

## Stakeholder Comments Template

### Subject: Multi-Stage Generating Unit Modeling

Submitted by	Company	Date Submitted
Joe McCawley 626-302-3301	SCE	11/21/08

This template has been created for submission of stakeholder comments on the following topics covered in the November 14 Stakeholder Conference Call regarding Multi-Stage Generating Unit Modeling and the CAISO Issue Paper on this topic. Upon completion of this template please submit (in MS Word) to [gbiedler@caiso.com](mailto:gbiedler@caiso.com). Submissions are requested by close of business on Friday November 21, 2008.

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

1. Please describe the operational issues that you believe modeling of multi-stage units can alleviate.
  - Dynamic determination of which configuration is optimal for each hour. Without this capability we must proscribe a configuration based on our forecasts, which are necessarily limited in scope, and force-limit the unit(s) to prevent dispatch out of range.
2. If you participate in other ISO/RTO markets where multi-stage units are modeled, please provide any insights you have gained from that experience.
  - N/A
3. What issues do you anticipate arising due to modeling of multi-stage units? Please provide detail and/or examples.
  - Excessive transition frequency (i.e., in and out of any given configuration multiple times/day), possible limited modeling flexibility due to ramp rate segment caps, prolonged dispatch in forbidden or transition loading zones, inadequate flexibility representing varying AS capabilities.
4. Which of the two models – pseudo-plant or pseudo-unit – discussed in the conference call would you prefer to see implemented and why?
  - Unknown at this time. CAISO descriptions seem similar, yet appear to be represented in the model much differently (e.g., what is the difference between a "segment" and a "stage"?).
5. Other comments.
  - None at this time.