

Comments of



on CAISO ESDER 3 Issues Paper

Submitted by	Company	Date Submitted
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eMotorWerks appreciates the opportunity to provide feedback to CAISO Staff on the issues presented in the Energy Storage and Distributed Energy Resources (ESDER) Phase 3 Issue Paper. eMotorWerks has contributed to ESDER initiatives previously and intends to actively engage with Staff and stakeholders on ESDER 3 in scope issues that affect its core business.

1. Please provide comments on whether your organization supports or opposes the Demand Response proposal item, as well as the reasons why.
 1. Demand response modeling limitations: Demand Response Providers (DRPs) have identified numerous shortcomings of the PDR model related to Residual Unit Commitment and Real-Time Market participation. Certain fixes were proposed within the CAISO's Commitment Costs and Default Energy Bid Enhancements stakeholder initiative, but may not have been adequately addressed. While ESDER 3 may be an appropriate venue for enhancements to modeling and defining of PDR operating parameters, it may also warrant a separate focused initiative with the limited set of affected parties, so that BPM changes can be proposed and implemented.
 2. Weather-sensitive demand response: From the stakeholder call on October 12, 2017, this topic appears to be more relevant for the CPUC Resource Adequacy proceeding where issues of Effective Load Carrying Capacity (ELCC) and Qualifying Capacity (QC) can be addressed. DRPs with weather-sensitive resources can already manage bidding

behavior (daily bids *and* monthly supply plans) to account for temperature effects, and newly approved weather day matching baselines in ESDER 2 may reduce weather sensitivity capacity concerns.

3. Resource design constraints: see following response to #4.
4. Demand response aggregation rules: eMotorWerks supports stakeholder discussion on resolving challenges related to the one LSE per PDR requirement. The movement of customers between LSEs can be particularly disruptive in meeting Resource Adequacy obligations due not only to the minimum capacity requirements, but also for purely administrative factors resulting from LSE migration, specifically related to the growth in Community Choice Energy Providers. Through stakeholder process, the CAISO could determine workable approaches to consolidating PDRs for all or certain customer classes, which could involve elimination of the Default Load Adjustment or viable alternatives to maintain the current allocation of economic impacts of demand response.
5. RDRR economic buy-back of day-ahead awards: eMotorWerks supports the CAISO's intent to not consider this item in ESDER 3.
6. Recognition of behind the meter EVSE load curtailment: eMotorWerks strongly supports this topic as in scope for ESDER 3. Please see eMotorWerks joint comments with submitted concurrently on this topic.
7. Load consumption and regulation: eMotorWerks previously signed a letter to the CAISO Board of Governors on July 24, 2017, along with members of the energy storage community in support of including this topic in ESDER 3 or otherwise.¹ eMotorWerks is generally supportive of the direction that Staff is proposing in developing market participation models for beneficial load consumption within #8 below.
8. Load shift product: eMotorWerks understands that CAISO Staff and certain stakeholders have identified behind-the-meter energy storage as the likely first demand resource type that may enter the market in order to consume electricity when electricity prices are negative and/or renewables curtailment is occurring. From CAISO Staff's presentation to the Board of Governors on September 26, 2017, and the October 12, 2017, stakeholder call, it appears to be the intent for energy storage locations to use

¹ https://www.caiso.com/Documents/PublicComment-Letter_StorageParties_ESDER_2_Initiative_Jul24_2017.pdf

Metering Generator Output Methodology (MGOM) under the PDR model and/or the DERP-NGR model. eMotorWerks proposes that if “Recognition of behind the meter EVSE load curtailment” is fully vetted and approved by the Board and FERC, that it should also qualify for this first “cohort” of load shift resources utilizing a corollary framework to MGOM, if operating under the PDR model.

2. Please provide comments on whether your organization supports or opposes the Multiple-Use Applications proposal item, as well as the reasons why.
 1. 24x7 ISO participation requirements for DERs: eMotorWerks supports stakeholder focus on this issue. Relaxation of the 24x7 participation requirement for aggregations of electric vehicles, especially in the case of bidirectional use cases, will result in greater market participation. There may be periods of operation when these resources are committed to primary transportation applications and paying retail energy costs; whereas, there will be other periods when these resources can freely provide energy and ancillary services, on demand without materially impacting the primary application.
 2. Wholesale market participation model for a micro-grid: eMotorWerks suggests that this topic is better addressed outside of ESDER 3 given its relevance to a small number of stakeholders and unique set of component issues.
3. Please provide comments on whether your organization supports or opposes the Non-Generator Resource proposal item, as well as the reasons why.

eMotorWerks has no comments on the Non-Generator Resource proposal items at this time.

4. Please provide additional comments, if any, from the workshop.

eMotorWerks suggests that if enhancements to the NGR model are to be pursued with relevance to behind-the-meter Distributed Energy Resource Aggregations that the additional issue of duplicative load scheduling and payment should be the subject of stakeholder engagement. Currently, as constituted, DERPs operating under the NGR model are responsible for certain load costs; however, Load Serving Entities are also bearing the same load costs and passing these costs along through retail rates to hosts of behind-the-meter DERs. CAISO-directed coordination between LSEs and DERPs related to load scheduling, at a minimum, could serve to alleviate barriers to market entry as well as reduce overall energy procurement costs and increase the availability of flexible demand resources.

About eMotorWerks

eMotorWerks developed and operates JuiceNet[®], the leading electric vehicle (EV) cloud-based smart charging platform, and the company is the manufacturer of best-selling and best-rated residential EV charging station, the JuiceBox Pro, through Amazon.com and its own web store, with over 25,000 charging stations sold worldwide to date. eMotorWerks embeds the JuiceNet platform in its own residential and commercial EV charging stations, as well as third-party electric vehicle supply equipment (EVSE), including models from AeroVironment, Clipper Creek, Volta, Nayax, and a growing list of other manufacturers.