Stakeholder Comments Template

Subject: Convergence Bidding

As a follow-up to the discussion at the August 10 meeting of the Market Surveillance Committee (MSC), the CAISO is requesting additional written comments on convergence bidding, especially the level of granularity at which virtual bidding should be introduced within the CAISO markets.

A number of parties have already submitted comments on this granularity issue, and those comments will remain posted and part of the record for stakeholder process. This template is offered as a guide for any additional comments that participants may have based on the MSC discussion. Documents related to this meeting are posted at: http://www.caiso.com/1807/1807996f7020.html.

Comments should be submitted in any format by close of business on Friday, August 24, 2007 to: convergencebidding@caiso.com.

The CAISO offers the following questions as a guide for formulating stakeholder comments:

1. Would convergence bidding enhance your organization’s business needs. If so, how? What does your entity view as the primary benefits of convergence bidding to the CAISO’s energy markets?

Convergence bidding is an integral part of a properly functioning multi-settlement Locational Marginal Pricing (LMP) electricity market. CAISO would only have to look to the State of the Market reports of the four eastern ISO/RTOs and the almost two decades of combined experience of these markets. Those reports explain the benefits in detail but in general they include: (a) an integral part of producing efficient prices; (b) assist those with physical assets to hedge the risks (e.g., asset performance, load forecast and congestion) inherent in two settlement LMP markets; and (c) provide a mechanism for market participants to ensure that inefficient bidding
does not result in inefficient LMPs. Said another way convergence bidding provides asset-based market participants with incentives to bid and schedule realistically and eliminates any incentive to under-schedule. This latter point is important as convergence bidding alone serves as a real-time market monitoring function (i.e., a means for market participants to prevent gaming). This is accomplished without having to employ administrative rules that often do not accomplish their objective efficiently. The cornerstones of efficient LMP markets are reliability, economic efficiency and equity. Convergence bidding assists in ensuring the latter two principles are fulfilled. To ensure that the LMP markets are economically efficient liquidity and depth is required. DC Energy is one company that assists in providing liquidity and depth so that those that have physical assets can hedge the risks indicated above.

2. What are your entity’s views on the level of granularity at which the CAISO should introduce convergence bidding (LAP-level virtual bidding or nodal-level virtual bidding)?

DC Energy believes strongly that the initial implementation should be nodal. Again CAISO should look to the experience in the eastern markets where only one ISO (i.e., NYISO) limits bidding to the LAP (i.e., zonal) level. NYISO has had the following experience: (a) Overall price convergence has been poorer than the other three Eastern RTOs at the nodal level (as shown in WPTF’s presentation at August 10, 2007 Market Surveillance Committee/Stakeholder Meeting\(^1\)); (b) Load has overpaid in certain cases because there is no mechanism to lower inflated Day-Ahead (DA) nodal prices to fair Real-Time (RT) levels (as also shown in WPTF’s 8/10 presentation through the Astoria example\(^2\)); (c) Its market monitor has recommended for a couple of years that it move to nodal or at least sub-zonal bidding, yet since it did not provide for this in its upfront system design, implementation will be more difficult and costly.\(^3\)

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1 See [http://www.caiso.com/1c39/1c39911470d40.pdf](http://www.caiso.com/1c39/1c39911470d40.pdf), page 13.

2 See [http://www.caiso.com/1c39/1c39911470d40.pdf](http://www.caiso.com/1c39/1c39911470d40.pdf), page 7.


There are no documented market failures associated with nodal-level convergence bidding. The only documented potential gaming opportunity (i.e., using convergence bidding to inappropriately advantage ones CRRs) associated with nodal-level bidding can be eliminated with a simple settlement rule. Even without this simple rule, any potential gains will be competed away very quickly as other market participants observe a price discrepancy and enter nodal bids of their own to capitalize on it.

Implementing convergence bidding at the LAP level is the *simple answer* however it does not fulfill the reasons for its existence. For all practical purposes, LAP-level bidding is only useful for the three utilities that encompass the three LAPs. There are many more companies that serve load (e.g., municipals and ESPs) that LAP level bidding will not help. The same is true for those companies that generate electricity in the CAISO market. Nodal-level bidding is useful for all parties. Generators can hedge short-term operating exposures, loads can hedge local load forecast uncertainty, municipals and other parties that operate within a LAP can hedge congestion risks.

Perhaps most importantly, nodal-level bidding eliminates opportunities to exercise market power. LAP level bidding will not accomplish this important task. Much concern has been voiced about nodal convergence bidding enabling market power abuse. In fact, the reverse is true. Local market power will naturally exist and be concentrated in a handful of market participants (i.e., those that own those local assets) if only LAP-level convergence bidding is permitted. In contrast, full nodal convergence bidding eliminates market power by opening up competition to all. As such, nodal level bidding helps the DMM more effectively monitor market efficiency, market operations and market participant behavior. Price anomalies for whatever reason will be spotted much more quickly and arbitraged away.

3. What are your entity’s views on position limits (limiting virtual bidding to a percentage of the MW volume at each node)?

From an ideal market design perspective, position limits have the potential to: a) impede the ability of asset-based market participants to hedge, and b) limit the ability of all market participants who engage in convergence bidding to maximize the benefits. For these reasons, they could be counterproductive if set too low.

Imposing position limits will not necessarily have a beneficial impact because an active market will make the only gaming opportunity unprofitable most of the time and a simple, proven settlement rule will make it unprofitable the remainder of the time.

DC Energy, however would be willing to accept position limits if they are temporary and if it means the initial implementation of convergence bidding will be at the nodal level.
4. What are your entity’s views on allocating costs to virtual bids?

DC Energy believes that convergence bids should share in whatever costs they cause. Specifically, it is reasonable for virtual demand bids to share in covering DA market make-whole-payments provided that the market solution is based on bid-in load (not forecasted load). It is also not unreasonable for virtual supply offers to be charged a share of RT market make-whole-payments – however if done, this should only be done on a cost-causation basis for any specific shortfalls induced. In particular, the cost of commitments made purely for reliability as well as ancillary services should not be charged to virtual supply offers. Finally, it is not unreasonable to charge convergence bids/offers a share of the systems cost necessary to support processing/clearing of bids (e.g., through bid fees).

5. What are your entity’s views about the optimal number of LAPs in California?

DC Energy again strongly recommends that nodal not LAP level bidding is employed at the outset for CAISO convergence bidding market.