



Local Market Power Mitigation Enhancements Working Group Meeting

Public Generating Pool Comments
October 17, 2018

The Public Generating Pool (PGP) appreciates the opportunity to comment on the California ISO's Local Market Power Mitigation Enhancements Working Group meeting held on October 10, 2018. PGP was encouraged by the changes discussed at the workshop and believes the enhancements proposed can go a long way in closing the gap between CAISO's current local market power mitigation framework and a workable solution for use-limited resources in the EIM. As noted in previous comments, PGP continues to advocate for analysis of a conduct and impact test as a long-term solution but offers the following comments on the changes proposed at the working group meeting.

I. SUPPORT FOR COMPETITIVE LMP ENHANCEMENTS

PGP supports improved accuracy of the competitive LMP and prevention of flow reversal.

PGP agrees that calculating the competitive LMP in every market run should improve the accuracy of the competitive LMP and may be a workable solution for addressing the issue of "flow reversal". Given an accurate competitive LMP that serves as a floor for the price bids would be mitigated to, it shouldn't be economic to serve load outside an import Balancing Authority Area (BAA) and therefore prevent mitigation from turning buyers into sellers.

At the September 28th Market Surveillance Committee meeting, CAISO mentioned that even with the improved competitive LMP calculation, there may still be instances in which mitigation causes flow reversal. **PGP requests CAISO identify examples in which flow reversal can occur even with an accurate competitive LMP, along with the impact, potential frequency of this occurring and whether additional enhancements are needed to fully address the flow reversal issue.**

II. SUPPORT FOR MITIGATION TO BE LIMITED TO CAPACITY NEEDED FOR RESOURCE SUFFICIENCY

PGP supports the updated market design principle that in cases of mitigation involving EIM transfers to another BAA, supply should not be forced to sell energy at a mitigated price beyond its ramping requirement used for the resource sufficiency test. PGP believes the limiting of transfers between BAAs to the greater of flexible ramping upward requirement, less the exporting BAA's imbalance or pre-mitigation exports may be a workable solution to address the

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issue of economic displacement. However, several concerns were raised at the working group meeting that merit further analysis and discussion. **PGP requests CAISO conduct further review of this approach to ensure there are no unintended consequences.**

III. SUPPORT FOR ENHANCMENTS TO THE EIM USE-LIMITED DEB

PGP supports further analysis and discussion of the enhancements proposed at the working group meeting to the EIM Use-Limited Default Energy Bid (DEB). In previous comments, PGP recommended CAISO increase the adder in the EIM Use-Limited DEB formula to recognize opportunities to sell in the best future hours/days and include multiple market locations to recognize opportunities to sell to multiple locations.

Support for EIM hydro resource categories based on storage horizon for DEB purposes

PGP is supportive of the concept of categorizing EIM hydro resources by storage horizon for DEB purposes. Powerex states that a DEB for long-term storage resources may be workable with a lower multiplier because it uses the single best month in the multi-month storage horizon. However, applying a low multiplier, such as CAISO's proposed multiplier of 1.10, underestimates a short-term and within-month storage resource's ability to shape their output to the highest-value hours within the next 24 hours or within the month. Given that forward hourly data is unavailable and the price difference between the DA Peak Index, which is based on the 16-hour heavy load price, and the highest value hours is frequently greater than 1.10 of the DA Peak Index, a higher adder is needed.

Based on the analysis shared by Powerex of various adders, the shorter the storage horizon of an EIM hydro resource is, the higher the likelihood that its water will be inefficiently depleted in the wrong hours if mitigated. PGP found Powerex's analysis of different multipliers compelling and strongly supports adoption of a higher adder for hydro resources with fewer days or hours of storage. To inform the value of the multiplier, PGP encourages CAISO to verify the Powerex analysis or run a similar analysis that starts with a resource's use limitation and evaluates how many days per year the resource's water would be inefficiently depleted.

Support for further analysis of a fixed \$/MWh floor

PGP is supportive of further analysis on the use of a fixed \$/MWh floor. PGP agrees that a fixed \$/MWh floor can provide greater protection to sellers with fewer days of inefficient depletion. As Powerex recognized, a fixed \$/MWh floor can also enable greater protection to buyers by resulting in a lower DEB on average. PGP encourages CAISO to further examine the use of a fixed \$/MW floor for DEBs of short-term and medium-term resources.

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Request for Balance of the Week and Balance of the Month Prices in the DEB formula

PGP requests CAISO include the Balance of the Week (BAL) and Balance of the Month (BOM) price indices into the EIM use-limited DEB equation for within-month resources. Including the BAL and BOM in the Long-Term EIM use-limited resource DEB formula should also be analyzed. Including the BAL and BOM price indices into the EIM use-limited DEB equation will help capture instances when the market reacts to temperature events that are in the 4 to 14-day range, but before the higher prices are being seen in the daily prices. For example, if extreme weather conditions are forecasted for the next week, the BAL or BOM prices would better reflect the higher prices associated with those conditions, and hence those sales opportunities, than the day-ahead peak or month-ahead forward prices. PGP recommends the formula for within-month EIM use-limited resource be modified as follows:

$$\text{Max (DA Peak Index, BAL Index, BOM Index, MA Index}_{+1}) + \text{adder}$$

Support for including multiple market locations

PGP supports the inclusion of multiple market locations in the DEB formula. EIM use-limited resources may not be limited to sales at a single location, depending on their location and physical transmission rights to access other markets. Using prices at a single trading hub does not reflect the sales opportunities to markets that may be more favorable than the trading hub nearest the supplier. PGP reiterates its recommendation that CAISO explicitly include multiple market locations in the EIM Use-Limited DEB formulas to more accurately capture these opportunities.

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