy Systems (RES), Sempra Renewables, Sharp Electronics Corporation, SNC Lavalin, Southwest Generation, Sovereign Energy, STOREME, Inc., Sunrun, Swell Energy, True North Venture Partners, Viridity Energy, Wellhead Electric, and Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

I. INTRODUCTION.

The Commission's process has fostered rich and varied discussions relating to potential improvements for the RA planning tool. CESA appreciates this thought-work and dialogue and strongly recommends the Commission prioritize enhancements for the RA program that authorize or improve the ability of the fleet to meet key needs. These enhancements should include changes or proposals for: (1) improving how Flexible RA is counted; (2) ensuring the RA fleet meets flexibility needs through in-market operations through a 'Flex Down' product; (3) unbundling System from Flexible RA attributes so that single RA services can be provided; (4) authorizing RA counting for solar-plus-storage and other 'plus storage' or 'hybrid' resources; and (5) delaying any considerations of restrictions on use-limited resources until further data on any operational needs underlying this idea is evaluated.

II. FLEXIBLE RA 'COUNTS' SHOULD VALUE FASTER RAMPING RATHER THAN LONG, SLOW RAMPING NEEDS.

Multiple proposals, including from CESA, focused on tuning the counting approaches for Flexible RA to measure and value faster ramping, rather than slower ramping. This can be done as CESA proposed by counting ramping across one hour instead of three hours. Other parties provided similar ideas ensuring that the Flexible RA product provides the right values of flexible capacity. CESA supports consideration of a Flexible RA product designed to meet sub-hourly needs, likely aligned with 15-minute or 5-minute ramping needs. Finally, for 'plus storage' resources, the full range of flexibility should be counted. Solar-plus-storage and other plus-storage resources may have Effective Flexible Capacity ("EFC") values that are greater than their Net Qualifying Capacity ("NQC") values due to a negative 'p-min' from the energy storage system. Rules should reflect this full range of charge and discharge, so long as energy level and deliverability capabilities comply with applicable rules.

III. FLEXIBLE RA SHOULD ADDRESS FLEX DOWN NEEDS TO LIMIT OUT-OF-MARKET ACTIONS AND CURTAILMENTS.

As proposed by CESA, RA enhancements should establish a Flex Down RA product to ensure the fleet can meet downward flexible needs. This challenge will grow in the coming years, and an enhancement to the RA tool to address downward ramping capabilities will not only ensure reliability is maintained through an efficient fleet composition and in-market solutions, but it will also signal that some value exists to minimizing overgeneration challenges. This signaling, over time, will steer and shape the fleet and ‘ready’ the fleet to meet future needs as determined by the Integrated Resource Plans (“IRP”). Signals also inform maintenance or development activities now, so it should be provided by the RA tool, where reasonable.

IV. SYSTEM RA SHOULD BE UNBUNDLED FROM FLEXIBLE RA TO IMPROVE RA MARKETS, EFFICIENCY, AND RELIABILITY.

Similar to CESA, other parties, such as the Joint Demand Response Parties, the Western Powers Trading Forum (“WPTF”), and the California Efficiency and Demand Management Council (“CEDMC”), proposed separating System RA from Flexible RA. These proposals seem supportable and should provide benefits to the RA tool by lowering costs, allowing specialization, and enabling RA resources to target flexibility needs (*i.e.*, evening ramping), which all signs indicate will grow over time. If structured properly, unbundling can also reduce program complexity, free up increments of capacity for procurement by smaller entities, streamline contracting for RA resources, and lower costs in part through lower interconnection costs. The California Independent System Operator (“CAISO”) has also put forward a proposal for unbundling along with a new and separate evaluation of flexible deliverability (as opposed to system deliverability for peaking energy), which it plans to submit in Track 2 of this proceeding, after due stakeholder process is provided. In addition to this continued push for unbundling from

multiple parties across the last several RA proceedings, the Flexible Resource Adequacy Capacity Must-Offer Obligation (“FRACMOO”) Phase 2 Initiative at the CAISO has highlighted data demonstrating evidence of growing ramping needs, which suggests that the time is ripe for addressing this issue in the current RA proceeding.

V. AUTHORIZING RA FOR SOLAR-PLUS STORAGE OR OTHER ‘PLUS STORAGE’ CONFIGURATIONS ARE A TOP PRIORITY AND SHOULD INFORM EFFECTIVE LOAD CARRYING CAPACITY COUNTS.

CESA remains unclear on if ‘plus storage’ Effective Load Carrying Capacity (“ELCC”) values are already deemed ‘in scope’ for this proceeding. The original scope indicated refinements to the ELCC methodology are in scope, and CESA believes a consideration and authorization for ELCCs of solar-plus-storage or other ‘plus storage’ resources are critical for approval in near-term tracks of this RA proceeding. In case that these matters are not planned for inclusion in the ELCC enhancement issues scoped into Track 1 or 2, CESA offers these comments, and re-introduces proposals made last year to inform this proceeding’s record.

CESA has proposed and advocated for reforms to ELCC to ‘count’ the benefits of adding energy storage. While this may be doable using the ELCC calculator, CESA seeks confirmation that the improved performance of solar-plus-storage manifests in a higher RA count. Companies that are actively seeking to develop these projects today are still unclear on whether RA rules will dampen the potential to roll out these solutions, which should mitigate system challenges associated with renewables integration. Even small amounts of energy storage added to renewable or other resources may materially improve the value of ‘plus storage’ capacity by helping such resources be available and deliver services even during periods of sub-optimal weather or other important periods.

VI. CAISO'S PROPOSAL TO POTENTIALLY LIMIT PENETRATIONS OF OR UTILIZATION OF USE-LIMITED RESOURCES IN LOCAL AREAS IS PREMATURE.

CESA appreciates that parties should raise ideas for consideration in the RA proceeding. The CAISO's proposal to limit the penetrations of use-limited resources could have material effects on existing or planned resources and will need very serious development before it should be incorporated in the RA proceeding. This viewpoint seems logical because the potential problem that the CAISO seeks to solve, to CESA's knowledge, has not been discussed in recent RA proceedings, and is thus relatively new. CESA requests further data be provided to evaluate the CAISO's idea further prior to including it in scope. Additionally, the CAISO's focus on local capacity is relevant but also complicated by how the CAISO's Transmission Planning Process ("TPP") has driven changes to local capacity areas. With this level of change and complexity to evaluating local area needs, CESA believes it is premature to add new limitations to use-limited energy resources like energy storage.

VII. CONCLUSION

CESA appreciates the opportunity to submit comments on the RA Track 1 proposals. This proceeding is important and impactful for shaping the fleet to meet reliability objectives. CESA greatly looks forward to working with the Commission and parties on the further development of a durable and robust RA program.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alex J. Morris'.

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