



Stakeholder Comments Template

Energy Storage and Distributed Energy Resources Phase 4

This template has been created for submission of stakeholder comments on the Second Revised Straw Proposal and associated March 2 & 3 meeting discussions, for the Energy Storage and Distributed Energy Resources (ESDER) Phase 4 initiative. The paper, stakeholder meeting presentation, and all information related to this initiative is located on the [initiative webpage](#).

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business **March 16, 2020**.

Submitted by	Organization	Date Submitted
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Please provide your organization's general comments on the following issues and answers to specific requests.

1. Demand Response (DR) ELCC Study Preliminary Results

Please provide your organization's feedback on the Effective Load Carrying Capability (ELCC) study preliminary results for DR resources, as discussed during the March 2 (day 1) stakeholder meeting. Please explain your rationale and include examples if applicable. Please also include any additional study results that would be helpful on this topic.

The study was instructive, but Olivine believes that there is still a significant amount of work to be done prior to development of a formal proposal. ELCC is significantly more complicated for DR programs that can have a wide array of operational constraints, technologies, and other variables and limitations than it is for wind or solar. Olivine suggests that any ELCC methodology developed is tested prior to being utilized in formal proceedings. Vetting of ELCC should include third party and CCA programs and pilots in addition to standard utility programs. If CAISO is to undertake or work with E3 on further modeling, Olivine suggests that a template be provided for parties to submit DR program parameters (and potentially load/response profiles) and to the extent possible, a variety of programs and potential programs can be analyzed.

Given the complexity of multiple DR programs and of modeling ELCC, it is likely that this will need significantly more time than is afforded in the current CPUC Track 4 timeline. The results of ELCC modeling should also be publicized to the extent possible to allow for both third parties and LSEs (with potential guidance from the CPUC) design future DR offerings to maximize Resource Adequacy Value. A trial run of ELCC prior to actual usage in RA

valuation could give insight on how ELCC modeling compares to actual resource performance and help to inform helpful modification.

Olivine also is concerned that if ELCC is used in addition to CPUC requirements for Load Impact Protocols, there will be a compounded burden on third-party DRPs. CAISO and the CPUC should work together to ensure that there is a consistent RA evaluation methodology that does not require duplicative effort from third parties in contracting out or developing rigorous statistical analysis for both methodologies. Olivine looks forward to working with CAISO on understanding the implications of ELCC and ensuring a durable valuation for third-party offered Demand Response.

2. **Operational Processes and Must Offer Obligations for Variable-Output DR**

Please provide your organization's feedback on the proposed operational processes and must offer obligations for variable-output DR, as described within the second revised straw proposal. Please explain your rationale and include examples if applicable.

Olivine is generally supportive of CAISO's proposals on operational process improvements.

Regarding Must Offer Obligations, CAISO should work with the CPUC and LSEs to ensure that resource offer obligations are consistent with the intention of contracts or programs, not just physical limitations. Olivine has experienced in the Demand Response Auction Mechanism significant differences between intended program constraints and CAISO expectations on bidding and availability. As a way to ensure that parties are on the same page, CAISO could require attestation by Scheduling Coordinators as part of, or in addition to supply plans on the intended resource bidding. This would clearly document bid hours (24/7 or a specific set of program hours), bid quantity (flat amount or forecast for each hour), market participation (day-ahead only or day-ahead and real-time market), and any other program limitations (such as 4-hours per day, consecutive day limitations, or other such restriction). If RAAIM is still in effect when this proposal is adopted, then the attestation would exempt DR resources from RAAIM if program limits or operational expectations are more restrictive than RAAIM requirements.

3. **End-of-Day State of Charge**

Please provide your organization's feedback on the proposed end-of-day state of charge, as described within the second revised straw proposal. Please explain your rationale and include examples if applicable.

4. **End-of-Hour State of Charge**

Please provide your organization's feedback on the proposed end-of-hour state of charge, as described within the second revised straw proposal. Please explain your rationale and include examples if applicable.

If possible, the end-of-hour state of charge option should be extended to all energy-limited resources. This could enhance the flexibility offered into the market from Demand

Response or from DER Aggregations as well as conventional NGRs. For example, a DR resource with 4 MWh of BTM batteries could get awarded for 3 hours at MW from 5-8 PM in the Day-Ahead market. It may have additional flexibility to offer in the real-time market from 12 PM-5 PM but under current market optimization, submitting real-time bids could risk unavailability from 5-8. If as part of real-time bids, the resource could specify that 3 MWh must be available at the end of each hour from 12-5, it could maintain bidding flexibility and respond to real-time price spikes without risking depletion prior to the day-ahead award hours.

5. Default Energy Bid for Storage Resources

Please provide your organization's feedback on the proposed default energy bid for storage resources, as described within the second revised straw proposal. Please explain your rationale and include examples if applicable.

6. Minimum Charge Requirement

Please provide your organization's feedback for inclusion of the minimum charge parameter in the ESDER initiative, and feedback on presented material at the stakeholder meeting on March 3, 2020.

7. Additional comments

Please offer any other feedback your organization would like to provide from the straw proposal and topics discussed during the web meeting.