
PG&E submits the following comments on the CAISO’s “Working White Paper on Design Criteria for Convergence Bidding” (October 25, 2006 version). The revised white paper continues to focus on three issues for the Convergence Bidding product: Granularity, Load Distribution Factors (LDF), and Market Monitoring. Since the White Paper, in its current state, addresses only a subset of design issues, PG&E reserves the right to update and modify its views as additional design elements are addressed by the CAISO.

The Department of Market Monitoring (DMM) has created a separate Market Monitoring Straw Proposal written from its point of view. PG&E is generally supportive of most elements the straw proposals as put forward in these White Papers. The table that follows shows where PG&E stands on each of the CAISO proposals. Note that the ordering of the comments is tied to that of the White Papers.

**Market Design**

<table>
<thead>
<tr>
<th>CAISO Position</th>
<th>PG&amp;E Comment</th>
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<tbody>
<tr>
<td><strong>Granularity</strong></td>
<td>PG&amp;E agrees.</td>
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<tr>
<td>Virtual Bidding for supply and demand on the LAPs only, provides a workable first rollout with limited opportunity for gaming. Finer granularity may be considered later.</td>
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**Market Monitoring Comments on Granularity**

**Underscheduling**

Convergence bidding at the LAPs will give the participants the opportunity to offset any underscheduling of load. Finer granularity does not appear to improve this ability.

PG&E agrees.

**Mitigating Supplier Market Power**

The DMM sees virtual bidding at the nodes as a possible exacerbation of market power for generators and cites this as an additional benefit of restricting bidding to LAPs.

PG&E agrees.

**Eliminating the Incentive for Implicit Virtual Bids**

The DMM wishes to remove the incentive for implicit virtual bidding.

PG&E agrees, but reemphasizes that this does not appear to be a problem in the current environment.

**Increase Market Liquidity**

The DMM believes that the liquidity provided by finer granularity is not justified by the resulting increase in complexity of the market.

PG&E agrees.

**Hedging Mechanisms for Generation Owners**

The DMM sees the benefit to generators of the nodal hedge but feels the added opportunities to game the market offset the benefit of that more precise hedging mechanism for generators.

PG&E agrees.
Gaming of Congestion Revenue Rights

The DMM sees the “LAP only” Convergence Bidding as a tool that limits gaming while designers and market monitors perfect the market and the market monitoring process.

PG&E generally agrees and discusses this further in the Congestion Revenue Rights section below.

Monitoring and Mitigating of Generation Outages, Deviations and Other Factors Affecting Real-time LMPs

The DMM considers that problems surrounding the gaming of these factors are reduced significantly by LAP only virtual bids and that a finer granularity would make it more difficult to monitor these activities and their strong impact on LMP prices.

PG&E agrees.

Market Monitoring Comments on LDFs

The DMM believes that using the same LDF’s on physical and virtual bids results in minimizing differences in virtual and physical trades with respect to settlements and limits the gaming potential.

PG&E Agrees
Market Monitoring Comments on Mitigation Measures

Congestion Revenue Rights

The DMM asserts that no CRR bidding restrictions are justified in the LAP only market. This is because the LAPs are not connected by a CRR and convergence bidding at the LAP will be distributed throughout the grid thus diluting the impact of the virtual bid on CRR incomes.

PG&E generally agrees, but has some reservations. Convergence Bids across the LAPs could cause or counter congestion by increasing generation on one side and decreasing it on the other. Therefore, some monitoring may still be needed.

In addition, the exclusion of CRR rules may have an undesirable impact on future efforts that increase granularity and will require more restrictive virtual bidding rules.

Position Limits

The DMM believes that credit and collateral requirements may impose limits for many participants, it may be prudent to have the ability to impose some position limits in the event that a participant may still qualify for an excessive amount of virtual bidding after meeting credit and collateral requirements.

PG&E agrees.

Limitation or Suspension of Convergence Bidding

The DMM believes that it should have the option to limit or suspend virtual bidding in extreme circumstances. The DMM believes that these should be undertaken as a result of careful evaluation of the market and would expect the ability to rerun the market without the Virtual Bids to be a critical part of that evaluation.

PG&E Agrees.
Local Market Power Mitigation and Price Caps

Bid Caps
The DMM believes that virtual bids should be subject to bid caps. PG&E agrees.

Virtual Bids inclusion in pre-IFM MPM runs.
The DMM believes that this is an area for further study. PG&E agrees.

Flagging of Convergence Bids
The DMM agrees with the Product Development Team that convergence bids should be submitted explicitly, and that they should be flagged. PG&E agrees.

Bid Price-Quantity Pairs
The DMM feels that limits on the number of segments or the number of bids per participant represent an effective or significant mechanism for mitigating potential inefficiencies or abuses of convergence bidding. But that for system design and maintenance reasons these kinds of restrictions may be beneficial. The DMM adds that a per bid transaction fee could also be beneficial. PG&E generally agrees with the DMM; however, Fees and Cost Allocations for virtual bids have not yet been considered in depth. PG&E suggest that this consideration will need to be undertaken before board approval.

Additional PG&E Comments

PG&E sees the Straw Proposal as a significant step forward and compliments all involved in their thoughtful execution of the work. In our view there are three topics that need further discussion prior to a board presentation in January.

First is whether Virtual Bidding can be used by physical gen to escape market power mitigation rules and does corrective action need to be taken, second is the need for a CRR rule when bidding on LAPs only, and third are Fees and Cost Allocation.

Avoiding Market Power Mitigation with Virtual Bids

In the teleconference of 10/30/06 the idea was raised that, in a tight market for generation, virtual bids could be offered in the DA (which are not subject to the Market Power Mitigation Screen) and physical generation not scheduled (since it would be
screened at the bid price). Since there is a requirement for RA resource to bid in the DA this behavior will most likely be a non-RA resource. So a generator would collect the DA cap and pay the RT price on the virtual bid. Then depending on the Uninstructed Deviation Penalties that are in place, may also collect the Real Time price for the generation. PG&E believes that the DMM should review this potential activity and discuss potential remedies at a future meeting.

**CRR Rule**

It is not clear that a restriction on Convergence Bidding and CRR profits is not needed in the LAP only bidding structure. It appears that offers of energy at one LAP and Bids at an adjacent LAP could impact paths closest to their limits in a predictable manner and create potential gains from Convergence Bidding for a CRR holder. We ask DMM to review whether monitoring in this case is appropriate and determine what monitoring should be done.

**Fees and Cost Allocation**

Fees and cost allocation cannot be left as an afterthought. We suggest that fees and cost allocation issues be included in the next version of the Straw Proposal and that November and December of this year be used to develop a consensus on remaining design issues.

PG&E looks forward to working with the CAISO to resolve remaining issues.