

Memorandum

To: ISO Board of Governors

From: Nancy Saracino, Vice President, General Counsel and Corporate Secretary

Date: September 2, 2009

Re: **Decision on Interim Allocation of Real-Time Imbalance Energy Offset**

This memorandum requires Board action.

EXECUTIVE SUMMARY

This proposal for a tariff modification relates to the California Independent System Operator Corporation's (ISO) real-time imbalance energy offset settlement. The real-time imbalance energy offset is a neutrality adjustment - either a charge or a payment to demand - based on whether the ISO has enough revenues from real-time demand market charges to compensate supply procured in the real-time market, which includes the hour ahead scheduling process (HASP). If revenues are insufficient, the ISO must charge demand. If revenues exceed the amount needed to pay supply, the excess is returned to demand. The first monthly invoice revealed an unexpectedly high real-time imbalance energy offset charge to demand, which prompted the ISO to conduct an analysis of the root cause for the high offset charge. The analysis indicates that pending a longer-term market design change, including possible changes to the rate allocation design, it is necessary to address an inequity in how the charges are allocated to demand, and this proposed tariff revision is designed to address this inequity.

The ISO's root cause analysis of the high imbalance energy offset charges thus far reveals that the settlement amount for the month of April was largely driven by the disparity between the prices produced in the HASP and the prices produced in real-time market, combined with large volumes of exports in the HASP. The analysis also reveals that the primary driver of the price divergence is the over-scheduling of demand in the day-ahead market.

Currently, the offset is allocated to all metered demand in the ISO, as well as exports, on a *pro rata* basis. The ISO provides real-time load following services for demand. This creates imbalance energy charges. In addition, when demand is overscheduled in the day-ahead market, the ISO will have excess supply that will have to be managed in the HASP through large volumes of exports, contributing to the creation of the discrepancy between prices in the HASP and the real-time market.

Metered subsystems may elect to follow their own load. Unlike other load serving entities, if a metered subsystem elects to follow its own load, it must follow a special procedure, operate within a prescribed metered subsystem deviation band, and provide the ISO real-time information regarding the resources dispatched. Because the load-following metered subsystem operator schedules its resources in the day-ahead market and adjusts those resources in real time to meet its demand, based on the data analyzed thus far, it appears as though demand from load-following metered subsystems is not a significant contributing factor to the real-time imbalance energy offset charges. In addition, load following metered subsystems already face a financial penalty under the ISO tariff for any deviations from their load following obligations. At this point, out of the five metered subsystem agreements entered into by the ISO only Northern California Power Agency (NCPA) and Silicon Valley Power (SVP) have elected the load following option.

The ISO continues to evaluate potential market enhancements as well as longer term changes to the real-time imbalance energy offset allocation in order to reflect cost causation principles. Until it reaches a longer-term solution, Management requests that the Board of Governors (Board) approve its proposal to exempt from the allocation of the real-time imbalance energy offset a load following metered sub-system's demand, which includes metered ISO demand of a metered subsystem and its exports.

Moved, that the ISO Board of Governors approves the interim exemption of load-following metered subsystems demand, which includes exports, from allocation of real time imbalance energy offset costs until a longer-term solution can be developed, as described in the memorandum dated September 2, 2009; 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 this proposal.

BACKGROUND AND DISCUSSION

Management has identified two key drivers for the high imbalance energy offset charge for the month April:

1. Significant differences between HASP prices for imports and exports and real-time market energy prices combined with substantial amount incremental or decremental HASP imbalance energy; and
2. The effect of using an average hourly price for real-time demand imbalance energy settlement.

On the one hand, hourly inter-tie energy scheduled through the HASP is settled using the HASP intertie prices. On the other hand, uninstructed imbalance energy of load and generating resources as well as the instructed imbalance energy of generating resources are settled using the real-time prices. When the HASP prices are significantly lower than real-time prices and a significant amount of energy is sold in HASP, there can be a large disparity between the cost of

settling energy in HASP versus the cost of settling energy in real time. Under such conditions, the ISO receives less for the energy it sells in HASP than for what it pays for energy in real-time. This discrepancy is one of the primary drivers for the real-time imbalance energy offset observed for the month of April.

The analysis also reveals that the use of an average hourly price for real-time demand imbalance energy settlement has an impact on the real-time imbalance energy offset. The simple averaging in deriving the hourly price for settlement purposes results in load being charged less when deviating upward than it would be charged based on an interval by interval basis, and being paid more when deviating downward. Management does not propose a change in the design of the real-time hourly price at this time but continues to consider redesign of the real-time hourly price as part of the longer-term solution.

Management has concluded that the current cost allocation method is inequitable for load following metered subsystems. Although Management has not identified all causes that contribute to the offset charge, load following metered subsystems do not appear to be implicated as part of the primary driver identified to date. Operators of metered subsystems that follow their load operate their generation to meet their real-time load deviations. Moreover, if the generation of such entities deviates from their load outside of the metered subsystem deviation band, load-following penalties apply to discourage such behavior and ensure that the ISO recovers the associated costs.

In addition, the vast majority of the offset charges are due to uninstructed deviations of load. Load following metered subsystems provide their own load following service within the metered subsystem deviation band. For these reasons, there appears to be no causal relationship between the primary driver identified to date of the real-time offset observed and the actions of a load-following metered subsystem operator.

Management began a stakeholder process to discuss its findings and the drivers of the real-time imbalance energy offset. Through this discussion, ISO staff proposed the exemption of demand from load-following metered subsystems as an interim step. Stakeholders have not opposed the proposed exemption, but they do seek further discussions toward designing a more cost-causation based offset allocation for the longer term. Management intends to pursue this and present the Board with a longer-term solution at its October meeting.

MANAGEMENT RECOMMENDATION

Management continues to work towards longer-term market design and cost allocation solutions to address problems associated with the real-time imbalance energy offset. In the interim, Management recommends the exemption of demand of load-following metered subsystems, which includes the metered ISO demand of the metered sub-system and its exports, from the allocation of the real-time imbalance energy offset because such entities do not significantly contribute to the real time imbalance energy offset.