



California Independent
System Operator Corporation

California ISO

**Supplement to Proposal for
Spinning Reserve Certification**

September 20, 2007

**CALIFORNIA ISO
SUPPLEMENT TO PROPOSAL FOR
SPINNING RESERVE CERTIFICATION**

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On June 13, 2007, the California Independent System Operator Corporation (“CAISO”) issued a Market Notice and posted a whitepaper entitled “Proposal for Spinning Reserve Certification” to commence a Stakeholder Initiative on Spinning Reserve Certification. The Stakeholder Initiative was undertaken as part of an CAISO effort to review its certification process for Spinning Reserve Capacity and the bidding practices of Aggregated Units to ensure that the Spinning Reserve service the CAISO procures from the Aggregated Units complies with the CAISO Tariff and the Western Electricity Coordinating Council (“WECC”) Minimum Operating Reliability Criteria (“MORC”).

The CAISO has held two stakeholder conference calls to discuss this matter and provided several opportunities for stakeholders to submit written comments on the CAISO’s proposal. In response to that stakeholder input, the CAISO is issuing this “Supplement to Proposal for Spinning Reserve Certification” to focus on the narrow issue under review in this initiative and provide additional detail about its proposal.

Out of the approximately 300 aggregated resources that participate in the CAISO markets, it is the configuration and Spinning Reserve bidding practices of six Aggregated Units that have caused the concern under review in this Stakeholder Initiative. These six Aggregated Units represent total capacity of approximately 217 MW.

Each of the six aggregations is configured as a pair of resources: a very small “host” unit -- with capacity of 100 KW, for example -- and a larger combustion turbine (“CT”) -- with capacity of 46 MW, for example. In this configuration, the aggregation then follows the practice of: synchronizing only the host unit to the CAISO Grid; holding the CT off-line; submitting bids for Spinning Reserve that include capacity from the CT; and not operating the CT during the period that the aggregation is awarding Spinning Reserve, unless the CT responds to a dispatch by the CAISO to provide Energy. The CAISO understands the intent of this bidding strategy to be for the host/CT aggregation to receive payment for the Spinning Reserve award, which is typically the highest priced Ancillary Service, without operating the CT, or incurring the associated fuel costs or other variable operating and maintenance expenses for the CT unless it is actually dispatched.

The practice of the host/CT aggregations to bid Spinning Reserve without the CT synchronized to the system is not consistent with the CAISO Tariff. The CAISO Tariff, Appendix A, Master Definitions defines Spinning Reserve as:

The portion of *unloaded synchronized* generating capacity that is *immediately responsive to system frequency* and that is capable of being loaded in ten minutes, and that is capable of running for at least two hours. (Emphasis added.)

The definition requires that Spinning Reserve capacity be unloaded, synchronized, and immediately responsive to system frequency. It is physically impossible for the host/CT aggregation to meet this requirement if the CT is off-line during the period of a Spinning Reserve award. The capacity of the CT is neither synchronized nor immediately responsive to frequency deviations.

In addition, CAISO Tariff Section 8.2 establishes “Ancillary Services Standards,” which are standards for each Ancillary Service that the CAISO has determined are necessary to maintain the reliable operation of the grid. The standards provide technical requirements related to the generator’s operating capabilities, communication capabilities and metering infrastructure. In Tariff Section 8.4.4, the Ancillary Service availability standard for Spinning Reserve requires that:

Each Participating Generator shall ensure: (i) that its Generating Units scheduled to provide Spinning Reserve and Non-Spinning reserve are available for Dispatch throughout the Settlement Period for which they have been scheduled; and (ii) that its *Generating Units scheduled to provide Spinning Reserve are responsive to frequency deviations throughout the Settlement Period for which they have been scheduled.* (Emphasis added.)

Again, the host/CT aggregation is operationally incapable of meeting this availability requirement if the CT is off-line when awarded Spinning Reserve.

Similarly, Tariff Section 37.3.1.1 provides that:

Market Participants must bid and schedule Energy and Ancillary Services from resources that are reasonably expected to be available and capable of performing at the levels specified in the bid and/or schedule, and to remain available and capable of so performing based on all information that is known to the Market Participant or should have been known to the Market Participant at the time of bidding or scheduling.

These requirements in the CAISO Tariff are designed to ensure that adequate generating capacity is available, and capable of performing, at all times to maintain the reliability of the grid and meet WECC MORC requirements. If the Spinning Reserves procured or self-provided in the forward Ancillary Services markets fail to perform either in response to a frequency deviation or to real-time dispatch, the CAISO’s ability to respond to system needs may be compromised and could lead to system reliability and instability problems. Further, this

reliability risk would be exacerbated if other generating units or aggregated resources were to adopt the host/CT configuration and cease to synchronize spinning capacity to the system.

In order to ensure that host/CT aggregations comply with these Tariff requirements and do not cause reliability issues, the CAISO has revised its testing and certification procedures for Spinning Reserve to designate the Pmin for the CT unit as the minimum spin capacity. The CAISO has also implemented an Ancillary Service testing program, under Tariff Section 8.10.1, to check the ability of all units that bid spin to perform within the Tariff requirements. In addition, the CAISO raised this issue at the WECC Minimum Operating Reliability Criteria Workgroup (MORCWG) meeting on June 27, 2006. As documented in the MORCWG meeting minutes, the workgroup decided that this operating configuration did not qualify as Spinning Reserve in the Western Interconnection.

An additional measure the CAISO has proposed in this Stakeholder Initiative is to seek a FERC order on the CAISO Tariff definition of Spinning Reserve. This proposal contemplates that the CAISO will submit a filing to FERC requesting that the Commission confirm that the existing definition of Spinning Reserve requires that the CT in a host/CT aggregation be synchronized to the system during the period of a Spinning Reserve award or, in the alternative, amend the definition to make that requirement clear. The filing will not propose any change to the portion of the Spinning Reserve definition that addresses frequency response. WECC is currently in the process of developing a standard for frequency responsive reserve.

The purpose of the FERC filing is to enforce the existing policy and provisions in the CAISO Tariff on the requirements for Spinning Reserve. The proposal will not disqualify aggregated units from providing Spinning Reserve nor significantly change the CAISO's procurement of Spinning Reserves. It is intended to ensure that host/CT aggregations operate the CT in compliance with the Tariff and WECC MORC requirements and that the CAISO obtains all of the qualities of Spinning Reserve service that it procures.

One set of stakeholder comments requests that the CAISO undertake a comprehensive system analysis of the adverse impact on resources that will be barred from providing Spinning Reserve under the CAISO's proposal, and to determine if remaining resources will be capable of supporting current and expected load. The CAISO does not believe that such an analysis is warranted. The limited objective of the FERC filing of attaining compliance by six host/CT aggregations to existing CAISO Tariff requirements does not necessitate system-wide economic analysis.