Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the Issue Paper and Straw Proposal posted on July 30, 2015 and as supplemented by the presentation and discussion during the stakeholder web conference held on August 6, 2015.

Submit comments to InitiativeComments@caiso.com

Comments are due August 18, 2015 by 5:00pm

All documents for the energy storage and distributed energy resources (ESDER) initiative, including the July 30, 2015 Issue Paper and Straw Proposal and the presentation discussed during the August 6, 2015 stakeholder web conference, are available on the webpage for the ESDER initiative at: http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyStorage_AggregatedDistributedEnergyResources.aspx

Non-generator resources (NGR) enhancements

Please provide your comments in each of the four areas of proposed NGR enhancement.

1. Update documentation on NGR to capture material and clarifications compiled for April education forums.

Comments: NRG supports this effort.

2. Clarify how ISO uses state of charge (SOC) in market optimization.

Comments: NRG supports this effort.

3. Evaluate initial SOC as a submitted parameter in the day-ahead market.

Comments: As NRG understands, what this means is that the submitted parameter would obligate the scheduling coordinator for the NGR resource to position that unit at the submitted SOC at the beginning of the first interval in the new trading day. As an example, if the submitted SOC parameter was 60%, the NGR would an obligation to be at 60% charge at the beginning of interval 1 in hour 1 for the trading day. If this understanding is correct, it leads to other questions:

- Would the NGR's SC have the obligation to operate the resource in such a way to ensure it would be at the submitted SOC level at the proper time?
- Would the CAISO dispatch the NGR in the intervals leading up to the change in trading day to reach that SOC?
- Presumably, any DA schedules that the NGR obtains would be based on the submitted SOC. Would FMM and RTD schedules in the relevant trading day be based off the submitted parameter or off the actual telemetered SOC?
- Would there be any penalty – other than the imbalance energy implications - of the NGR's inability to achieve schedules based on it being at a different SOC than the submitted SOC at the first interval of the day?

4. Evaluate option to not provide energy limits or have the ISO co-optimize an NGR based on state of charge.

Comments: NRG supports evaluating the option to allow non-REM NGRs to not provide energy limits to the CAISO, but instead rely on the NGR's SC to manage its NGR's operation and compliance with the energy limits through its CAISO energy market bids and actual operation.

PDR/RDRR enhancements – alternative baseline methodologies

Please provide your comments in each of the two areas of proposed enhancement.

1. Develop meter generator output (MGO) as a new ISO baseline methodology.

Comments: NRG supports this effort to develop an MGO baseline methodology. MGO seems a prudent and effective way to measure DR performance where that DR performance is the result of an increase in behind-the-meter generation.

2. Develop additional detail regarding the "ISO Type 2" baseline methodology (i.e., provision of statistically derived meter data) and document that in the appropriate BPMs.

Comments: NRG notes that the CAISO indicates that currently no market participants are using the Type 2 baseline methodology. (Straw proposal at page 16.) Before the CAISO and market participants expend time and effort working on additional detail for the Type 2 methodology, all parties would benefit from better understanding whether, given no market participants are using that methodology, that such effort would be time well spent.

Non-resource adequacy multiple use applications

Please provide your comments on each of the two non-RA scenarios the ISO has proposed to address.

Also, the ISO strongly encourages stakeholders to ***identify and describe use cases*** under each scenario (including diagrams of the configurations contemplated for these use cases), and specific issues not covered in these scenarios that should be addressed in this initiative.

1. Type 1: Resource provides services to the distribution system and participates in the ISO market. Question 1 – How do we manage conflicting real-time needs or dispatches by the distribution utility and the ISO? Question 2 – If distribution system and ISO needs are aligned, and the resource's actions meet the needs of both, is there a concern about the resource being paid twice for the same performance? Under what situations is double payment a concern? How should we address this concern? Question 3 – Should any restrictions be on a DER aggregation or the sub-resources of a DER aggregation providing distribution-level services? Would the distribution utility ever call upon a multi-pricing node DER aggregation to address a local distribution problem?

Comments: Given that the discussion of these multiple use scenarios is limited to non-RA DERs (i.e., DERs that have no must-offer obligation), one threshold question that might obviate the complication around the use of the DER for distribution system purposes and wholesale market purposes is whether a DER could signal that it is being used exclusively for distribution system purposes simply by not submitting bids to the CAISO's wholesale markets, or even by signaling to the CAISO that it is operating exclusively for distribution system purposes through the use of a real-time flag or other communication to the CAISO. Alternatively, the CAISO could consider a system in which, like the super-priority reliability dispatch instructions provided to Reliability Must-Run (RMR) units, distribution system reliability instructions could be communicated to the CAISO by the DSO and the to the DER through the CAISO's markets in the form of RMR-like instructions to the DERS.

Given the potential for conflicting instructions (e.g., needed to increase the output of DERs to address a distribution issue at the same time the CAISO is experiencing system-wide over-supply), it may be necessary to impose some restrictions on DERs that are providing distribution reliability services relative to their simultaneous participation in the CAISO wholesale markets. Given that it is likely that DERs will be seeking to participate in as many markets as possible, any restrictions should be as narrowly tailored as possible to enable DERs access to as many revenue streams as possible.

2. Type 2: Resource provides services to end-use customers and participates in the ISO market. The ISO has identified the following three sub-types (are there others?): (a) DER installed behind the customer meter, such that flow across the customer meter is always net load; (b) DER installed behind customer meter, such that flow across the customer meter can be net load or net injection at different time; and (c) DER installed on the utility side of the meter, may provide service to end-use customers and participate in wholesale market.

Comments: NRG agrees that scenarios (1) and (2) are the most likely and are the scenarios that should be focused on. However, it seems most likely that Scenarios 1 and 2 will not be mutually exclusive, and DERs will want to (1) operate to provide customer value (e.g., demand charge reduction or peak shaving); (2) operate to provide distribution system benefits; and (3) participate in the CAISO wholesale markets as possible.