California ISO

Stakeholder Comments Template

Energy Storage and Distributed Energy Resources Phase 3

This template has been created for submission of stakeholder comments on the Draft Final Proposal of ESDER 3 that was published on July 11, 2018. The Draft Final Proposal, Stakeholder Meeting presentation, and other information related to this initiative may be found on the initiative webpage at: ESDER Webpage

Upon completion of this template, please submit it to initiativecomments@caiso.com.

Submissions are requested by close of business on **July 27, 2018.**

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following issues and questions.

1. **Bidding and real-time dispatch options for Demand Response**

Please state your organization's position as described in the Draft Final Proposal: (Support, support with caveats or oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

Support

Olivine supports the introduction of new bidding options and is especially encouraged to see the option of hourly block bid resources to be excluded from the RUC process. We note that this would remove real-time bid obligations for any PDR with a start-up time of 300 minutes or greater, which would be very helpful in aligning ISO DR rules with CPUC DR programs.

2. **Removal of the single load serving entity aggregation requirement and the application of a default load adjustment**

Please state your organization's position as described in the Draft Final Proposal: (Support, support with caveats or oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

Support

3. **Load shift product for behind the meter storage**

Please state your organization's position as described in the Draft Final Proposal: (Support, support with caveats or oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

Support with caveats.

Olivine supports generally the proposal to allow for load consumption to be recognized for demand response. However, we remain concerned about several issues which we believe are significant enough that they should be reconsidered in advance of actual implementation:

1. We are not convinced that the complexity of 15-minute baselines is worth it given that they are not likely to be a significantly more accurate estimate of what the battery discharge would be during that period in the absence of the event. The usage of 15-minute intervals means that in a 4-hour event, there may be as many as 16 different baselines that need to be calculated if there were previously 15-minute dispatches throughout the event period on the historical lookback days. For example, if there is a curtailment event from 5 PM to 9 PM, every interval from 5 PM to 9 PM will have its own 10 in 10 baseline. Real-time dispatches throughout this period in response to 5 or 15-minute price spikes are plausible, but not likely to occur frequently enough to prevent calculation an hourly 10 in 10 baseline.
2. We also are concerned over the different calculation methodologies for the load curtailment versus load consumption baseline, especially given that this could lead to two different baseline calculations for the same interval. Local transmission constraints could cause either price spikes or localized negative prices for the same hour. While this situation may be rare, it does call into question the artificial ceiling of 0 MW baseline for consumption and floor of a 0 MW baseline for curtailment. We recognize that in general, CAISO doesn't want to encourage charging during typically higher-price periods or to encourage discharging during lower-price periods, but this behavior is already possible today with conventional DR. Retail rates should be designed to ensure that batteries are not typically being used in a counterproductive manner, but this is an LRA, not a CAISO concern.
3. Another complication the PDR-LSR product as designed today is the potential for both resources to be dispatched in the same interval. One could be called on for a day-ahead award while the other is called on in real-time. For example, there could be a load-consumption day-ahead award that is scheduled into the real-time

market. In real-time, there is a price spike and there is a real-time curtailment dispatch. A possible remedy to this would be to require a real-time incremental/decremental bid for any day-ahead award. This would ensure that only one of curtailment/consumption resources has a nonzero real-time expected energy. This issue points our Olivine's general reservation with taking a single physical resource and splitting it into two independent resource IDs. We believe this will create problems in implementation in the short and long term.

Measurement of behind the meter electric vehicle supply equipment (EVSE) load curtailment

Please state your organization's position as described in the Draft Final Proposal: (Support, support with caveats or oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

Support with caveats.

Olivine does not agree that EVSEs should be given special treatment over other end-uses made an exception of when it comes to sub-metering. That said, Olivine supports the inclusion of EVSE load curtailment with the expectation that this will open the door to other sub-metering.

Olivine continues to have reservations on the implementation, and so would like clarification and consistency with MGO as it exists today. As we understand, EV charging will utilize a highest 5 in 10 non-event hour baseline for residential charging stations, similar to how it is calculated for non-sub-metered devices. Consider the following example of baseline charging over the last 10 non-event hours use to calculate the baseline for a 1 Hour Event:

Day	1	2	3	4	5	6	7	8	9	10
Load (kW)	140	170	150	144	185	165	144	107	156	146

The highlighted hours are the 5 highest load hours, and give an average charging load of 165.2 kW. The average over the whole period is 150.7 kW. Simply by virtue of being a residential aggregation, one can get an additional 14.5 kW credit for demand response performance even if the typical charging load and adjusted charging load are exactly the same. Residential DR utilizes a 5 in 10 methodology largely to accommodate the extreme weather dependence of residential loads, but as stated in the draft final proposal, there is no weather dependence for EV charging. If a 5 in 10 residential baseline is deemed suitable for residential EV DR performance measurement, it would also seem to follow that this should be extended for MGO for residential storage devices that are participating as demand response.

Another issue we would like to see clarified for EVSE DR is whether aggregations can be formulated using EVs as well as other technologies. Can EVSE combine with MGO

and/or load curtailment for a single resource with 2-3 different performance methodologies?

4. Additional comments

Please offer any other feedback your organization would like to provide on the Draft Final Proposal