

Stakeholder Comments Template

Day-Ahead Market Enhancements Phase 2 Initiative

Submitted by	Organization	Date Submitted
<i>Patrick Cunningham</i> <i>Xian Ming “Cindy” Li</i> Patrick.cunningham@cpuc.ca.gov (415)703-1993	<i>The Public Advocates</i> <i>Office at the California</i> <i>Public Utilities</i> <i>Commission</i>	<i>April 4, 2019</i>

The following template includes comments from the Public Advocates Office on the California Independent System Operator’s (CAISO) Day-Ahead Market Enhancements Phase 2: Flexible Ramping Product Issue Paper / Straw Proposal of February 28, 2019 (Straw Proposal). The Straw Proposal recommends creating a new day-ahead Flexible Ramp Product Up and Flexible Ramp Product Down (referred to in these comments jointly as “FRP”) that would be dispatched in the real-time market to address real-time market needs. CAISO states that these market needs include forecast errors (inaccuracies in the day-ahead forecast of load) and uncertainty errors (the difference between day-ahead and real-time market runs, caused in part by changes in resource availability).

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.

The impact of Phase 1 may make subsequent major market processes changes unnecessary

Phase 1 of the Day-Ahead Market Enhancements initiative (DAME) will add 15-minute granularity to scheduling and bidding intervals to the Day-Ahead Market (DAM), replacing the current one-hour intervals, to allow dispatch of resources closer to intra-hour needs on the Fifteen-Minute Market (FMM). This change should help “to ensure that sufficient resources are committed and adequate available capacity is procured ahead of time to ensure the success of the real-time market and reliability of the bulk electric grid.”¹ The changes in Phase 1 are anticipated to be implemented by Fall 2020, one year prior to the implementation of Phase 2.²

¹ DAME Phase 1 Third Revised Straw Proposal, February 28, 2019, p. 4.

² Ibid, p. 31.

The CAISO has not provided estimates of the magnitude of any remaining market forecast errors after 15-minute scheduling and bidding are introduced into the DAM. The proposed 15-minute interval changes could also reduce the uncertainty errors³ that the CAISO seeks to address with DAME Phase 2. The CAISO has not yet established whether significant forecast and uncertainty errors on the grid are likely to exist after implementation of DAME Phase 1. The CAISO provided two figures in the Straw Proposal demonstrating “Net Load Errors” that the proposed Flexible Ramping Products (FRP) would address.⁴ These figures include forecast errors that could be significantly mitigated by the changes proposed in Phase 1.

The Public Advocates Office recommends that the CAISO study the impact of the Phase 1 15-minute granularity changes on the DAM and specifically on forecast and uncertainty errors before undertaking additional major market changes through DAME Phase 2. The CAISO may find existing market structures sufficient to address any remaining uncertainty between the DAM and the FMM after Phase 1 changes are implemented.⁵

The CAISO should delay the implementation of Phase 2 until after Phase 1 is implemented and the CAISO has studied the impacts of Phase 1 to determine if the proposed Phase 2 changes are still needed prior to moving forward with any new market products or market process re-designs that may increase ratepayer costs for little, if any, enhancements to reliability.

The CAISO should clarify how the Residual Unit Commitment process is incompatible with Phase 2 and how the Reliability and Deliverability Assessment (RDA) corrects this incompatibility

The CAISO proposes to replace the existing Residual Unit Commitment (RUC) market process with a new process, the Reliability and Deliverability Assessment (RDA). The RDA would determine if the energy schedules and FRP awards in the Integrated Forward Market (IFM) are sufficient to meet the expected reliability needs in the following day.⁶ If the RDA process shows that resources scheduled in the IFM are insufficient, the CAISO might use an exceptional dispatch to correct an anticipated deficiency. The CAISO Straw Proposal does not describe the scenarios, daily portfolio target, or forecast that the RDA would test net awarded resources against to determine if a reliability problem exists.

The existing RUC process allows the CAISO to procure ancillary services and other capacity to meet the CAISO’s net load forecast if resources in the IFM are below the forecast. This existing capability already seems to fulfill the stated purpose of the RDA. In addition, the

³ Though the solutions of Phase One focus on granularity issues, 15-minute day-ahead market increments may help address some level of uncertainty issues, such as dynamically scheduled resources. See DAME Phase 1 Second Revised Straw Proposal, August 27, 2018, p. 8.

⁴ Straw Proposal, pp. 7-8.

⁵ The CAISO provided a study of historical imbalances which would be addressed in part by the implantation on 15-minute granularity and a redesign on a flexible RA product on April 27, 2018. See Flexible Resource Adequacy Criteria and Must Offer Obligation Phase 2: Second Revised Flexible Capacity Framework, pp. 14-17. Available at: <http://www.caiso.com/Documents/SecondRevisedFlexibleCapacityFrameworkProposal-FlexibleResourceAdequacyCriteriaMustOfferObligationPhase2.pdf>

⁶ Straw Proposal, p. 9.

Straw Proposal states that FRP procurement in the IFM would eliminate the need for RUC⁷ so the need for a new process is not clear.

The Public Advocates Office requests the CAISO explain how the RDA differs from the RUC, how the RUC would be incompatible with the FRP, and expand on which, if any, RUC tools the CAISO is seeking to retain through the RDA process if DAME Phase 2 is implemented. Replacing the RUC would require significant changes to the CAISO's Tariff and Business Practice Manuals (BPMs) and may have numerous unintended consequences affecting how other market processes interact with the RUC. The CAISO should provide a holistic justification for such a change before moving forward with the proposal.

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)

The Public Advocates Office opposes the day-ahead market structure proposed in the Straw Proposal given the lack of justification for DAME Phase 2.

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.

The prices and volumes of proposed tools should be estimated and compared with current services

The Straw Proposal states that "[r]esources that meet the system requirement will be paid the system marginal price."⁸ We assume that "resources" refers to FRP awards that meet non-sub-regional requirements. The CAISO should clarify what is meant by the "system marginal price" in the context of the Straw Proposal in the next draft. The next draft proposal should also provide a researched estimate of CAISO-projected average FRP prices and quantities compared with average RUC prices and quantities. Price and volume data would help determine if scheduling coordinators and, by extension, ratepayers, will be paying more for the same reliability service.

The CAISO should estimate the impact of the FRP on congestion costs

The CAISO intends to allow intertie resources to provide the FRP.⁹ The Straw Proposal provides some guidelines for how to schedule these intertie resources, but it does not offer an analysis of whether this will increase congestion pricing on an already-congested intertie, nor does

⁷ Straw Proposal, p. 8.

⁸ Straw Proposal, p. 22.

⁹ Straw Proposal, p. 17.

it compare the impact of RUC on congestion with the proposed FRP and RDA. The discrepancies that the FRP is intended to address occur during the morning and evening peaks. The CAISO should demonstrate that this FRP from intertie resources will not increase congestion costs for scheduling coordinators and ratepayers.

The CAISO should provide more detail as to how DAME Phase 2 will protect against market power

Depending on the yet-to-be-developed requirements for FRP resource qualification, fewer resources may be eligible to offer FRP to the DAM than in the broader CAISO energy markets. These potential requirements would likely include ramp rates that privilege natural gas and other non-intermittent dispatchable generators that are able to ramp up or down generation rapidly. Because the market for FRP will also be smaller and geographically limited through the proposed “sub-regional constraints for the flexible ramping product,”¹⁰ there is a higher risk that resources will exercise market power. The Straw Proposal recommends using certain measurements of the marginal cost of generation to determine if market power is being exerted.¹¹ Those include the cost of gas procurement, the cost to modify the hydro system to provide/bid FRPs, and others. The CAISO seeks stakeholder input on the potential costs required for resources to offer FRP.¹² This would inform CAISO development of a marginal price benchmark for the FRP to consider the approximate costs to provide the product from various resources.

The design and calculation of a marginal price benchmark to help guide market power mitigation measures is critical for ratepayers because it is what allows the CAISO to know when well-positioned generators are using their market power to increase prices. It would be helpful to have the CAISO provide projections as to which generator types are most likely to offer FRP to the market in order to develop an appropriate price that considers the marginal cost of that type of generation.

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)

The Public Advocates Office opposes the DAME Phase 2 FRP proposal as outlined in the Straw Proposal. As stated in response to question 1, the Public Advocates Office recommends that the CAISO implement the proposed DAME Phase 1 changes and then conduct a study to determine if any other proposed DAM changes are still needed before undertaking the proposed changes in the DAME Phase 2 proposal. Making corrections in advance of implementing the

¹⁰ Straw Proposal, p. 9.

¹¹ Straw Proposal, p. 20.

¹² Straw Proposal, pp. 20-21.

DAME Phase 1 changes runs the risk of attempting to address problems that may not arise or that differ significantly from those that do arise.

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.

The Public Advocates Office has no comments on this topic and no position of support or opposition at this time.

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.

The Public Advocates Office has no comments on this topic and no position of support or opposition at this time.

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.

The Public Advocates Office has no comments on this topic and no position of support or opposition at this time.

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.

The Public Advocates Office has no additional comments at this time.