Stakeholder Comments Template

Subject: Setting Parameter Values for Uneconomic Adjustments

Submitted by	Company	Date Submitted
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Pacific Gas & Electric Company (PG&E) appreciates the opportunity to participate in the Uneconomic Adjustments stakeholder process and to submit comments regarding the July 30, 2008 CAISO presentation. We are supportive of the CAISO's effort to make this issue transparent and to involve the stakeholders in the development of the appropriate parameter values.

1. Please propose or comment on the appropriate principles or rules for setting prices in the Real Time Dispatch when supply is insufficient to meet the CAISO demand forecast.

   Pricing Run Penalty Prices Should Not Exceed Energy Bid Cap - PG&E understands there will be times that energy prices will exceed the bid caps as a result of managing congestion. However, PG&E cannot support pricing-run penalty prices that are greater than the bid caps. The CAISO proposes three pricing run parameters that exceed the $500 (year 1 MRTU) bid cap.

   - Violation of Market Energy Balance - $1,500
   - Violation of Intertie Transmission Constraint - $7,000
   - Violation of Other Transmission Constraint - $5,000

   These extreme, administratively-set values represent stealth scarcity pricing which exceeds the CAISO's initial limited scarcity proposal to FERC. In early 2006, the CAISO proposed, and FERC accepted, a limited scarcity proposal for the initial release of MRTU which only allows for real-time energy bid prices to rise to the energy bid cap at times of scarcity. The proposal is explained in greater detail in the CAISO's 2006 testimony to FERC.

   > “The RTED in general will not utilize Contingency Only Operating Reserves, except when there is a shortage of energy bids to meet Real-Time Demand and the CAISO is facing imminent system emergency but there is no transmission or generation contingency, no significant outage or derate of a facility. In such cases the Contingency Only Operating reserves will be included in the RTED with Energy Bid

> prices at the system bid cap rather than their submitted Bid prices, to reflect the scarcity conditions. These Bid-cap Bid prices will be eligible to set Real-Time LMP's and thus provide a mechanism for scarcity pricing of Energy."[1]

Thus, the scarcity pricing provision for MRTU's initial release allows for contingency operating reserve bids to rise to the energy bid cap ($500 in year one) in times of real-time scarcity. There is no mention of administratively setting shadow prices beyond the energy bid cap levels based on penalty prices or any other mechanism. The setting of pricing-run penalty prices to exceed the energy bid cap for MRTU release 1 is inconsistent with both previous CAISO representations to stakeholders and FERC-approved CAISO proposals, and should not be implemented.

Additionally, PG&E requests clarification in the next uneconomic adjustment stakeholder session regarding the details of the proposed limited scarcity mechanism described above, including answers to the following questions:

- Does the mechanism only apply to the operating reserve product and not to the regulation products?
- How is an imminent system emergency defined and what is the specific triggering criteria upon which the contingency-only reserves are called?

2. Multiple priority levels for ETCs. The CAISO believes that MRTU Tariff Section 16.4.5 (8) adequately covers possible priority differences for ETCs, i.e., that the service types identified in this section are the only relevant basis for establishing different priority levels in the MRTU software for ETCs. Parties are asked to comment on whether they agree with this assessment, or if not, to specify any further needs that must be addressed.

   PG&E has no comment at this time.

3. Parties are asked to describe any specific types of test cases they would like the CAISO to run and analyze in relation to the parameter tuning effort. Please explain the proposed case in enough detail to make it clear what question or issue is being addressed. In addition, please identify any particular Market Simulation cases you have encountered in the Market Simulation process and believe are important to examine for parameter tuning issues, and explain the relevance of such cases.

   The Proposed Parameters Need Very Robust Testing to Determine Their Reasonableness - The true test of the parameters will be measured through the performance of the optimization algorithm during the market simulations during 2008 and the parallel processing before MRTU implementation. Although the simulations to-date have been instructive, PG&E believes much more simulation testing needs to be done before all parties are confident in the optimization and the associated parameter values. If continued testing shows unreasonable curtailment of self schedules, then PG&E will ask the CAISO to revisit these parameters and perhaps reconsider a further differentiation of scheduling-run penalty

[1] CAISO February 9, 2006 MRTU Tariff filing to FERC. Exhibit-1 p. 77 of 115.

prices for use-limited resources. It is very importance to ensure these parameters are adequately tested and that the stakeholders are well informed of their performance throughout the market simulations.

More specifically, PG&E would like the CAISO to run simulations that include:

- Scenarios that examine constraint violation of varying magnitudes, so that we can see whether the parameters produce reasonable results at different levels of violation, from nominal to system-threatening.

- Scenarios that explore the potential for the penalty parameters to cascade, as do other price effects in the system (e.g., ramping effects and congestion effectiveness).

- Scenarios in which violations are localized, versus scenarios where constraints are violated for several hours/intervals or in several regions at once.

- Scenarios in which the proposed limited scarcity pricing is implemented (i.e., contingency operating reserve bids to rise to the energy bid cap).

Finally, PG&E is struggling with identifying the impacts of the penalty prices on specific LMPs and specific hours. It is difficult to tell if prices are being set by "typical" congestion management or by penalty prices. PG&E has previously expressed the need for the CAISO to develop a method by which a market participant is able to distinguish between prices set by economic bids and prices set administratively through penalty prices. This type of information would be useful during the simulation process and once MRTU is implemented. Our recent experience with the simulation only reinforces PG&E's desire for this type of information to help demystify the LMP calculations; therefore, PG&E renews its previous request. Similarly, it would be very helpful for the CAISO to include routine measurements of the effects of penalty prices (e.g., how many schedules are cut or how many LMPs are administratively set) for each simulation run.

4. Other

PG&E has other comments at this time.