California ISO
Your Link to Power

California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

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

Date: September 2, 2009

Re: ***Decision on Modifying Rules Limiting Supply Bid Pool in Integrated Forward Market***

This memorandum requires Board action.

EXECUTIVE SUMMARY

Management proposes the ISO Board of Governors (Board) adopt a policy change to eliminate the requirement that, in the integrated forward market (IFM), the California Independent System Operator Corporation (ISO) may only consider bids on behalf of resources committed in the *market power mitigation* process. This change will increase the supply of resources available to the IFM, resulting in improved market and grid operations.

> ***Moved, that the ISO Board of Governors approves the policy to eliminate the current restriction on the supply bid pool for the integrated forward market so that all supply bids will be considered, 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 tariff filings with the Federal Energy Regulatory Commission to implement this policy.***

BACKGROUND

In its current day-ahead market design, the ISO mitigates supply bids before the IFM for the purpose of local market power mitigation. In this pre-IFM process, the ISO uses the same market model used by the IFM, but uses the ISO's forecast demand rather than bid-in demand. Currently, for the IFM, the ISO only considers bids from resources that are committed in the pre-IFM process. The current rule is intended to prevent the potential for high, unmitigated supply bids to set market clearing prices in the IFM.

This rule has generally worked as expected and has minimum effects on IFM results. However, it has the potential to raise overall costs in the IFM in some situations, especially when the bid-in demand is much higher than the ISO's forecast demand.

For example, on July 26, 2009, for hour-ending 17 and 18, the demand cleared in the IFM was approximately 7% higher than the ISO forecast demand. Not all available supply resources were available to the IFM due to the pre-IFM market power mitigation process. As a result, the IFM cleared at a high-priced segment of the bid-in demand curve. The average price of each of the three load aggregation points rose to between $400/MWh and $500/MWh during this two-hour period. Had all supply resources been available, lower priced, unmitigated bids would have been able to compete against higher but mitigated prices. Accordingly, expanding the pool of resources available to the IFM will improve market performance when bid-in demand exceeds forecast demand. In addition, the ISO does not believe that allowing unmitigated resources to compete against mitigated resources will undermine the market performance when bid in demand as at or below ISO forecast demand because those unmitigated bids would generally not be as competitive as mitigated bids.

Management has consulted with stakeholders and proposes to eliminate the requirement that only resources dispatched in the pre-IFM may be considered in the IFM.

CRITERIA

Management identifies two criteria for assessing whether to modify rules limiting the IFM supply bid pool:

1. *Improvement of market performance.* The proposal should improve market performance by reducing undue price volatility, especially in the situation when bid-in demand is significantly higher than the ISO forecast demand; and

2. *Preservation of market power mitigation.* The proposal should not undermine the local market power mitigation process.

STAKEHOLDER PROCESS

On June 17, 2009, the Department of Market Monitoring discussed modifying the rule governing the pool of supply bids used in the IFM with stakeholders at the Market Surveillance Committee meeting. After considering stakeholders' comments in this process, Market Monitoring recommended that the ISO not propose any immediate change to the rule, but to continue to assess the impact of the rule under different market conditions. Please see Attachment 1 for the stakeholder matrix.

At the stakeholder meeting, however, Market Monitoring did not observe or study an actual scenario similar to what occurred on July 26, 2009. Therefore, the urgency of a near term change was not immediately apparent. At the same time, Market Monitoring observed in testing that the IFM took more time to solve when considering all supply resources, rather than only resources committed in the pre-IFM process. This factor also contributed to the recommendation not to pursue a near term rule change. Due to recent software upgrades, IFM performance is no longer a concern. Management is confident that the IFM can consider all supply bids without undermining market performance.

In addition to the July 26 event, the ISO has observed market outcomes where resources appear to be economic based on their start-up cost and bid information for commitment in the IFM. However, because the resource was not economic in the pre-IFM process, the resource was not committed in IFM because IFM was not able to consider the resource under the existing rule.

In light of the July 26, 2009 event, as well as other observed market inefficiencies, Management decided to continue stakeholder talks about the possibility of modifying rules limiting the IFM supply bid pool. On August 14, 2009, the ISO held a stakeholder conference call to discuss its straw proposal. The proposal contained four alternative approaches:

- Approach 1. Use all supply bids in the IFM. In this approach, the pre-IFM will run would use the ISO forecast demand, but all bids, including those from resources not dispatched in the pre-IFM, will be made available to the IFM. In that way, the limit on the IFM supply bid pool would be entirely eliminated.

  This approach is effective when bid-in demand is significantly higher than the ISO forecast demand. It has little impact on market results in other situations, as confirmed by analyses conducted by the ISO.
- Approach 2. Use all supply bids in the IFM but only when a pre-defined trigger is activated. Only bids from resources dispatched in the pre-IFM process would be available for the IFM, unless the trigger is activated.
- Approach 3. Use the greater of the ISO forecast demand and bid-in demand in the pre-IFM process. Only bids from resources dispatched in the pre-IFM process would be available to the IFM. This approach may lead to over-mitigation and market clearing price suppression if the bid-in demand is consistently higher than the ISO forecast demand.
- Approach 4. Use the price-responsive bid-in demand curve in the pre-IFM process. Only bids from resources dispatched in the pre-IFM process will be available for the IFM. This is a Federal Energy Regulatory Commission mandate for release 2 of the ISO's new market design. This approach, without convergence bidding, may result in low MW volume cleared in the IFM.

Southern California Edison also presented an alternative approach, similar to Approach 3, at the stakeholder conference call. This alternative approach uses the greater of the ISO's forecast or quantity of bid-in demand (on a load aggregation point basis) that is bid above some threshold price level instead of the full bid-in quantity under Approach 3.

Many stakeholders expressed support for Approach 1, Management's preferred approach. They believe it is the most transparent and well-balanced among the alternative approaches discussed.

Several stakeholders expressed their preference that the ISO not change the current rule at this time recommending that the ISO wait until Approach 4 is implemented with convergence bidding. Many of these stakeholders, however, indicated a preference for Approach 1 if Management concludes that a rule change is necessary at this time.

Not all stakeholders supported Approach 1 as either their first or second options. A few stakeholders are concerned that, in Approach 1, unmitigated bids may replace mitigated bids to set the market clearing price. They suggest the ISO keep monitoring day-ahead market performance and take action if unintended outcomes are observed.

Finally, most stakeholders believe Approach 4 is the long-term solution and agree that this approach should be implemented the same time that convergence bidding is implemented.

Management has concluded that Approach 1 strikes an appropriate balance of market efficiency and market mitigation in the short-term. When convergence bidding is implemented, an approach consistent with Approach 4 will be implemented.

MANAGEMENT RECOMMENDATION

Management recommends that the Board approve Approach 1 to eliminate the limit on the IFM supply bid pool.