

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.)

SCE recognizes the added complexity of re-optimizing configurations in RTM; however, SCE also recognizes that it would be prudent to complete a full analysis of the possible alternate options before eliminating any options completely. As such, SCE would like the CAISO to consider the option of allowing the configuration changes to be modeled in the Master File but keeping the optimization of configurations as a manual process in both the IFM and RUC.

If the current proposal is pursued, SCE suggests that the CAISO clarify the manual mechanisms for moving between configurations in RTM (e.g. self-schedule, exceptional dispatch, SLIC rerates, SLIC derates, etc). Identifying the number of mechanisms that exist before and after the proposed implementation of MSG would help justify the magnitude of work to be performed

Further explanation is required regarding how the proposed concept of restricting MSG modeling to the IFM and the locking in of an IFM selected configuration may impact RUC procurement and real-time prices. In particular SCE is concerned that the proposed

design would add additional constraints to the RUC process that are artificial in nature and also create a divergence between the optimization engine used to solve the IFM and the engine used to solve RUC. Additionally, SCE is concerned that the proposed design has the potential to cause artificially high and /or low prices in the real-time market.

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.

SCE requests further details regarding this approach. At minimum, SCE is interested in learning:

- 1) how will the CAISO system insert bids on behalf of RA resources which do not meet their RA bidding obligations,
- 2) how will the CAISO handle situations where the IFM chooses a combination of configurations which makes it impossible to offer the full RA amount in RUC & RTM,
- 3) whether the same configuration must be offered in RTM that was offered into but not chosen by IFM.

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.

Based on our current understanding of the problem and proposed solutions, SCE supports modeling all outages at the configuration-level. However, SCE believes that the options need to be further explored and that the CAISO should provide market participants examples which catalog the implications of different approaches. SCE notes that depending on the changes made to SLIC to accommodate this solution, this approach could greatly increase the workload for market participants and the CAISO.

SCE's other comments

SCE generally supports the approach proposed in the CAISO's Straw Proposal – Modeling of Multi-Stage Generating Units (dated 2/17/09). Our support is based upon our understanding that the anticipated effort and resulting benefits associated with the proposal are mechanically and operationally more viable than with other options.

However, based upon both the limited amount of stakeholder discussions on this Straw Proposal and the degree of unknown specifics inherent with the “conceptual approach” associated with the proposed “modified pseudo-plant approach”, SCE support is strongly contingent upon the stakeholders being fully engaged throughout the entire project (e.g. feasibility study design, development, testing, and implementation). SCE also requires confirmation that aspects of this proposal do not/will not compromise other stated required/desired features of MRTU (i.e. ability to run the IFM multiple times within the before 1pm posting requirement).

As part of SCE’s support of this proposal, SCE requests the CAISO to initiate a stakeholder process that includes a presentation by the vendor of identified and potential challenges and pros/cons of various solutions. A deliverable of this stakeholder process will include a list of optimization functions that will, and will not, be addressed via this proposal and potential modeling limitations. These deliverables will assist in the development of the final scoping document. Topics for discussion include but are not limited to: ancillary services range problem, number of allowed configurations per resource, anticipated number of units that will be modeled using this feature, number of ramp rates per configuration, relationship definition between configurations, types of and number of exceptional dispatches this proposal will eliminate, and impact to different CAISO systems and processes.

SCE support is also contingent upon the development of a schedule that includes milestone dates for verification of functionality as well as thresholds regarding continuation criteria. SCE is concerned that the CAISO’s proposed schedule reflecting a targeted 6-9 month incorporation period may be too optimistic and cause decisions to be reactive rather than proactive and thoroughly thought out. An implementation schedule incorporating yet-to-be identified milestones may allow for the development of a more realistic schedule.

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