Submit comment on Phase 2 Straw Proposal

Initiative: Resource adequacy enhancements

1. Provide a summary of your organization's comments on the phase 2 straw proposal:

CESA appreciates the work of the ISO on this initiative as well as the opportunity to provide feedback and recommendations related to the Straw Proposal. In particular, CESA supports the ISO's consideration of this initiative and its interactions and implications with regards to two other important stakeholder initiatives and processes, the Day-Ahead Market Enhancements (DAME) Initiative, and the Resource Adequacy (RA) proceeding at the California Public Utilities Commission (CPUC). It is fundamental to preserve contract certainty and minimize market disruptions.

In light of the growing concerns to maintain reliability as the state's grid evolve, CESA requests the ISO retains its commitment to market principles of economic efficiency, open access to the participation of different resources and technologies, and the proper valuation and compensation of all services and products provided by the wide array of resources currently participating in the ISO's markets. In addition, CESA requests the ISO consider existing tools and regulations when evaluating modifications in an effort to minimize duplicity and efficiently incent the desired behavior. In this context, CESA's comments can be summarized as follows:

- The ISO should not impose a must-offer obligation (MOO) for the charging of non-generator resources (NGRs).
    - If imposed, the ISO should refine its MOO proposal for NGR assets to properly value and acknowledge the nature of resources interconnected under the wholesale distribution access tariff (WDAT).
- An indefinite period in which resources eligible for imbalance reserves (IR) must bid at $0 will not contribute to market discovery.
    - A $0 IR bid requirement would hinder the economics of storage and hybrid resources, potentially affecting their deployment.

2. Provide your organization's feedback on the Must Offer Obligations and Bid Insertion topic as described in section 4.1:

The ISO should not impose a MOO for the charging of NGR assets.

In the Sixth Revised Straw Proposal, the ISO introduced the concept of a MOO that reflects both the charge and discharge capabilities of resources participating under the NGR model. In comments submitted January 2021, CESA strongly opposed this proposal, noting that it was unnecessary given the existence of management tools (*e.g.,* the end-of-hour state-of-charge (EOH SOC) tool) and market incentives and penalties that generally promote the behavior the ISO advocates for. Today, despite the development of the minimum state-of-charge (MSOC) requirement, yet another tool for the ISO to manage the charging of NGRs, the ISO continues to advocate for a charge-side MOO in the Straw Proposal.

In addition to the existence of other means to manage and ensure the state-of-charge (SOC) of storage assets, the ISO has failed to consider the implications that a charging MOO would have on assets claiming the Investment Tax Credit (ITC). The fact that this issue was highlighted by several parties during the October 12 Stakeholder call should not be lost on the ISO. According to preliminary queue cluster (QC) 14 data published by the ISO on May 20th, 2021, 120 of the 363 projects (~33%) included are battery energy storage systems paired with some form of generation. In terms of total MW at the point of interconnection (POI), 38 GW out of 106 GW (~36%) come from paired assets.[1] The significant commercial interest on these resources demonstrates the urgency to implement policies that align with the economics needed to bring these resources online. Currently, it is unclear if and how the ISO would design this charge-side MOO requirement in a way compliant with ITC considerations. In this context, and given the state of the market and the tools available to both asset owners and the ISO to manage the state-of-charge (SOC) of a storage asset, CESA strongly opposes the ISO's proposal to institute a charging MOO.

If imposed, the ISO should refine its MOO proposal for NGR assets to properly value and acknowledge the nature of resources interconnected under the WDAT

As emphasized above, CESA opposes imposing a MOO for the charging of NGR assets. This is unnecessary and reduces market efficiencies that storage can provide. If and as the MOO proposal is considered though, the ISO should be aware of developments for distribution-connected resources. Specifically, within the MOO proposal for NGRs, the ISO notes that the requirement for the charging range would be applied to NGRs regardless of their point of interconnection.[6] However, unlike the networked transmission system, WDAT-interconnected assets may face charging limitations that are imposed exogenously by the resources' respective utility distribution company (UDC). As more WDAT-interconnected projects have come online, particularly in locations where Southern California Edison (SCE) operates as the UDC, projects have started to receive "paper charging schedules" with conservative charging restrictions that these facilities must abide by, which are developed in accordance with the UDC's N-1 criteria and lack time-based granularity. These restrictions, paired with the ISO's proposal, represent significant access limitations for WDAT-interconnected NGRs. CESA urges the ISO to, *ad minimum,* refine its MOO proposal for WDAT-interconnected NGRs to recognize the nature and value of WDAT resources and allow them more flexibility in their charging requirements by integrating distribution-level information provided by UDCs to inform their MOOs. This could be potentially achieved by leveraging the ISO's authority under Section 4.4.1 of the CAISO Tariff to access all information pertaining the physical state of operation, maintenance, and failure in a UDC' Distribution System to inform the charging potential/limitations of WDAT-interconnected assets.

At the same time, CESA again stresses that MOO for the charging of NGRs is unnecessary and is an element that we oppose. The above is added for important consideration if the ISO does end up moving forward with this element of the proposal.

3. Provide your organization's feedback on the Flexible RA topic as described in section 4.2:

An indefinite period in which resources eligible for imbalance reserves (IR) must bid at $0 will not contribute to market discovery

In the Straw Proposal, the ISO proposes a staged approach to modifying the Flexible (Flex) RA program in alignment with the DAME initiative. This alignment is particularly important considering the

[1] Since the CAISO's Preliminary QC 14 data does not differentiate between hybrid and co-located resources, paired assets is used above in a manner that encompasses both.

ISO's introduction of two new Day-Ahead (DA) products: Reliability Capacity (RC) and Imbalance Reserves (IR). In order to collect information on the operation and performance of DAME products and reform the Flex RA program in turn, the ISO proposes that all resources, whether they be shown as system, local, or flex, that are determined by the CAISO to be eligible to provide IR would be obligated to submit bids for imbalance reserves up and down at $0 to be co-optimized with energy and ancillary services in the integrated forward market.[2] Essentially, the resources that: (1) provide any type of RA; and (2) could be eligible for IR, would be subject to a 24-by-7 IR MOO where they could only bid at $0. Notably, the ISO notes that this provision would commence on Fall 2022 (for RA Year 2023) but could go on until 2025 or 2026. The ISO states that this proposal is designed to maximize the number of bids for IR in order to better understand if tweaks or modifications are necessary prior to full implementation.

CESA opposes this proposal as it does not provide any assurances to asset owners with regards to the duration of this requirement. As a result, this proposal has the potential to disincentivize resources capable of providing IR (*i.e.*, those that are 5- or 15-minute dispatchable) from providing any type of RA. Moreover, this proposal rests on the assumption that a $0 bidding period would allow the ISO to maximize the number of bids and identify issues with the formulation or optimization of the IR product. CESA challenges this assumption, as: (1) the proposal may disincentivize resources from providing any type of RA, limiting the number of bids; (2) $0 bids will not require economic co-optimization, potentially overlooking issues with the modifications the ISO is considering; (3) the lack of economic co-optimization will overlook opportunity costs faced by IR-providing assets; and, (4) the proposal hinges on the timeline of the DAME initiative, which has a schedule that remains "under development".

A $0 IR bid requirement would hinder the economics of storage and paired resources, potentially affecting their deployment

At its core, IR is a product that seeks to find the most cost-effective resources to cover fast and unpredictable variance in the net load. As such, resources that are fast and responsive are poised to serve a significant portion of that need. Both standalone energy storage and paired resources are well-positioned to contribute to the IR needs of the grid. As a result, an obligation to present $0 bids could result in these assets being routinely selected to be reserved in the real-time market to provide IR. Without proper compensation for said reservation and increased milage from being dispatched in the real-time market, the financials for these assets could differ substantially from their initial iterations. The proposal by the ISO thus constitutes a significant threat to the financeability of assets essential to preserve the reliability of the grid.

4. Please provide your organization's feedback on the proposed EIM Governing Body role as described in section 5:

CESA does not offer comment at this time.

5. Please provide your organization's feedback on the Appendix as described in section 7:

CESA does not offer comment at this time.

6. Additional comments on the Resource Adequacy Enhancements phase 2 straw proposal:

[2] Straw Proposal, at 19.

CESA does not offer comment at this time.