

COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE:

Energy Storage and Distributed Energy Resources Enhancements

Phase 2 Issue Paper

Submitted by	Company	Date Submitted
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The California Energy Storage Alliance (CESA)¹ offers these comments on the California Independent System Operator’s (CAISO) Energy Storage and Distributed Energy Resources (ESDER) Initiative’s Issue Paper.² CESA also provides select responses to the Comments Response Template below.

The Issue Paper scopes the ESDER Phase 2 initiative and includes further enhancements to the Non-Generator Resources (NRG) model, further Proxy Demand Resource (PDR) enhancements, a focus on the distinction between auxiliary loads and station power and or wholesale charging energy, further focus on Multiple Use Applications (MUAs), and consideration of different Transmission Access Charge allocations for Distributed Energy Resources (DERs), also known as the Clean Coalition Proposal.

CESA supports this scope but recommends the CAISO include the concept of NGR metering for less-than-twenty-four hour periods. Such a metering arrangement fits clearly with the concept of MUAs which are in scope, as well as with the topics of NGR enhancements and performance measurement concepts to be further explored for PDRs. To highlight the relevance of establishing rules for less-than-twenty-four hour NGRs, CESA recently presented to the Aliso Canyon Joint-Agency Task Force on the idea of deployments of energy storage as transmission. Such installations may provide reliability-directed transmission service, but could also provide merchant services when not needed as transmission. Metering configurations for NGR could become critical path to the deployment of such resource approaches, and therefore should be in scope now.

CESA also supports the plan to use working groups for PDR alternative baseline considerations. Working groups provide valuable collaboration opportunities where issues are approached at a deeper technical level than is normally possible in some stakeholder meetings. The CAISO should include CESA a part of any working group activities related to ESDER.

¹ The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>)

²<http://www.caiso.com/Documents/IssuePaper-EnergyStorageandDistributedEnergyResourcesPhase2.pdf>

Comments Response Template – CESA Responses

Please find CESA’s responses below.

NGR enhancements

The CAISO is proposing to explore two possible areas of NGR enhancement: (1) representing use limitations in the NGR model, and (2) representing multiple configurations in the NGR model.

The CAISO is requesting stakeholders provide comments and consider the following:

- Are these two possible areas of NGR enhancement the highest priority NGR enhancements to pursue in ESDER Phase 2?

CESA Comment: These topics seem relevant and appropriate for ESDER Phase 2.

- Are there other areas of NGR enhancement that are of higher priority that should be pursued instead? If yes, which ISO-proposed NGR enhancement should be omitted from the scope?

CESA Comment: CESA believes the concept of ‘less than twenty-four hour a day metering for NGR resources’ is a priority and should be in-scope. As discussed above, this functionality is key to NGR resources acting in MUAs, including in potential transmission applications which may be related to Aliso Canyon solutions.

- Please provide examples of use cases that support the NGR enhancements you view are of the highest priority and should be pursued in ESDER Phase 2.

CESA Comment: The CAISO may wish to consider expanding the scope or removing other non-NGR items from scope. CESA understands the Clean Coalition Proposal focuses more on TAC allocation and less on participation rules for energy storage and distributed energy resources. Such a proposal may better fit with a TAC allocation discussion.

Demand response enhancements

The CAISO is proposing to explore two possible areas of demand response enhancement: (1) Exploring the ability for PDR to be dispatched to both curtail and increase load, and provide

regulation service; and (2) developing alternative baselines to assess the performance of PDR and RDRR.

The CAISO is requesting stakeholders provide comments on these two areas of enhancement and consider the following:

Demand response enhancement topic area #1 – Ability for PDR to both curtail and consume energy:

- What issues does this working group need to address and resolve to enable load consumption capability? For example:
 - How would financial settlements work given wholesale bids cause an increase in retail consumption and demand?
 - What does consumption mean? Is consumption when a load exceeds its “normal” maximum consumption at certain times or under certain conditions?
 - What are appropriate baselines/Performance Evaluation Methods?
 - Is there any differences if load consumption results from a BTM device versus true load consumption?
 - Retail and wholesale impacts of over or under performance?
 - CAISO Grid Management Charges for load consumption?
- Are any state policies impacted by wholesale-directed retail load consumption?
- Suggest a proposed schedule and milestones for working group to deliver a Draft Final Proposal by September 8, 2016 (use the stakeholder process schedule on pages 22-23 of the March 22 Issue Paper as a guide).

Comments:

CESA Comment: the CAISO should launch its Working Group topic on these matters quickly. This process should use the following steps and the following assumptions. Potential dates are italicized:

- 1) Establish representative examples of cases where PDRs provide increased load and net load to the system. (*April-May 2016*)
- 2) Develop backgrounders on existing rules and regulations for these situations of energy storage and distributed energy resources. (*April-May 2016*)
- 3) Assess metering challenges and policy issues/implications for these examples. (*April-May 2016*)
- 4) Develop solutions. (*May-June 2016*)
- 5) Feed Working Group Findings into ESDER Phase 2 Proposal (*May-July 2016 depending on timing of proposal releases*)

Assumptions should include that:

- a) Additional resources competing in the CAISO improves efficiency and adds to liquidity
- b) Resources should be reasonably compensated for incremental/directed dispatches not otherwise/already priced or reflected in the market.

Demand response enhancement topic area #2 – Alternative baselines to assess the performance of PDR/RDRR:

- What baseline methods should the CAISO add and why?
- If a performance method is recommended that requires a control group, how would third parties be able to cost-effectively set-up and operate control groups? Are there services the UDC could provide in this area?
- What tools and capabilities will the CAISO require to assess best fit for different types of PDR aggregations?
- Suggest a proposed schedule and milestones for working group to deliver a Draft Final Proposal by September 8, 2016 (use the stakeholder process schedule on pages 22-23 of the March 22 Issue Paper as a guide).

Comments:

CESA Comment: given the overlap in expertise with this topic and the other PDR topic, Working Group efforts should be consolidated.

Multiple-use applications

To avoid redundant and potentially divergent efforts the CAISO will initially address this topic by participating in the CPUC Order Instituting Rulemaking (R.) 15-03-011, Track 2. The CPUC and CAISO are planning to hold a joint workshop May 2-3, 2016. If the CPUC proceeding identifies issues that should be addressed in a CAISO initiative, or develops proposals the CAISO should consider formally adopting, the CAISO can open a new initiative or expand ESDER Phase 2.

The CAISO is requesting stakeholders provide comments on this topic area as well as this proposed approach.

Comments:

CESA Comment: CESA supports this approach but also recommends the CAISO emphasize the following key concepts:

- Price signals and payments/incentives should promote market participation in useful ways.
- Multiple use applications can allow better utilizations of resources while promoting more market efficiency and liquidity.
- Rules that restrict operations of resources when out of the market or the market's contractual requirements, or that unreasonably subject resources to costs or ramifications beyond those of other resources may amount to discrimination and should be avoided.

These principles and concepts should improve the efficiency of the stakeholder process by limiting the range of discussion to focus on market-related and principled concepts.

Distinction between charging energy and station power

Under this topic the CAISO intends to resolve the distinction between wholesale charging energy and station power. Although this is also a topic in Track 2 of the CPUC's energy storage proceeding, station power is specifically addressed in the CAISO tariff and the CAISO will primarily address this issue in ESDER Phase 2. However, because the question of station power is inherently jurisdictional, the CAISO intends to also contribute to this topic in Track 2 of the CPUC's energy storage proceeding as may be necessary. In doing so the CAISO will seek to economize its staffing resources where possible and avoid redundant efforts, and will also seek to avoid the conflicts that have arisen in the past over the wholesale/retail line.

The CAISO is requesting stakeholders provide comments on this proposed approach as well as respond to the following questions:

- Should the CAISO modify its definition of [station power](#) to better accommodate energy storage resources?

CESA Comment: Yes. Energy storage resources will be a key resource category in California and beyond. ESDER is the appropriate initiative to consider how station power rules can place energy storage resources on equal footing with conventional resources. This issue is critical to some energy storage applications and should be resolved soon.

- Should battery temperature regulation be considered part of charging (similar to efficiency loss) and subject to a wholesale rate, or should it be considered consumption/station power subject to a retail rate (where consumption exceeds output in an interval)?

CESA Comment: Similar to the operations of pumps for a Combined Cycle Gas Plant, thermal regulation for energy storage resources is an essential part of the resource's operations. Accordingly, it should be subject to wholesale rates in the form of

permitted netting from the output of a storage system during operation across a reasonable period of time, in the same way that contemporaneous station load is netted from output at any other type of power plant. Thermal Regulation, the uses of pumps, and other station power loads that are required aspects of operating an energy storage resource. Accordingly, these loads should be netted from system output at the delivery point, and treated as wholesale. For establishing commitment costs, these loads should be calculated at wholesale rates.

- Are there any means besides separately metering the storage device by which the CAISO should distinguish between charging and station power?

CESA Comment: Yes. As a preliminary recommendation, the CAISO should direct a division between wholesale charging/Station Power and Auxiliary Loads. Auxiliary loads can be metered separately, rendering the remainder of loads as wholesale. Details apply, but this general configuration can be expressed in the CAISO Tariff. Business Practice Manual (BPM) rules can detail allowable configurations or metering arrangements for distinguishing Auxiliary Loads from Station Power and Wholesale Charging loads.

Review allocation of transmission access charge to load served by DER

The CAISO is proposing to review the rules for determining load subject to the transmission access charge (TAC) to reflect the effects of utility-side distributed generation, as proposed by Clean Coalition.

The CAISO is requesting stakeholders provide comments on this topic area. In particular, please comment on the three concerns the CAISO raised in the issue paper, and if possible offer examples to help illuminate these concerns.

1. Transmission investment is mainly driven by peak load conditions, which may not be reduced by adding distributed generation (DG).
2. New DG does not offset the cost of transmission that was previously approved and is currently in service.
3. Exempting some load from TAC charges would not decrease PTO revenue requirements, so some costs would be shifted to other customers.

Comments:

CESA Comment: No comment at this time.