EPIC Merchant Energy Comments on Convergence Bidding
November 30, 2007

EPIC appreciates the opportunity to comment on CAISO’s Convergence Bidding documents posted on November 13, 2007 with comments due November 30, 2007.

The November 13, 2007 documents provide a significant step in the right direction toward the implementation of Convergence Bidding (CB). These documents not only identify the remaining issues surrounding CB but provide potential solutions to address those issues. EPIC is encouraged by the CAISO’s and Department of Market Monitoring staffs’ efforts to fully describe the issues and, most importantly, to suggest potential solutions.

CAISO’s process for describing CB has been lengthy with stakeholders providing a large amount background material and suggestions. FERC, in many instances, has stated the value of CB in LMP markets, the eastern Market Monitors have provided written statements and comments on the value of a CB market and various CAISO staff papers have noted those benefits. On the other side of the argument (the dark side if you will) has been conjecture and speculation that CB would somehow leave the MRTU open to market manipulation. As the debate has continued, the proven list of CB’s benefits including CB’s power to effectively mitigate market manipulation certainly has moved the position of many who were originally skeptical of CB.

The Market Monitor’s Recommendation paper has identified potential impacts of a CB market and the rules and monitoring requirements for observing and managing a CB market. Some of these rules and requirements are more important than others, and EPIC will argue that some of these rules are unnecessary, but it is important to note that the Market Monitor has defined options and solutions that would address the perceived impacts of a nodal CB market. The solutions’ associated measures are not onerous and most could be implemented without adversely affecting the CB market.

The latest CAISO documents seem to have elevated the discussion:

- CB is a valuable market tool for LMP markets and participation should be encouraged.
  - In the past -- While the benefits of CB have been listed in CAISO’s archived documents these benefits have always taken a back-seat to the perceived harm of a CB market.
  - Today – The potential problems with CB have solutions. These solutions are not show-stoppers and do not appear to be too difficult to define, monitor and implement.

- CB is a mature market in the eastern ISO/RTOs and those RTOs have the experience that the CAISO and the CAISO’s DMM can continue to draw upon to supervise the CB market.
Release 1A Timeline

CAISO has proposed a go-slow approach to the implementation of CB. This approach continues to stretch out an already lengthy process and it is doubtful that stakeholders will discover new arguments than the ones already submitted to the CAISO in previous comments. EPIC realizes that the CAISO staff is busy with implementing a new market in early 2008 and that a CB system must be designed and built, but early agreement on the final outstanding issues surrounding CB would save everyone time and effort. With the latest documents posted by the CAISO, including the suggested solutions, the perceived negative impacts of nodal CB that would require further discussion, have become if not moot, then certainly solvable.

With the re-stating of the proven value of CB that would apply to the CAISO market and now the rather straightforward recommendations of the DMM, which would allow the DMM to support nodal bidding; it seems awkward to argue that the CAISO market should not benefit from the implementation of a nodal CB market. It’s time to call the question on zonal versus nodal and put this issue to rest. Delaying the resolution of this issue until Late-August 2008 is unnecessary and unreasonable.

Nodal versus Zonal Bidding

EPIC believes that the nodal versus zonal issue, judging from the November 13 papers, has essentially been resolved in favor of a nodal CB market for the following reasons:

- CB was designed to address market power issues that were identified with the implementation of virtual bidding. Other benefits fell out of that original purpose. Nodal CB is needed to replace the interim measures as nodal CB is the only proven instrument that can adequately mitigate the market.
- The Update on the Design and the MM Recommendations papers both show a long list of benefits that CB at the nodal level would provide the MRTU market.
- The potential adverse impacts of nodal bidding can be addressed with measures identified in the DMM’s Recommendation paper or through a robust monitoring of the market by the DMM.
- Most of the proposed solutions to the perceived problems with nodal CB that are defined by the DMM and CAISO’s staff papers will more-than-likely be acceptable to most stakeholders. The stakeholders may have concerns with the details of specific processes but the proposed solutions do not appear to be deal-breakers.
- EPIC defines nodal bidding as bidding at the lowest level where an LMP is calculated. CB benefits only apply to each LMP bidding point where bidding is allowed - so the less or no bidding, the less or no benefit. EPIC appreciates CAISO’s efforts to define trading hubs, sub-LAPs, aggregated pricing points and other bidding points but for the CAISO’s MRTU to receive the most benefit from CB, CB should be allowed at any point a LMP is calculated. Excluding CB from the most granular level would not provide market power mitigation or potential hedging benefits to those points.
Bid Caps and Bid Segments

In two-day LMP markets prices may clear in the day-ahead market as a positive or negative price and prices settle in the real-time market as a positive or negative price. Negative prices are common in LMP markets and large price spreads, both positive and negative, regularly occur. Market Participants should be allowed to bid, and prices in the day-ahead market allowed to clear, at a positive $1,000 and negative $1,000 spread. EPIC supports the 10 segments for submitting bids and recommends that bids be allowed at the one-tenth of a MW per bid level.

Position Limits

EPIC does not believe that the CAISO’s stated purposes for implementing position limits, inexperience with a CB market and the potential for market manipulation, would be resolved by imposing position limits. Position limits would be detrimental to the market as a whole and to CB participants specifically.

Problems and issues with imposing position limits:

- No other ISO/RTO has identified the need for, nor have they implemented, position limits.
- Current virtual market participants recognize that virtual bidding is self-regulating. CB is risky because bids are submitted in the day-ahead and settled at real-time and system topology may change greatly from the time bids are submitted and real-time occurs; therefore, overbidding a point is not a sustainable strategy for a virtual trader.
- Position limits could put virtuals submitted by financial marketers at a disadvantage to generator or load bidding.
- Generators and loads will not be able to fully hedge their positions with the proposed limits. Unforeseen events i.e. generator and transmission outages or missed load forecasts would expose generators and loads to unnecessary risks.
- If the market is allowed to freely bid - the market will become more liquid. How can a market reach a high level of liquidity if bidding is limited? Again, there is a self-regulation mechanism that operates in nodal virtual markets that corrects for overbidding.
- There is a built in system limit for each bidding point due to its physical transmission equipment. Bids and offers can only be submitted up to that physical limit. The total market participant bids and total offers from all market participants should be netted at each point, which a bidding limit does not consider. The resultant net of the bids and offers, would in many instances supplant a position limit, whereas a bidding limit could unnecessarily suppress bidding.
- Position limits could restrain virtuals from mitigating market power.
- Position limits may limit bidding, which would lead to less price convergence, less ‘deep’ liquidity and less market transparency.

EPIC requests that the DMM review imposing position limits on the virtual market. No other LMP market or Market Monitor found it necessary to enforce or impose position limits. EPIC is adamantly opposed to position limits but if a position limit is imposed, the DMM should periodically review and analyze the advantage or
disadvantage to keeping or removing the limit. EPIC does not agree that the CAISO should have the ability to ‘raise, diminish or eliminate limits depending on market conditions’ without stakeholder agreement on what those market conditions may be and how much the range could change under ‘certain conditions.’

**CB and the Intertie Points**

PJM, Midwest ISO and New England allow bidding at the intertie points. CAISO did not state why it believes that these points should not be biddable. In the past, CAISO had problems with transmission reservations and scheduling of physical power that did not flow, but this was a physical scheduling problem and those issues are not related to CB, which is a purely financial market. Many intertie points act as hubs or aggregated points and therefore are important to the market. CAISO should explain why an intertie is different than any other LMP point, what perceived problems caused the recommendation not to allow bidding at the intertie points, what solutions may exist to resolve the issue and why virtual bidding would not be beneficial at the interties. Intertie points, as with any LMP calculated point on the CAISO system, would benefit from virtual bidding. These points should be included in the nodal CB market.

**Uplift Calculation and Allocation**

EPIC wants to pay their fair share as a participant in the CB market. In the past, FERC has essentially defined a ‘fair share’ by the rule of cost causation with cost allocation.

Uplift costs are reimbursed to generators which are scheduled or dispatched after the close of the day-ahead energy market. Such scheduling takes place after the reliability commitment program, the Residual Unit Commitment (RUC) is run; the dispatch of generators takes place during real-time. Virtual transactions are included in the pre-IMF, which determines day-ahead prices and clears virtual bids, but virtuals are not included in the RUC. Since virtuals are cleared outside the commitment run, it is difficult to show a cost causation link between virtuals and unit commitment. If this link cannot be established then virtuals should be exempt from the calculation of uplift and exempt from the allocation of uplift charges. Without proving cost causation, charging virtuals RSG would be unjust and unreasonable. CAISO must provide analysis to show the causal link between virtuals and the reliability commitment of generating units before charges may be allocated to virtuals.

EPIC has requested that the eastern RTOs provide cost causation analysis for virtuals, including e.g. that generating units identified in the pre-IMF (or the run that clears day-ahead prices) be compared against the units committed in the RUC. In PJM this calculation became very complicated and the results were inconclusive. The Midwest ISO has attempted to analyze virtuals’ cost causation and was not successful. EPIC argues that virtuals cannot control deviations that cause uplift (system dispatch and unit loading etc.) and therefore it is unfair to charge virtuals uplift.

If CAISO can provide analysis that determines virtuals cause uplift and virtuals should be part of the uplift calculation; then, the amount or percent of the allocation of
those charges must be discussed and resolved. Virtuals provide clear, proven and effective benefits to the market. The CAISO MRTU should encourage CB to reap those benefits. The more participation in the CB market the greater the transparency, liquidity and the convergence of prices. To ensure participation CAISO should not impose any charges or fees on virtual transactions that would discourage bidding.

Uplift costs are unknown until real-time but virtual are bid in the day-ahead market. Since uplift may vary greatly from day-to-day or hour-to-hour, it is difficult for the virtual trader to determine which bids to place or whether to bid at all. A trader may take a reasonable position that clears in the day-ahead market (although all virtual trades are risky because virtuals are settled against the real-time LMPs and real-time system conditions may change quickly) only to see a profit turn into a loss by high uplift charges. Virtual traders will have to take into account the possibility of a high uplift change for a given hour to determine if they will bid or not.

Credit Policy
EPIC appreciates the CAISO’s staff’s efforts to propose a credit policy that is reasonable and suitable, and systems and process design that is dynamic. Overall, EPIC supports the proposed credit policies. EPIC plans to provide details on some implementation and system issues identified in the Update on the Design paper at a later date.

Future CB Markets
The eastern RTOs are working to expand their virtual bidding markets. These markets include:

- The NY Market Monitor has noted that prices are not converging as expected in the NY City and Long Island zones. The MM has recommended that the ISO should add bidding points in NY City and Long Island zones. NY stakeholders continue to discuss the need for more granularity in NYISO, including allowing virtual bidding at the generating bus level for the entire state.
- NYISO has budgeted for the development of a Virtual Bidding Ancillary Services market for 2008.
- PJM is considering, through its stakeholder process, the design of a Spread Bidding Market. This market would be an expansion of the current INC / DEC market and act as a daily FTR (CRR).

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