



California ISO

Stakeholder Comments Template

Day-Ahead Market Enhancements Phase 2 Initiative

| Submitted by | Organization | Date Submitted |
|-------------------------------------|-------------------------------|-----------------------|
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PGP has a strong interest in the Day-Ahead Market Enhancements initiative. It is our understanding that CAISO’s day-ahead market enhancements are foundational to any extension of the day-ahead market to EIM Entities, which we anticipate will have a significant impact on day-ahead and potentially forward bilateral trading in the Pacific Northwest, regardless of whether PGP members or BPA join EDAM.

Additionally, as owners of approximately 6,000 MW of generation, 4,500 MW of which is hydro, PGP sees the development of a day-ahead flexible ramping product as a potential new opportunity to provide its flexible resources into the CAISO day-ahead market. Further, given that PGP members also purchase 37 percent of BPA’s preference power, we are likewise interested in new opportunities for BPA to increase secondary revenues through potential new sales of a day-ahead flexible ramping product.

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.

PGP is supportive of the development of a new day-ahead (DA) flexible ramping product (FRP) and the elimination of the residual unit commitment (RUC) process but does not support CAISO’s approach outlined in its issue paper and straw proposal. There are several key design elements of CAISO’s current day-ahead market that PGP believes do not result in fair and efficient outcomes for all parties nor provide an acceptable starting point for EDAM.

- I. The capacity attributes of firm energy products should be recognized and appropriately compensated.**

PGP believes that the capacity benefits of firm energy resources must be recognized in the day-ahead dispatch, pricing and settlement processes. This is necessary to:

- Allow CAISO (and other EIM Entity BAAs in EDAM) to determine the quantity of day-ahead flexible ramping product that must be procured as backup supply for bids that have a high risk of not materializing in real-time, and
- Fairly compensate resources that assure delivery and thereby reduce CAISO's need for flexible capacity.

CAISO's current day-ahead market processes and its proposed enhancements co-mingle energy-only bids and awards with capacity-backed bids and awards. If CAISO cannot distinguish between the two, it is unclear how CAISO can properly determine which import awards require additional procurement of flexible capacity and which ones do not. To ensure proper price formation, the additional capacity that is procured to backfill for unreliable supply should be included in the market clearing price to provide an appropriate price signal for the attributes or products being provided to all resources that contribute to meeting CAISO's needs.

II. CAISO's day-ahead market enhancements must consider the bilateral trading and pricing paradigm currently used outside the CAISO BAA.

Bilateral transactions outside the CAISO BAA are currently traded and priced primarily as WSPP Schedule C Firm Energy that includes both energy and hourly and/or daily backup capacity to ensure its delivery. In contrast, CAISO's current day-ahead market treats firm energy and less-than firm energy as largely the same without recognizing the benefit provided by firm energy to reduce the need for procurement of additional capacity. A fundamental shift in how price formation is approached in CAISO's day-ahead market is needed in order to assure delivery of supply and reconcile how products are traded in the bilateral markets outside of the CAISO BAA with how energy delivery obligations and price formation is approached in CAISO's day-ahead market. Perpetuating the current approach forward to an EDAM construct will leave EIM Entity BAAs with uncertainty around their import supply, as well as undervalue firm energy supply calling into question whether suppliers will be willing to transition to EDAM.

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.

PGP would like to better understand how the use of the market's forecasted error in the determination of the flexible ramping product requirements will work for EIM Entities in EDAM. While CAISO's conclusion is that the amount of day-ahead flexible ramping product needed relative to the IFM net load is not materially different than the

amount of day-ahead flexible ramping product needed relative to the CAISO net load, it is unclear whether this will be the case for an EIM Entity BAA. If the reliability and deliverability assessment finds the solution for an EIM Entity BAA to be infeasible, would the EIM Entity then be required to have their operators complete engineering studies and determine if and where exceptional dispatches are necessary? PGP questions whether in the context of EDAM, it may be more workable for EIM Entities to base the reference point for procurement of the day-ahead flexible ramping product on the BAA net load forecast.

As a separate matter, PGP supports the flexible ramping product requirement to procure sufficient resources in the day-ahead market at a pre-defined confidence level rather than using a demand curve.

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.

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.

PGP supports CAISO's proposal to give advisory authority for this initiative to the EIM Governing Body as the proposed changes in this initiative are meant to lay the foundation for EDAM.

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.

Additional comments

Please offer any other feedback your organization would like to provide.

As CAISO's day-ahead market design sets the foundation for EDAM, PGP believes enhancements to CAISO's day-ahead markets must be considered in the context of developing a proposal that is feasible for extension of the day-ahead market to EIM Entity BAAs, not just the CAISO BAA. It is unclear how CAISO can identify and include all of the considerations necessary for EDAM in its day-ahead market enhancements prior to the commencement of the EDAM stakeholder process. It is also unclear how the EDAM feasibility assessment can accurately evaluate costs and benefits if CAISO concurrently advances fundamental market design changes that significantly impact the outcome of the assessment. There is a risk that decisions made in this process could impact options and opportunities in the EDAM effort. PGP finds it more appropriate and more efficient for CAISO to combine its day-ahead market enhancements and EDAM stakeholder processes.