Comments of OhmConnect, Inc.
Energy Storage and Distributed Energy Resources (ESDER) Phase 3 Issue Paper

Submitted by	Company	Date Submitted
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OhmConnect, Inc. (OhmConnect) respectfully submits the following comments in the stakeholder process for the California Independent System Operator's (CAISO) Energy Storage and Distributed Energy Resources (ESDER) Phase 3 initiative September 29, 2017 Issue Paper. OhmConnect requests that the CAISO include the following three issues within the scope of the ESDER Phase 3 initiative:

1. Development of a load shift product for DR
2. Relaxing of the one-LSE-per-PDR requirement; and
3. Flexible commitment cost bids for PDRs.

These issues are discussed in additional detail below.

1. Development of a load shift product for DR

OhmConnect strongly supports the development of a load shift product under a DR market participation model. As the Lawrence Berkeley National Laboratory (LBNL) reported in Phase 2 of its *2025 California Demand Response Potential Study*, "shift resources" – i.e. DR that encourages the movement of energy consumption from times of high demand to times of surplus renewable generation – are "estimated to provide up to $678 million [...] in savings to the CAISO system in 2025".[1] However, the Issue Paper suggests that CAISO may intend to restrict participation in the load shift product to behind-the-meter (BTM) storage devices.[2] OhmConnect believes the CAISO should strive to develop a load shift product that is accessible to a broader set of technologies. For example, a stakeholder indicated on the October 12, 2017 ESDER 3 conference call that residential air conditioning may be well-suited to provide the desired load shift (through "pre-cooling" of customers' homes).

2. Relaxing of the one-LSE-per-PDR requirement

OhmConnect supports relaxing the current CAISO requirement that all customer Locations in a Proxy Demand Resource (PDR) be served by the same Load-Serving Entity (LSE). As more and more retail customers migrate to non-utility LSEs – in particular, to Community Choice Aggregations (CCAs) – the one-LSE-per-PDR requirement becomes a greater impediment to integrating DR customers into the CAISO market (due to the 100 kW

[1] See March 1, 2017 LBNL 2025 *California Demand Response Potential Study: Final Report on Phase 2 Results*, page 5-14.
[2] Issue Paper, page 9.

minimum size requirement for PDRs). The problem is exacerbated by the fact that CCAs' service areas can span multiple Sub-LAPs in the CAISO network.

OhmConnect therefore appreciates the willingness of CAISO staff and leadership to address this issue.[3] We also note PG&E's support for relaxing the one-LSE-per-PDR requirement, in written comments on the California Energy Commission's (CEC) August 8, 2017 Integrated Energy Policy Report (IEPR) Commissioner Workshop on Demand Response: "PG&E agrees with the CAISO that the rule of one LSE/DR resource is not sustainable and recommends the re-evaluation of this rule, including the current CAISO implementation of the Default Load Adjustment (DLA)".[4]

On the topic of the DLA, the Issue Paper states (on page 7) that the CAISO is "willing to eliminate the DLA rule if stakeholders agree to do so". OhmConnect supports this change, and in order to facilitate a dialog among stakeholders we suggest the CAISO present in its ESDER 3 straw proposal data on: (1) the frequency with which the DLA applies to LSEs' settlements; and (2) the magnitude of DLA-related adjustments to LSEs' settlements.

3. Flexible commitment cost bids for PDRs

OhmConnect supports the inclusion of PDR commitment cost issues in ESDER Phase 3. As we explained in our July 20, 2017 comments on the CAISO's Commitment Costs and Default Energy Bid Enhancements straw proposal, we believe that added flexibility with respect to PDRs' commitment cost bids will facilitate participation in the CAISOs' Real-Time Market (RTM) – in particular, by PDRs with significant behavioral (as opposed to fully-automated) response capabilities.[5] Importantly, improved capability to participate in the RTM will enable PDRs to provide market products that support renewables integration, such as Flexible Resource Adequacy (Flex RA) and the Flexible Ramping Products.

[3] At the August 8, 2017 CEC IEPR Commissioner Workshop on DR, Keith Casey, CAISO Vice President of Market and Infrastructure Development, said: "[Regarding] one LSE per resource, I don't think that's sustainable. […] [W]ith CCAs and the like, we've got to find a way to overcome that." (See workshop transcript, pages 128-129, accessible at http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-12/TN221097_20170908T094338_Transcript_of_08082017_IEPR_Commissioner_Workshop_on_Demand_Res.pdf.)

[4] See August 22, 2017 written workshop comments of PG&E, page 6, accessible at http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-12/TN220852_20170822T151418_Pacific_Gas_and_Electric_Comments_PGE_Comments_Regarding_August.pdf.

[5] See July 20, 2017 *Comments of OhmConnect, Inc.: Commitment Costs and Default Energy Bid Enhancements Straw Proposal*, accessible at https://www.caiso.com/Documents/OhmConnectComments_CommitmentCosts_DefaultEnergyBidEnhancementsStrawProposal.pdf.