California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market & Infrastructure Development

Date: July 16, 2010

Re: **Decision on Generated Bids and Outage Reporting for Non-Resource Specific System Resource Adequacy Resources**

This memorandum requires Board action.

EXECUTIVE SUMMARY

Under the current resource adequacy program, a load serving entity can meet all or part of its resource adequacy obligations with capacity, provided from the interties from imported resources that is not resource specific. The ultimate source of this capacity could come from one or several generating resources external to the ISO. Such resource adequacy capacity is referred to as non-resource specific system resources with resource adequacy contracts. All import energy resources that supply resource adequacy capacity have an offer obligation to bid the full contracted capacity into the day-ahead market. The tariff states that the ISO will submit bids on behalf of resource adequacy resources with offer obligations in the event that they fail to meet their obligation to offer their contracted capacity into the market.

In order to fulfill this tariff provision, the ISO has worked with stakeholders to develop the policy recommendation, described herein, that addresses what bids should be generated, and how to accommodate the potential unavailability of non-resource specific system resources with resource adequacy contracts. Two additional concerns arose through the process of developing this policy recommendation. First, Management recognized the need for a mechanism through which to accommodate all resource adequacy contracts – not just those that are held by non-resource specific import energy resources – that are for fewer than seven days per week, and 24 hours per day. Second, Management worked to clarify the rules of the standard capacity product in light of the other proposed changes.

Moved, that the ISO Board of Governors approves the proposed tariff change regarding the generation of bids and unavailability reporting for non-resource specific system resources providing resource adequacy capacity and for the accommodation of subset-of-hours resource adequacy contracts; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.

DISCUSSION AND ANALYSIS

Determination of a Generated Bid

The vast majority of resources with contracts to supply resource adequacy capacity have an obligation to offer that capacity into the ISO market. In particular, non-resource specific system resources with resource adequacy contracts have the obligation to offer into the integrated forward market. For resource-specific resource adequacy resources that fail to meet that obligation, the ISO systems will submit a cost-based generated bid on behalf of the market participant for that resource adequacy capacity. Since non-resource specific resources have no obvious cost basis, this proposal offers a choice among three alternative calculation methodologies for their generated bids:

1. A price taker bid that would be set to an estimate of the per-MWh grid management charge;

2. A bid calculated using the locational marginal price (LMP) -based calculation analogous to that used for default energy bids for internal generators. Under this method the bid is calculated as the weighted average of the lowest quartile of locational marginal prices in periods when the resource was dispatched during the preceding 90 days; or

3. A negotiated bid, the development of which would parallel that for calculating default energy bids for internal generators. Under this method, scheduling coordinators submit a proposed default energy bid along with supporting information and documentation to justify the bid level.

Under this proposal, if the LMP-based bid option is elected, the resource must either submit a negotiated bid value or elect the price taker bid to be used as a "back-up" in the event that the feasibility test fails for the LMP-based bid option due to lack of sufficient data. Stakeholders expressed some concerns about using 90 days of data to calculate the LMP-based option, stating that energy prices vary greatly over that period, and that the LMP-based generated bid can therefore be out of line with contemporary market conditions. Allowing for a choice between the other two options proposed here will provide an alternative to the LMP-based bid option for market participants unwilling to accept this risk. Management has not specified a limit on the frequency market participants can change their selection between the three proposed generated bid options but, based on experience with internal resources, we anticipate that changes will be infrequent. However, in the future the ISO may consider adopting a limit on the frequency that market participants can change their selected preference for generated bids if frequent changes become onerous for the ISO to maintain.

In the event that a non-resource specific system resource supplying resource adequacy capacity that submits a bid into the day-ahead market (integrated forward market/residual unit commitment) but not to the full capacity specified in the resource's supply plan, Management proposes to extend the last segment of the resource's energy bid curve out to the full resource adequacy capacity. This is consistent with the treatment applied to internal generators that provide resource adequacy capacity.

Reporting of Unavailability

Non resource specific resource adequacy resources may include a single generating unit or multiple units, and in some cases are specific to only a portion of a resource. The FERC has determined that a 100% availability requirement is unjust for non-resource specific import energy resources supplying resource adequacy capacity. Management accordingly has developed an availability standard for non-resource specific system resources supplying resource adequacy capacity that takes outages into account. The ISO will therefore accept explanations of generation or transmission circumstances leading to a non-resource specific system resource supplying resource adequacy capacity being unavailable to meet its resource adequacy must-offer obligation. Non-resource specific system resources supplying resource adequacy capacity will be required to submit notice of such unavailability to the ISO through the outage-reporting interface currently used by resource-specific resources. Further, these resources will be required to provide information explaining the reasons for such unavailability just as resource-specific resources are required to do under the current tariff provisions.

The outage information the ISO receives on non-resource specific system resources supplying resource adequacy capacity will be used to inform the market software not to insert bids for those resources for outage hours in the day-ahead market provided that the outage is submitted prior to 10:00 a.m. on the trade day. This information will also be used to calculate the resources availability under the standard capacity product.

Subset-of-Hours Resource Adequacy Contracts

The current practice is to insert generated bids on behalf of all resource adequacy resources with offer obligations (with the current exception of non-resource specific system resource providing resource adequacy capacity) as if they were contracted to provide that capacity seven days a week, twenty-four hours a day. Given that not all resource adequacy capacity is procured by load-serving entities for 24x7, and that local reliability authorities monitor and approve the procurement of such capacity, Management proposes a new policy that aligns with the contractual arrangements of resource adequacy resources. Specifically, we propose to insert bids (if the scheduling coordinator for the resource adequacy resource fails to do so) only for the hours specified in the resource adequacy contractual arrangement. Under this proposal, resource adequacy resources will be required to provide, in a statement under oath, information to the ISO about their subset-of-hours arrangements.

The goal of this proposal is to have a more detailed and accurate representation of all resource adequacy contracts and resources in the ISO market systems that will allow for an accurate generated bids process. The ISO performed an analysis of the amount of resource adequacy contracts that are limited to a sub-set of hours. That analysis showed that the vast majority of the contracted resource adequacy capacity falls into the 24x7 "All Hours" category. For example, for the compliance month of April 2010, 95 percent of the resource adequacy resources had contracts to provide capacity during "All Hours." Only 5 percent were under contracts that required anything other than "All Hours." However, we recommend careful monitoring going forward to identify potential significant changes in load serving entity supply plan portfolio content. The ISO will work closely with the CPUC and other local reliability authorities to ensure that load serving entity resource adequacy requirements continue to meet the ISO's reliability needs.

Considerations for Standard Capacity Product

Currently, standard capacity product availability of resource adequacy resources that are internal to the ISO and resource-specific resource adequacy system resources are calculated based on their level of forced outages and temperature related ambient derates in a given month. Under the current ISO functionality, the availability of non-resource specific import energy resources supplying resource adequacy capacity cannot be measured based on outage information and instead is measured by the extent to which an non-resource specific import energy resources supplying resource adequacy capacity bids its resource adequacy capacity into the market. Once the functionality to insert generated bids on behalf of non-resource specific system resources supplying resource adequacy capacity is implemented, this measure of availability will no longer be meaningful. Therefore, Management is proposing new requirements for reporting the availability of non-resource specific system resources supplying resource adequacy capacity and a new availability assessment methodology that is equivalent to that used for internal resource adequacy resources. These new measures include the following:

- A resource will be determined to be less than 100 percent available in a given month if it has reported outages or derates that impact the availability of the resource during the availability assessment hours of that month;

- The monthly availability of an non-resource specific system resources supplying resource adequacy capacity will be equal to the sum of the hourly available resource adequacy capacity of the resource in the availability assessment hours of the month divided by the sum of the hourly resource adequacy capacity for those hours;

- The same availability standard will be applied to non-resource specific system resources supplying resource adequacy capacity as is applied to internal resource adequacy capacity until such time that sufficient data are available to tailor an availability standard specifically for non-resource specific system resources supplying resource adequacy capacity;

- The availability charges and payments for non-resource specific system resources supplying resource adequacy capacity will be maintained separately from those of other resource adequacy resources because of the difference in assessing availability; and

- The unit substitution and grandfathering provisions in effect today will not be modified through this proposal.

With regard to the standard capacity product availability assessments, resource adequacy suppliers with subset-of-hours contracts will not be considered unavailable to the extent that those hours are outside their contractual obligations.

POSITIONS OF THE PARTIES

Summarized below is stakeholder feedback on the draft final proposal for this policy initiative. Comments are further detailed in the *stakeholder matrix* which is Attachment A to this memo.

Generated Bids
Stakeholders support the three options proposed by the ISO.

Unavailability Reporting
The ISO received mixed stakeholder support of the proposal on the circumstances under which a non-resource specific system resource supplying resource adequacy capacity can declare its unavailability. While some stakeholders agreed with the initial ISO proposal that only extraordinary transmission circumstances would be a deterrent to bidding in the full resource adequacy capacity, most agree with the revised policy that unavailability for these resources should be more broadly defined to include both transmission issues outside the ISO Balancing Authority Area as well as problems with the generating resource(s) of which the non-resource specific import energy resources supplying resource adequacy capacity is comprised.

Grandfathering

Currently there is a standard capacity product tariff grandfathering provision that allows, under certain conditions, resource adequacy capacity under a bilateral contract signed prior to June 28, 2009 to be exempt from standard capacity product availability standards, charges and payments for the initial term of the contract. CDWR-SWP requested that this grandfathering provision be extended to non-resource specific system resources supplying resource adequacy capacity as a part of this initiative. The scope of this initiative focuses on developing a calculation and process for generating bids for non-resource specific system resources supplying resource adequacy capacity. Management does not believe this proposal warrants changes to the existing grandfathering provision.

Accommodation of Subset-of-Hours Contracts

The feedback relative to this element of the proposal centered on the initial ISO proposal to limit the types of subset-of-hours contracts that could be specified to the standard block power contracts, which correspond to the subset-of-hours contracts already accepted for the purposes of resource adequacy by the CPUC. Since some load serving entities are outside of CPUC jurisdiction, the final proposal provides the flexibility to accommodate all subset-of-hours arrangements.

RECOMMENDATION

Management requests Board approval for the proposal for generated bids and outage reporting for non-resource specific system resource adequacy resources. These enhancements are planned for the next 2012 resource adequacy compliance year. Furthermore, due to the significant period of time before this new functionality can be implemented, the ISO also will file with FERC a request to waive the current tariff provision regarding generating bids for non-resource specific system resources supplying resource adequacy capacity until these enhancements are implemented in Fall 2011.