

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the ESDER Phase 2 stakeholder initiative Revised Straw Proposal posted on July 21 and as supplemented by the presentation and discussion during the stakeholder web conference held on July 28.

Submit comments to InitiativeComments@CAISO.com

Comments are due August 11, 2016 by 5:00pm

The Revised Straw Proposal posted on July 21 and the presentation discussed during the July 28 stakeholder web conference may be found on the [ESDER Phase 2](#) webpage.

Please provide your comments on the Revised Straw Proposal topics listed below and any additional comments you wish to provide using this template.

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:

PG&E has recommended that certain use limitations (in particular, “daily discharge MWh limitations”) be incorporated into the NGR model as a part of ESDER Phase 2 as a daily, biddable parameter. With 580 MW of mandated energy storage procurement being planned for PG&E’s system alone, PG&E believes that NGR enhancements may be needed as early as 2017, when such resources could be coming online. PG&E is not sure that these use limitations can be managed through bidding strategies and outage management systems nor that managing through these mechanisms would lead to the best market outcomes. That being said, PG&E appreciates the ISO’s perspective that more NGR resources operating would better focus priorities. Therefore, PG&E recommends the CAISO and stakeholders continue to actively discuss these use limitations for near term implementation, even if beyond the immediate scope of ESDER Phase 2. As PG&E has previously discussed, multiple market participants with a variety of technologies require discharge MWh limits, so it has already been identified as a parameter that will need to be managed.

On a related note, PG&E supports the ISO’s proposal to establish a working group to determine the conditions under which NGR resources would qualify for use-limited status. On this front, PG&E has separately submitted to the ISO the specific names of its employees that will participate.

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 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:Baseline Analysis Working Group:

PG&E is supportive of the effort being undertaken to assess baseline options. The preliminary assessment by Nexant presented on August 10th provided an overview of the possible options for alternative baselines and control groups. PG&E plans to participate in the upcoming Working Group sessions leading up to the final proposal in early September.

PG&E points out that baseline methodologies should be consistent between wholesale and retail applications. For example, the 10 in 10 baseline Methodology applies a +/- 20% day of adjustment for wholesale, but utilizes a +/- 40% adjustment at the retail level. Finally, PG&E would like to acknowledge the issue of frequently dispatched resources has been rolled into the broader Nexant assessment. With respect to this topic, our prior concerns with double and overlapping compensation remain.

Load Consumption Working Group:

PG&E would like to acknowledge the effort undertaken by Olivine and other Working Group participants to advance the straw proposal to enhance PDR to include load consumption and frequency regulation. Enhancing PDR to provide additional services will increase its value in meeting grid needs.

With respect to load consumption, PG&E agrees that learnings from its Excess Supply Pilot (XSP) could be applied, such as, the ability to apply a negative baseline. In reviewing the straw proposal, PG&E wishes to comment in several areas. As a point of clarification, PG&E believes that a resource should have the ability to be registered as load reduction, load consumption or both (i.e., bi-directional). These different options provide the most flexibility for resources to meet grid needs. We believe the final straw incorporated into the Revised CAISO Proposal intends to allow for either or both scenarios but affirmative confirmation would be useful.

Second, PG&E is generally supportive of the following two principles from the proposal:

- “No commingling wholesale/retail settlement”
As a matter of complexity and jurisdictional concern, separation between wholesale and retail settlement makes sense.
- Abandoning a specific wholesale daily load shift product
Efforts under way to address daily load shifting on the retail side through TOU rates (e.g., Matinee Pricing) may be sufficient to address a significant portion of grid needs. Using PDR for load consumption could be valuable as a supplemental tool utilized on a periodic basis.

Third, with respect frequency regulation, the proposal is viable in concept but PG&E acknowledges there are still numerous details that might make implementation challenging. In terms of implementation options, PG&E believes there is insufficient information to conclude whether No Energy Settlement or Energy Settlement is preferable. While in concept the No Energy Settlement option provides for less complexity, both options should be left on the table for further refinement. In the same manner, it's too early to tell if single-direction or bi-directional regulation is feasible. As such, both should be left open for development.

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:

PG&E appreciates the CAISO's willingness to incorporate MUA issues into ESDER if and when identified. Certain topics around rates (wholesale vs. retail) and interconnection (Rule 21 vs WDAT) may necessitate joint work between the CAISO and the CPUC. PG&E looks forward to working with stakeholders to develop these rules.

Distinction between charging energy and station power

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:

Station power should be defined consistent with how it is currently defined for conventional resources with some clarification on what station power should include regarding energy storage. PG&E believes that energy used to charge a battery for later resale should be limited to wholesale rate treatment in the case of In-Front-of-the-Retail Meter (IFM) applications. The issue of rate treatment for Behind-the-Retail Meter (BTM) applications is one that should be assessed as part of the MUA topic scoped into the Energy Storage OIR (R. 15-03-011).

The trade-off between metering and predetermined deductions is one of accuracy. Generally speaking, metering for both charging and discharging provides the greatest visibility for activities undertaken by a device. Nevertheless, a predetermined deduction factor could be utilized in cases where the device may not be separately metered (e.g., reliance on a baseline methodology in lieu of metering).

If storage devices are to be treated similar to conventional generators, they should not be advantaged or disadvantaged.

Other comments

Please provide any additional comments not associated with the topics above.

Comments:

N/A