California ISO

Stakeholder Comments Template

Energy Storage and Distributed Energy Resources (ESDER) Phase 4

This template has been created for submission of stakeholder comments on the Issue Paper for ESDER Phase 4 that was published on Feb 6, 2019. The paper, stakeholder meeting presentation, and all information related to this initiative is located on the initiative webpage.

Upon completion of this template, please submit it to initiativecomments@caiso.com.

Submitted by	Organization	Date Submitted
Marc Monbouquette marc.monbouquette@emotorwerks.com (415) 488-6035	eMotorWerks, Inc.	February 27, 2019

Please provide your organization's comments on the following issues and questions.

1. **Non-Generator Resource (NGR) model**

Please state your organization's position as described in the Issue Paper: Support if Modified:

eMotorWerks does not oppose the inclusion, nor CAISO's proposed treatment, of identified NGR issues. However, we urge the CAISO to expand its inquiry to address what we believe to be fundamental barriers to DERP participation in the NGR model, described here and in our comments on no. 4, Multiple-Use Applications.

Double Payment

Under the current DERP-NGR construct, BTM NGRs pay the Locational Marginal Price for energy used to charge the NGR, and the site host pays the applicable retail rate for the charging energy drawn through the retail meter. As a result, the same kWh is paid for twice: once by the resource and once by the LSE via the site host. This is especially problematic for a DER that only consumes electricity and does not discharge, such as EVSE being dispatched for managed charging. To be clear, eMotorWerks is suggesting that DERPs should not also pay wholesale rates for consumption when the LSE is coincidently charged for this wholesale electricity and passing those charges onto the site hosts.

This condition may also cause duplicate day-ahead scheduling and real-time dispatch to serve the same kWh. ESDER 4 should examine potential avenues for coordination

between the CAISO, DERPs, and LSEs to ensure proper handling of scheduling, dispatch, and settlements. Ultimately, this would result in the LSE incorporating BTM NGR schedules into its load schedules (or subtracted from its load schedules) while having wholesale electricity costs remaining with the applicable LSE. Resolving this issue would allow BTM NGRs, especially those that only consume electricity, to provide ancillary services without illegitimate double payment for electricity.

This coordination between DER service providers and electricity suppliers is common in many international demand response markets, where aggregators must coordinate with the "balancing responsible party" in order to directly participate in market operations and be dispatched. If CAISO is not willing to add this topic to ESDER 4, it should lend its credibility and influence to convene prospective DERPs and LSEs, particularly representative CCAs, to participate in discussions regarding how and what coordination could be achieved. This working group could develop a detailed list of recommendations for CAISO to utilize in a forthcoming stakeholder initiative. This would show a good faith effort by the CAISO that it wishes to understand this as-of-yet intransigent barrier and to make progress on resolving this problem with the DERP-NGR pathway for BTM resources.

2. **Bidding requirements for energy storage resources**

Please state your organization's position as described in the Issue Paper: No comment at this time.

3. **Demand Response resources**

Please state your organization's position as described in the Issue Paper: No comments at this time.

4. **Multiple-Use Applications (MUA)**

Please state your organization's position as described in the Issue Paper:

24x7 Requirement for DERP-NGR

BTM resources participating in the NGR model as DERPs are required to be "in-market" at all times and cannot conduct out-of-market activity, which would incur uninstructed dispatch penalty charges. This presents an insurmountable barrier for BTM resources to provide out-of-market, non-coincident services, which is the premise of multiple-use applications. We appreciate the CAISO's acknowledgement of this in the Issue Paper and urge its resolution within ESDER 4.

5. **Additional comments**

eMotorWerks raised the following issues for ESDER 4 scope in its October 3, 2018 Comments to the CAISO's Policy Initiatives Roadmap.

Frequency Regulation via PDR

In ESDER 2, a Load Consumption Working Group developed the concept of a resource providing bi-directional (load consumption and curtailment) capabilities in PDR, as well as potential avenues for PDR participating resources to provide frequency regulation service. The work on bi-directional capabilities provided the foundations for the PDR Load Shift product adopted in ESDER 3; however, a pathway for PDR resources to provide regulation remains unresolved. ESDER 4 should re-examine a pathway for PDR frequency regulation given that two directly-metered resource types have been approved for PDR (stationary energy storage and EVSE) and are capable of providing the revenue grade telemetry and four-second control required for Frequency Regulation.

Load Shift product for submetered EVSE

ESDER 3 includes a new Load Shift Product for BTM, directly-metered energy storage to provide additional services during oversupply conditions under the PDR participation model. The load shift product will develop certain functionalities allowing the resource to bid and be dispatched for both load consumption and curtailment from an aggregation of BTM storage resources. Multiple parties across ESDER 3 and 4 have called for CAISO to expand the scope of the Load Shift Resource product beyond MGO energy storage. eMotorWerks agrees.

However, eMotorWerks' understanding of the PDR-LSR pathway and baseline methodology is that bidirectional EVSE or "V2G" EVSE would already be eligible to use PDR-LSR. In fact, CAISO should clarify within ESDER 4 and the ESDER 3 implementation process that unidirectional EVSE, which is directly metered, would now be eligible to use PDR-LSR via Schedule Coordinator submission of an applicable "Performance Evaluation Methodology Approval Request."