Comments of Citigroup Energy Inc.
On Parameter Tuning for Uneconomic Adjustments in the MRTU Market Optimizations
October 23, 2008

Citigroup Energy Inc. ("Citigroup") appreciates the opportunity to provide comments on the Update to CAISO Draft Final Proposal on Uneconomic Adjustment Policy and Parameter Values (the "Final Tuning Proposal") posted on the CAISO website on October 16, 2008.

Time Allotted for Market Simulation

As a general observation, CAISO has proposed significant changes to the parameters in the Final Tuning Proposal. In addition, the CAISO has not stated when the new parameters will be in the market simulation environment. Citigroup appreciates that the CAISO needs to make adjustments as it gains additional insight from its simulation and stakeholder process. However, it is difficult to understand the implications of the market simulation solutions/prices when the parameters are still in flux, particularly when market participants will be bound by the parameters when MRTU goes live. Thus, the CAISO should take steps to ensure that its market participants have adequate time to test in market simulation after the final parameters have been implemented.

Scheduling Run Value for Self-Scheduled Exports

In the Final Tuning Proposal, the CAISO has changed the pricing run value for self-scheduled exports backed by a non-RA resource from $1600 to $1000. The CAISO should explain the reason for this change.

Market Energy Balance Pricing Run

The CAISO has reduced the pricing run for Market Energy Balance from $1500 to $500 for Market Energy Balance. The CAISO should explain the reason for this change and describe the impact the change will have on the market.

-$30 Price Segment During Uneconomic Situations

Citigroup continues to have concerns with the implementation of the -$30 bid floor coupled with the implementation of a -$30 price segment for all self-schedules during uneconomic situations within parameters tuning. First, based on the information currently available, the CAISO's treatment of economic bids versus intertie bids appears to be arbitrary, and possibly discriminatory, and affords the CAISO more discretion than seems necessary when applying the bid floor. The basis for Citigroup's concern is the CAISO position that there is no "economical" reason to bid lower than -$30 at the interties versus CAISO statements that there are block bids and other products that can produce economical bids lower than -$30. CAISO representatives have explained that with network effectiveness, as well as economic linked resources like blocks, there can be economic solutions that are below -$30 and can approach -$550. In order to allow market participants to understand this differing treatment, Citigroup requests that the CAISO:

- Specify the market characteristics/events when the CAISO would have discretion to set economic bid prices below -$30, describe why these solutions should allow for "economic" prices below the -$30 bid floor, and explain why economic bids at the interties would be treated differently.

- Describe how the CAISO would derive the pricing of these "economic" bids below -$30 (*i.e.*, price taker, specific dollar value).
- Clarify whether the CAISO would require a bidder to provide the CAISO and/or FERC with justification when the ISO sets the "economic" price at a level that is below the -$30 bid floor? If no justification is required, the CAISO also should explain the basis for treating these "economic solutions" in a manner that differs from its treatment of intertie economic solutions (bids/offers).
- Explain why the CAISO believes that the disparate treatment of economic bids versus intertie bids will not distort LMP prices and the price signals sent to the market.
- Clarify whether and how the CAISO will provide the market with notice before exercising this price discretion and with details after-the-fact on how it set prices during such intervals.

Second, the mechanisms that CAISO is using to set market prices should be transparent, which does not appear to be the case as it relates to the -$30 bid floor. As indicated by the issues above, the CAISO needs to provide market participants with more information on how it intends to apply the -$30 bid floor. In addition, it appears that the MRTU LMP would consider congestion, losses and the energy price combined whereas the market currently considers the energy price via bilateral transactions and congestion and losses via the CAISO. More specifically, the current bid floor for energy-only is being implemented in MRTU with respect to the bid floor for energy, plus congestion, plus losses, however, the current MRTU tariff states -$30 is the "minimum bid price for energy" not inclusive of congestion and losses. To help Citigroup understand the bid floor, Citigroup would like CAISO to address the following issues.

<u>Components</u>

- CAISO should explain how it intends to calculate LMPs, including the components for those prices (energy, congestion, etc.).
- The CAISO should outline how market participants are to bid when evaluating energy, congestion and losses (versus just energy in today's market).
- The CAISO should clarify how it will evaluate MRTU bids and separate the components when evaluating a bid less than -$30 (*e.g.*, a bid could be less than -$30 due to the combination of, or the individual parts of, an LMP – energy, congestion and/or losses).

<u>Justification of Energy Bids</u>

- It is not clear if, and/or what, market participants will need to "justify" an LMP bid that is less than -$30 in MRTU verses an energy bid in MRTU.
- What needs "justification?"
  - Example: Is justification required if an SC bids less than -$30 and, in clearing, the energy component of the LMP clears greater than -$30 and the overall LMP clears less than -$30?
    - If no justification is needed, how does this settle?
    - If justification is needed, and justification is not submitted, how does this settle?
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- The CAISO has not outlined the settlements associated with the three LMP components, as they are unrelated, when mitigating the energy portion of a bid back to the soft bid floor.

<u>General</u>

- SIBR should reflect the proper products being bid in the market –Energy verses LMP or energy, congestion & losses.
- The CAISO should evaluate and implement a market parameter that considers the three pricing components instead of one.
- The CAISO needs to provide market participants with notice that the congestion component can be significantly greater than, or less than, the energy component.
- If the current "Energy Bid Minimum" is truly an LMP Bid Minimum, then the CAISO should provide notice to market participants that, due to a soft LMP bid floor, if they sell power at a level less than -$30 in the day-ahead market they may not have the means to bid back for power in the HASP market, at least at that same level, without having to "justify" the bid.

Finally, the bid floor should be set at a level that encourages efficient market operations. There may be unintended consequences if the CAISO leaves the bid floor at -$30 for LMP bids at the interties, particularly when market participants like Citigroup are still trying to understand the details of how the mechanism will work. Citigroup believes that leaving the bid floor issues unresolved will mean that operators will have limited options, interchange schedules will swing in a manner that will create greater volatility, market participants will be discouraged from participating in MRTU and the CAISO will have free call and put options on self-schedules when uneconomic situations occur in the market. It would help Citigroup if the CAISO were to confirm that it understands that market participants believe that these risks exist and explain how the ISO's proposal adequately addresses them. The following examples highlight Citigroup's concerns:

- Pre-MRTU, the market would see a bilateral offer price of $60 and a Market Congestion Price of -$150 (Mead day-ahead price on 10/13/2008) and Losses would be "Nominal." Thus, prior to MRTU, market participants would take the risk or reward on the clearing price of the congestion by transacting bilaterally and physically moving the power. With the ability to "solve for" congestion, in the above example, the market participant would get paid $150 from the CAISO plus or minus any bilateral transaction profit or loss. Thus, for example, if the market participant bought $60 power and sold $50 power and congestion was

-$150, the total P&L for the combined energy and congestion transactions associated with an export is 140 * # of mws or $140/mw.

- Under MRTU, the market would see an energy price of $60 and a Market Congestion Price of -$150 and Losses of "Nominal." The LMP would be -$90. With MRTU, market participants will be constrained from being a "solution" to the CAISO because the CAISO does not believe that there are legitimate solutions solving for congestion, losses and energy below -$30. However, the pre-MRTU example set out above illustrates that the combination of bilateral (purchase +60, sale +50) and congestion (-150) equals a solution lower than the -$30 number. Citigroup believes that this example shows that there are economical solutions within the market when combining congestion, losses and energy into one traded product. Furthermore, the CAISO itself needs to recognize that energy is not the only component in an LMP price. With MRTU, the LMP would be the combination of (+60 + -150 + "nominal" = -$90). With a sale at the same bilateral sale price as the above example being $50, the total P&L for the intertie purchase is: (Total P&L = 90 + 50(* # of mws)) = $140/mw, the same value as above.
- With the CAISO using an energy bid floor as an LMP bid floor in an LMP market, the CAISO will subsequently remove $60 of optionality when market participants look to offer economic solutions to the CAISO.

If the CAISO does not take into consideration this change, it appears it would be ignoring the contribution of congestion to the LMP clearing prices and unnecessarily trying to resolve market situations uneconomically when economic solutions could be available. Citigroup also would like to better understand why the CAISO is implementing a mechanism that would appear to result in the market experiencing uneconomic parameter adjustments when market participants could and would participate in bidding for energy, congestion and losses at the interties at a number greater than the -$550 or -$650 trigger price.

Lastly, the CAISO appears to be limiting its options by adopting rules where, if the market were to clear at a price less than -$30 but greater than -$549.99, market participants would not be allowed to be a solution through the buy-back of energy and/or incremental purchase of energy that should actually allow operators to manage the system more effectively. In other words, if the market were to clear at -$225 in any particular hour, at any particular intertie, is it the case that the CAISO would limit market participants from being a potential solution at -$150? It would be helpful for the CAISO to clarify why it believes its current proposal considers all economic solutions or is otherwise sufficient.