Submitted by	Organization	Date Submitted
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Energy Division (ED) staff appreciates that CAISO has undertaken efforts to analyze system market power issues and believes that the working group meeting held on July 15, 2019, is an important first step in an effort to fully understand and address the issues identified and raised by parties and the CAISO itself. Overall, ED staff remains concerned about the potential exercise of system market power and, as more fully discussed below, encourages the CAISO to open a stakeholder initiative to address this issue, which could potentially be critically important to California ratepayers.

While ED staff appreciates that CAISO and others have questioned whether workable market power mitigation measures could be developed, this should not be a determining factor in whether or not to open a stakeholder initiative. One of the outcomes of a well-scoped and managed stakeholder initiative is the identification of solutions that were not evident to the convening body at the outset of the initiative. A more appropriate determining factor is the fact that this is a critically important market structure issue over which many key parties have voiced a high degree of concern – and for which some parties have proposed potential solutions. ED staff also notes that CAISO opens stakeholder initiatives, without MSC opinions and Board approval, on arguably less critical issues. Opening a stakeholder initiative will allow for further consideration of proposals that were offered in the working group meeting, the identification of other potential solutions, and further analysis, as was recommended by numerous parties.

Rather than provide detailed answers to the specific questions raised in the stakeholder comment template, we focus these comments on why we remain concerned about the potential exercise of market power. Building upon earlier comments by parties, our comments focus on market structure, market conduct, and market outcomes.

First, with respect to market structure, DMM and CAISO have indicated that up to 2 – 3 percent of the hours in 2017 and 2018 were structurally uncompetitive (i.e., the RSI 3 Index was less than 1).[1] Given expected retirements of once-through cooling facilities in

[1] See CAISO, "System-level market power," July 15, 2019, p, 5, available at http://www.caiso.com/Documents/Presentation-SystemLevelMarketPowerWorkingGroup-Jul15-2019.pdf. See also, DMM, "Comments on CAISO's Analysis of Structural System-Level Competitiveness," May 20, 2019, available at http://www.caiso.com/Documents/DMMComments-SystemMarketPowerAnalysis.pdf.

California, the potential retirements of coal-facilities throughout the West, and the variability in hydro conditions over time, Energy Division staff believe that the number of structurally uncompetitive hours are likely to increase, not decrease over time.

Second, with respect to conduct, DMM has documented that many in-state resources that are net sellers, at least on days examined, systematically bid above their default energy bids, while net buyers (typically the regulated utilities with least-cost dispatch requirements to bid at cost), primarily bid at or below their default energy bids. This is illustrated in Figures 1 – 4 on the following pages.

In addition, DMM has documented that many import resources are bidding considerably above average energy prices and some resources are bidding at the $1000/MWh cap (see Figures 5 - 6). Further, CAISO will be increasing the bid cap to $2000/MWh, potentially exacerbating this issue. Energy Division staff believe that this bidding on behalf of in-state resources and imports warrants further study – Do imports bid at $1000/MWh during the entire year? If so, how would this represent opportunity costs? Does bidding occur such that the resource adequacy resource is never dispatched to serve California constitute withholding? How does bidding at $1000/MWh provide ***resource adequacy*** when and where needed? Does this occur on low-load days? Does this occur just on high load days? Is this due to opportunity costs? What are they? Is this bidding behavior systematic?

While CAISO, the MSC, and others have argued that mitigating bids for system market power could potentially "drive away" imports, we note that resources participating in California's Resource Adequacy program – including imports – are procured to serve native California load when and where they are needed, and bidding at the $1000/MWh (or future $2000/MWh) bid caps or above the default energy bids may not ensure that this occurs.

Figure 1. DMM Analysis, Bid Price Vs. Default Energy Bids for Gas Resources[2]

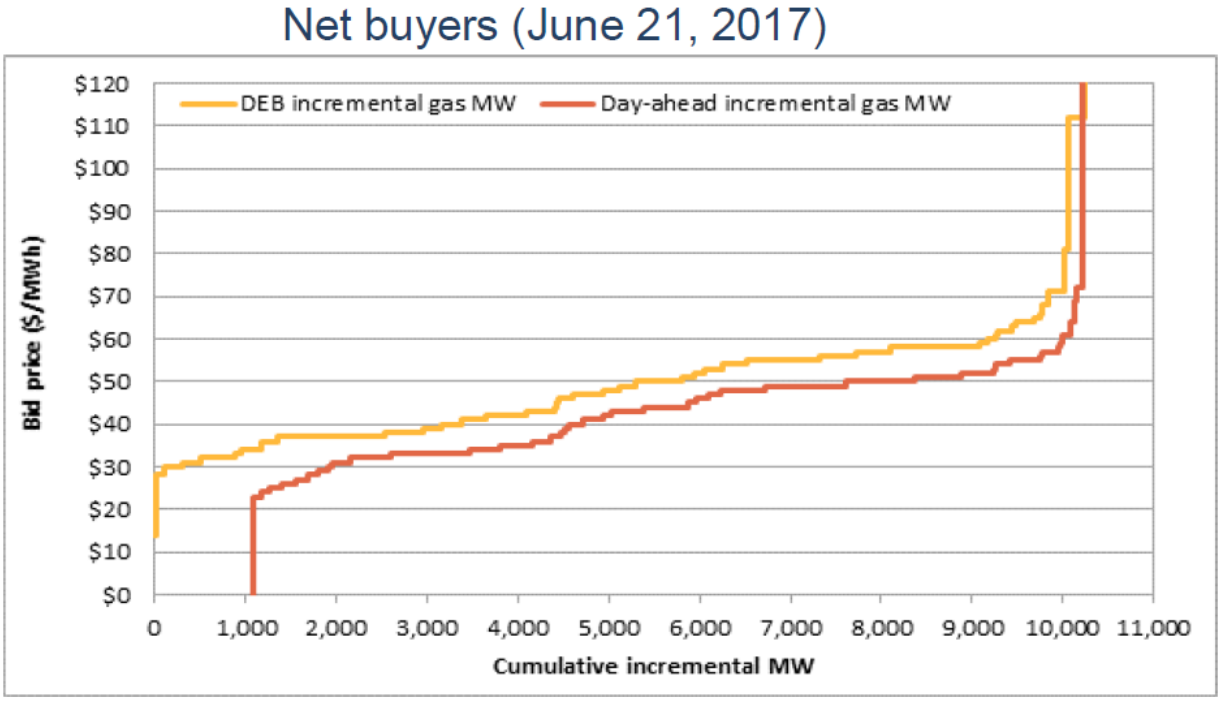
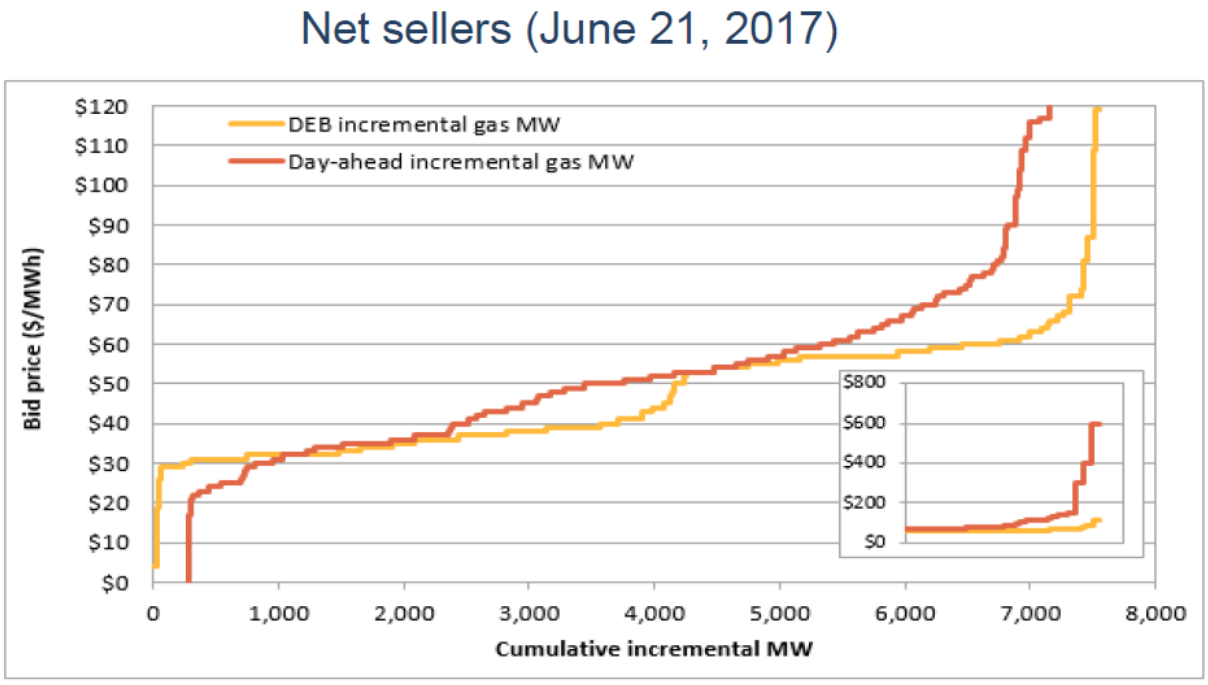


Figure 2. DMM Analysis, Bid Price vs. Default Energy Bids for Gas Resources[3]



[2] DMM, "System market power," Market Surveillance General Session Meeting, June 7, 2018, available at http://www.caiso.com/Documents/Presentation-SystemMarketPower-June7_2018.pdf.

[3] Id.

Figure 3. DMM Analysis, Net Buyers Bids vs. Default Energy Bids for Gas Resources, July 24, 2018, Hour 20[4]

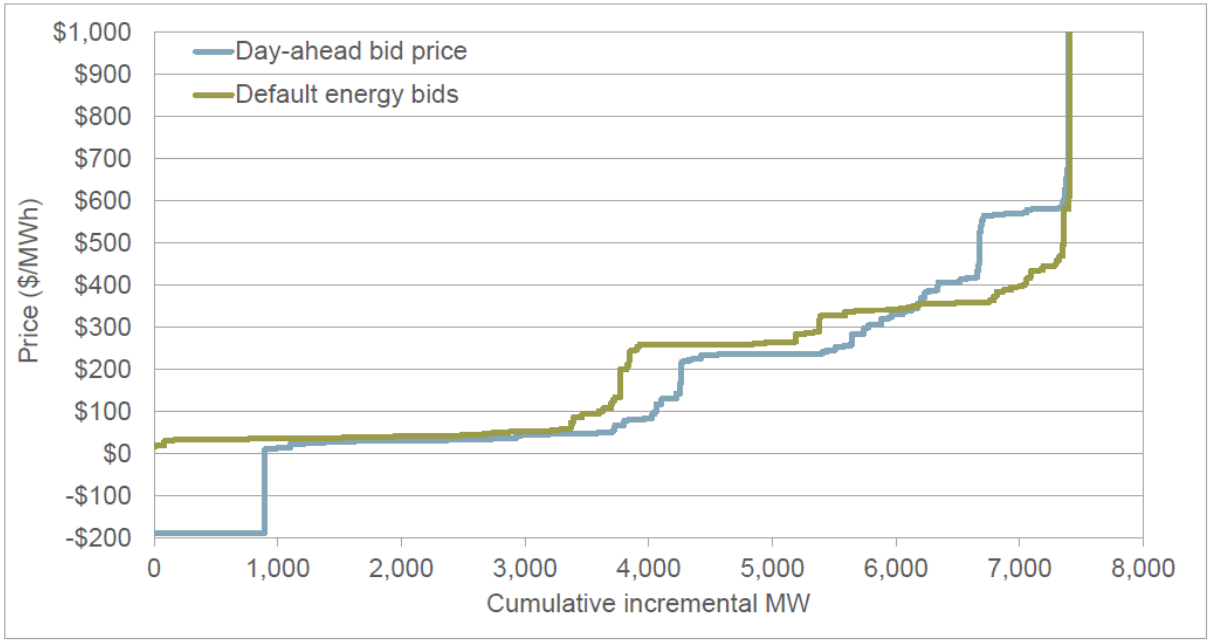
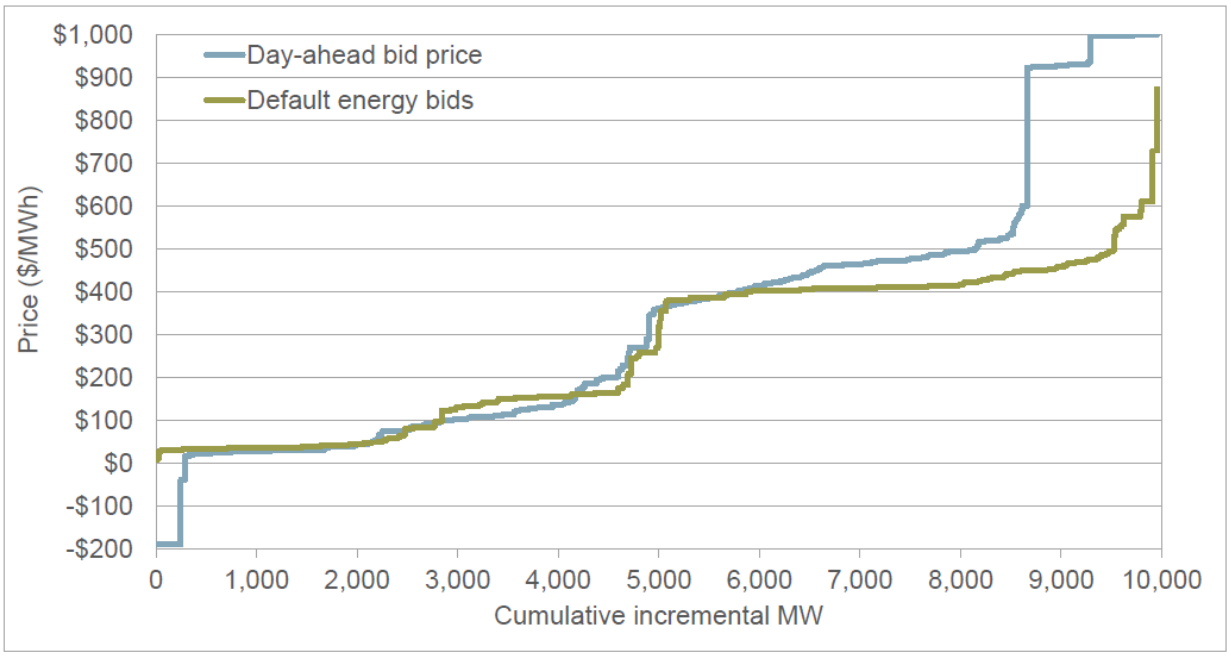


Figure 4. DMM Analysis, Net Sellers Bids vs. Default Energy Bids for Gas Resources, July 24, 2018, Hour 20[5]



[4] DMM, "Analysis of system level market power," Market Surveillance General Session Meeting, June 7, 2019, available at http://www.caiso.com/Documents/Presentation-AnalysisOfSystemLevelMarketPowerDMM-June7_2019.pdf.

[5] Id.

Figure 5. DMM Analysis, Import Bids by Resource Adequacy Designation (September 1, 2017)[6]

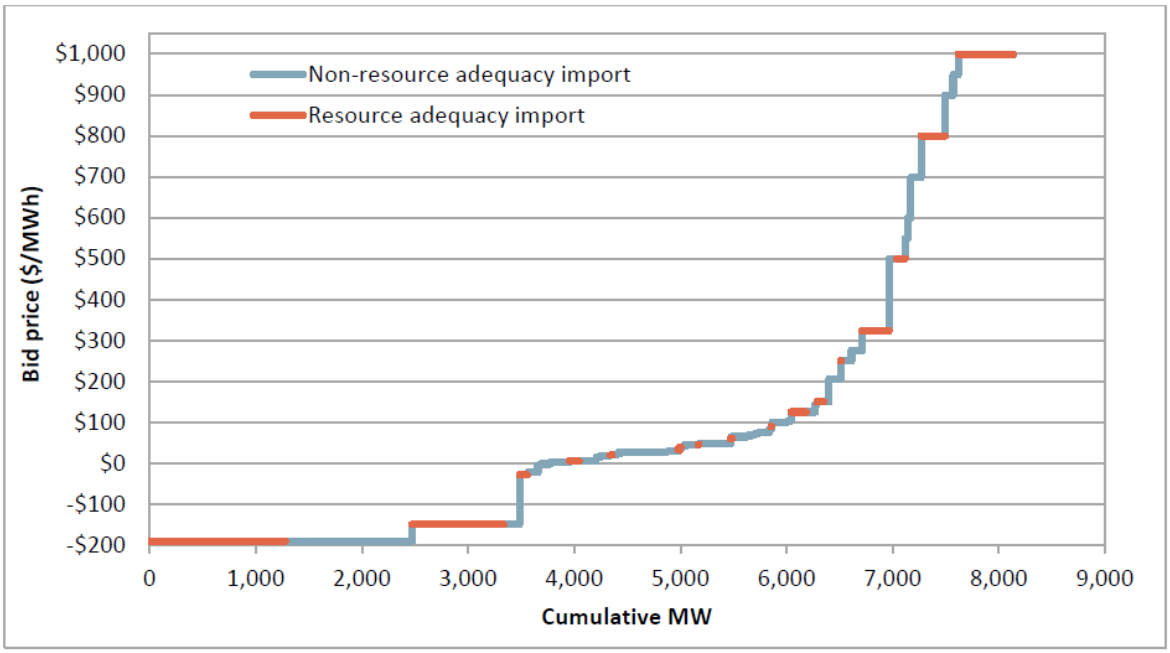
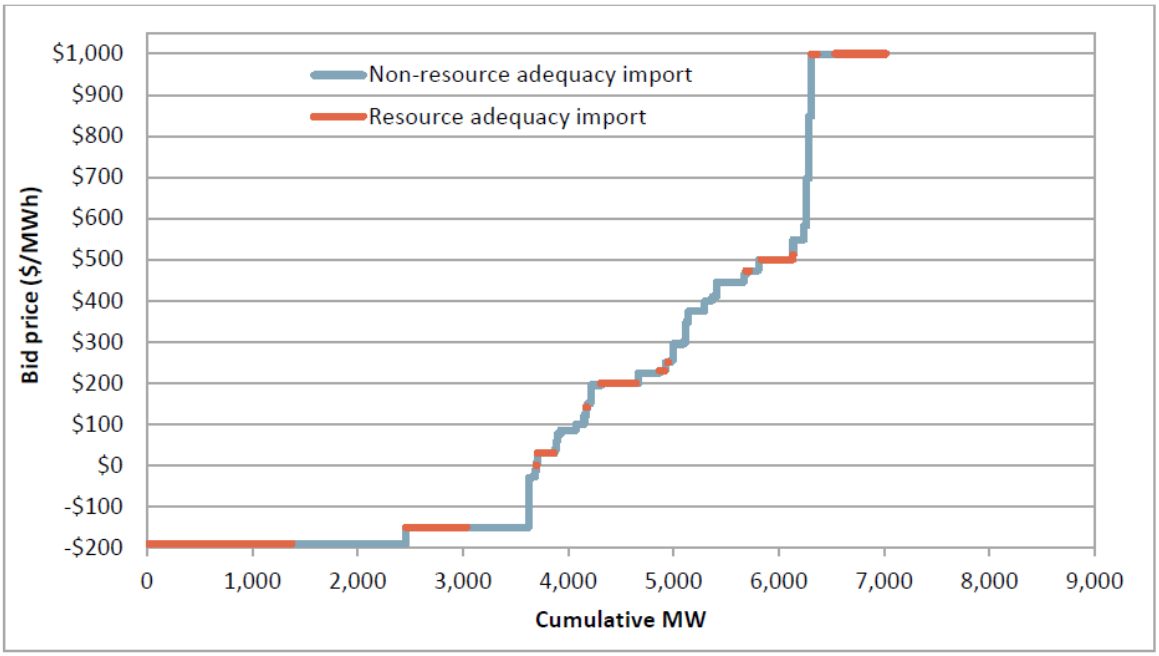


Figure 6. DMM Analysis, Import Bids by Resource Adequacy Designation (July 24, 2018)[7]



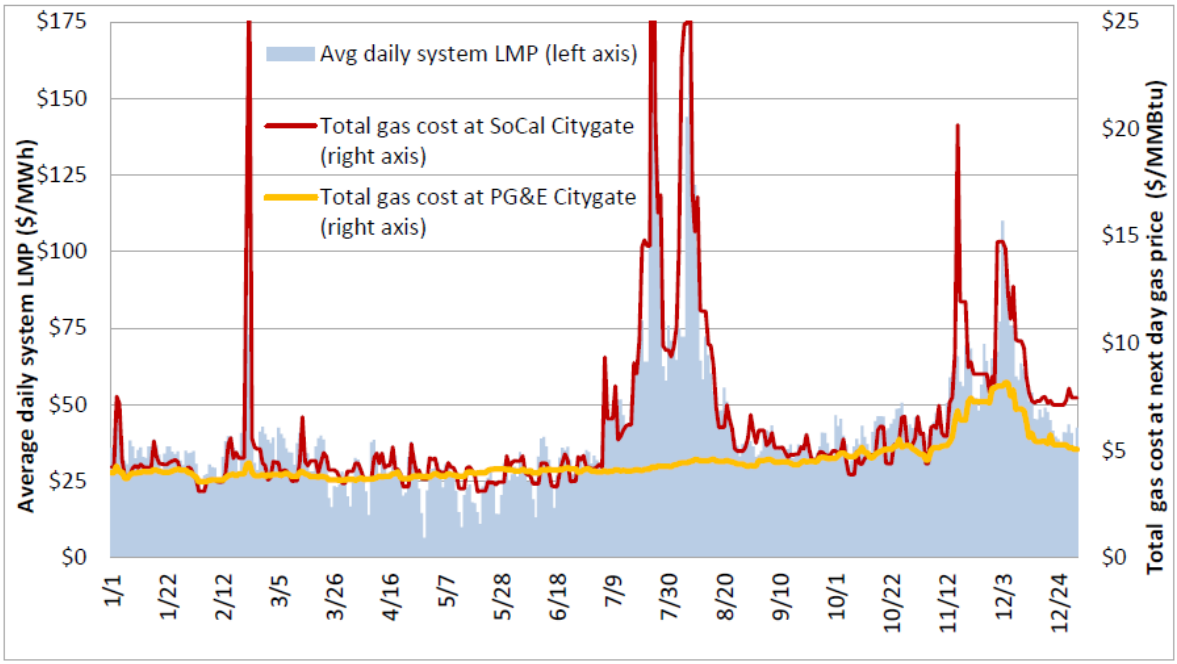
[6] CAISO, Department of Market Monitoring, "California ISO, Import Resource Adequacy," September 10, 2018, p. 3, available at http://www.caiso.com/Documents/ImportResourceAdequacySpecialReport-Sept102018.pdf.

[7] Id., p. 4.

Finally, ED staff offers two observations with respect to market outcomes. First, as demonstrated in Figures 7 and 8, there has been an increase in exceptionally high priced day-ahead prices in 2017 and 2018, and second, there has been an increase in the price/cost mark-ups. Further, DMM has demonstrated that these high price days systematically occur when the RSI is below 1 (see Figure 9).

While there is evidence that some of these prices are correlated with high gas prices, this is not the case in all instances. This issue merits further examination. In those instances where the high day-ahead prices are not correlated with high gas prices, it would be helpful to understand what has driven these high day-ahead prices. Further, while some parties attribute these high prices to scarcity, we note that the while scarcity conditions may be predicted for the future, they do not currently exist -- in no cases was there insufficient physical generation available to meet load, and many of these high price events have occurred during off-peak months, when the system is typically over-resourced, even after taking into account planned outages. We agree with many parties that high prices alone do not signify market power, but high price events and trends in the market warrant thorough examination and careful consideration.

Figure 7. Average Daily Prices for Electricity and Natural Gas (2018)[8]



[8] 2018, Annual Report on Market Issues & Perforamnce, p. 68, available at http://www.caiso.com/Documents/2018AnnualReportonMarketIssuesandPerformance.pdf.

Figure 8. DMM Analysis, Duration Curve of Highest Hourly Price-Cost Markups[9]

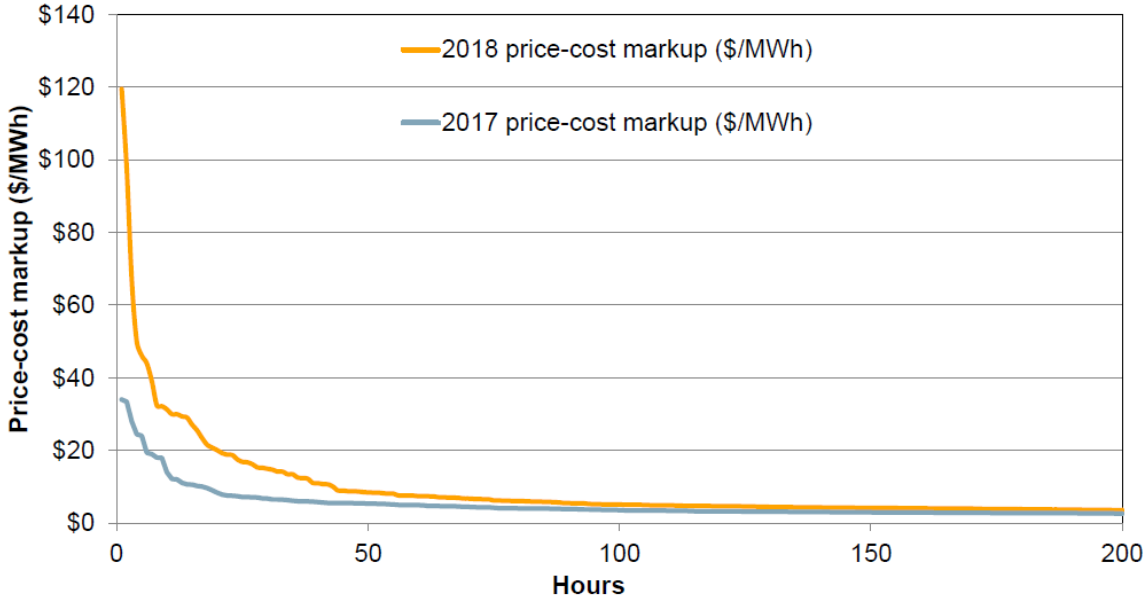
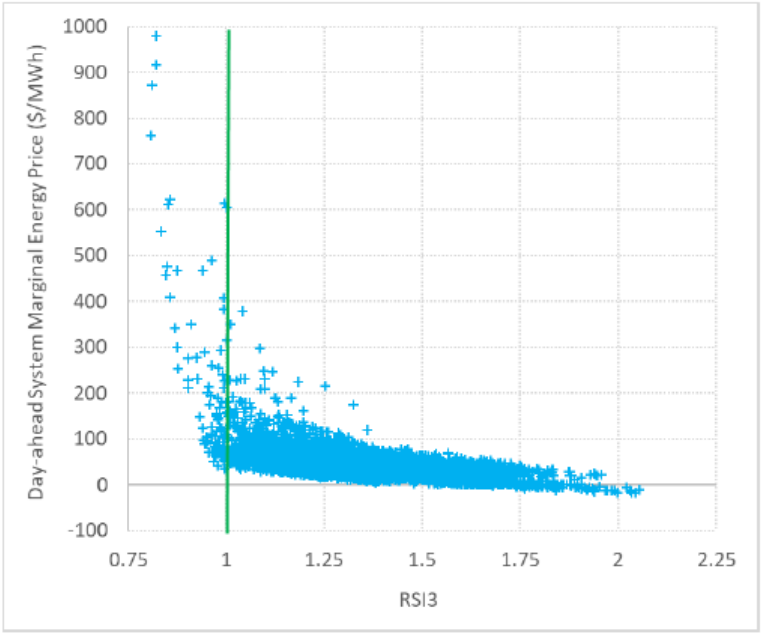


Figure 9. Day-Ahead System Marginal Energy Prices and RSI 3 Calculations[10]



[9] DMM, "Analysis of system level market power," available at http://www.caiso.com/Documents/Presentation-AnalysisOfSystemLevelMarketPowerDMM-June7_2019.pdf.

[10] CAISO, "System-level market power," Stakeholder Working Group, July 15, 2019, p. 7, available at http://www.caiso.com/Documents/Presentation-SystemLevelMarketPowerWorkingGroup-Jul15-2019.pdf.