

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 November 6, 2017.

Submit comments to initiativecomments@CAISO.com

Comments are due November 20, 2017 by 5:00pm Pacific

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 [ESDER3](#) webpage. **Additionally, the CAISO is considering a December 7, 2017 workshop, if needed.** Please save the date and look out for all relevant market notices.

Important: As mentioned at the November 6, 2017 workshop, the CAISO requests that stakeholders take into consideration their top priority for ESDER 3 when writing in support for a topic.

1. Demand Response

The CAISO requests stakeholders' rank and provide their justification for the following topics:

-) **Demand response modeling limitations** - Establish a methodology that could be used to develop acceptable commitment costs.

-) **Demand response modeling limitations** - Evaluate current resource constraint options and propose solutions utilizing current or establishing new model options (including min/max run time) to appropriately represent resource capabilities and resolve issue leading to infeasible 5-minute dispatches when committed in RUC.
-) **Demand response modeling limitations** - Explore development of an option similar to Intertie bidding, introduced at the October 4 Joint ISO and CPUC workshop
-) **Weather sensitive demand response** - Explore bidding/model options (similar to VERS) that could be utilized to reflect weather sensitive DR. Include changes needed in NQC valuation, MOO and RAAIM.
-) **Removing the single LSE requirement/ DLA discussion** - Remove the requirement of a single LSE for DR and modify use of default load adjustment (DLA)
-) **RDRR economic buy-back of day-ahead awards for Hybrid RDRRs** - ISO prefers to pursue capabilities available with PDR outside of ESDER3.
-) **Recognition of a behind the meter resource in load curtailment** - Extend the meter generator output (MGO) model to EVSEs and evaluate its applicability to other devices.
-) **Load shift product** - Develop a load shift capability for behind the meter storage. (Currently an ESDER3 priority)
-) **Load shift product** - Evaluate all applicable load for extension of the use of a load shift product.
-) **Additional topics** - *Outside of the topics listed above, please include additional topics for consideration.*

Comments:

The Joint Demand Response Parties support the breadth of Demand Response issues being raised in ESDER Phase 3, and recognize that prioritization must occur to make meaningful progress. In the spirit of narrowing the issues for this Phase we believe there are three issues (two currently proposed, one additional) that are require resolution now if Demand Response is to be meaningfully participate in CAISO markets. The JDRP strongly prioritize these items.

-) **Removing the single LSE requirement/ DLA discussion** - Remove the requirement of a single LSE for DR and modify use of default load adjustment (DLA)

Market Design must accommodate broader aggregations of DERs to avoid an inherent bias in favor of some resources over others. There are two methods that support this, as the JDRP have previously noted: 1) allow aggregations across subLAPs or 2) relax the one LSE per aggregation requirement. There is a proliferation of new LSEs with the addition of CCAs into the California markets. These additional CCAs coupled with the existing variety of LSEs

puts pressure on aggregation size within a DRPs portfolio – causing smaller and smaller resources per DRP to accommodate the single LSE requirement. These increasingly small resources are naturally less diverse and thus have the potential to become less reliable. The very nature of an aggregation is not only to bring together a large number of small resources, but to also allow for a regression toward the mean, this diversity creates additional resiliency for the system. As we integrate ALL dispatchable DR into the CAISO markets in 2018 in order to retain RA capacity value – it is critical that DR providers are able to create meaningfully diverse aggregations.

-) **Weather sensitive demand response** - Explore bidding/model options (similar to VERS) that could be utilized to reflect weather sensitive DR. Include changes needed in NQC valuation, MOO and RAIM.

It is important to recognize that similar to wind and solar, the PMax of some DR resources can vary with weather. Weather sensitive loads drive system peaks and so it is logical to find a solution that recognizes and values the unique characteristics of the resource in the design of the market. This insures that aggregations of loads (e.g. residential HVAC) are compensated appropriately and fairly, and that the CAISO has visibility into the true capacity available, when it is most needed. While we recognize that these resources are variable, it should be stressed that they are also flexible, reliable and predictable. Additionally, while these resources may have a PMax that varies, the highest available PMax has a very strong correlation to when the grid needs the resource the most – ie, while the resource does not always have the same absolute MW availability, it's relative availability matches times of high grid needs. We need a better way to value this resource.

) **Modeling Limitations-**

The Joint DR Parties do think that the current modeling system limitations have imposed challenges to the accurate and proper characterizations of DR resources in the CAISO systems. There is not a rational and universally acceptable method to address commitment costs which leads to potentially infeasible dispatches as well as an under and overstating of DR capabilities and values in various scenarios. This is an area that we feel needs to be addressed and think would be an appropriate issue for this ESDER Phase, but is a slightly lower priority vis a vi the other topics which require rapid resolution.

) **Load Shift**

The Joint DR Parties support exploration of load shift for periods when there is excess supply. This service should not be limited only to storage resources.

Additional topics - Outside of the topics listed above, please include additional topics for consideration.

Registration Issues: There are some outstanding registration issues that should be addressed in order to “prioritize issues related to the integration...of DERs in the CAISO market.” As larger volumes of diverse technologies are integrated into the market, we will see more and more overlap of customer registrations submitted by DRPs/SCs. At the moment, there is no way to resolve this overlap and no easy way for customers to move from one provider to another. In fact, providers may register their customers until the last available date in the CAISO system, without knowing whether a customer will remain with their service for 10+ years. In some markets, providers register their customers on a yearly or seasonal basis, in way that matches their bid and the provider of record is the one that submits their customer first. While we are not suggesting that process be copied at CAISO, certainly a mediation process to ensure customers are in fact in the aggregation of their choosing is in order. If this belongs in another Stakeholder process, the JDRP would appreciate being pointed in the appropriate direction.

Lastly, as it relates to the Joint EV Parties proposal to allow submetering for EV resources, while the Joint DR Parties do not include in our top priorities, to the extent that this issue area is prioritized we strongly recommend that any look at extending the meter generator output (MGO) model include all potential resources and not solely focus on one DER resource such as EVs.

2. Multiple-Use Applications

-) **Relaxation of the 24x7 settlement requirement of DERs** - Create option for NGRs to opt out of ISO market participation and settlement in some intervals in order to provide services to other entities.
-) **Continued discussion on use-cases for MUA** - Determining participation models for new technologies such as micro-grids through use-case scenarios.
-) **Additional topics** - *Outside of the topics listed above, please include additional topics for consideration.*

Comments:

No comments at this time.

3. Non-Generator Resource

-) **Use-limitation status for NGRs** Explore option to allow NGRs to qualify as a use-limited resource.
-) **Establishing throughput limitations** - Create 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.
-) **Additional topics** - *Outside of the topics listed above, please include additional topics for consideration.*

Comments:

No Comments at this time.

4. Other comments

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

Comments:

No Comments at this time.