

**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 2016
and 2017 Compliance Years.

Rulemaking 14-10-010
(Filed October 16, 2014)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON WORKSHOP REPORT, WORKSHOP PRESENTATIONS, AND TRACK 2 ISSUES**

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**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON
WORKSHOP REPORT, WORKSHOP, AND TRACK 2 ISSUES**

The California Energy Storage Alliance (“CESA”)¹ hereby submit these comments on Track 2 Workshop Report and related presentations and discussions pursuant to the *Administrative Law Judge’s Email Ruling Noticing Energy Division Workshop Report* (“ALJ’s Ruling”), issued by Administrative Law Judge Kevin R. Dudney on June 1, 2016.

I. INTRODUCTION

CESA intervened and is participating in this proceeding because it provides the robust scope and opportunity to review and potentially change or overhaul the Commission’s Flexible Resource Adequacy (“Flex RA”) construct, product, and related rules and approaches. CESA stresses the need to evaluate how the Resource Adequacy (“RA”) program affects the state’s

¹ 1 Energy Systems Inc., Adara Power, Advanced Microgrid Solutions, AES Energy Storage, Amber Kinetics, Aquion Energy, Bright Energy Storage Technologies, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, Electric Motor Werks, Inc., ElectrIQ Power, ELSYS Inc., Enphase Energy, GE Energy Storage, Geli, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, Johnson Controls, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mercedes-Benz Research & Development North America, Nature & PeopleFirst, NEC Energy Solutions, Inc., NextEra Energy Resources, NGK Insulators, Ltd., NRG Energy LLC, OutBack Power Technologies, Parker Hannifin Corporation, Powertree Services Inc., Qnovo, Recurrent Energy, RES Americas Inc., Saft America Inc., Samsung SDI, Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunPower Corporation, Sunrun, Swell Energy, Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, 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>).

energy resource portfolio mix, and how the development of a durable flexible product will provide long-term reliability assurances and market signals and certainty, and how multi-year contracts warrant consideration. CESA also urges the Commission to expeditiously implement major RA reforms for the 2017 RA year given its impact on a number of ongoing and upcoming Commission proceedings.

In these comments, CESA focuses on key RA ideas discussed in the Track 2 Workshop held on April 4, 2016, and on related reports and presentations. Overall, CESA supports ideas raised by the Commission's Energy Division to comprehensively overhaul the Flex RA approach. CESA fundamentally views RA as a capacity planning tool that should yield portfolios of resources which can be bid in markets and used to reliably operate the grid. The Commission should adopt this definition to guide further adjustments to RA, including in factoring in flexibility needs, both up and down.

II. THE COMMISSION SHOULD AFFIRM THAT THE RESOURCE ADEQUACY TOOL IS DESIGNED TO ENSURE A WORKABLE PORTFOLIO OF RESOURCES IS CONTRACTED TO ENSURE RELIABLE GRID OPERATIONS.

The Commission's RA construct fundamentally exists to ensure reliable system operations. The RA construct accomplishes this by requiring sufficient resources owned or under contract to meet the state's electrical grid needs by participating in California Independent System Operator ("CAISO") markets. The Commission should affirm or adopt this definition to guide this Track 2 proceeding. As such, the Commission can direct and shape the RA program to provide workable fleets and portfolios of resources to ensure grid reliability and grid compliance with reliability needs over a given time period.

With a robust RA approach that truly and properly accounts for grid reliability, the CAISO should only infrequently need its own backstop capacity-procurement authority. This

definition also ensures the Commission's RA constructs inform related Commission, state, or other work on studies, program designs, procurement planning, and the myriad Commission actions that relate to electric grid reliability and regulatory work.

III. THE COMMISSION SHOULD DEVELOP EFFECTIVE RULES AND SHOULD NOT SHY AWAY FROM COMPLEXITY.

As with the current RA program and as defined above, an effective RA approach may require some degree of complexity. Concerns about complexity in RA are often overstated and should not *de facto* re-direct or limit RA designs and products. In fact, some level of complexity should be expected to ensure reliability for large portions of the grid of the seventh largest economy in the world, especially as it undergoes changes such as large baseload generator retirements, increases in penetrations of variable energy resource and distributed generation, and changes to climate and hydro conditions.

Many Load Serving Entities have large and sophisticated procurement groups with teams of people engaged in contracting, negotiating, showing, scheduling, operating, and settling resources. Third-party experts, and the industry in general, also provide capacity contracting services and respond to Commission direction on RA rules. RA rules may also influence out-of-state resources as the CAISO works to develop Regional RA rules with important Commission input.

Proposals for simple or insufficient RA rules, including for Flex RA rules, will not address the core purpose of RA as defined above. Instead, simple RA rules may result in an insufficient generation/resource fleet, under the assumption that some issues can be resolved through grid operations or through patch fixes, *e.g.* 'cures' to the portfolio.

CESA believes the approach of hoping that downward flexibility needs will be addressed without explicit contractual RA requirements is improper and risk a repeat of past mistakes

during which reliability was compromised because generators did not participate appropriately in spot energy markets. Consider the implications if this approach were taken with system or local capacity – assuming capacity would participate correctly would be very risky. Due to Renewable Portfolio Standard procurement and other factors, the grid’s needs and fleet are changing, and the RA program will need to evolve accordingly to consider downward flexibility. There is no guarantee that downward flexibility will be sufficient in the future simply because it has been so in the past.

To conclude, statements that downward flexible needs are ‘just operational’ do not reflect an understanding of the needs of the grid in the future. The ‘right’ RA product requirements – including flex down capability – will influence the portfolio in the near, medium, and long-term. Capacity values are a key revenue source for many grid resources. These resources can adjust their capabilities, plan upgrades, bid differently, and take many actions to fashion their resource to provide services needed by the grid. For example, if a resource knows that it can qualify for a higher value planning capacity product with a modest change, economic interest will direct that resource to make such a change. Medium-term, resources may invest in key capabilities to position themselves to provide more valuable RA services. Long-term, signals for the ‘right’ types of planning capacity very well may influence new capacity decisions for the state.

IV. COST CONCERNS RELATED TO DOWNWARD FLEXIBLE RA CAN BE ADDRESSED.

CESA believes an impediment to the creation of a downward flexibility RA solution may be concerns over costs. These concerns can be addressed and should not lead to an underutilization of the RA tool. For instance, cost concerns should not dictate an outcome where no assurances exist that adequate resources with the correct must-offer obligation exist to ramp down as needed. Instead, cost concerns should be addressed through smart market design.

RA changes to address downward flexible ramping needs can likely occur without problematic increases in prices for such capacity. For instance, if Variable Energy Resources are willing to provide down-ramping just for spot-market energy payments and *without* a RA payment, their effective ‘RA payment’ is \$0.² Statements made by utility representatives at the workshop implied this type of bidding will or could occur. The establishment of Flex Down RA could thus be achieved ‘for free’, *i.e.* with no incremental capacity costs if resources offer their Flex Down RA at \$0. Thus, achieved ‘for free’, assurances of downward flexibility capability would more firmly and clearly exist to address CAISO concerns. This outcome would be a marked improvement over today, where resources without Flex Down contracts have no binding obligations to provide downward flexibility bids to the CAISO. As a result, the CAISO has no assurance of sufficient flex down. If a potential mounting problem, noted and expressed by the independent grid operator responsible for reliability for several years, can be addressed for free, it should be pursued.

Cost considerations, while important, should also not override the basic purpose and definition of RA. Reliability should not be jeopardized in hopes some grid challenges *may* be addressed through spot-market operations. Assumptions that spot energy-market prices alone will incent behaviors are also flawed. Past experience shows that spot prices are insufficient to guarantee sufficient peaking capacity, and so the Commission and CAISO established system RA requirements with must-offer obligations. Further, spot market prices may be inadequate or capped too low to drive actions. Spot market prices allow may not entice market participation. As a result of the compensation approaches used in California, California’s resources rely significantly on RA payments and contract payment, rather than just spot-market revenues, to

² Statements that spot market prices will address and direct downward flexibility needs imply that resources providing this form of ‘planning capacity’ do so for a \$0/kw-month capacity payment.

cover annual costs. An assumption that resources can recover costs solely through spot markets is unrealistic, especially until bid caps in the CAISO market are increased (or decreased in the case of the bid-floor). CESA believes that opposition to flex down RA may result from concerns about costs or complexity, and CESA notes how such concerns are inapplicable.

V. POTENTIAL RA REFORMS CONTEMPLATED IN THE WORKSHOP AND REPORT SHOULD BE STRONGLY SUPPORTED.

The Commission's Energy Division noted multiple ideas for reforms, including different approaches and categories to Flex RA, eliminating the Maximum Cumulative Capacity bucket concept and establishing a new 'bucket' tool. Energy Division staff contemplates addressing these matters in Summer 2016. CESA strongly supports this next step. Energy Division noted several areas for potential improvements to the Flex RA product, and CESA agrees that the record is sufficient to justify pursuit of alternative approaches.

VI. DURABLE PRODUCT REDESIGNS SHOULD NOT RELY ON *EX POST* CORRECTIONS.

Southern California Edison ("SCE") suggests a RA Flex feasibility check where a portfolio is *ex post* 'cured' if needed. SCE showed how its approach could work under current fleet conditions.

CESA has several concerns with SCE's proposal. Most notably, SCE's approach could fail to compensate and signal the capacity needs of the system, and it may undercompensate resources for their market value by using sequential procurements rather than a single procurement. The effectiveness of SCE's approach as the fleet turns over is also unclear to CESA. These aspects of SCE's proposal could create inefficiencies in capacity procurement which is sub-optimal for ratepayers through under-compensation. This could occur because, under SCE's approach, a resource with high levels flexibility will be deemed identical to a resource with the minimum flexibility. Such a framework would promote a 'race to the bottom'.

In these cases, resources will not have incentives to invest in useful flexibility enhancements, or to install them to begin with. Partly based on these efficiency arguments, SCE has argued for more comprehensive capacity approaches in the past, as CESA understand it.³

SCE's approach also promotes less efficient pricing for resources due to the timing of initial procurement and then 'cure' procurement. A 'cure' could indicate that SCE procured too little or incorrect types of capacity. If too little capacity were procured, the demand for capacity was likely understated, so resources competing in such 'markets', even if bi-lateral, likely received lower payments. This translates to lower producer surplus for these resources. Based on these economic concepts, *ex post* 'cure' procurements should be avoided.

VII. FLEXIBLE AND STANDARD RESOURCE ADEQUACY COUNTING SHOULD BE DECOUPLED.

CESA supports the proposals by the California Large Energy Consumers Association, Joint Demand Response Parties, and Shell Energy North America to separate flexible and standard RA 'counting' requirements for the 2017 RA compliance year. The current coupling requires a Net Qualifying Capacity ("NQC") to receive an Effective Flexible Capacity ("EFC"), which cannot exceed the NQC.

De-coupling these two measures, and thus unbundling the sale of System RA from Flex RA, can provide benefits, e.g.: (1) Allow easier transactions with smaller resources; and (2) broaden the pool of Flex RA resources (including the related must-offer obligations) to include resources that do not seek to provide System RA services.

Unbundling these two RA capacity products would allow flexible resources to be more clearly and fully valued for providing increasingly critical ramping capabilities for California's

³ SCE historically supported a comprehensive framework for capacity procurement that involved a clearing price that ensured efficient pricing for capacity reflective of key grid needs.

grid. A durable flexible product that compensates for downward flexibility-related benefits in capturing excess renewables will accurately reflect the value of energy storage resources.

An important first step in this effort is to allow resources to receive an NQC different from and/or less than their EFC, and to decouple these two capacity measures. This differs from the concept of ‘unbundling’ which by some is defined as being able to sell the flexible and system attributes of a single unit of capacity to different buyers. CESA appreciates further Commission guidance on definitions and terminological clarifications on these matters.

VIII. CONCLUSION

CESA appreciates the opportunity to submit these comments on the Track 1 proposals, and looks forward to working with the Commission and parties on the development of a durable flexible RA program in Track 2 of this proceeding.

Respectfully submitted,



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