

Stakeholder Comments Template

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Please use this template to provide your comments on the ESDER Phase 2 stakeholder initiative Second Revised Straw Proposal posted on September 19.

Submit comments to InitiativeComments@CAISO.com

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

The Second Revised Straw Proposal posted on September 19 and the presentation discussed during the September 27 stakeholder web conference may be found on the [ESDER Phase 2](#) webpage.

Please provide your comments on the Second 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 has concluded that the second area will be re-evaluated once more resources are participating as storage resources modeled under NGR. The CAISO will no longer pursue this area in ESDER 2 and will instead focus its efforts in the first area of potential NGR enhancement.

The CAISO is requesting stakeholders provide comments on the first area.

Specifically:

1. What are the exogenous limitations for NGRs that can't be optimized within the market?
2. What are the opportunity costs and commitment costs that need to be reflected in energy bids to manage limitations?

Comments:

As a general matter, SDG&E does not support extensive changes to CAISO market mechanisms to accommodate the specific attributes of specific NGRs. The range of potential NGRs is so wide that efforts to accommodate the specific attributes of some NGRs will inevitably fail to accommodate the specific attributes of other NGRs. SDG&E believes the existing CAISO market mechanisms are adequate to allow NGRs to express their economic preferences in the form of start-up costs and price/quantity offers that internalize the opportunity costs of dispatching the NGR during day-ahead and real-time market intervals.

1. SDG&E believes NGRs, like generating resources, should be allowed to reflect opportunity costs in their price/quantity offers submitted into the day-ahead and real-time markets. This will allow the NGR scheduling coordinator to control, on an economic basis, when the NGR will be dispatched to supply or consume energy, or to provide ancillary service capacity. The NGR owner is in the best position to know what exogenous limitations may affect operation of the NGR and, based on the NGR owner's expectation of future market prices, when it makes economic sense to be dispatched.

2. Obvious opportunity costs include foregone profits where a NGR is dispatched in one-time interval where clearing prices are modest, and is therefore unable to be dispatched in another time interval when clearing prices are more profitable. Commitment costs will vary with the NGR technology. For example, on the load side, businesses may need to arrange for increases or decreases in work force as well as changes in process-dependent input inventories, depending on whether the price/quantity offer submitted by the NGR scheduling coordinator results in an increase in load or a decrease in load.

Demand response enhancements

Proposals are under development by two stakeholder-led work groups within ESDER 2 in two areas of potential demand response enhancement:

- Baseline Analysis Working Group (BAWG) – Explore additional baselines to assess the performance of PDR when application of the current approved 10-in-10 baseline methodology is sufficiently inaccurate. The BAWG proposes the following settlement options for PDRs and RDRRs:
 - Residential Resources: 4-day weather match by max temperature, control group.
 - Commercial Resources: 10 of 10 with 20% adjustment cap, Average of previous 5 days, control group.
- Load Consumption Working Group (LCWG) – 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 LCWG proposes to maintain the separation of wholesale and retail energy settlement for increased load consumption. This supposes that the value of increased wholesale consumption, perhaps at a negative price, has value to the DRP or customer since the increased consumption would also be charged under retail rates. Under this construct, is this a feasible concept?

The CAISO is requesting stakeholders provide comments on the proposals of both the BAWG and LCWG.

Comments:

SDG&E is waiting to review the results of the Demand Response Enhancements working group.

Multiple-use applications

The ISO has not yet identified specific multiple-use application (MUA) issues or topics that require treatment in ESDER 2. The CAISO 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 CAISO can amend the scope and develop a response.

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

Comments:

SDG&E believes the CAISO need to address the MUA in the context of Energy Storage Phase 2.

Distinction between charging energy and station power

In this topic area the CAISO 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 CAISO proposes the following:

- Revise the CAISO 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 on state-jurisdictional issues, as needed, in the event that they revise their station power rates. The CAISO speculates that two potential, substantial forms this could take that would require the CAISO to revise its tariff regard netting and metering for storage resources. Specifically:
 - The CAISO currently agrees that negative generation pursuant to CAISO dispatch could be treated commensurate with positive generation such that storage resources could “net” their station power consumption against this negative generation; and
 - The CAISO believes that rather than a mandated “one-size-fits-all” metering configuration, each storage resource could negotiate and agree with its local energy provider on a metering configuration (e.g., single-meter, multiple meters, predetermined deductions/additions, or combinations thereof).

The CAISO is requesting stakeholders provide comments on this topic.

Comments:

SDG&E supports the basic proposition that “energy stored for later use” should be treated as negative wholesale generation; i.e., the storage resource owner would purchase energy at the applicable Locational Marginal Price (LMP) to charge the storage device and would not pay a retail rate for such purchases.

At the same time, SDG&E believes the storage device should pay retail rates for “station power” using the same “netting” approach as currently applies to conventional generators.

Importantly, this means that, in some intervals that currently govern netting for conventional generators, a storage resource will purchase all of its station power at retail rates. SDG&E believes this approach is both fair and efficient. It provides a level playing field with conventional generators that typically produce more electrical power than they consume, it will encourage storage devices to minimize their station power use, and it protects other retail

consumers from subsidizing wholesale generators (beyond the levels already inherent in the current “netting” approach).

It may be challenging to identify, and separately meter, all retail consumption at a storage resource. Certain functions associated with a storage resource may be so physically intertwined with the charging, storing and discharging processes, that it would not make sense to separately meter those functions. SDG&E agrees with the CAISO that “rather than a mandated ‘one-size-fits-all’ meter configuration, each storage resource could negotiate and agree with its local energy provider on a metering configuration (e.g., single-meter, multiple meters, predetermined deductions/additions, or combinations thereof).” This approach will allow Local Regulatory Authorities such as the CPUC, to weigh-in on whether the negotiated result adequately accounts for retail use and thereby acceptably protects other retail consumers from unreasonably subsidizing the storage resource.

Other comments

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

Comments: