

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:

SCE thanks the CAISO for hosting the meeting. SCE also thanks Stem, Powin Energy, and PG&E for presenting at the meeting. Finally, SCE thanks the remaining participants for their discussions.

General comments:

SCE generally supports the CAISO's proposed scope priorities outlined in the workshop. As an operator of DR, Storage, and DR with Storage, SCE has had the experiences shared by many market participants. There were many important issues brought up at the meeting and they should be addressed within their appropriate venues. Some are issues that can be addressed through bidding and contracting under existing market mechanisms. Other issues included operational problems that impact all resources and should be part of a broader policy initiative.

SCE agrees with the CAISO that some of the issues raised at the meeting typically apply to all resources, not just Storage or DR, and thus are not appropriate for scoping within ESDER.

Comments on Presentations:

STEM presentation – SCE is supportive of starting with a simpler product as a starting point. The initial approach should be technology agnostic and start with directly metered resources. This is an opportunity to be addressed under the CPUC’s Load Shift Working Group, and SCE encourages the CAISO to collaborate closely with the CPUC with this regard. As in its prior comments¹, SCE cautions against the double compensation issue and notes that retail rate design needs to be addressed by the CPUC.

CES/Powin Energy presentation – CES and Powin raised a number of issues they experienced operating a storage resource in the CAISO market during the past year. Specifically, they outlined issues dealing with infeasible Automatic Generation Control (AGC) dispatches and the Pay for Performance accuracy metric. SCE has experienced these and other related issues, not just for storage resources, but across its portfolio of dispatchable generation resources. These dispatch issues seem to be largely operational and should be addressed with the CAISO operations team. If there is a policy initiative devoted to these issues, such as infeasible AGC dispatch, it should consider the impact to all resource types.

SCE also agrees that there are flaws in the way regulation accuracy is being measured, and the problems need to be addressed. However, that should be out of scope for ESDER and should be addressed through a revised Pay for Performance initiative as it concerns all resources, not just storage.

PG&E presentation – SCE generally agrees with the main takeaways from PG&E’s presentation. While throughput cannot be perfectly managed within a day, it can be managed over a longer time horizon. In addition, there are sufficient market mechanisms to manage throughput limitations through bidding and contracting. However, SCE is open to more discussion about how energy storage resources can provide more market flexibility. Further, while SCE agrees with PG&E that most distribution-connected assets can be handled with static constraints, eventually there should be work toward dynamic updating of constraints. This would provide the CAISO with more flexibility and accuracy in Real Time.

Specific to items listed by the CAISO:

SCE supports the CAISO’s efforts on prioritizing DR concerns, and especially on the high prioritization of the top two DR integration issues (DR modelling issues and weather-sensitive DR treatment). As acknowledged at the workshop, improvements to the weather-sensitive DR

¹ Page 3 <http://www.aiso.com/Documents/SCComments-EnergyStorageandDistributedEnergyResourcesPhase3-IssuePaper.pdf>

treatment should be done in conjunction with the related CPUC proceedings (e.g. RA OIR) and working groups, so that both the RA counting and the market rules (e.g. Must Offer Obligation requirements) are developed in sync, accurately representing the reliability value of these resources. SCE also supports the CAISO continuing to work on the PDR/RDRR hybrid resource topic, whether within ESDER or in other venues. Addressing this issue could make an additional 300-400 MW of flexibility available to the CAISO, which would further help with renewable integration and other grid needs.

SCE fully supports the effort to remove the single LSE requirement, and is looking forward to exploring solutions to addressing it. SCE thanks the CAISO for providing the partial analysis of financial impact based on the frequency and magnitude of the default load adjustment (DLA) application for the months of June and December of 2017. SCE looks forward to the complete analysis before it can make any determination on appropriate future treatment of the DLA. SCE also asks the CAISO and the stakeholders to be open to exploring several options to achieve this goal, and further enable market integration of Distributed Energy Resources, including DR.