Local Market Power Mitigation Enhancements September 13, 2018 Issue Paper/Straw Proposal

Chelan County Public Utility District's Comments¹ October 3, 2018

Chelan PUD, a consumer-owned utility in Washington, is an active participant in the bilateral, wholesale power markets in the West and a NERC-registered balancing authority. Chelan PUD operates three FERC- licensed hydropower projects generating approximately 10 million megawatt hours of clean, renewable, low-cost electricity annually.

CAISO's existing market power mitigation framework—and the resulting inappropriate mitigation of out-of-state hydro— is one factor that discourages Chelan PUD from joining the EIM. Chelan PUD supports aspects of CAISO's straw proposal and believes CAISO is generally moving in the right direction. However, Chelan PUD believes additional changes are needed in order to encourage EIM participation of clean, flexible hydro units from the Northwest.

Flow Reversal and Economic Displacement

Chelan PUD believes CAISO identified the appropriate principles to guide developing solutions to the problems associated with flow reversal and economic displacement.

"EIM is a voluntary market and each balancing authority area should have sufficient supply to meet its own load and reliability responsibilities. In cases of mitigation involving EIM transfers to another balancing authority area, supply should not be forced to sell energy at a mitigated price beyond what is needed to resolve market power. The use of mitigated bids should not result in additional economic displacement of other supply.

The competitive locational marginal price in each interval should accurately reflect market conditions in each interval."²

Chelan PUD supports CAISO's proposal to modify the calculation of the competitive locational marginal price. Chelan PUD believes the proposal meets the above stated principles and may adequately address the problem of flow reversal.

However, Chelan PUD is concerned about CAISO's proposal to address economic displacement by limiting transfers between EIM balancing authority areas to the amount scheduled in the market power mitigation run. To the extent a market power mitigation run might include economic displacement activity between EIM Entities, this approach could result in mitigation "beyond what is needed to resolve market power." As an alternative solution, Chelan supports further exploring Powerex's concept of limiting the volume of offers subject to mitigation for each EIM entity to the quantity that is relied upon to serve imbalance needs.

¹ Chelan supports Public Generating Pool's October 3, 2018 comments on the issue paper/straw proposal.

² CAISO Issue Paper/Straw Proposal at page 8.

EIM Use-Limited Default Energy Bid

Chelan PUD continues to support development of a default energy bid option that provides appropriate flexibility and certainty for the owners of hydro resources. Chelan agrees with CAISO's principle that: "[t]he marginal costs used to calculate default energy bids for use-limited resources should include opportunity costs for future market sales." ³

CAISO's proposal for an EIM use-limited default energy bid that is comprised of day-ahead and month-ahead forward prices at a bilateral trading hub is an improvement over the existing default energy bid options. However, day-ahead and month-ahead forward prices at bilateral hubs do not reflect a hydro resource's ability to shape its output to more critical peak periods within its storage horizon. Chelan believes adding a multiplier of 1.10 to the day-ahead and month-ahead indices does not adequately account for the sales opportunities associated with shaping for all use-limited resources. For example, if a hydro facility only had six hours of water for maximum generation over a 24-hour period, the formula should reflect the highest six hours within that 24-hour period. If there are periods of intra-day volatility, that volatility likely would not be reflected in the day-ahead price. Even without volatility, it's unlikely a 10% adder would adequately compensate for those six highest priced hours. Accordingly, Chelan recommends CAISO evaluate higher multipliers or thresholds. Chelan also recommends CAISO consider including multiple market locations in the default energy bid formula in recognition that certain resources have opportunities to sell to multiple market locations.

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³ CAISO Issue Paper/Straw Proposal at page 8.