



## Comments on Phase 1 Final Proposal

Initiative: Resource adequacy enhancements

### Comment period

Feb 23, 2021, 08:00 am - Mar 09, 2021, 05:00 pm

### Submitting organizations

California Energy Storage Alliance

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Submitted on 03/09/2021, 09:11 pm

### 1. Provide a summary of your organization's comments on the phase 1 final proposal:

Throughout the development of this initiative, CESA has held that the ISO's evaluation of the resource adequacy (RA) framework must be undertaken carefully and with strong considerations of stakeholder input. The ISO's acknowledgement and incorporation of stakeholder feedback is fundamental to minimize market disruptions and yield the reliability outcomes the ISO seeks. In this context, it is worth recognizing the diligent labor of ISO staff in incorporating recommendations made by members of the Market Surveillance Committee (MSC), CESA, and other stakeholders with regards to the Minimum State-of-Charge (MSOC) proposal.

In the Final Proposal, the ISO clearly states that the MSOC proposal would be a temporary solution implemented solely to minimize reliability risks while the ISO works with stakeholders to identify a permanent, market-oriented solution. Furthermore, the ISO has revised the MSOC proposal substantially, adopting a trigger condition that is well-equipped to solely apply the restriction in the days of most critical need, and minimizing the number of real-time (RT) intervals the restriction would apply to.

Given these modifications, as well as the ISO's commitment to revise the MSOC proposal and improve on it through the upcoming Energy Storage Enhancements (ESE) initiative, CESA's comments can be summarized as follows:

[The ISO should consider applying the MSOC to a portion of energy storage based on the expected RUC shortfall, in a \*pro rata\* basis.?](#)

The ISO should study MSOC use during the summer of 2021 to automate a process that

would drop the restriction if RT conditions allow it. ?

In order to replace the MSOC in a timely manner, the ISO should consider the following list of storage issues when scoping the ESE initiative:?

- Update the Multi-Interval Optimization (MIO) tool.
- Revise the Bid-Cost Recovery (BCR) mechanism.
- Consider the creation of an Energy Shifting product.

## **2. Provide your organization's overall position on the phase 1 final proposal:**

### **Support with caveats**

## **3. Provide your organization's feedback on the Planned Outage Process Enhancements topic as described in section 5.1.1:**

CESA offers no comments at this time.

## **4. Provide your organization's feedback on the Operationalizing Storage Resources topic as described in section 5.1.2:**

CESA generally supports the modifications ISO staff have done to the MSOC proposal within the Final Proposal. In particular, CESA appreciates the ISO's consideration of a trigger condition that focuses solely on critical days; the determination that the MSOC would apply only in the intervals prior to a resource's Day-Ahead (DA) schedule; and, most importantly, the recognition that this restriction shall be temporary and will be accompanied with a two-year sunset provision. While these modifications substantially improve upon previous versions of the MSOC proposal, CESA still considers the ISO could meaningfully enhance it by minimizing the number of MW affected by the MSOC and evaluating a methodology that would allow the automatic elimination of the MSOC if RT conditions allow.

### **The ISO should consider applying the MSOC to a portion of energy storage based on the expected RUC shortfall, in a pro rata basis**

As mentioned above, the ISO has been diligent in its integration of most stakeholder feedback relative to the MSOC proposal. While the minimization of days and intervals affected by an MSOC trigger is welcome, limiting the number of MW is also necessary to mitigate the impact of MSOC on the storage fleet's ability to provide flexibility to the grid. As such, CESA urges the ISO consider elements of LS Power's Alternative MSOC Proposal, as included in their comments on this initiative's Draft Final Proposal.

In their comments, LS Power recommends the ISO uses the results of their preferred sufficiency test to determine the minimum quantities of charge power (MW) and stored energy (MWh) necessary to meet the day's evening peak. By doing so, the ISO would be able to determine a system-wide MSOC requirement and allocate it in a *pro rata* basis to all RA-providing storage assets. CESA considers that the ISO would be able to do this in the case of a RUC infeasibility, as said process would indicate the magnitude of the expected shortfall. This minimization would reserve only a fraction of power and capacity of each storage asset to comply with the MSOC, thus allowing them to keep flexibly responding to RT grid needs.

**The ISO should study MSOC use during the summer of 2021 to automate a process that would drop the restriction if RT conditions allow it**

In the Final Proposal, the ISO has ensured stakeholders that it will track MSOC use in a manner consistent with Exceptional Dispatch (ED) in order to better determine the conditions that have resulted in MSOC usage, and its effectiveness.<sup>[1]</sup> CESA appreciates this inclusion, as it will enable the ISO to collect necessary data to consider improvements to this framework past its most urgent application period, summer of 2021. Furthermore, the Final Proposal also notes that, in the case of an MSOC trigger in the DA market, the ISO's operations team will have the opportunity (albeit not the obligation) to cancel the MSOC in the RT market if conditions have materially changed and the grid can provide the level of reliability required solely via optimal dispatch.<sup>[2]</sup> In this context, CESA believes the ISO should utilize the data collected from potential MSOC applications during the summer of 2021 to identify a viable methodology to automate the process of cancelling the MSOC constraint if RT conditions allow it.

To this end, CESA reiterates the recommendation made within the Market Enhancements for Summer 2021 Readiness Initiative, which essentially states the ISO should run sufficiency tests on a regular basis throughout the day to determine if MSOC is still needed, not limiting itself to a single test after the DA schedules are determined. As such, CESA recommends the ISO collect and analyzes MSOC data from Summer 2021 to ensure the automation of this process is feasible by summer 2022, ahead of the permanent sunset of this provision.

<sup>[1]</sup> Final Proposal, at 25.

<sup>[2]</sup> Final Proposal, at 24.

**5. Provide your organization's feedback on the Backstop Capacity Procurement topic as described in section 5.2:**

CESA offers no comments at this time.

**6. Please provide your organization's feedback on the implementation plan, including the proposed phases, the order these policies must roll out, and the feasibility of the proposed implementation schedule, as described in section 6:**

CESA offers no comments at this time.

**7. Please provide your organization's feedback on the proposed decisional classification for this initiative as described in section 7:**

CESA offers no comments at this time.

**8. Additional comments on the Resource Adequacy Enhancements phase 1 final proposal:**

Within the Final Proposal, the ISO commits to the development of a permanent solution to replace

the temporary MSOC proposal. To do so, the ISO will initiate the ESE initiative, expected to launch in Q2 2021. CESA appreciates the ISO's commitment and will actively participate in these discussions. In this context, and in order to commence a record on subjects and modifications to be considered in that initiative, CESA shares a list of topics that the ISO might want to consider in the ESE initiative.

**Multi-interval optimization (MIO) tool:** Currently, the MIO software's operation can lead to undesired discharge in intervals prior to the evening peak since it does not link real-time dispatch (RTD) instructions directly to the binding interval. Revising this tool could enable the RT market to dispatch energy storage in a way that obviates the need for the MSOC.

**Bid-cost recovery (BCR):** Today, the BCR mechanism does not properly address the losses non-generator resources (NGRs) incur when following CAISO dispatch. This, paired with the previously noted deficiencies of the MIO tool exacerbates the financial risks of suboptimal dispatch instructions for NGRs. As such, a revision of the BCR, paired with improvements to the MIO, could enable the ISO to rely on dispatch instructions and ED to operate the storage fleet while properly compensating assets.

**Energy shifting product:** The ISO should consider the creation of a DA product designed to compensate storage specifically for shifting renewable energy into the evening hours. This product should capture the opportunity costs storage resources would undertake by limiting themselves to energy shifting. This proposal has been shared previously by CESA and Wellhead within this initiative; as such, CESA urges the ISO to revise said comments and consider this topic in the upcoming ESE Initiative. ?