

Stakeholder Comments Template

Subject: Straw Proposal on Multi-Stage Generating Unit Modeling

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the following topics covered in the Straw Proposal regarding Multi-Stage Generating Unit Modeling that was posted on Tuesday, February 17, 2008. Upon completion of this template please submit to GBiedler@caiso.com. Submissions are requested by close of business on Wednesday, March 4, 2009.

Please submit your comments to the following questions for each topic in the spaces indicated.

1. The proposed design for multi-stage generating unit modeling would enable Participants to bid in the multiple configurations of multi-stage units into the Integrated Forward Market (IFM). At most one configuration can be chosen by the IFM, and that configuration would then be locked for the Real Time Market (RTM). Please elaborate on any issues foreseen with locking the configuration passed to the RTM. (Specific examples or scenarios would be helpful.)

Dynegy supports the pseudo-plant concept proposed by the CAISO. However, Dynegy is concerned that the CAISO's proposal to "lock-in" to the real-time market the multi-stage configuration determined in the day-ahead market will be inefficient and lead to increased, rather than reduced, real-time exceptional dispatch.

It is possible, if not likely, that the day-ahead market will clear at demand levels well below those that will be realized in real-time. FERC has approved the CAISO's proposal to allow up to 15% of demand to be shifted from the day-ahead market to the real time market without penalty. Moreover, convergence bidding may not be in place until as much as a year after initial MRTU implementation.

If the day-ahead market clears at demand levels below those that will be realized in real-time, multi-stage generating units will be locked into lesser configurations (e.g., a 2 x 1 capable multi-stage unit may be locked into a 1 x 1 configuration) in the day-ahead market, and, under the CAISO's proposal, in the real-time market as well. Under these conditions,

the multi-stage units would not be able to bid in to the real-time market more efficient energy from a higher configuration. The CAISO will have to either commit and dispatch less efficient short-start units or use exceptional dispatch to dispatch those combined cycle units in the more efficient configurations in real-time. Consequently, locking in the day-ahead multi-stage configuration in the real-time market will likely increase, rather than decrease, the amount of real-time exceptional dispatch needed to access more efficient energy from these units. Increased exceptional dispatch will also increase costs and distort market prices.

2. The issue of Resource Adequacy (RA) Must Offer (MO) requirements was discussed on the Conference Call on February 25, 2009. The ISO is considering including in its proposed design the requirement that multi-stage units subject to RA MO requirements would need to bid into the IFM at least one configuration that would fulfill the unit's full RA MO obligation. If no configuration is chosen by the IFM, the units would need to submit a configuration into the RTM that would fulfill the RA MO obligation.

Locking the day-ahead configuration in for the real-time market could also create the problem that the day-ahead configuration may not provide access to the full amount of RA capacity sold from that unit.

The number of possible operating configurations of multi-stage units may be significant, but the number of probable operating configurations is likely to be much more limited. For example, it is less likely that multi-stage generating unit owners will be willing to operate large multi-stage units in less efficient 1 x 0 or 2 x 0 configurations because doing so would produce disproportionate air emissions and inefficiently use up scarce air credits. Understanding that allowing more configurations to be bid increases the time it will take the market software to reach a solution, Dynegy still urges the CAISO to allow the maximum number of probable multi-stage configurations to be bid into both the day-ahead and real-time markets. While there may be a few complex combined-cycle plants that would project a need for a large number of possible configurations (e.g., 4 x 2 plants), such plants are likely "the exception" rather than "the rule". Dynegy urges the CAISO to craft a solution that provides the maximum benefit for the largest number of market participants and to not let complex "exceptions" dissuade the CAISO from pursuing alternatives that provide the greatest flexibility to the largest number of market participants.

3. Reporting outages and de-rates of units into the Scheduling and Logging for the ISO of California (SLIC) software will be somewhat more complex for multi-stage units. Two options include the following:
 - Submit outages/de-rates at the unit level, and make any changes necessary to ramp rates within the configuration-level bids.
 - Submit outages/de-rates at the configuration level for all configurations impacted by a generating unit, and make any ramp rate changes within the SLIC ticket.

The IFM and RTM bids for configurations affected by the outages/de-rates should reflect the changes in ramp rates and capacity. Please comment on these options and provide your preference, or any additional suggestions.

While Dynegy supports the “pseudo-plant” approach, Dynegy also prefers Option 1 – submitting outages at the unit level. This may involve using “child” resources to be able to point to discrete units within configurations. Ideally, the model would be able to recognize when outages or de-rates to specific units affect separate configurations.

Dynegy appreciates the opportunity to submit these comments.