

## 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](mailto: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.)

Requiring an SC to “lock in” one configuration for RT does not resolve the issue of forbidden regions and it significantly limits an SC’s ability to represent its plant. If the SC has to reflect the plant’s configuration in only one modeling representation the configuration of the plant will either be overly simplified and thereby create forbidden regions, or it will be very specific and may limit the energy and efficient production that could be available to the RT market should additional configurations be available to the ISO in RT.

Because of the infeasibility of moving beyond the capacity of the DA awarded configuration, locking in a given configuration is likely to not reduce the dependence upon Exceptional Dispatch.

WPTF encourages the CAISO to consider increasing the configurations that are available to the SC in RT. As the number of configurations is increased the detrimental impacts of this limitation decreases. The CAISO should perform systems testing to determine the tradeoffs in clearing times and the number of possible configurations made available to the SCs in RT.

Based on the outcomes of these tests, market participants and the CAISO will be in a better position to determine the appropriate options for representation in RT.

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.

Because of RA, forcing the configuration in RT that was accepted in the IFM is also problematic. For example, it is possible that the IFM will find most efficient a configuration that represents less than the full RA obligation. That would leave less than the full RA obligation offered in RT and would therefore be problematic. Similarly, if the CAISO only allows one configuration to be offered into the RT an SC who provides RA for the full output of its unit may be forced to offer only a configuration that offers all of the capacity, whereby the most efficient RT energy and commitment solution may instead be based on an configuration that is less than the full capacity. This again argues for the ability for an SC to offer more than one configuration into the RT, whereby a full offering can satisfy the RA obligation yet other configurations can allow the HASP/RT to select the most efficient energy configuration.

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.

Ideally, the tracking of outages and derates should be consistent with the representation of the plants in the market systems, suggesting that a configuration level reporting of outages and derates is appropriate. However, WPTF members are concerned that it may be unworkable to submit changes in SLIC at a configuration level given the time critical nature of the SLIC transactions. Given this submitting deratings and outages at a unit level seems preferable. However, submitting changes to ramp rates may be more appropriate at the configuration level.

4. Additional Comments:

WPTF seeks more information from the CAISO on its proposal to mitigate MSG units especially give FERC's February 20, 2009 order in Docket No. ER08-1178 (at paragraph 107) that the CAISO may not mitigate exceptional dispatch needed to transit units through forbidden regions. At a minimum, the CAISO's proposed MPM seems to over-mitigate the bids from these units. In the example presented in the February 25 meeting, the CAISO indicated that it would mitigate both configurations even if the ACR only incrementally scheduled the unit by 20MW. This suggests that the 100 MW dispatched in the CCR would also be mitigated. If this is the case there seems to be over-mitigation that does not provide comparable treatment with plants that are not modeled through the multi-stage modeling approach. The CAISO should not mitigate any of the MWs that were scheduled under the CCR and should instead only mitigate those MWs incrementally scheduled under the ACR. WPTF also seeks further information on what DEBs would be used for various configurations of MSG units; how the ISO would determine the DEBs for each configuration and how the MSGs would work in conjunction with one another.