



Submitted by	Organization	Date Submitted
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The Center for Energy Efficiency and Renewable Technologies (CEERT) appreciates the opportunity to comment on the California Independent System Operator's (CAISO's) Resource Adequacy Enhancements Straw Proposal Part 1.

1. Rules for Import RA

Please provide your organization's feedback on the Rules for Import RA topic. Please explain your rationale and include examples if applicable.

2. RAIM Enhancements & Outage Rules

- a. Please provide your organization's feedback on the Addressing Planned and Forced Outage Issue topic. Please explain your rationale and include examples if applicable.

- b. Please provide your organization's feedback on the RAIM Enhancements topic. Please explain your rationale and include examples if applicable.
 - i. Please provide your organization's feedback on the Availability & Performance Assessment Triggers options presented in the proposal.

3. Local Capacity Assessments with Availability-Limited Resources

Please provide your organization's feedback on the Local Capacity Assessments with Availability-Limited Resources topic. Please explain your rationale and include examples if applicable.

There is no question that, given the policy driven emphasis on decarbonization of the electric grid, that California must rely much more on availability limited non-fossil resources to fill local capacity requirements. Given the current fragile state of gas supply, in especially Southern California, due to significant, systemic pipeline outages, restrictions on use of the Aliso Canyon storage facility, commodity price pressures due to exploding LNG exports and near-term economic and reliability concerns, this transition must begin now. While CEERT applauds the initiatives taken in the Resource Adequacy Enhancements Straw Proposal towards this end, it strongly believes that the rate of progress is inadequate to address the issue. "RA enhancements" must be expanded to allow high volume, cost effective

availability limited non-fossil resources to play a much larger role in meeting Local Capacity Requirement (LCR) needs. The principal missing initiative is dealing with counting rules, commitment and dispatch protocols and settlement rules for hybrid storage/solar/demand response resources. While counting rules largely must be changed through the California Public Utility Commission's (CPUC's) Resource Adequacy proceeding, a proposal for counting rules can be developed in this initiative. Dispatch protocols and settlement rules must be addressed at the CAISO and should be addressed in this initiative.

CEERT is pleased that the straw proposal includes an initiative for conducting local capacity assessments with availability limited resources, which is the necessary first step in making this transition. CEERT applauds the ad hoc practice taken on thus far by the CAISO in assessing the ability for these resources to meet LCR needs. The straw proposal codifies the steps already begun by the CAISO. Although the timeline calls for Board adoption of RA enhancements in late 2019, the CAISO should implement the proposed assessment practice in this year's LCR Assessment.

4. Meeting Local Capacity Needs with Slow Demand Response

Please provide your organization's feedback on the Meeting Local Capacity Needs with Slow Demand Response topic. Please explain your rationale and include examples if applicable.

While CEERT is pleased that the proposal includes allowing slow demand response to count for LCR needs, the proposal does not go nearly far enough to address the fundamental issue. While some relatively small fraction of potential demand response at a relatively high price will be allowed under this initiative, much more needs to be done and the pace of change must be accelerated.

The CAISO simply must begin to come to grips with hybrid storage/DER resources for meeting LCR needs. The stakeholder initiative Energy Storage and Distributed Energy Resources (ESDER) 4 must also explicitly consider this issue with an initial implementation timeline for next year's LCR procurement. With comments on the as yet unissued issue paper in this initiative due on February 26, CEERT doubts that the full range of "enhancements" required can be implemented before the next LCR procurement. However, the process must start now. The end state is easier to envision than all the steps required to get there. In the future, a portfolio of local DERs (principally solar PV), local short duration storage designed to provide the instant response to meet LCR needs, plus post contingency customer actions designed to provide the on-peak energy in the load pocket and recharge the local storage will be the principal source of critical LCR capacity. This will require significant changes to all of RA counting rules, procurement practices, commitment and dispatch protocols as well as settlement rules to achieve the full potential of this critical set of resources.

There is a clear role for another entity other than the CAISO with its one size fits all tariff that is loosely titled a "distribution system operator" who has the local situational awareness, ability to dispatch portfolio elements post contingency when the local area has been at least partially islanded by the contingency event, with settlement protocols tailored for local circumstances. This will not happen quickly, but the process needs to start now.

Performing the local capacity assessments with this future in mind is only the first step. Allowing a small fraction of potential demand response to meet this critical need is inadequate and this initiative must be expanded. ESDER 4 must explicitly take the next steps.