



Advanced Microgrid Solutions



COMMENTS OF ADVANCED MICROGRID SOLUTIONS, STEM & SOLARCITY

**Energy Storage and Aggregated Distributed Energy Resources Participation
Stakeholder Initiative – Demand Response Working Group Comments**

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I. INTRODUCTION

Advanced Microgrid Solutions (AMS), SolarCity and Stem offer these joint comments on Demand Response Baselines as part of the Energy Storage and Distributed Energy Resource initiative. Stem and AMS together have 135 megawatts (MW) under contract with Southern California Edison (SCE) as part of SCE’s Local Capacity Requirements Procurement with strict deadlines for commercial operation. To date, SolarCity has deployed over 300 energy storage systems for residential and commercial customers across California including strategic partnerships with WalMart, BJ’s Wholesale, and others, and is offering residential batteries to all new customers. Few companies feel the urgency around resolving barriers for aggregated behind-the-meter resources as we do.

Our companies would like to commend the CAISO and the working group for their support and prioritization of this issue. This is a rapidly changing and exciting time for energy markets in California and we very much look forward to working together to find expedient solutions to the challenges we all face.

II. DISCUSSION

1. We support the adoption of the Metering Generator Output methodology

AMS, SolarCity and Stem greatly appreciate the CAISO's willingness to engage with us proactively on this issue.

As we have discussed in various working group meetings, estimating what the load would have been using historical meter data in conjunction with an energy storage system is unnecessary since the actual, accurate real time data is available from the meters onsite. These meters record in real time the precise load of the building and any capacity delivered in the form of load reduction during a dispatch event. Additionally, many PDRs backed by energy storage are designed to be dispatched more often than traditional Demand Response (DR), which could make any attempt to collect 10 days (or 4 days) of accurate load data on non-event days difficult within such a limited look back window as the 45 days currently prescribed in the ISO's Tariff. Demand Response providers who are able to use the existing baseline should not be impacted in any way by the addition of an alternative performance evaluation method. However all PDR's would be allowed to take advantage of a performance evaluation method that uses the meter for real time measurement of net load drop.

We strongly support the use of a proposal that allows the onsite meter to measure dispatch similar to the methods described in NAESB as Metering Generator Output (MGO). Specifically, we support the adoption of "Meter Configuration B", as defined in the CAISO's proposal on MGO in the Demand Response Baselines Working Group presentation on August 27, 2015. The configuration provides the most accurate methodology to fully align with the technological capabilities of customer-sited energy storage systems to provide demand response. In addition to allowing for direct sub-metering of battery systems, this allows for systems that combine traditional demand response (e.g. load controls) with battery-backed demand response to enter into the market using the "Net Facility" reduction methodology. By adopting this alternative performance evaluation method the CAISO can align it's efforts to promote participation of aggregated distributed energy resources (DERs) with current technology advancements and capabilities of DER service providers.

2. We support an alternative approach to ensure non-export compliance

In their presentation, the CAISO presented a need to ensure any resource registered as a PDR was "non-exporting". We support the recommendation made by the Working Group to allow the non-export verification done in the Rule 21 interconnection process to serve the purpose of ensuring that a resource is non-exporting. In registering as a PDR resource, each site can submit its interconnection study results to confirm its non-export configuration to the CAISO.

3. We request a forum to resolve outstanding issues

Within the initial ESDER Straw Proposal, as well as during the August 27th Working Group meeting, several issues were raised that should be addressed prior to the planned revisions to the Straw Proposal on September 17th. Specifically, the following issues were raised by the CAISO in its presentation to the Working Group:

“Should information about performance in interval(s) prior to being dispatched be available to ascertain when no net benefit to the grid occurred?”

- Current CAISO proposal requires meter data only for the hours the resource received an award in the market.*
- Wholesale vs Retail policy on multi-use. ”*

We agree that these issues need resolution in order to move forward with a specific recommendation to adopt any additional performance evaluation methodologies. We also note that these are complex issues that warrant more in-depth discussion and explanation than what could easily be provided through comments on this presentation. Given the urgency of getting resolution on these issues prior to any revisions to the Straw Proposal, we formally request that the CAISO hold an in-person meeting to discuss these outstanding issues. This will allow for all interested stakeholders to provide specific feedback and address the issues identified by the CAISO and other parties.

III. Conclusion

We appreciate the CAISO’s continued commitment to addressing these vitally important issues to encourage greater participation of energy storage and distributed energy resources into the Market. We look forward to working with the CAISO and stakeholders in resolving any outstanding concerns in order to support the adoption of additional performance evaluation methodologies for PDR resources.