



Day Ahead Market Enhancements Revised Straw Proposal

Public Generating Pool Comments May 2, 2018

The Public Generating Pool (PGP) represents ten consumer-owned utilities in Oregon and Washington that own almost 6,000 MW of generation, 4,500 MW of which is hydro and 95% of which is carbon-free. Three of the PGP members operate their own Balancing Authority Area (BAA), while the remaining members have service territories within the Bonneville Power Administration's (BPA) BAA. PGP appreciates the opportunity to comment on the California ISO's Day Ahead Market Enhancements Revised Straw Proposal.

1. Imbalance Reserve Bidding

CAISO proposes that all generators, imports and exports can submit bids to provide upward and downward imbalance reserves. CAISO states that only an energy bid price will be submitted because the total quantity that a resource can be awarded will be determined based upon its energy bid range and its ramp capability over the 15-minute interval. PGP views day-ahead energy bids as separate from imbalance reserves and believes imbalance reserves should be developed as a separate product.

2. Interplay between Resource Adequacy and Imbalance Reserves

In its Revised Straw Proposal, CAISO proposes two changes to the Resource Adequacy (RA) framework – a) RA resources not awarded imbalance reserves in the day-ahead market can elect not to bid into the real-time market, and b) RA resources will not be required to bid \$0.00. Regarding the second change, CAISO indicates that when the day-ahead market is extended to EIM entities, it would be inappropriate to require CAISO RA resources to bid in for imbalance reserves at a price of \$0.00 while other EIM entities would not have a similar requirement given their voluntary nature. CAISO also states that allowing RA resources to economically bid the imbalance reserve product will allow the scheduling coordinator to express the price at which it is willing to provide its reserve to either the CAISO or another EIM balancing authority area and be compensated the marginal clearing price of the imbalance reserves.

If the purpose of allowing RA resources to submit non-zero bids is to address the extension of the day-ahead market to EIM Entities, PGP recommends the ability for RA resources to submit non-zero bids in the day-ahead market be revisited in the Extension of the Day-Ahead Market to EIM Entities stakeholder initiative. The stakeholder process for extending the day-ahead market to EIM Entities has not yet begun and not enough detail has been provided to fully understand the implications of this change to a broader day-ahead market footprint.

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Absent the extension of the day-ahead market to EIM Entities, PGP requests CAISO clarify the differences between the imbalance reserve product and the current Residual Unit Commitment (RUC) capacity that warrant the ability for RA resources to submit non-zero bids into the day-ahead market.

3. Drivers of upward imbalance reserves for FMM imbalance energy

PGP reiterates its comments from the Day-Ahead Market Enhancements Issue Paper and Straw Proposal that imports should be required to tag their Integrated Forward Market (IFM) schedule. In the list of drivers for upward imbalance reserves, CAISO proposes to include imports that don't tag their IFM schedule. PGP questions why CAISO would procure additional resources to resolve a driver of uncertainty that can be removed through simple tagging requirements.

PGP requests CAISO provide additional information regarding the magnitude and frequency of imports that do not tag their IFM schedules and information on how CAISO will calculate how much upward imbalance reserves will be procured to account for untagged imports. PGP continues to recommend the ISO require imports to tag their IFM schedule instead of procuring upward imbalance reserves to resolve potential upward imbalance resulting from untagged IFM import schedules.

4. Export fees for downward reserves

PGP believes downward imbalance reserves should not be subject to export fees as these are solely used for the purpose of economic displacement. To impose an export fee on external resources providing downward imbalance reserves would create an economic hurdle for external resources, disadvantaging those resources compared to internal CAISO BAA resources. PGP requests CAISO affirm that downward imbalance reserve awards to resources outside the CAISO BAA would not be subject to TAC and uplift charges.

5. Self-provision of imbalance reserves

CAISO states that there will be no self-provision of imbalance reserves, which is in contrast to what CAISO currently does for ancillary services. PGP requests clarification about why CAISO has proposed no self-provision of imbalance reserves. Further, PGP requests clarification on whether there will be no self-provision of imbalance reserves for EIM Entities if the day-ahead market is extended to EIM Entities.

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6. Imbalance Reserve Penalty Price

PGP supports CAISO developing penalty pricing for inadequate imbalance reserve bids. CAISO has stated that it believes the potential for scarcity in the day-ahead market is extremely low because the flexible RA requirements will ensure sufficient resources have been procured by load-serving entities to meet their allocable share of the highest potential imbalance reserve requirement for each month. However, CAISO has experienced significant shortages of RA capacity during different days within the last year and has made slow progress on making enhancements to its RA framework.

PGP believes robust scarcity and shortage pricing are essential market design features for the imbalance reserve product. Well-designed shortage pricing mechanisms help ensure that tight supply conditions are reflected in market clearing prices, create efficient price signals, and encourage voluntary resource participation in the CAISO's day-ahead market. PGP believes a well-designed tiered based penalty approach can achieve these outcomes. A tiered penalty price approach also allows the penalty price to be tied to the magnitude of the shortage.

7. Performance Evaluation of Imbalance Reserve Resources

PGP supports a performance evaluation, in addition to the no-pay provision, to ensure resources that are awarded imbalance reserves will meet the real-time market must offer obligation. PGP supports CAISO's disqualification approach that would establish a minimum monthly performance standard that must be met in order for a resource to continue to be awarded imbalance reserves.

8. Settlement of Imbalance Reserves

CAISO has stated that if a resource is awarded imbalance reserve in the day-ahead market and does not follow the 15-minute or 5-minute dispatch, the resource will be charged for the costs associated with the uncertainty movement allocation of the resulting flexible reserve product. CAISO states there will be no rescission of payments for imbalance reserve awards related to deliverability, undispatchability, or unavailability, in contrast to the rules that apply to ancillary services today. PGP requests CAISO clarify why it believes the penalty for non-performance of imbalance reserves should warrant a less severe penalty than non-performance of ancillary services. PGP also requests CAISO consider disqualifying a resource from bidding to provide the day-ahead imbalance reserve product for a defined period going forward, if the resource persistently fails to perform when called upon.

9. Interplay between Imbalance Reserves and the Flexible Ramping Product

PGP agrees with the current proposal that considers imbalance reserves similar to RUC availability bids in that once the real-time must offer obligation is met, the imbalance reserve

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resource has provided the service for which it was procured. As such, PGP does not believe a resource receives a double payment if the resource that was awarded imbalance reserves is also awarded the flexible ramping product in real-time. The flexible ramping product holds back capacity in one real-time interval in order to save the flexibility of the resource to be deployed in a future interval. Consequently, the resource should be compensated for a lost energy sale in the current interval through the flexible ramping product.

10. Calculation of the Imbalance Reserve Requirement

CAISO proposes three different options for calculating the imbalance reserve requirement. PGP does not oppose any of the proposed methods outlined in the revised straw proposal. However, PGP recommends that whatever approach is selected is back tested on a regular basis to verify that the requirement is achieving the intended objective. For example, if the imbalance reserve requirement is set to cover 95% of the uncertainty that may occur in real-time, CAISO can test if the requirement is achieving this result by back testing to see if 95% of the uncertainty was covered by imbalance reserves. This can provide a critical feedback loop to CAISO and stakeholders as to whether the imbalance reserve requirement is set at the proper level and indicate whether improvements need to be made.

Furthermore, if the day-ahead market is extended to EIM Entities, performing data analysis on a regular basis can also provide information as to whether the imbalance reserve requirement, intended to be used for the day-ahead resource sufficiency test, is applied consistently to each BA. PGP requests CAISO consider an approach for back testing its imbalance reserve requirement and that the data and analysis be made transparent and discussed with stakeholders as part of a re-occurring CAISO forum.

11. Resource Sufficiency Evaluation

CAISO proposes to run the resource sufficiency test on each 15-minute interval individually. Under CAISO's proposal, the test would be performed prior to the operating hour and if a 15-minute interval test is failed, transfers into or out of that BA will be held at the previous 15-minute interval binding result. PGP has concerns with the proposed penalty and asks CAISO to address potential unintended consequences of the proposed change.

PGP understands the desire to have EIM transfers frozen solely in the intervals in which the resource sufficiency test was failed. PGP supports the concept of matching resource sufficiency enforcement to the interval that was failed. However, PGP is concerned that holding transfers at the previous 15-minute interval, while the test is done prior to the hour, could result in unintentional leaning. For example, if an EIM Entity has failed the fourth 15-minute interval in the next hour, it can set itself up to import/export as much as it needs to cover its failure by the third 15-minute interval in the next hour. Transfers will be held at the third 15-minute interval

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binding result for the fourth 15-minute interval, allowing that EIM Entity BA to lean on its neighbors.

PGP requests CAISO to consider changes to the enforcement of resource sufficiency that do not enable the ability for one entity to lean on another. PGP also requests CAISO consider moving the discussion of changes to the resource sufficiency test to a specific stakeholder process on resource sufficiency where the resource sufficiency evaluation can be examined more holistically, rather than make incremental changes to the resource sufficiency framework through the Day-ahead Market Enhancements initiative.

12. EIM Governing Body Role

PGP supports the re-classification of this initiative to hybrid non-EIM specific as the proposal includes changes to EIM-specific rules of the real-time market.

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