

Stakeholder Comments Template

Day-Ahead Market Enhancements Phase 1 Initiative

This template has been created for submission of stakeholder comments on the third revised straw proposal that was published on February 28, 2019. The proposal, Stakeholder meeting presentation, and other information related to this initiative may be found on the initiative webpage at:

http://www.caiso.com/informed/Pages/StakeholderProcesses/Day-AheadMarketEnhancements.aspx

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on March 21, 2019.

Submitted by	Organization	Date Submitted
Brian Theaker)	NRG Energy, Inc. ("NRG")	March 21, 2019

Please provide your organization's comments on the following issues and questions.

1. Fifteen-Minute Granularity Design Features

Please provide your organization's feedback on the fifteen-minute scheduling granularity features topic as described in section 2 of the proposal. Please explain your rationale and include examples if applicable.

The CAISO has proposed to move the DA bid submission deadline up from 10 AM PPT to 9:30 AM PPT. The CAISO has also proposed to delay publishing the DA market results from 13:00 PPT to 13:30 PPT. In NRG's view, moving the bid submission deadline up by 30 minutes is unlikely to unduly impact gas trading that takes place prior to submitting DA bids, because the most liquid part of timely cycle trading is typically over ahead this new proposed deadline. Similar, NRG does not expect that pushing back by 30 minutes the deadline for posting DA market results should create undue hardship. However, the CAISO's proposal for changing the DA market timelines as its proposes hinges on the CAISO's expectation that the more granular DA market will be able to solve on a schedule that can be accommodated by these time changes – a fact not yet in evidence.

The CAISO's proposal to run the energy markets on a 15-minute basis but continue to do unit commitment on an hourly basis warrants further consideration and investigation. The concern expressed at the March 7 meeting – that doing unit

commitment on an hourly basis when the commitment might be more accurately targeted at :30 or :45 could systematically suppress prices in the earlier intervals. NRG agrees that 15-minute energy scheduling offers benefits whether unit commitment is done on a 15-minute basis or an hourly basis, but encourages the CAISO to more thoroughly consider and report on the issues that could arise from a mismatch between the granularity of energy scheduling and unit commitment to help inform a full consideration of the benefits and costs of adopting 15-minute scheduling. As everyone is painfully aware from the intertie virtual bidding experience, market design features that can be exploited due to systemic design or operational biases do not end well.

The CAISO has proposed to retain the hourly block bidding option – which results in awarding the same schedule across all four 15-minute intervals in an hour - for imports and exports. Given the CAISO's intent to move all DA schedules to fifteenminute schedules, why is the CAISO proposing to retain this functionality, which is available only for intertie resources? If the CAISO intends to retain hourly block bidding, it should further explain why.

The CAISO has proposed to allow SCs the ability to submit bids on a 15-minute basis. such that the SC would submit 96 bid curves for the 24-hour period. The CAISO has also proposed to move from hourly bidding to 15-minute bidding for the real-time market, with the bid submission deadline remaining at 75 minutes prior to the operating hour. NRG does not object to this proposal, which could help parties having to transact same-day gas reflect those prices in their real-time bids in a timely fashion. NRG notes, however, that unless the CAISO better incorporates real-time gas prices into its real-time market bidding processes (specifically, in setting the current bid caps, and later, in setting and validating reference price levels if and when CC-DEBE is implemented) then offering increased real-time bidding granularity will be of diminished value.

With regards to the CAISO's discussion regarding moving the granularity of inter-SC trades to a 15-minute basis: NRG does not object to this proposal, but urges the CAISO to use this opportunity to finally address the asymmetry in Inter-SC trade adjustments for VERs. This is issue 6.1.39 in the March 1, 2019 Policy Initiatives Catalog.

Please provide your organization's position on the fifteen-minute scheduling granularity features topic as described in section 2 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

NRG wishes to add a fifth category to convey its position – not oppose, with caveats.

Optional: Include additional subtopics or specific questions on this topic as needed

2. Fifteen-Minute Granularity Impacts to the Energy Imbalance Market

Please provide your organization's feedback on the Fifteen-Minute Granularity Impacts to the Energy Imbalance Market topic as described in section 3 of the proposal. Please explain your rationale and include examples if applicable.

Please provide your organization's position on the Fifteen-Minute Granularity Impacts to the Energy Imbalance Market topic as described in section 3 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

NRG has no comment.

Optional: Include additional subtopics or specific questions on this topic as needed

3. Energy Imbalance Market Governing Body Role

Please provide your organization's feedback on the EIM Governing Body Role as described in section 4 of the proposal. Please explain your rationale and include examples if applicable.

NRG has no comment.

Please provide your organization's position on the EIM Governing Body Role as described in section 4 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

Additional comments

Please offer any other feedback your organization would like to provide on the Day-Ahead Market Enhancements Phase 1 initiative third revised straw proposal.