Comments of the California Energy Storage Alliance on Energy Storage and Distributed Energy Resources Phase 4

Submitted by	Organization	Date Submitted
Jin Noh & Sergio Dueñas	*California Energy Storage Alliance (CESA)*	*June 10, 2020*

1. **Default Energy Bid for Storage Resources**

   Please provide your organization's feedback on the default energy bid proposal for storage resources, as described within the draft final proposal and discussed during the May 27 stakeholder meeting.

   CESA is partially supportive of the ISO's formulation of the Default Energy Bids (DEBs) for storage resources, but more work is needed before pursuing Board approval for this aspect of the final proposal. CESA understands the ISO seeks to have a framework to address potential market power issues in the context of increasing energy storage penetration. CESA appreciates the ISO's hard work in developing a thorough methodology that provides certainty to developers and operators. CESA, however, does have some areas of feedback for the ISO.

   First, it is not clear to CESA that the ISO's assumption that all storage assets will seek to charge during the day-ahead (DA) periods with the lowest prices. In the stakeholder meeting, the ISO showed graphs that signal there is a correlation between DA prices and real-time (RT) operation. While these graphs are useful to visually establish some relationship, the ISO has failed to show actual correlation metrics. Moreover, this assumption does not integrate the fact that energy storage resources may participate by providing different products and services within the ISO's markets. Ignoring this fact might overlook the occurrence of apparently "uneconomic" charging; that is, charging that occurs in hours that are outside the ones used by the DEB framework.

   Second, CESA is still concerned with the lack of means for operators to designate aa particular bid to a specific cycle. As stated in the Draft Final Proposal, the ISO has based some of the assumptions related to this proposal with a "one-cycle per day" framework. CESA believes that this approach may be reasonable in the short term, as many energy storage assets will have warranty and/or cycling and degradation costs of one cycle per day incorporated in their bids; nevertheless, when considering DEBs, the ISO should recognize that a bid could be higher due to incremental cycling costs, for

example, for storage assets that are able to cycle more than once. Thus, CESA urges the ISO to consider how to incorporate cycling costs incremental to one cycle in the calculation of DEBs as more information comes to the ISO as stated in section 4.2.2 of the Draft Final Proposal.

2. **End-of-Hour Charge Parameter(s)**

Please provide your organization's feedback on the end-of-hour charge parameter(s) proposal, as described within the draft final proposal and discussed during the May 27 stakeholder meeting.

CESA partially supports the ISO's proposal on end-of-hour (EOH) state-of-charge (SOC) parameters, but some revisions are needed before pursuing Board approval for this aspect of the final proposal. On the one hand, CESA is supportive of allowing operators and scheduling coordinators (SCs) to access an *optional* tool such as EOH SOC parameters to properly operate their assets. CESA is also supportive of the ISO's decision to eliminate the end-of-day (EOD) SOC parameter from this proposal, as it may potentially result in the inefficient use of storage resources. While some elements of this proposal are positive, there are other areas where CESA has deep concerns.

First, CESA opposes the ISO's determination that the use of self-scheduling and/or EOH SOC parameters could have implications on the resources unforced capacity (UCAP) value, effectively derating them. CESA appreciates the ISO's direction that these issues will be furthered discussed in the RA Enhancements; nonetheless, CESA considers it important to highlight that this would be a significant case of differentiated treatment to storage assets relative to other technologies that participate as RA providers. By reaching the conclusion that storage assets could face derates for using scheduling methods currently available to all resources, the ISO actively limits the market participation pathways to energy storage, thereby treating this resource class in an exceptional and potentially discriminatory manner. Furthermore, by preventing storage for resource adequacy (RA) from using this parameter due to concerns about the violation of must-offer obligations, many storage projects will be prevented from accessing this tool, especially as most current and upcoming deployments are for storage resources as RA. CESA advises against this differentiation and will continue advocating for its revision in all relevant policy initiatives at the ISO.

Second, regarding bid cost recovery (BCR), CESA is concerned with the likelihood for "under-recovery". The current BCR proposal does not take into account the SOC of the storage resource in the two hours prior to the EOH SOC parameter application. By broadly disallowing BCR in the timeframes before a self-schedule or the use of an EOH SOC parameter *without* considering the SOC of the storage resource prior to these periods, it is possible that the ISO would unduly penalize a storage resource that actually entered the periods in compliance to their self-schedule or EOH SOC bid. Hence, CESA supports revising the BCR proposal to ensure that SOC is contemplated as a factor that would determine its application.

Third, CESA is concerned with the interactions between the proposed BCR modification and the ability of energy storage resources to participate in markets other than energy. CESA asks for clarification on how this framework would consider the charging and discharging of storage related to regulation and ancillary services. CESA

recommends that the ISO to include an explanation and a set of examples on this issue in the next iteration of the proposal.

3. **Variable-Output DR**

Please provide your organization's feedback on variable-output DR, as described within the draft final proposal and in the ELCC study discussed during the May 27 stakeholder meeting. Please explain your rationale and include examples if applicable.

Generally, as dispatchable resources, among other things, CESA views the use of ELCC to measure the capacity variable-output of DR may not be appropriate. ELCC is also backward looking, based on a fixed resource future, does not reflect the value of providing energy during high-value hours, and does not reflect technology, program, and locational differences, where measured approaches are better alternatives to assess capacity value. Finally, with recent studies in the CPUC's 2019-2020 IRP planning process showing that there is no need to derate energy storage until 10 GW of storage penetration is reached, the need for ELCC of similarly energy-limited DR resources is premature at this time.