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The CPUC staff appreciates the opportunity to provide comments on the CAISO's Impact of Convergence Bidding on Real-Time Imbalance Energy Offset Issue Paper and Straw Proposal.[1] The CAISO proposal points out that the Real-Time Imbalance Energy Offset or neutrality account (Charge Code 6477) allocates surpluses or deficits on a pro rata basis to metered load and exports. Since January 2010 the hour-ahead scheduling process (HASP) price has been consistently lower than the real-time dispatch (RTD) price. Convergence Bidding starting in February of 2011 allowed market participants to take offsetting positions by submitting internal virtual demand bids equal to physical import positions based on the HASP and RTD prices.

The internal virtual demand bid clears against real-time market price while the intertie virtual supply positions clear against HASP price. The consistently higher RTD price and lower HASP price results in a significant financial arbitrage gain (the difference between RTP and HASP price times MW bid amount) to a party where with virtual bidding the offsetting party buys power at a lower HASP price and sells power at a higher RTD price. As a result, the CAISO reports that the average charge to metered load and exports has been $11.2 million per month and recently has been reaching between $15 and $ 20 million (30-day rolling cumulative)[2]. The CPUC staff understands that the

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[1] http://www.caiso.com/2b6d/2b6dbe2125320.pdf

[2] CAISO: Impact of Convergence Bidding on Real-Time Imbalance Energy Offset, Figure 2, pp. 7, April 27, 2011.

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magnitude of the rise in the real-time imbalance energy offset charges is not necessarily due to true scarcity conditions. And, the exceptionally high imbalance charges are going to impact ratepayers adversely while providing no market efficiency Indeed, it does not appear that the ratepayers, or the market, receive any benefit from the arbitraging activity resulting from the HASP and RTD price divergence.

The price divergence is creating the opportunity for scheduling and/or bidding in the HASP and at the interties to arbitrage the systemic pricing anomaly **resulting in unnaturally large real-time imbalance energy charges flowing directly to load**. CAISO's Department of Market Monitoring (DMM) reports that the causes of the large real-time imbalance charges include but are not limited to forecasting, modeling, operator behavior, and **market design**.

The CAISO's settlement solution may not provide adequate protection for ratepayers or the market

It is not clear that the CAISO's proposed settlement rule will eliminate the problem completely. Based on the CAISO's analysis of convergence bidding the CAISO proposes implementing a mechanism that reverses any gains to a Scheduling Coordinator from offsetting positions between HASP and RTD prices. This proposal will discourage the same Scheduling Coordinator from making offsetting internal virtual demand bids along with physical import bids. However, the current proposal leaves open several ways of circumventing the settlement rule. For example, the proposed rule will not prevent an entity from using an affiliate to engage in essentially the same bidding strategy. Also, the CAISO will be unable to detect if market participants use informal swaps or other financial instruments to arbitrage the HASP and RTD price divergence, and avoid the proposed settlement mechanism.

Price consistency between HASP and RTD market is crucial

One option would be to have all day-ahead convergence bids (internal nodes and intertie nodes) clear against the real-time market. The CPUC staff understands that the CAISO may have real-time prices for the interties but those prices are not settled currently since scheduling in the HASP and real-time markets are not the same. For example, the intertie resources are settled hourly while the CAISO real-time market prices are settled every 15 minutes. Hopefully, one outcome of the CAISO initiative examining intra-hour scheduling will be a single HASP and RTD price. It is worth noting that other ISO/RTOs do not have this problem as they do not have HASP markets.

Disallow Convergence Bidding at the interties

Another option is not allowing Convergence Bidding at the interties. In this way all the day-ahead convergence bids would be settled only in the real-time market. Any price difference between HASP and RTD market would not result in the current problem. Price hedging at the interties could be addressed by allowing an entity to bid at a node that is closer to the ties.

The CAISO threshold for emergency filing should be at $15 million

The CAISO proposes initiating an emergency action when the 30-day rolling cumulative quantity real-time imbalance energy offset reaches $25 million. The $25 million threshold for emergency will put too great burden on ratepayers. CPUC staff believes that a $15 million threshold is a more appropriate.

The CAISO should examine how Real-Time Imbalance Energy Offset charges can be spread to physical and virtual market participants

If the CAISO does not modify its tariff to settle HASP at real-time prices, then CPUC staff recommends that all imbalance energy offset charges be allocated to both virtual and physical trades in proportion to their contribution to the uplift. The CPUC staff believes that if high imbalance offset charges continues to burden utility ratepayers then the CAISO should also consider suspending the virtual bidding activities until an improved market design can address the problem.

Conclusion

The CPUC staff is encouraged that the Market Surveillance Committee decided to review and address this issue. This initiative is a first step toward ultimate resolution of this significant and difficult problem. The CAISO should, in cooperation with stakeholders, seriously consider making dramatic changes to the HASP and Real-time market designs that either **significantly reduce or eliminate** the unacceptable level of the ongoing real-time imbalance energy offset charges. The cumulative effect of passing these charges generated by flawed market systems to load will be unsustainable.