Comments of the CPUC Energy Division Staff

on the California ISO's

Analysis of Structural System-Level Competitiveness in the CAISO

Balancing Authority Area

May 20, 2019

Energy Division Staff at the California Public Utilities Commission appreciates CAISO's initial analysis of structural system–level competitiveness in the CAISO balancing authority area. The analysis lays out CAISO's method and assumptions for determining the extent to which the CAISO market was structurally uncompetitive in 2018, as well as preliminary findings.

Energy Division Staff is concerned that the analysis is not comprehensive enough to determine the extent of system market power opportunities in the CAISO, and consequently underestimates the need to develop appropriate system market mitigation measures to prevent the exercise of market power before it occurs.

We request CAISO make available the extensive set of data used to support its findings, consider other scenarios in its analysis, and account for market trends and market power in pricing to launch a system market power mitigation initiative.

Data Transparency

The analysis presents high-level summaries for an extensive set of data. Energy Division Staff requests that CAISO make the data available to stakeholders in order to better understand how CAISO arrived at its findings. This request includes datasets for running all the scenarios presented in the analysis.

Virtual Bids in Supply and Demand Assumptions

CAISO's analysis consists of calculating the Residual Supply Index (RSI) under different scenarios with varying supply and demand assumptions. Energy Division

staff is concerned that the demand and supply assumptions CAISO uses to draw its conclusions for 55 structurally uncompetitive hours in 2018 are not the most representative reflection of system-level market power conditions for this test. Staff observes that there is inconsistent treatment of virtuals in this scenario. CAISO should refine its analysis and consider scenarios without virtual bids to draw its conclusions.

The scenario CAISO considers most representative of the market "Among all of the scenarios presented…is the one in which the total supply considers all day-ahead offers physical resources and virtual resources not limited by commitment or ramping constraints. The total demand considers the sum of the day-ahead demand forecast, upward ancillary services requirement, and self-scheduled exports." (p. 27)

A structural competitiveness analysis considers the ownership of physical resources available at the system-level to determine whether a subset of suppliers could exercise market power given their share of supply to meet existing demand. Virtual bids are financial instruments used for hedging or speculative purposes that are not necessarily backed by physical resources. While virtual bids shape prices in the day-ahead market clearing processes, they should not be considered for determining structural competitive market conditions.

Rather than using a scenario that includes only virtual supply to determine a number of structurally uncompetitive hours, Energy Division staff believes that scenarios similar to Case #14 should be considered in determining system market power issues in the ISO. This case uses input bids for physical resources adjusted for the optimal solution (without net buyers) for supply, and it uses the day-ahead forecast for demand. In RSI3 without self-scheduled exports, this case yields 308 uncompetitive hours, which makes up about 3.5% of total hours in 2018. Staff believes this is a substantial number of hours for potential market power exercise.

Market Trends and Market Power in Pricing

Beyond this analysis, CAISO staff should account for market trends and market power

in pricing to identify potential system market power issues and develop appropriate mitigation measures. The indicative screen test used in this analysis offers a static snapshot of potential market uncompetitiveness from last year. While the analysis is informative, it does not capture potential system market power issues arising from market trends or actual market power incidents.

Staff appreciates the difficulty in making assumptions about market conditions in the future. As this analysis demonstrates, different assumptions can produce a wide range of results for the RSI test. However, there are reasonable assumptions that could be made for the market, including fleet changes and net capacity reductions with the expected retirement of once-through cooling plants and others. From June 2015 to June 2018, about 6,000MW of generation withdrew from the market, most of them natural gas resources.[1] In 2019 and 2020, seventeen additional units may withdraw from the market with roughly 5,000MW, not including the La Paloma and Greenleaf units that are already off-line.[2] Energy Division Staff believes market trends such as these could reveal opportunities for market power in the near future.

In addition, looking at market power in pricing will help stakeholders understand market power in the CAISO balancing authority area and develop the appropriate system market power mitigation measures needed, in conjunction with this analysis and further examination of market trends.

Conclusion

Energy Division Staff appreciates CAISO's extensive work conducted on this system market power mitigation analysis, including the number of scenarios used for the sensitivity analysis, descriptions of the assumptions, and outlining the differences between CAISO's analysis and the analysis conducted by the Department of Market Monitoring. As stated above, we request CAISO continue to refine its analysis and

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[1] Department of Market Monitoring's 2018 Annual Report on Market Issues & Performance. p. 15
http://www.caiso.com/Documents/2018AnnualReportonMarketIssuesandPerformance.pdf
[2] Announced Retirement and Mothball List updated 5/06/2019. "Reliability requirements."
http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx

broaden its scope to investigate market trends and market power in pricing for system market power mitigation.