

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your written comments on the ESDER Phase 3 stakeholder initiative workshop held on January 16, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due January 26, 2018 by 5:00pm

The CAISO held a stakeholder workshop to find consensus on the issues and identify additional topics for ESDER 3. The presentation and all supporting documents can be found on the [ESDER 3](#) webpage.

Important: The CAISO requests stakeholders comment on the current list of priorities presented at the January 16, 2018 workshop. Based on the list below, high priority items (green) are considered in scope, low priority items (yellow) will be evaluated based on stakeholder comments and CAISO resource sufficiency, and no consideration items (red) will not be included in the ESDER 3 scope. **Note that some items have been rewritten for clarification.**

List of potential scope (DR, MUA, and NGR combined)

- ◆ **Demand response modeling limitations** – Resolving the issue of RUC that leads to infeasible 5-minute dispatches and minimum/maximum run time constraint recognition.

- ◆ **Variable demand response (weather sensitive)** – Exploring bidding options that reflect the variability of DR.
- ◆ **Removing the single LSE requirement/ DLA discussion** – Remove the requirement of a single LSE for DR with a subsequent discussion on if the DLA will need to be modified.
- ◆ **Load shift product** - Development of load shift capability with a consideration of additional technologies than just behind the meter storage.
- ◆ **Comprehensive review of MUA impacts** – Review of potential tariff changes in accordance with CPUC’s ruling/ working groups (including 24x7 participation requirement impact analysis).
- ◆ **Recognition of a behind the meter resource in load curtailment** – Extending the meter generator output (MGO) model to EVSEs.
- ◆ **Use-limitation status for NGRs** – Exploring the option to allow NGRs to qualify as a use-limited resource.
 - What constitutes use-limited status for NGR resources (i.e. batteries)?
- ◆ **Bidding Costs** – What bidding costs need to be captured for NGRs? (i.e. cost based offers)
- ◆ **Establishing throughput limitations** – Creating bidding options to manage excessive cycling of NGRs.
- ◆ **Management of State of Charge (SOC)** – Considering options for the management of SOC such as a multi-stacked ancillary service bid.
- ◆ **Recognition of a behind the meter resource in load curtailment** – Extending the meter generator output (MGO) model to sub-meter and develop individual baselines to all other individual load types.
- ◆ **PDR/RDRR hybrid resource** – Exploring how a DR resource that can be economic (PDR) for a limited amount and can transfer to become an RDRR.
- ◆ **Continued discussion on use-cases for MUA** – Determining participation models for new technologies such as micro-grids through use-case scenarios.

Comments:

Olivine appreciates the effort and progress that the CAISO has made to define the scope of ESDER Phase 3 and the opportunity to provide additional input. Generally Olivine supports the priorities as currently laid out by the CAISO at the January workshop. In particular, two of the high priority items, Demand Response Modelling Limitations and Removal of Single LSE Requirement (inclusive of elimination of the DLA) are known to have significant impacts on current market participation and market outcomes and should remain as high priority items. Olivine realizes that there is considerable pressure to also include a Load Shift Product and supports that as a priority but does have some concerns that the concept of validating an actual shift will impose considerable complexity in the further development of the proposal. Lastly,

we hope that the extension of the behind the meter MGO measurement to all BTM technologies can be seriously considered as a high priority. The implementation would impose no development effort on the CAISO's part and there are current pilots underway that could be considered for market participation if MGO were extended to all BTM technologies.

In the Other comments section below, we provide some elaboration and justification for our current position.

Other comments

Please provide any additional comments not associated with the topics above.

Comments:

Demand Response Modelling Limitations

The observation that numerous infeasible dispatches occur as a result of the Residual Unit Commitment when applied to Long Start PDRs is well documented and as more DR enters the supply side the potential to skew market results will only increase. An obvious and potentially easy solution is to eliminate RUC requirement for long-start PDRs. This is an easy solution to infeasible dispatches for what should be considered IFM-only resources. If the CAISO wants to take a different tack with respect to Day Ahead DR providing RA they need to coordinate with the CPUC. Otherwise, there is no operational benefit to including IFM-only resources in the RUC process at all.

Removing the Single LSE Requirement

As previously stated by Olivine the single LSE requirement and the DLA are separable issues. Removal of the single LSE requirement for PDRs and RDRRs means less "churn" in the DRRS process especially due to the recent (and ongoing) activity with Community Choice Aggregation migration. Further, it addresses some issues with smaller aggregations that can be resolved by commingling LSEs. For the separate issue of eliminating the DLA, the preliminary data compiled by the CAISO seems to indicate the cost of administering the DLA might outweigh its value. The full analysis will better inform a final decision which should also be considered in the context of the total metered load served by an LSE and how it compares to known (and accepted) metering error.

It is critical that removing this requirement and, if possible, the DLA, must be kept separate from the existing process of the LSE to validate customer locations; that process must survive this enhancement.

Load Shift Product

Olivine is sympathetic to the potential optics of a load shift product being abused and encouraging energy consumption that would have otherwise not occurred. The current position that a load shift product must include a verification that deferred consumption would have to be validated in a different timeframe adds an element to settlement that has never been undertaken by the CAISO. Imposing such a requirement is likely to burden any development effort significantly and extend the time required to bring the product to market. Olivine's position is that the logistics required for a load (outside of battery storage and potentially ESVE) to register as a PDR make it unlikely that the load shift product would be abused. Further, there may be the cases where loads that have multiple fuel sources (e.g. fossil and electricity) could take advantage of favorable pricing resulting from excess supply and reduce overall GHG.

Extending MGO to ESVEs

It isn't clear to Olivine why extending MGO to loads should be limited to ESVE. The processes by which data is collected and aggregated for other BTM resources implementing MGO would be no different than that for EVSEs than other loads, just as for storage. Extending MGO to other BTM technologies doesn't require any software changes by the CAISO to implement. Further, with the shift to direct submittal of event performance by the SC/DRP when the DRS is decommissioned, the SC submitting meter data is required to attest to the veracity their processes through the meter self-audit providing the CAISO with assurance that best practices are being followed.