California ISO

Stakeholder Comments Template

Day-Ahead Market Enhancements Phase 2 Initiative

This template has been created for submission of stakeholder comments on the issue paper and straw proposal that was published on February 28, 2019. The paper/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
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Please provide your organization's comments on the following issues and questions.

1. Proposed Day-Ahead Market Structure

Please provide your organization's feedback on the proposed day-ahead market structure topic as described in section 3 of the proposal. Please explain your rationale and include examples if applicable.

In general, NRG supports the CAISO's proposal to implement a new Day-Ahead (DA) market structure that co-optimizes energy and ancillary services along with a new DA Flexible Ramping Product (FRP). NRG will note specific concerns with this proposal in comments below.

As with all CAISO market reliability products, a key consideration regarding the reasonableness of the CAISO's proposal is the amount of FRP the CAISO will procure. The CAISO has proposed to use historical observations of IFM net load error, rather than historical observations of its load forecast error, to identify how much DA FRP it will procure. This approach could be reasonable; however, NRG looks forward to a much more in-depth presentation of exactly how the process of setting the FRP requirements from market net load would work, including such things as what population of net load errors will be used for what days, how the procurement target will be determined from the sample population, etc. The CAISO requested input on the appropriate approach for procuring the FRP; NRG offers that DA FRP should

conservatively be procured to cover a very high confidence level of realizable net load error obtained from a sample of highly representative sample of net load error.

The CAISO has indicated it will not use a demand curve to procure FRP. NRG supports this approach.

The CAISO offered this statement on page 13 of the Phase 2 Issue Paper/Straw Proposal: "Because the CAISO believes economics and other measures will incentivize delivery of day-ahead schedules, it is more efficient to instead base the flexible ramping product requirement around the market's forecast net load error." Again, while NRG supports examination of the use of market net load error as the means for determining the FRP requirement, NRG understands that systematic DA under-scheduling of variable energy resources has tended to depress real-time prices relative to day-ahead prices. In light of that broad observation, NRG asks the CAISO to better explain its expectation that "economics and other measures" will incent delivery of day-ahead schedules.

Please provide your organization's position on the proposed day-ahead market structure topic as described in section 3 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

Support with caveats.

2. Day-Ahead Flexible Ramping Product

Please provide your organization's feedback on the Day-Ahead Flexible Ramping Product as described in section 4 of the proposal. Please explain your rationale and include examples if applicable.

While the CAISO has determined that no certification is required to be eligible to provide FRP, the CAISO has proposed two approaches for evaluating the performance of resources providing FRP: (1) a minimum performance threshold with the potential for resources falling below this threshold from providing FRP in the future, and (2) modify the no-pay rules to incent performance. NRG prefers the latter approach. The recent experience with the regulation performance threshold demonstrates that establishing a discrete FRP performance threshold will be a very subjective and likely speculative exercise. Using well-crafted no-pay rules which recognize that the economic and operational harm in failing to provide FRP vary with the situation is a better and more effective approach.

The CAISO has proposed that DA FRP will be a fully biddable product. The CAISO also proposes that resource adequacy (RA) resources ***will not*** be required to bid $0/MW[1] (IP/SP at 19) but then goes on to propose that RA resources ***will*** be required to bid $0/MW during a transition period (IP/SP at 20) that will be in place through the sooner of the end of 2021 or the implementation of the extended DA market. Characterizing the FRP as a fully biddable product while prohibiting RA resources from submitting non-zero bids, even as a transitional mechanism, makes no sense. The CAISO asserts that the transitional period of requiring $0/MW bids is necessary to

[1] The CAISO, on page 19, refers to FRP bids as being "$/MWh"; NRG requests the CAISO clarify whether FRP bids will be "$/MW" or "$/MWh".

allow the RA paradigm time to recognize that marginal costs of capacity availability will be compensated through the FRP, not the RA program. The CAISO, however, cannot require that RA buyers and suppliers negotiate or renegotiate their RA agreements to accommodate the FRP. Even without capacity bids, the FRP presumably will be producing non-zero prices from energy opportunity costs when it is implemented. The (il)logical extension of the argument that $0/MW FRP bids should be required until the RA contracting paradigm adjusts is that the CAISO should provide no incremental FRP compensation to RA suppliers until the RA contracting paradigm has adjusted – which, under the new multi-year local RA requirements directed by CPUC Decision D.10-02-022, could take years. Given that the results of this initiative are not slated to be presented to the CAISO Board until late 2019, and likely would not be implemented until late 2020, the should be enough time for the RA contracting paradigm to adjust to the proposed new FRP without requiring that RA suppliers submit $0/MW capacity bids for any period. For all these reasons, NRG strongly opposes the proposal to require $0/MW FRP bids from resources.

The CAISO indicates that, because corrective capacity will be procured on a nodal basis that such resources may be able to exercise market power (IP/SP at 20). While NRG does not dispute that corrective capacity procurement will have a locational aspect to it, this does not automatically imbue the corrective capacity with the ability to exercise local market power if the supply of corrective capacity is workably competitive. Could the CAISO's dynamic energy LMPM system be leveraged to assess whether there is a competitive supply of corrective capacity so that mitigation is not triggered when it is not needed? Finally, NRG requests the CAISO confirm that it is considering the need for local market mitigation only for corrective capacity and not for FRP.

Please provide your organization's position on the Day-Ahead Flexible Ramping Product as described in section 4 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

NRG generally supports the development of the FRP but strongly opposes the CAISO's proposal to require $0/MW FRP bids from RA resources.

3. Re-Optimization of Ancillary Services

Please provide your organization's feedback on the re-optimization of ancillary services as described in section 5 of the proposal. Please explain your rationale and include examples if applicable.

In its short discussion on the topic of re-optimizing the procurement of DA ancillary services in real-time (RT), the CAISO has proposed that there be no capacity bids for real-time ancillary services. To NRG's understanding, this suggests that, given that there are and will continue to be non-zero capacity bids for DA-procured ancillary services, that there likely could be a systematic difference between DA and AS prices, and real-time re-optimization of ancillary services will effectively force DA AS suppliers to "buy back" their obligation to provide DA AS in the real-time market as lower RT prices. NRG requests that the CAISO comment as to whether the CAISO shares NRG's expectation as to how re-optimization with no RT capacity bids will play out. Market designs that create systematic differences in prices for the same products

between markets have typically exacerbated the possibility of inefficient market behavior.

Please provide your organization's position on the re-optimization of ancillary services as described in section 5 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

NRG takes no position on this issue at this point.

4. Energy Imbalance Market Governing Body Classification

Please provide your organization's feedback on the EIM Governing Body classification as described in section 6 of the proposal. Please explain your rationale and include examples if applicable.

No comment.

Please provide your organization's position on the EIM Governing Body classification as described in section 6 of the proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

Support.

APPENDIX C: DRAFT TECHNICAL DESCRIPTION

5. Assumptions and Mathematical Formulations

Please provide your organization's feedback on the assumptions and mathematical formulations included in Appendix C. Please explain your rationale and include examples if applicable.

No comment.

Please provide your organization's position on the assumptions and mathematical formulations included in Appendix C. (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.