

Comments on Commitment Cost and Default Energy Bid Enhancements Working Groups

Department of Market Monitoring

May 2, 2017

The Department of Market Monitoring (DMM) appreciates the opportunity to review and comment on the two working groups for Commitment Cost and Default Energy Bid Enhancements, hosted by the ISO in March and April. DMM conceptually supports many of the ideas being discussed and believes the initiative could enhance market efficiency. However, depending on the specific details of the ISO's final proposal, the policy could instead significantly harm CAISO markets. DMM looks forward to working with the ISO and stakeholders to help improve the reference levels used in CAISO markets without creating excessive risk of inflated market prices and uplift payments.

Summary of Recommendations

DMM recommends a three step phased approach to expanding the flexibility of bids allowed into the ISO markets:

1. Update fuel prices and price forecasts used to establish reference level parameters in the day-ahead and real-time markets;
2. Develop procedures for market participants to request changes to variable cost parameters that are inputs to reference levels under certain conditions; and
3. Design, develop, and test system for dynamic mitigation of commitment cost bids.

The phased approach will allow the ISO to address any issues resulting from inaccurate input prices, but will also ensure that time can be taken to carefully develop the new systems and tools that will protect the market from risk exposure created by increased bidding flexibility.

In 2016 DMM submitted a detailed plan and supporting analysis for this first phase. The first two phases are closely linked and could be combined, but DMM believes phase 1 could be implemented on its own quickly. Phase 3 would necessitate a longer and very careful approach that involves development and testing of a new set of market power mitigation procedures.

Any new process that the ISO considers for establishing reference bids should incorporate some form of automated pre-market verification. Verifying reference bids before market runs can help to ensure that reference bids used in the market do not contain erroneous or suspect prices. This may not be the exact same process followed by some other RTOs or ISOs but DMM believes it would be an essential step to adapting increased bidding flexibility to CAISO's unique system. It is easiest to incorporate pre-verification when reference levels are calculated by the ISO.

DMM does not support the PJM-style system apparently favored by ISO staff

The ISO's current system involves calculation of reference levels by the ISO, based on information submitted by participants and, for gas powered resources, a natural gas index price. ISO staff have indicated they favor replacing the current approach that is used to calculate commitment cost bid caps and default energy bids.

Under the approach favored by ISO staff, market participants would submit their own estimates of resource reference levels that they believe should be used in calculating bid caps and default energy bids (DEBs). These bids would be subject to an after-the-fact case-by-case review. ISO staff have indicated the bids could be based on costs, as well as highly subjective criteria such as the suppliers' assessments of risks they face and what an appropriate value is for their generation. If the ISO or DMM determined bids to be unreasonable based on these criteria, the ISO or DMM would refer participants to FERC for manipulation or false information.

DMM opposes making such changes in the ISO's current market power mitigation rules for several reasons. This approach has numerous significant problems:

- If market participants who have market power are allowed to submit their own incurred or expected gas costs, they will not have the incentive to incur gas costs at or below the market value of the commodity. Instead, they may often have the incentive to incur artificially high marginal gas costs.¹
- Bids based on these gas prices would irreversibly impact market prices and unit commitment decisions even if these gas prices were later determined to be unreasonable.
- Determining the reasonableness of these gas costs submitted by participants on a case-by-case basis involves a significant degree of judgment and subjectivity. This creates a significant risk of disputes which might only be resolved by referring participants to FERC for submission of false information or manipulation.
- This process would require substantial additional resources and expertise by the ISO and DMM to ensure that gas costs are reviewed, verified and referred to FERC when appropriate.

DMM does not support the inclusion of factors such as risk adders into reference levels. While electricity suppliers face some risk in the form of price fluctuations for production inputs, the actual realization of that risk is not predictable and should not be incorporated into cost estimates on a regular basis. As was pointed out in the working group meetings, sophisticated buyers in liquid markets such as gas or electricity markets have many tools available to hedge price risks. These buyers can, if they desire, insure themselves against most or all of the

¹ *Phase 2 of Comments on the Commitment Costs and Default Energy Bid Enhancements – Issue Paper*, Department of Market Monitoring, December 12, 2016:
http://www.caiso.com/Documents/AdditionalDMMComments_CommitmentCosts_DefaultEnergyBidEnhancementsIssuePaper.pdf.

variation in same day prices for the inputs to their production process, through futures contracts and other hedging instruments.

If the ISO decides to allow the inclusion of risk adders in reference levels, the ISO will need to propose a robust, quantitative approach. DMM would strongly oppose a proposal that did not specify the details of a potential risk adder methodology in the policy presented to the Board.

DMM's recommended three phase approach

1. Establish procedures for updating reference levels for both incremental energy bids and commitment cost bids

DMM has proposed an approach for addressing gas price issues that builds on the ISO's current method, but includes more frequent updating of gas prices prior to the market clearing process. The centralized updating and calculation of reference levels by the ISO allows for easy validation of reference level changes and removes any referral risk that could be related to unrealized price expectations.

As a first step, DMM recommends that the ISO update default energy bids and bid caps applied to commitment costs in both the day-ahead and real-time markets based on gas price data that are available at about 8:30 a.m. each morning, rather than calculating caps based on gas prices available the night prior to each operating day. Analysis by DMM shows that these modifications would almost always be sufficient to cover gas costs procured at prevailing market prices.²

For resources that do not use natural gas as fuel, other variable input parameters can be used as the means for updating reference levels. Resources that run on fuel oil or coal can use index prices for those commodities. Even for resources that are not powered by index priced commodities, some updating should be possible. For example, a hydro resource with storage may determine bids and negotiated reference levels based on opportunity cost that depends on forecasts of electricity prices. Those forecasts could be updated in the morning of the trade date and the new numbers fed into the formula that determines reference levels for the hydro resource. Establishing exactly how each different fuel type can be updated will take some work upfront, but will save effort on validation and will mitigate referral and regulatory risk for market participants in the long run.

2. Develop process for individual resources to request additional bid cap increases under certain conditions

Second, DMM has recommended that the ISO implement a process for reviewing any requests for higher bid caps for individual participants on a case-by-case basis. Any requests to raise bid caps would only be used in the market run if they could be validated as reasonable based on gas market conditions, price forecasts, or the fundamentals that determine other input prices prior

² *Comments on the Commitment Costs and Default Energy Bid Enhancements – Issue Paper*, Department of Market Monitoring, November 29, 2016: <http://www.caiso.com/Documents/DMMComments-CommitmentCostsandDefaultEnergyBidEnhancementsIssuePaper.pdf>.

to the ISO's market process. DMM's analysis shows that such requests should be very rare once bid caps are based on updated gas price information.

ISO staff seem to believe that this procedure could only work for updating gas prices, and would leave any resources that are powered by something other than natural gas at a disadvantage. DMM believes that in the same ways that reference levels could be updated with new information, procedures could be developed to allow updating of any other variable inputs that are included in cost functions or negotiated DEBs for other types of generators.

3. Design, develop and test dynamic mitigation procedures for commitment cost bids

Third, DMM supports the ISO and stakeholders' desires to have more flexibility permitted in bidding of commitment costs. Currently, bids of commitment costs are capped at 125 percent of estimated costs, and are submitted once per day, meaning that bids for all hours of a given day are the same. Given the development of appropriate rules and systems, DMM believes that it would be appropriate to alter both of these rules.

The first step to allowing more flexibility in bidding commitment cost above 125 percent of estimated costs is to develop a dynamic mitigation system that will be able to detect and mitigate the instances in which a resource might be able to exercise market power through their commitment cost bids. Development and testing of a dynamic mitigation system to counter commitment cost based market power is a necessary step to increasing bidding flexibility for commitment costs.

During the working group meetings, ISO staff expressed the desire to announce consensus on the principle of more flexibility without having disclosed any details of the system they have developed. This is problematic. DMM's agreement in principle is based explicitly on the development of such a system. Without a system to mitigate when appropriate, DMM believes that the current system of a tight bid cap is an appropriate measure to balance bidding flexibility and market protection. For this reason, we hope that ISO staff will make their design for dynamic mitigation of commitment costs public soon. In depth discussions about changes to bidding flexibility should only take place after the design is evaluated.

The current cap, at 125 percent of estimated costs, allows for some bidding above estimated cost so that participants can express some operational preferences over their units. The tight cap is a concession to the fact that current systems for market power mitigation are incapable of detecting or mitigating the type of market power that can be exercised with commitment cost bids. To balance participant control and market protection, the tight cap is the only mitigation measure in place. Bids are never lowered to 100 percent of estimated cost, even though at times some market participants likely can exercise some amount of market power.

Relaxing the cap to a higher level would be appropriate if systems are developed to mitigate market power. The degree to which the cap can be relaxed should depend on the expected accuracy of the dynamic mitigation systems that are developed by the ISO. After a commitment cost mitigation system is implemented that would lower bids to estimated costs when appropriate, DMM could support raising the current cap on commitment cost bids.

Some stakeholders at the working group raised the idea of allowing commitment cost bids to vary through the day. DMM is supportive of this idea, as long as appropriate rules and guidelines

for the use of this flexibility are carefully designed and implemented. Varying commitment costs over the day is very similar to tactics employed in the past to manipulate the ISO markets, so DMM strongly believes that development of clear rules that stem the possibility of gaming and manipulation will be a necessary step before introducing this kind of flexibility. With the right rules in place, DMM believes that this kind of change will represent an improvement in the markets.

Consider views of entire stakeholder community

Discussion at both workshops was centered on concerns of one pool of stakeholders. DMM hopes the ISO will not propose major changes to the reference level process without appropriate consideration of feedback from the whole community of stakeholders. The PJM-style option that seems to be favored by ISO staff would involve a significant investment of time, effort, and money on the part of all stakeholders. Before proposing a system that lacks automated pre-verification of each reference level, DMM hopes that the ISO will have a clear understanding of how the broader group of participants views that option.

The phased approach proposed by DMM clearly has broad support from all stakeholder groups, and DMM is not aware of any group opposing it. DMM continues to recommend the ISO adopt this approach.