Stakeholder Comments Template

Submitted by	Company	Date Submitted
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NGR enhancements

The CAISO has been focused on two areas of potential NGR enhancement: (1) representing use limitations in the NGR model and (2) representing throughput limitations based on a resource's state of charge (SOC).

The CAISO is requesting stakeholders provide comments in each of these two areas.

Comments:

SCE would like to thank the CAISO for the opportunity to participate in the use limitations working group to help define the preconditions for an NGR to qualify as use-limited. SCE agrees that throughput limitations would be best tracked by the resource owners and scheduling coordinators and looks forward to the discussion around how to define those characteristics.

SCE supports adding functionality allowing multiple bid stacks across the state of charge. SCE understands the CAISO's concerns regarding the implementation complications. However, this functionality will provide a much more accurate representation of the costs associated with energy storage resources, allowing for more flexibility in defining operating limitations while limiting risk for both generators and customers. While currently there are not many energy storage resources participating in the market, SCE is heavily involved in the procurement of energy storage resources and the ability to develop these multiple bid stacks will help in the procurement of energy storage resources.

Demand response enhancements

Two stakeholder-led work groups are up and running within ESDER 2 to explore two areas of potential demand response enhancement:

 Baseline Analysis Working Group – Explore additional baselines to assess the performance of PDR when application of the current approved 10-in-10 baseline

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- methodology is sufficiently inaccurate. The Working Group has completed its first phase of analysis on topics including alternative baselines and control groups.
- Load Consumption Working Group Explore the ability for PDR to consume load based on an ISO dispatch, including the ability for PDR to provide regulation service. The working group has recommended bi-directional PDR modelling.

The CAISO is requesting stakeholders provide comments in each of these two areas.

Comments:

SCE appreciates the opportunity to participate in the Load Consumption Working Group and believes the initial draft proposal represents a good starting point for larger stakeholder discussions. SCE looks forward to continue participating in the working group as well as in the larger stakeholder process.

One of the central aspects of the DR load consumption product relates to wholesale and retail jurisdictional issues and SCE supports the proposal to not comingle the two. Not only should this eliminate any jurisdictional issues, it also maintains the same relationship between wholesale market payments and retail billing that exists for current load reduction demand response.

While SCE is generally supportive of the proposal at this time, there are still multiple details that need to be outlined and understood by parties. SCE submits the following outstanding questions for the CAISO, Load Consumption Working Group, and Stakeholders to consider:

- 1. How will baselines be applied to a DR resource that provides both load reduction and load consumption products?
 - SCE agrees that extending current baseline methodologies to a load consumption product is the appropriate starting point for this proposal. However, details and examples of this expansion for both traditional and MGO baselines should be developed before it is adopted by the CAISO. Specifically, bi-directional DR baselines could face unique challenges if both CAISO directed consumption and demand reduction results in an entire day being considered an event day. Similar days needed for a baseline calculation could be difficult to find and performance could be difficult to measure.
- 2. How will Uninstructed Imbalance Energy (UIE) be applied to bi-directional DR resources?
 - Currently, DR resources are not subject to UIE for their performance opposite of the CAISO dispatch instructions. For example, if a DR resource is called by the CAISO to reduce load, but the DR resource instead increases load relative to a baseline calculation, the performance of that DR resource is calculated to be 0 MW (in

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comparison, a generation plant would be charged for the difference between the CAISO dispatch instruction and actual performance through UIE). It is unclear if this application of UIE should and will be applied to new bi-directional DR resources.

Multiple-use applications

The ISO has not yet identified specific MUA issues or topics that require treatment in ESDER 2. The ISO proposes to continue its collaboration with the CPUC in this topic area through Track 2 of the CPUC's energy storage proceeding (CPUC Rulemaking 15-03-011). If an issue is identified that should be addressed within ESDER 2 the ISO can amend the scope and develop a response.

The ISO is requesting stakeholders provide comments on this topic area as well as this proposed approach.

Comments:

SCE does not have any concerns with CAISO's proposed approach at this time.

<u>Distinction between charging energy and station power</u>

In this topic area the ISO will continue its collaboration with the CPUC through Track 2 of the CPUC's energy storage proceeding (CPUC Rulemaking 15-03-011) rather than exclusively through ESDER 2. At this time, the ISO proposes the following:

- Revise the ISO tariff definition of station power to exclude explicitly charging energy (and any associated efficiency losses); and
- Revise its tariff later to be consistent with IOU tariffs, as needed, in the event that they revise their station power rates.

The CAISO is requesting stakeholders provide comments on this proposed approach. The CAISO also seeks comments on the following:

- What rules are necessary, if any, to dictate how station power and wholesale charging energy (including efficiency losses) can be separately calculated for settlement purposes? For example, what would be the advantages and disadvantages of using meters compared to predetermined deductions?
- Assuming that station power includes all energy drawn from the grid except to charge the storage device, what specific advantages and disadvantages do storage devices have compared to conventional generators under current netting and self-supply rules?

Detailed examples comparing the generally expected dispatching of storage devices and conventional generators under current netting and self-supply rules are appreciated.

Comments:

SCE does not have any concerns with CAISO's proposed approach at this time. SCE also looks forward to continue working on this topic in the CPUC's Energy Storage Proceeding.

Regarding questions posed by the CAISO in ESDER 2, SCE has submitted comments answering and presented on similar questions in the CPUC's Storage OIR. Those comments and presentation can be found here:

SCE's Opening Comments in the CPUC's Energy Storage Proceeding (2016-02-05): http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M158/K113/158113099.PDF

SCE's Reply Comments in the CPUC's Energy Storage Proceeding (2016-02-19): http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M158/K663/158663197.PDF

SCE's Station Power Presentation at the Joint CPUC and CAISO Workshop (2016-05-02): http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11270