

Stakeholder Comments Template

Subject: Straw Proposal on Multi-Stage Generating Unit Modeling

Submitted by	Company	Date Submitted
Eric Leuze	Reliant Energy	April 24, 2009

We appreciate the opportunity to provide these comments.

- 1) Bid Cost Recovery – The proposal states that a key evaluation criterion is the need to address Bid Cost Recovery for embedded generators. The proposal further states that

“We recommend that Bid Cost Recovery be available at the resource level, and that the ISO only pay commitment costs (including transition costs) associated with the real time market. If, however, a resource self-schedules energy and/or self-provides ancillary services in the real time, then IFM commitment costs (including transition costs) would be eligible for BCR.”

We understand that when a unit is eligible for BCR that the CAISO intends to base that compensation on the configuration committed in RT. The CAISO should explain what limitations are intended on a supplier’s ability to change the configuration scheduled in the DA Market and retain BCR. The CAISO should clearly summarize the distinctions in eligibility for BCR between a resource that does use the multi-stage modeling functionality, and one that does not.

- 2) Modeling Forbidden Operating Regions – We understand that deferred functionality for Forbidden Operating Regions will be made available when the CAISO implements multi-stage modeling, but that the CAISO does not plan any additional enhancements to the forbidden region functionality. We also understand that the forbidden region functionality would only have allowed the CAISO to avoid dispatching a resource up or down from within a forbidden region, and that it would not have prevented the CAISO from immediately dispatching a resource back through the forbidden region. Given these facts, the Forbidden Operating Region functionality will not allow certain constraints to be modeled (e.g., a single conventional steam turbine with a

Forbidden Operating Region between PMin and Dispatchable PMin, and a hold time at Dispatchable PMin). The CAISO should confirm that an appropriate use of the multi-stage modeling functionality would be to model a steam unit as two configurations, the first representing a “low range” for the segment between PMin and Dispatchable PMin, and the second a “high range” for the segment between Dispatchable PMin and PMax, with the hold time between the two segments represented as the “transition time”.

- 3) RA obligation – A resource must offer a configuration that fulfills the resource adequacy obligation, or the CAISO will insert bids for a default configuration that meets those requirements. The proposal indicates that if a resource with an RA obligation does not offer in a configuration that can fulfill the offer obligation, the SIBR system will insert a default bids of \$0 for a default configuration specified for meeting the RA obligation. The April 17, 2009 presentation (slide 3, second bullet) indicates that “RA must-offer obligations must be met in DA and RT.”

The CAISO should verify that there is no intent to expand the RT bid obligation for RA resources, and in particular that a configuration including a long-start unit has met its offer obligation by bidding into the DA Market and RUC, and that no RA obligation extends to RT if no DA or RUC award on that long start capacity is made in the DA Market.

The CAISO should verify that any validation on fulfilling the RA obligation is based on the total MW available from the configuration, and not the incremental MW. In the proposed use of the multi-stage modeling to manage Forbidden Operating Regions, as described in 2) above, the “upper range” would not incrementally supply the full RA obligation, but the total MW output would fulfill the obligation. For example, assume a unit has a Dispatchable PMin of 50 MW, a PMax of 200 MW and an RA obligation of 200 MW. The “high range” configuration would provide an incremental 150 MW (200-50), but the full RA obligation is still met (since 200 MW is available from the unit).

- 4) Flexibility to Specify Configurations – The CAISO should confirm that the set of configurations available to the RT market can be modified from hour to hour, so long as the requirement that any scheduled energy or A/S can be delivered from the specified configurations. We also understand that under the proposal, the CAISO will have SLIC functionality that identifies eligible configurations based on available sub-resource elements and any reported outages. The CAISO should also confirm that, in any event, Scheduling Coordinators will have the flexibility to assure that RT configurations are consistent with any forced outages reported in SLIC. The CAISO should also confirm that functionality will be available to allow a resource to specify a maximum number of transitions between any two configurations in an operating day (analogous to Maximum Startups per Day).