

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



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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)

**OPENING COMMENTS OF THE
CALIFORNIA EFFICIENCY + DEMAND MANAGEMENT COUNCIL
ON TRACK 3 PROPOSALS AND WORKSHOP AND ON
ADMINISTRATIVE LAW JUDGE'S RULING ON
EFFECTIVE LOAD CARRYING CAPACITY**

Date: March 22, 2019

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The California Efficiency + Demand Management Council¹ (the “Council”) appreciates this opportunity to submit its Opening Comments on the Track 3 Proposals and Workshop held in this proceeding (R.17-09-020 (Resource Adequacy “RA”)), as well as the Administrative Law Judge’s (“ALJ’s”) Ruling on Effective Load Carrying Capacity (“ELCC”), issued in this proceeding on February 13, 2019.²

I. INTRODUCTION

“Ensuring reliable utility service at least cost is the fundamental goal of the RA program.”³

Ensuring reliability in this age of an increasingly complex energy system, marked by quickly changing aspects of supply, demand, management, and data as well as of the entities involved in each, is no simple task. The cost of doing so, however, can only increase if we fail to

¹ More information about the Council can be found at <http://www.cedmc.org/>. The views expressed by the Council are not necessarily those of its individual members.

² These Opening Comments are filed and served pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (“CPUC” or “Commission”); the Amended Scoping Memo and Ruling of Assigned Commissioner, issued in this proceeding on January 29, 2019 (“Amended Scoping Memo”) and the ALJ’s Ruling on ELCC (“ELCC Ruling”), issued in this proceeding on February 13, 2019.

³D.10-06-018, at p. 11.

take advantage of the reliability characteristics of the system’s emerging elements and capabilities- and incent their deployment to meet reliability needs. We know, as the Center for Energy Efficiency and Renewable Technologies (“CEERT”) stated, that this work must ultimately be done by preferred resources,⁴ if we are to achieve California’s ambitious climate protection goals. The sooner the market and regulatory rules fully compensate preferred resources for their reliability contributions, the sooner we start to bend the curve towards success.

Energy customers’ adoption of distributed energy resources (“DERs”)- and of internet- and grid-of-things- ready equipment - are accelerating faster than anyone could have imagined. Providing an economic signal that encourages this equipment to be designed, procured and managed to support energy system reliability would lessen the cost of achieving reliability,⁵ reduce the threat of market power,⁶ and enhance reliability through a diversity of resources that is not reliant on any single “fuel” source.⁷ Failure to provide economic incentives to unlock these capabilities can only result in widespread deployment of equipment with stunted reliability value- or worse yet, that further strains our energy system rather than contributes to its cost-effective and reliable operation.

In short, rules designed for simpler times, with fewer and less sophisticated tools, will leave unused countless megawatts that could have been deployed⁸ - a waste that cannot be squared with Commission’s fundamental goal of achieving resource adequacy at least cost. We have, at our fingertips, a whole far greater than the sum of its parts- all we need are the market rules and regulatory structure to unlock its value.⁹ This is the work we must undertake together in this phase of the proceeding.

⁴ CEERT Track 3 Proposal, at p. 1.

⁵ It is important to note that DER costs are primarily, and sometimes entirely, born by the customers that purchase or lease equipment, rather than expenditures born by LSEs solely to comply with reliability requirements. *See also* Sunrun Proposal, at p. 3.

⁶ *See, e.g.*, SunRun Track 3 Proposal, at p. 7.

⁷ Senate Bill (SB) 1078, Section 399.11(a).

⁸ *See, e.g.*, SunRun Track 3 Proposal, at p. 3.

⁹ While Southern California Edison (SCE) is correct in noting, in its proposal, that “the sum of all parts should not be greater than the actual load reduction delivered to the grid,” SCE Track 3 Proposal, at p. 7, it should also be no *less* than the actual load reduction delivered to the grid- including synergistic values that exceed simple addition of stacked individual resource values.

II. BEGIN AT THE BEGINNING: REDUCE RELIABILITY COSTS BY REDUCING LOAD THROUGH FOCUSED EFFICIENCY AND DEMAND MANAGEMENT

The forecasting process underpinning the Resource Adequacy program needs revisiting, particularly with respect to reflecting the value of DERs, as several proposals note.¹⁰ An updated the forecasting process could significantly reduce reliability costs by signalling where relatively small reductions in load- or shifts in load patterns- could significantly mitigate or even eliminate local capacity requirements. Once identified, enabling deployment of demand-side resources to achieve these beneficial load forecasts could reduce the need for, and expense of, additional procurement.

Efficiency, targeted at local or even sublocal areas, can significantly reduce load. By focusing the selection of efficiency measures to decrease energy use that generally occurs within particular timeframes, such afternoon as air conditioning load, efficiency can significantly affect load shape. Other demand management mechanisms can also beneficially shape load curves, reducing load at critical times and shifting it to other times that ease grid stress and system costs.¹¹ At present, there is little or no recognition of the reliability and economic value of load modification at the forward point at which forecasting occurs,¹² nor is there a structured opportunity designed to maximize beneficial deployment of these resources in time to effect the load forecasts driving resource adequacy procurement needs.

To effectively deploy this tool for addressing reliability at least cost, the forecasting process should be staged to provide preliminary results that better indicate the nature of LCR and other RA triggers, and to then allow time for LSEs and other entities to offer efficiency and other demand-side measures that would relieve constraints. The potential for final RA forecasts that project lesser needs for procurement, and impose fewer reliability costs, is substantial. LSEs and other entities that offer the targeted efficiency measures should be credited proportionately, creating the economic signal necessary to incent cost-effective deployment.

¹⁰ See, e.g., Sunrun Track 3 Proposal, at pp. 16-18.

¹¹ Joint Demand Response Parties (“Joint DR Parties”) Track 3 Proposal, at p. 6.

¹² Sunrun Track 3 Proposal, at pp. 16-18

III. WASTE NOT, WANT NOT: RECOGNIZE THE VALUE OF STACKED RESOURCES, INCLUDING SYNERGIES INCREASING COMBINED VALUE

California has a vast array of resources capable of contributing to reliability, with far more on the way. It is less well-armed with the market rules and regulatory structures to unlock that value, or to compensate for it. Achieving reliability at least cost, as well as attaining our overall policy goals, depends on making use of those resources, rather than leaving them languish because Resource Adequacy rules fail to recognize what they have to offer.¹³

The Council supports the CEERT, the Joint DR Parties, SCE and others in their call for recognition of the value of “stacked” resources that, when combined, can meet reliability needs. We cannot afford an approach custom-tailored for conventional resources and their typical characteristics. Where available resources can jointly check all of the reliability requirement boxes, why should we discriminate against them? Failing to take full advantage of existing resources that can contribute to reliability necessarily results in duplicative, unduly expensive procurement. Worse yet, the lack of a clear economic signal that values such resources squanders our fleeting opportunity to impact the design, development and deployment of new equipment, which will not bother to incorporate enhanced reliability characteristics absent economic benefit.

Reliability does not require a “perfect generator”- it requires that reliability criteria are met, regardless of the number or types of resources used to attain them. The coordination of large numbers of resources, and the capture of performance data from those resources, was once an impracticable problem- but that problem is rapidly receding into history. Perhaps more importantly, deriving resource adequacy from a diversity of elements increases reliability by reducing risk of failure. Using a multi-element, diverse portfolio approach, one element’s outage is not likely to be catastrophic- unlike reliance on a single generation facility. This diverse approach, if sufficiently deployed, could further reduce costs by justifying a decrease in reserve margins.

Similarly, requiring any given resource to demonstrate multiple reliability criteria presents an unjustifiable hurdle to economic provision of individual services. For example, as

¹³ *Id.*, at p. 3 (“Without these adjustments to the RA program, BTM resources, particularly in the residential sector, will be impeded in the market, unnecessarily increasing costs for all customers and inhibiting the achievement of important energy policy goals”).

CESA and the Joint DR Parties note,¹⁴ unbundling Effective Flexible Capacity (“EFC”) and Net Qualifying Capacity (“NQC”) will increase the pool of resources able to meet each respective criterion, increasing competition and allowing lower-cost solutions. We have the technology to manage large numbers of resources to attain each individual goal, without significantly increasing administrative burden. Denying access to the market simply because a resource does not offer all of the swiss army blades particular to conventional resources is pernicious discrimination, and is a disservice to the goal of least cost reliability.

Combined resources may also provide synergies that offer far more than individual resource capabilities. For example, lithium batteries paired with “slow response” resources could offer fast response as well as long duration, better performance under a wider range of conditions, reduced cycling and fatigue (and resulting degradation of performance and operating life), and reduced overall cost. Reducing or eliminating resource counting values of availability-limited or use-limited resources is simply leaving money on the table. It also misses an important opportunity to diffuse market power by increasing competition within local and sublocal areas,¹⁵ particularly where building new generation or transmission is impracticable.

Determining how to properly value various combinations of preferred resources should be a significant focus of Track 3. Reliability should be measured by the criteria strictly necessary to keep the lights on- not criteria, such as the four-hour minimum, that favor legacy resources but are not tied to actual grid needs. At the very least, arithmetically “stacked” values of combined resources should be reflected in counting regimens; where practicable, demonstrable synergies resulting from particular combinations should be recognized and rewarded with commensurate counting value, to incent their deployment.

The Council sees benefit in enabling LSEs to provide portfolios of resources that collectively offer enhanced value, as suggested by CEERT,¹⁶ but aggregators should be enabled to offer their own blends optimized to respond to market signals and regulatory rules, just as individual resources should be allowed to offer their own stand-alone products if they wish. By allowing each to offer the level of granulated products they see fit, without discriminatory

¹⁴ CESA Track 3 Proposal, at p. 5, Joint DR Parties Track 3 Proposal at p. 3.

¹⁵ Sunrun Track 3 Proposal, at p. 7.

¹⁶ CEERT Track 3 Proposal, at pp. 3-4.

barriers that are not reasonably restricted to actual reliability needs, the competitive market can provide least cost reliability from the most economic collection of resources.

IV. CREDIT WHERE CREDIT IS DUE: IF YOU WANT PEOPLE TO BUY COWS, DON'T GIVE MILK AWAY FREE

The Council appreciates the recognition by SCE that combined resource values, such as the value of demand response combined with storage, may be better reflected through applying ELCC to the combination, rather than simplistically adding the separate ELCC values of each element of the combination together.¹⁷ The combined value approach is particularly important when ELCC is calculated at the local and sublocal levels, as SCE notes.¹⁸

It would be unwise, however, to credit any class of resources with the presumption that those resources have actually been combined with complementary, reliability-enhancing resources (whether solar with storage, or storage with demand management, or any other iteration).¹⁹ If the economic benefit that flows from ELCC crediting of combined resources is provided without demonstration that the combination has actually been deployed, there is less incentive to carry through with that deployment. Any ELCC “bump” appropriate for combinations of resources should only apply when that combination has, in actuality, been deployed.

V. CONCLUSION

The Commission has the opportunity to capitalize on the extraordinary investments just beginning in advanced electrical equipment and management, ensuring that their nascent capabilities are harnessed to contribute to reliability. Whether through focused efficiency and demand measures that reduce load and modifies load shape and thereby lessens forecasted need, or by capturing available reliability values throughout the multi-year demonstration period, we have at hand the potential to assure the reliability we require at decreasing cost. We ask that the Commission, in Track 3, focus on:

¹⁷ SCE Track 3 Proposal, at pp. 6-7.

¹⁸ *Id.*

¹⁹ Joint DR Parties Track 3 Proposal, at pp. 5-6, CESA Track 3 Proposal, at pp. 3-5.

- Enabling opportunities for efficiency and other demand-side measures to reduce load forecasts that drive RA procurement
- Eliminate discriminatory counting rules, and enable counting of any available reliability characteristics that can contribute to least-cost RA
- Determine counting regimens for combined resources, recognizing synergistic effects where practicable
- Ensure ELCC valuations associated with the enhanced benefits offered by combined resources accrue only to those combined resources, and are not generally presumed to any individual resource class

The Council looks forward to working with Energy Division and all stakeholders through Track 3 to help construct the market rules and processes that will enhance progress towards the Commission’s long-standing “fundamental goal”: reliability at least cost.

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Respectfully submitted,

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