



Comments of the California Energy Storage Alliance (CESA)
on
CAISO ESDER 3 Issue Paper

Submitted by	Company	Date Submitted
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CESA appreciates the opportunity to comment on the Energy Storage and Distributed Energy Resources (ESDER) Phase 3 Issue Paper.¹

ESDER remains a critically important stakeholder initiative to the Energy Storage industry. Key goals for ESDER 3 should include: enhancing the NGR model, developing and authorizing a load-shift product, and structuring a participation pathway for energy storage on wheels (V1G) by enabling sub-metering of electric vehicle service equipment (EVSEs).

What should be in scope for ESDER 3?

While CESA supports inquiry into other matters, the importance and prioritization of the above issues cannot be minimized. As such, CESA strongly recommends the CAISO remove issues from the ESDER 3 scope that are likely to require substantial time, have limited market affects near-term, or that do not reasonably require changes to the CAISO markets due to various factors.

Based on this, CESA recommends the final scope of ESDER 3 include the following:

¹ <http://www.caiso.com/Documents/IssuePaper-EnergyStorageandDistributedEnergyResourcesPhase3.pdf>

- NGR – Enhancements for managing State of Charge of resources
- NGR – Enhancements for managing throughput
- NGR – Authorizing use-limited status
- NGR and PDR – Creating a ‘field’ for commitment costs. The rules for qualifying costs could be determined in this initiative or in another initiative, if appropriate.
- MUA for NGR – less than 24 hour participation
- Load Shift – developing and authorizing this participation path
- PDR – Recognition of Behind-the-Meter EVSE load curtailment
- If doable given the above scope, consideration of DR Resource design constraints and Aggregation rules.

What not to include in ESDER 3?

ESDER 3 is nicely situated to address key energy and Ancillary Services markets participation pathway improvements – it is not a place to ‘fix’ RA counting rules, or to pilot niche market concepts at this time. As such, the CAISO should not undertake efforts that could reduce the ability to finalize the above enhancements. CESA recommend the CAISO explicitly exclude: RA-related ‘counting’ calculations for resources, investigations into Microgrids, which appear to warrant a separate effort due to the many considerations of this niche need, and the RDRR buy-back matter which seems to have a logical basis for keeping the rules as they current are structured.

Responses to CAISO Comments Template

1. Please provide comments on whether your organization supports or opposes the Demand Response proposal item, as well as the reasons why.

CESA Response:

Based on the list on slide 7 of the CAISO ESDER 3 Issue Paper Meeting², CESA strongly supports the inclusion of items 6, and 8. To some degree, some aspects of item 7 have been subsumed by item 8. These items represent key priority areas where participation pathways do not reasonably or workably exist (#8) or maximize participation for critically important resources (#6). As such, these areas should be highly prioritized.

² http://www.caiso.com/Documents/AgendaandPresentation-EnergyStorage-DistributedEnergyResourcesPhase3-Oct12_2017.pdf

Regarding #6 (EVSE load curtailment), the existing Metering Generator Output Methodology is highly applicable; therefore, the effort required by Staff and stakeholders to examine this topic could be significantly less than some others in the issues list.

If doable and without taking away from other priorities, CESA also supports efforts to focus on items 1, 3, 4, and the regulation-aspect of item 7.

CESA believes the CAISO should not address items 2 and 5 which may be better suited for resolution in a capacity counting initiative (Item 2), or where reasons logically suggest no enhancements are needed (Item 5).

2. Please provide comments on whether your organization supports or opposes the Multiple-Use Applications proposal item, as well as the reasons why.

CESA Response:

CESA strongly suggests the CAISO fix the DERP participation pathway by authorizing a less-than-24-hour participation rule for the NGR model. This restriction basically makes the DERP model unusable for most or all would-be market participants. In the spirit of allowing participation from available and market competitors, fixing the DERP model should be a higher priority.

This enhancement may also support the efforts to develop a load-shift product, in the instance where the load shift product uses the NGR DERP model. This synergistic effect makes the less than 24-hour participation rule for NGRs even more appropriate for ESDER 3.

CESA believes the Microgrid matter is likely not appropriate for scope in ESDER 3. This matter seems to require a serious consideration of why and how Microgrids should be authorized to the point where a separate initiative should be used. Such an effort may be appropriate if material numbers of microgrids exist and can provide competition and liquidity to CAISO markets. CESA recommends the use of the CAISO Market Design Catalog to rank and assess if this issue is worth prioritizing. CESA requests it be removed from the ESDER 3 scope.

3. Please provide comments on whether your organization supports or opposes the Non-Generator Resource proposal item, as well as the reasons why.

CESA Response:

NGR enhancements are very important. Not only is this participation pathway in use today, but its usage will increase in the coming years due to the known and growing levels of energy storage.

Key NGR fixes should include:

- Managing State of Charge – this is important and some ideas already exist for how to do this. While the NGR model is a promising model, these improvements are necessary for the reasonable operation of storage resources competing in CAISO markets
- Managing throughput – this is a critical element of operations for energy storage resources. CESA generally defines throughput as the cycling and MWh ‘mileage’ dispatched from a storage resource. These resources need tools for managing how much ‘throughput’ occurs in a given interval. Such tools have been discussed previously, and may include through-put limitation fields, ramp-rate fields, or other solutions.
- Reflecting Costs – the NGR model does not have a field for inputting commitment costs. While these costs should be determined to fit with CAISO commitment cost structures, a key need for now is to include a field for inputting such costs. This applies to both the PDR and NGR models.
- Establishing use-limited status – ESDER is the primary initiative for evaluating the functioning and reasoning of CAISO participation tools for energy storage. As such, this initiative should direct that energy storage can qualify as use-limited resources which can take use-limited outages where appropriate. This requires very little systems changes, as CESA understands it, yet is important clarification for understanding and reasonably approaching CAISO market participation
- Detailing RAAIM calculations for energy storage on the NGR model – The CAISO should detail how RAAIM calculations work for NGR energy storage resources. As CESA understands it, no examples exist on how RAAIM applies to NGRs. Since NGRs can conceivably have a flex capacity level greater than their system capacity level, or can have load consuming bids, the calculation structures for RAAIM need clarification. To do this, expertise is needed in the NGR model as well as a familiarity with energy storage participation structures. As such, CESA requests consideration of this matter in ESDER 3.