

Southern California Edison
Stakeholder Comments

Energy Storage and Distributed Energy Resource Initiative

Submitted by	Company	Date Submitted
Martin Blagaich – (626) 302-3302	Southern California Edison	June 8, 2015

Southern California Edison (SCE) appreciates the opportunity to comment on the California Independent System Operator’s (CAISO) Energy Storage and Distributed Energy Resource Participation call that was held on May 21st, 2015. Since there are a large number of identified issues, more than could be completed in the near future, it is important to prioritize issues that not only represent the largest barriers to overcome, but also affect the largest number of resources.

In these comments, SCE recommends:

1. NGR model enhancements critical to evaluating storage resources, specifically multiple configuration capabilities and modeling of use limitations, should be prioritized for 2015
2. Multiple demand response issues affecting the ability of current DR programs to operate in the CAISO market should be added to the scope of this initiative
3. Multiple Use Application discussions should also consider resources that provide value to the system but do not participate through the CAISO

NGR model enhancements critical to evaluating storage resources, specifically multiple configuration capabilities and modeling of resource limitations, should be prioritized for 2015

While storage resources exist on the CAISO and distribution system today, the majority of storage resources that will exist in the future are in the planning and contracting stages. Because of this, SCE believes it is best to prioritize issues that directly affect the capabilities and associated values storage has on the system in order to best configure new resources coming on-line. To inform procurement the following two issues should be addressed in 2015:

1. Defining how an NGR with multiple configurations will bid into the market: Storage resources need the capability to tie their bids to the state of charge and there are many ways the parameters around this capability can be set up. Delaying this enhancement until 2016 could result in storage being designed in a way that does not fit with the CAISO’s NGR model and, as a result, leaves stranded value on the system.
2. Updated modeling of use limitations in the NGR model: As part of the Bidding Rules Enhancement initiative, CAISO agreed to have two sets of RDTs, one that uses physical characteristics of resources for Exceptional Dispatches, and one that uses contractual

characteristics of resource for market operations. While this is a step in the right direction, it still needs to be verified that these limitations can be appropriately considered in the NGR model. These updates and modeling verifications affect how different technologies can operate in the market and the value they can provide to the system. As a result, it is important to complete this effort as early as possible to inform procurement.

While all identified enhancements are vital, there are some that could be delayed until 2016 in order to prioritize more critical elements. SCE believes the following two issues can be moved to the 2016 scope without significantly affecting which types of storage resources are built in the near future:

1. Evaluate initial state of charge as a submitted parameter in the day ahead market: While there may be value in this effort, this is likely not going to affect the decision on what types of storage to procure and build. If other parties feel this is a vital issue to determine what types of storage procure, it may be possible to define this functionality at a high level in 2015 and deal with implementation details in 2016.
2. Evaluate pseudo-tie or dynamic scheduling agreement for storage resources, using available market models: While not having these rules in place could present a large barrier for storage resources located outside of CAISO, SCE is not aware that there is going to be a large influx of resources in the near future that fit into this situation. It is prudent to delay this issue until 2016 to focus on NGR enhancement that will impact a larger quantity of storage resources.

Multiple issues affecting the ability of current Demand Response (DR) programs to operate in the CAISO market should be added to the scope of this initiative

There are numerous issues facing DR programs that limit their ability to participate in the CAISO Day Ahead and Real Time energy markets. These issues create significant barriers for DR programs, and as such, should be addressed as part of this effort. SCE recommends the following issues be added to the 2015 scope:

1. DR Discrete Dispatch Capability: Due to current CAISO rules, DR resources have the possibility of being partially dispatched (either due to being a marginal resource or for other factors). Partial dispatch, however, may not be feasible for many DR resources and options should exist to avoid this conflict. This conflict is significant because DR resources can be given awards that are not feasible for them to follow. Allowing discrete dispatch of DR resources, that is to dispatch fully or not dispatch at all, should be added to the scope of the 2015 issues¹.
2. Removing the requirement that DR resources must contain Service Accounts from a single LSE: CAISO currently has a requirement that all service accounts in a DR resource must be from the same LSE. The purpose for this requirement, presumably, is to simplify the settlement process due to the need to perform Default Load Adjustment (DLA) calculations for each Load Serving Entity (LSE). However, there are multiple DR resources that are dispatched contingent on other DR resources. For example, DR programs are dispatched by Load Control Groups which may

¹ This capability actually exists in the CAISO market today, but only for RDRRs in the Real Time market. This capability should be expanded to the Day Ahead market and to PDRs.

contain Service Accounts from multiple LSEs and thus multiple DR resources in the CAISO market. This requirement, therefore, results in programs being bid in separate from the actual dispatch group and receiving infeasible dispatch instructions. SCE believes it is important to resolve this issue as part of the 2015 scope in order to have DR program capabilities match dispatch instructions from the CAISO market.

3. Expanding the Telemetry waiver for DR programs: It is currently possible for DR resources that are less than 10MW in size and that do not provide ancillary services to get a waiver that removes telemetry requirements. Telemetry requirements are not necessary for programs that do not provide ancillary services and are small in size, and as such the waiver provides significant relief to small programs that wish to participate in the CAISO market. SCE requests that CAISO add to scope discussions surrounding expanding the waiver to larger DR aggregations in order to facilitate increased participation of non-AS DR programs².

Multiple Use application discussions should also consider resources that provide value to the system but do not participate through the CAISO

The future landscape of storage and DR that is interconnected on the distributed system, but still wants to provide value beyond distribution reliability, is still uncertain. It is important to figure out rules surrounding the two identified cases in the proposed scope (Non-RA DER at the Distribution and Customer level that wants to participate in the wholesale market). However, by including this topic within scope, one key element that deserves discussion is the potential for resources connected to the distribution grid to provide services outside of, and without participation in, the CAISO wholesale market. This distinction is important to consider at this time because it will affect the participation options available for resources not connected to the transmission system.

² A similar waiver for telemetry requirements is currently in place for Type-I DR resources in the MISO.