

NRG Energy, Inc. Comments on CAISO System Competitiveness Assessment

Submitted By	Company	Date Submitted
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NRG offers these comments on the CAISO’s April 29, 2019 Analysis of Structural System Level Competitiveness in the CAISO Balancing Authority Area (“System Competitiveness Analysis” or “SCA”).

First, NRG appreciates the CAISO’s careful description of its analysis as an assessment of system competitiveness, not of the exercise of market power. A system that shows a Residual Supply Index (RSI) of less than one when the supply associated with one, two or three pivotal suppliers is removed may not be structurally competitive, but that lack of structural competition only indicates the potential to exercise market power, not the actual exercise of market power.

Second, just as with reliability, competitiveness is ensured by having a surplus of supply relative to demand. A system that has just enough supply to meet demand might be economically efficient from a bidding and clearing perspective, but it is neither reliable nor competitive. Such a system also is likely not economically efficient from an overall standpoint when the societal costs of the unserved energy that is almost certain to result from that precarious supply/demand balance are factored in. The key difference in this analogy is the concentration of supply among suppliers; a system can be reliable but not competitive if the supply is concentrated in a small number of suppliers. A diversity of supply that promotes competition, accompanied by a surplus of supply that promotes reliability, is the combination that will yield the optimal economic and reliability outcomes.

Third, the CAISO offers that the analysis that uses as supply input bids plus virtual supply, and uses as demand the Day-Ahead forecast of demand plus self-scheduled exports plus transmission losses is the most indicative case. This case showed structural non-competitiveness in 55 hours in 2018, compared to the 325 hours yielded by the Department of Market Monitoring’s analysis. NRG agrees that using input bids is appropriate where the DA forecast of demand is also used. NRG also agrees that including transmission losses, self-scheduled exports and virtual supply in the indicative case is reasonable.

Finally, while the CAISO’s indicative case is reasonable, the CAISO’s use of the Day-Ahead demand forecast in the residual supply index analysis introduces a bias into the analysis. A comparison of the CAISO’S hourly Day-Ahead demand forecast to the amount of load that cleared the CAISO DA market for July and August 2018 shows that the CAISO’s Day-Ahead demand forecast tends to over-forecast demand relative to the demand that is cleared.

Ordered by forecast load (high to low)	Highest 50 hours	Highest 150 hours	Highest 500 hours	All 1488 Hours
Average of (Forecast Load – Cleared Load), MW	683.4	761.1	569.1	475.7

Given the consistent way in which forecast load exceeds cleared load, using the DA forecast of demand in the residual supply index (RSI) calculation suggests that the RSI will likely be understated, as the demand forecast will tend to be overstated relative to cleared demand, and, as a result, the number of hours of that are calculated to be structurally uncompetitive will be overstated. While the CAISO has

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laid out a reasonable explanation for using DA forecast of demand in the RSI calculation, the bias in this forecast remains evident.