

COMMENTS OF STEM INC.

10-27-15 ESDER Working Group Call on Alternative Proposal

Submitted by	Company	Date Submitted
Ted Ko 510-381-6159 ted.ko@stem.com	Stem, Inc.	October 29, 2015

Stem offers these comments on the ESDER Working Group Call on 10/27/15 in which the Meter Generator Output (MGO) Alternative ‘g-typical’ proposal was discussed.¹ The proposal establishes a performance methodology with which to measure the market response of a Proxy Demand Resource (PDR) that has a metered generator such as an energy storage device on site.

Stem appreciates the efforts of the CAISO to review and discuss the proposal that Stem developed with Advanced Microgrid Solutions and SolarCity. This has been a valuable stakeholder process in addressing a key challenge to future participation of distributed resources in the CAISO markets. Stem strongly recommends the CAISO incorporate the proposal into its ESDER market design.

The proposal reasonably addresses key challenges noted by the CAISO and stakeholders in an MGO-based performance measurement approach. Primarily, the CAISO seeks assurances that market awards lead to dispatch changes that help balance the grid and support grid reliability. By limiting participation in the CAISO market to capacity not used in average ‘typical’ resource actions, e.g. on non-dispatch days, the g-typical adjustment addresses this CAISO concern. The g-typical adjustment does this by measuring and adjusting for resource behaviors that typically occur on non-dispatch days.

Although the g-typical baseline based on a different metric than a traditional baseline, the proposal seeks to mirror the primary characteristics of the baseline as specified in the current CAISO tariff. To create the g-typical baseline, the same target number of 10 “same type” non-event days is sought. Also, the “look-back window” in seeking non-event days is the same 45-day window.

¹ <http://www.caiso.com/Documents/EnergyStorage-DistributedEnergyResourcesWorkingGroupCall102715AlternativeProposalPosted.htm>

The primary point of departure in the proposed g-typical is in the specification of minimum non-event days. While the current CAISO Tariff specifies 5 days (for Weekdays) as the minimum, the proposal was for the minimum for g-typical to also be 10 days for one primary reason. In the same way that less than 5 days is considered insufficient to establish a reasonable load baseline, less than 10 days is insufficient to establish a reasonable direct-metered baseline. The data provided by AMS demonstrate why this is the case. The variance in direct metered output is very likely to be significantly higher than the variance in load for that site. To achieve a reasonable baseline, the methodology must then average more values.

Below the minimum non-event days threshold, Stem appreciates the CAISO's agreement that setting the g-typical value to 0 is appropriate. As stated on the call, setting this value to 0 is akin to the current methodology in the CAISO Tariff, which uses the highest load days. G-typical set to 0 is equivalent to "highest load" for those days.

Based on the above, Stem recommends rapid resolution of the ESDER proposal with the inclusion of the g-typical proposal, which includes the establishment of the 10 non-event day minimum. The proposal has evolved through extensive stakeholder discussions and reflects much stakeholder input, e.g. the CAISO's concerns. Further, many energy storage deployments are planned to align with the CAISO's timeline for ESDER and to support compliance with California's energy storage and clean energy goals. Delays in the proposal should be avoided so that new resources can compete and gain entry to the CAISO marketplace.

With rapid finalization of the ESDER proposal and of the g-typical proposal, Stem agrees with parties that further subsequent discussion of MGO alternative performance measurement structures in ESDER Phase 2 is warranted. With an on-the-way ESDER Phase 1 solution, ESDER Phase 2 should allow for deliberations of different MGO alternative ideas, enhancements, and solutions. These deliberations should include the potential for positive g-typical adjustments. The exclusion of positive g-typical adjustments in the Phase 1 solution is acceptable for expediency, but Stem would like to assert that this fundamentally unfair asymmetry should be an important topic in Phase 2.