Stakeholder Comments Template

Energy Storage and Distributed Energy Resources ("ESDER") Stakeholder Initiative

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the Energy Storage and Distributed Energy Resources (ESDER) stakeholder initiative Revised Draft Final Proposal posted on 12/23/15 and as supplemented by the presentation materials and discussion during the stakeholder web conference held on 01/07/16.

Submit comments to InitiativeComments@caiso.com

Comments are due January 14, 2016 by 5:00pm

The 12/23/15 ESDER Revised Draft Final Proposal may be found at:

http://www.caiso.com/Documents/RevisedDraftFinalProposal-EnergyStorageDistributedEnergyResources.pdf

The presentation materials discussed during the 01/07/16 stakeholder web conference may be found at:

CAISO Revised Agenda and Presentation:

http://www.caiso.com/Documents/Agenda Presentation-

EnergyStorageDistributedEnergyResources010616.pdf

SCE Proposed Modification to the MGO proposal:

http://www.caiso.com/Documents/SCEProposedModificationtoMeterConfigurationB2.pdf

Instructions:

Listed in the following table (see first column) are the ESDER proposals requiring tariff changes and ISO Board approval (specifically two NGR enhancements plus the MGO proposal), as well as the proposal to support use of statistical sampling which does not. Please fill in the necessary information (see second and third columns) to indicate your organization's overall level of

support for each proposal. To indicate level of support, please select one of the following options: (1) Fully support; (2) Support with qualification; or, (3) Oppose. Please provide an explanation of your organization's position in the comments column. If you choose (1) please provide reasons for your support. If you choose (2) please describe your qualifications or specific modifications that would allow you to fully support the proposal. If you choose (3) please explain why you oppose the proposal.

Proposal	Overall Level of Support (Fully Support; Support With Qualification; or, Oppose)	Comments (Explain position)
Allow an NGR resource to provide its initial state of charge (SOC) as a bid parameter in the day-ahead market.	Support	
Allow an NGR resource the option to not provide energy limits or have the ISO co-optimize an NGR based on the SOC.	Support	
Allow a PDR/RDRR resource the option of a performance evaluation methodology based on Metering Generator Output ("MGO") concepts.	Support	SDG&E here reiterates its earlier comments on the original draft final proposal. This process began with a proposal to expand the performance evaluation methodologies for PDR resources to include a Metered Generator Output (MGO) option that simply meters the output of a storage device for CAISO settlement purposes. Unlike the CAISO's existing performance evaluation metrics for PDRs that employ a baseline to determine the customer's typical consumption in a given interval, the MGO simply meters the output of devices (such as a battery or generator) at a customer's premise and uses this metered quantity to determine a PDR's performance for wholesale settlement purposes. SDG&E expressed serious concerns about the MGO. Those concerns centered on the MGO's inability to identify or distinguish a customer's typical behavior from his or her purported wholesale contributions. For example, a customer may predictably and consistently discharge its battery in a certain interval to manage retail demand charge exposure or time of use rates. While the baseline performance metrics would identify this typical behavior, and subtract it from wholesale payments, the MGO would not. The MGO simply assumes all discharge provides direct, proportional and incremental wholesale benefit, when in fact the customer's typical behavior (i.e., typical discharge patterns in the given interval) may reveal that there is no incremental wholesale benefit whatsoever. In short, SDG&E is concerned that MGO enables customers to bid their typical storage discharge into the market, and receive what amounts to a

windfall at wholesale. SDG&E consistently argued that some recognition of the customer's typical activity was required because the only value to the wholesale grid is incremental discharge above what was typically provided by the customer in that interval.

Adequately addressing this issue in a manner that treats all PDR providers — those with storage and those without — equally was SDG&E's singular focus throughout this stakeholder process. The CAISO ultimately shared SDG&E's concerns. The Final Draft Proposal allows the use of an MGO, but ties it to a baseline. This outcome significantly limits — but does not eliminate — the potential for double payments to behind the meter storage resource.

However, in tying settlement to a baseline, and looking for retail activity in the minimum number of days before defaulting to 0, the CAISO's approach is palatable. Further, because the approach proposed in the final draft proposal closely mirrors how the CAISO treats PDR resources subject to the existing PDR baselines, it creates symmetry and consistency between how the CAISO settles PDR resources with a single whole premises meter, and how it proposes to settle PDR resources with more granular device-level metering. In the nearterm, SDG&E recognizes the need to evolve the PDR framework to enable frequent participation from customers with advanced technologies, like energy storage, and to verify the incremental value that frequent participation provides to the wholesale market. The CAISO's proposed approach might be the best way to achieve those near-term goals.

Finally, while this approach may address near-term issues, SDG&E continues to believe that accurately valuing the contributions of resources that provide services – perhaps simultaneously – on both sides of jurisdictional line separating wholesale and retail markets will likely require creating a new framework entirely; a framework that thoughtfully identifies and separates retail use from wholesale services, and that addresses and balances the load modifying impacts of frequent discharges from simple supply-side market activity. To encourage work towards this long-term framework, SDG&E suggests the CAISO consider imposing a sunset date for any newly adopted performance evaluation methodologies, so that their practical efficacy can be properly assessed and, if necessary, modified by stakeholders and the CAISO.

With modification proposed by SCE.		Though limited in application to non-CPUC jurisdictional PDRs, SDG&E supports SCE's proposed modification.
Proposal to support use of statistical sampling	Support.	