Memorandum

To: ISO Board of Governors

From: Jim Detmers, Vice President of Operations

Greg Ford, Manager of Market Services

Date: **December 4, 2007**

Re: ***Decision on Proposal on Decline of Real-Time Import Export Bids***

This memorandum requires Board action.

EXECUTIVE SUMMARY

Bids for imports and exports of real-time energy that are pre-dispatched by the CAISO but then not delivered (or "declined") by market participants have resulted in operational problems and market inefficiencies under the CAISO's current market design. Under MRTU, such declines could pose additional problems. Based on initial work by CAISO's Department of Market Monitoring (DMM), the Department of Market Services initiated a stakeholder process and has finalized a proposal to impose a penalty charge on Market Participants that frequently decline Pre-Dispatched Real-Time Import/Export Bids. Management requests that the ISO Governing Board approve this proposal so that a Tariff amendment can be filed with FERC permitting establishment of a penalty charge.

MOTION

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 penalty charge for declines of Pre-dispatched Real-Time Import and Export bids, as outlined in the memorandum dated December 4, 2007.

BACKGROUND

Under both the current and MRTU market, import and export bids submitted to the real-time market are pre-dispatched based on the results of an optimization[1]. This optimization considers both import and export bids at the inter-ties along with bids

[1] These consist of "Supplemental Energy Bids" in the current market design and "Real-Time Economic Bids for Supply" or "Real-Time Economic Bids for Demand" in MRTU that designate an inter-tie.

from 5-minute dispatchable resources within the CAISO Control Area, based on a prediction of imbalance energy requirements during the applicable operating hour. In addition, the current and MRTU market economically dispatches or "clears" incremental and decremental real-time energy bids with "overlapping" prices (i.e., incremental bids offered at a price lower than the price of decremental energy bids submitted by other participants). This market clearing function considers the entire pool of submitted real-time bids – imports and exports, as well as 5-minute dispatchable resources.

The CAISO "pre-dispatches" inter-tie bids 45 minutes before each operating hour[2]. Upon receiving a pre-dispatch from the CAISO, market participants inform the CAISO whether they intend to deliver on or "accept" a pre-dispatched bid or whether they will not deliver on or "decline" a dispatch[3]. To complete the transaction after acceptance of a pre-dispatched bid, market participants must submit e-tag information prior to the operating hour, listing the energy source or sink and associated transmission capacity. The CAISO provided the option for declining pre-dispatches in recognition of the fact that there could be legitimate reasons for such declines, such as generation or transmission outages. As long as such declines are limited and infrequent, they generally do not create problems with reliability or market efficiency. However, during some recent periods last spring, the CAISO experienced abnormally high rates of declines, which have in some cases created reliability and market problems.

Problems caused by Excessive Declined Pre-Dispatches

By the time information on the amount of any pre-dispatched bids that market participants decline is known to the CAISO, there is insufficient time for the CAISO to re-optimize or issue additional pre-dispatch instructions to replace declined pre-dispatches. As a result, declined pre-dispatched real-time market bids have the potential to result in operational problems or market inefficiencies.

Declines of pre-dispatched import and export bids typically result in the CAISO dispatching incremental bids from internal energy resources at a higher price (or dispatching decremental resources at a lower price) than if the pre-dispatched bids were not declined or were not originally submitted. Declines of pre-dispatched import and export bids can increase the volume and volatility of the CAISO's real-time imbalance energy needs that must be then obtained from the pool of 5-minute dispatchable resources during the operating hour. Because there is no opportunity for the CAISO to dispatch economic inter-tie bids to replace pre-dispatched bids that market participants decline, declined pre-dispatches may also cause economic resources at the inter-ties to go unutilized. Declines can also decrease the efficiency of the real-time energy dispatch of the CAISO by causing grid operators to manually bias the system in order to compensate for declined pre-dispatch instructions.

The ability to decline pre-dispatched bids also creates the potential for gaming of market rules if participants treat pre-dispatched real-time energy bids at the inter-ties as essentially a cost-free option to sell or purchase energy. Under the current market design, declined pre-dispatches do not affect the price paid or charged for pre-dispatched imports or exports because these dispatches are currently paid "as-bid". Under MRTU, declined pre-dispatched inter-tie bids will likely pose additional market inefficiencies and gaming opportunities because of the introduction of a Hour Ahead Scheduling Process (HASP) that produces a single market clearing price for pre-dispatched imports and exports. In this case, excessive declines of pre-dispatches could be used by a market participant as a means for manipulating the HASP market clearing price to their advantage.

Given these concerns, CAISO Management and the CAISO Department of Market Monitoring believe there should be a market rule to deter excessive declines of pre-dispatches. Management has determined that a financial charge for excessive

[2] With the exception of dynamically-scheduled resources and bids marked as dispatchable, which are dispatched on a 5-minute basis throughout the operating hour.

[3] In both the current and MRTU markets, the CAISO pre-dispatches inter-tie bids via its Automated Dispatch System (ADS). Participants have five minutes to accept or decline these pre-dispatch instructions through ADS, although CAISO operators can manually indicate that a dispatch has been accepted until 30 minutes prior to the operating hour. In addition, Market Participants can effectively decline a dispatch instruction by not submitting a corresponding "E-Tag" into the CAISO scheduling systems.

declines is an effective means for discouraging entities from declining pre-dispatched real-time bids, and can point to similar models employed successfully by other ISOs.

Stakeholder process

The CAISO initiated a stakeholder process to assess options for addressing the problems caused by the decline of pre-dispatched bids. As a part of this process, the CAISO posted a white paper summarizing potential options to address declined pre-dispatched inter-tie bids. These options were developed by DMM to provide a starting point for a stakeholder process. In developing these options, DMM sought to build upon frameworks already incorporated at the CAISO and in other ISOs. These include the CAISO's Uninstructed Deviation Penalty (UDP) provisions for declined bids for imports and exports of real-time energy, which are currently part of the CAISO Tariff but which can only be activated upon a filing by the CAISO in the event that uninstructed deviations are found to be creating reliability or market problems. The penalty mechanisms at the New York ISO and Ontairo IESO for the treatment of declined or undelivered pre-dispatched inter-tie bids were also considered. The UDP approach assesses a charge for each declined pre-dispatch instruction equal to a percentage of what the CAISO would have paid for the instructed energy. The New York and Ontario approach essentially charges the replacement cost of undelivered energy from the real-time market, with a charge based on the price difference between the HASP and Real-Time markets.

The CAISO discussed the various options proposed in the white paper with Market Participants. Market Participants generally agreed with the CAISO on the fact that for CAISO markets to operate efficiently, economic energy bids from the inter-ties should be fully utilized. Market Participants also generally agreed to the fact that there should be a mechanism that discourages Market Participants from submitting bids that they do not have a reasonable expectation of delivering. The CAISO reviewed all Market Participant comments to the white paper and developed and published a straw proposal. In developing this proposal, the CAISO decided to base the charge on CAISO's UDP provisions.

While there was no clear consensus from Market Participants on the particular methodology, most of the Market Participants agreed with the general design concept, with some disagreements related to the exact value of percentage used in the charge, the size of a threshold amount of declines that must be exceeded for the charge to be assessed, and with the coordination of this charge to the Tariff section on submittal of feasible bids and to the UDP charge. The CAISO has attempted to address these concerns in this current proposal, in a manner that balances the objective of providing a strong deterrent to excessive declines with not having the charge adversely deter participation by imports and exports in the real-time market or significantly impact the bid prices from such resources. The CAISO believes this current proposal strikes the right balance and most stakeholders generally agree – see attached stakeholder matrix.

<u>Proposed Charge for Excessive Declines</u>

Under this proposal, the charge for each declined pre-dispatched import or export bid would be as follows[4]:

Charge = Declined quantity * 50% * max (floor price of $10, pre-dispatch price[5])

The total decline charge would be calculated separately for decline of import and export bids over a calendar month. The CAISO is also proposing a threshold exemption level whereby charges are not assessed unless the total declined dispatches in MWh over each calendar month exceed 10 percent (or 300 MWh if greater) of the SC's total monthly pre-dispatches. This

[4] This charge would be applicable to any pre-dispatched bid quantity that was not accepted through ADS or for which the participant did not submit a valid e-tag.
[5] The pre-dispatch price would be the market participant's bid price in the CAISO's current market. In MRTU, the pre-dispatch price would be the applicable HASP price.

threshold would be calculated and applied separately for import and export dispatches. If this level is exceeded the charge that is assessed will be reduced to account for the threshold amount.

The CAISO proposes that all declines be subject to the above provisions and there would not be conditions that would exempt a particular declined dispatch from the charge. The rationale for this is that the proposed exemption threshold is large enough for a reasonable number of declines due to conditions outside of a market participant's control.

The rationale for basing the charge on the pre-dispatch price rather than a real-time price is that the real-time price can be significantly higher than the pre-dispatch price for reasons unrelated to declines, while the real-time price can also be lower than the pre-dispatch price even though declines have an adverse impact.

Regarding settlement, the exact allocation charge code has not been determined; however the CAISO intends to allocate the money collected under this charge broadly to load and firm exports.

The CAISO management believes that this proposal will clarify the expected behavior for acceptance of ADS Pre-Dispatch instructions. The charge mechanism strikes a balance so that performance is improved while the possibility of reduced participation and higher bid prices due to risk premiums is minimized. As noted in their separate Board memo, the Department of Market Monitoring also supports this proposal.

MANAGEMENT RECOMMENDATION

Management recommends that the Board approve this proposal on decline of Real-Time Import Export Bids.