Memorandum

To: ISO Board of Governors

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

Date: February 3, 2010

Re: **Decision on E-tag Timing Requirements Initiative**

This memorandum requires Board action.

EXECUTIVE SUMMARY

Over the past several years, some stakeholders have raised concerns regarding the potential practice of implicit virtual bidding at the interties. Implicit virtual bidding is the practice of submitting bids in the day-ahead market with the sole intention of buying back the day-ahead schedule in the hour-ahead scheduling process (HASP). Implicit virtual bidding can be problematic from a reliability standpoint. The ISO does not know that these day-ahead offers are purely financial and may be counting on them for delivering physical supply to meet real time operational needs. Since the start of the ISO's new market on April 1, 2009, prices in HASP have been consistently lower than day-ahead prices in some hours. This price differential has provided a potential incentive for market participants to engage in implicit virtual bidding by submitting a bid to import energy in the day-ahead market and an export bid in HASP to buy back that energy at a lower price.

Stakeholders have requested that the ISO implement a mechanism to discourage potential implicit virtual bidding. This is best done by ensuring that the schedules at the interties in the day-ahead market are for the actual delivery of energy. The ISO would do this by adopting a mechanism, such as a day-ahead e-tagging requirement, to discourage potential implicit virtual bidding on the interties and to ensure that the correct economic signals are in place to encourage market participants to utilize convergence bidding when submitting a financial bid.

The ISO conducted a stakeholder process to assess the best mechanism for discouraging potential implicit virtual bidding. Based on the results from that process, Management proposes the following tariff changes to ensure that effective economic signals are in place to encourage market participants to use convergence bidding when submitting financial bids to the integrated forward market (IFM) on the interties:

- A HASP reversal settlement rule that removes price arbitrage gains for reversed day ahead intertie schedules with no supporting e-tag;
- Apply the congestion revenue rights (CRR) settlement rule to day- ahead awards reversed in HASP; and
- Apply real time uplift charges to IFM imports reduced in HASP.

Management recommends that the Board approves the proposal for aligning economic signals to deter implicit virtual bidding as described in this memorandum.

Moved, that the ISO Board of Governors approves the proposal to deter implicit virtual bidding, as detailed in the memorandum dated February 3, 2010; 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

Background

Convergence bidding, when implemented in February 2011, will provide market participants with the means to submit explicit financial bids in the day-ahead market. However, the current possibility of implicit virtual bidding on the interties has been of particular concern due to the divergence of prices between day-ahead and the HASP that have occurred in some hours since the start up of the new market. Implicit virtual bidding could create a reliability concern if intertie schedules that are counted on for reliability in the day-ahead market are ultimately unavailable in real-time. Although it is expected that any party currently engaging in implicit virtual bidding on the interties will use convergence bids to achieve the objectives of those transactions once the ISO implements convergence bidding, incentives may still exist for market participants to submit implicit virtual bids on the interties.

As part of the proposal for convergence bidding on the interties, the ISO will include two constraints in its IFM software to ensure that IFM schedules on the interties are compliant with Western Electricity Coordinating Council scheduling rules. The addition of these constraints makes it important for the ISO to distinguish between physical and virtual bids to ensure accurate pricing from the IFM on the interties.

At the conclusion of the convergence bidding stakeholder process, the ISO committed to undertake a separate stakeholder process to consider new e-tagging requirements or some other mechanism to ensure a clear differentiation between physical and financial bids on the interties under convergence bidding. The proposal discussed below focuses on ensuring that an implicit virtual bidding strategy is more costly than implementing the same financial strategy through an explicit virtual strategy under convergence bidding.

The proposal includes provisions to ensure that appropriate economic signals are in place to strongly discourage implicit virtual bidding on the interties once the ISO implements convergence bidding in February 2011. Under the proposal, the ISO will classify any day ahead intertie award which has not selected the convergence bidding flag as physical and subject to the provisions discussed below.

Maintain existing e-tag timing requirement

Although certain stakeholders suggested imposing a day-ahead e-tagging requirement, Management does not propose changes to the current e-tag timing requirement of 20 minutes before the start of the real-time operating hour. While providing an e-tag prior to HASP creates additional assurances regarding deliverability of a schedule because the scheduling coordinator has secured both generation and transmission, submission of an e-tag does not in itself prevent implicit virtual bidding.

Implement HASP reversal settlement rule

The HASP reversal settlement rule removes the arbitrage opportunity under an implicit virtual bidding strategy with no supporting e-tag. The rule does not consider the time a scheduling coordinator submits an e-tag, but instead applies to the megawatt quantity which is not e-tagged. The ISO will reverse the revenue a market participant gains in HASP from an import or export that clears the day-ahead market and is bought or sold back in HASP at an advantageous price[1]. Charges collected under this settlement rule will be payable to measured demand. The new settlement rule will ensure that a market participant seeking to engage in implicit virtual bidding cannot avoid transmission related costs by not e-tagging their full day-ahead schedule.

Apply congestion revenue rights settlement rule to intertie HASP reversals

During the convergence bidding stakeholder process, a CRR settlement rule was developed to deter the potential use of convergence bidding to increase CRR payments. Management proposes to treat a day-ahead intertie award reversed in HASP as an accepted virtual bid, subject to the provisions of the CRR settlement rule for convergence bids. By doing so the ISO is removing the potential incentive to engage in implicit virtual bidding to avoid the CRR settlement rule applied to convergence bidding.

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[1] An advantageous price is when a day-ahead import is bought back in HASP using an export at a lower price or a day-ahead export is sold back in HASP using an import at a higher price.

Expected bid cost recovery uplift costs are higher for implicit virtual bidding than convergence bidding for exports

For an export, an implicit virtual bidding strategy would result in potential tier 1 and tier 2 IFM bid cost recovery uplift charges whereas convergence bidding has potential for only tier 1 IFM uplift. Thus, an implicit virtual export will incur more uplift costs than an explicit virtual export under convergence bidding.

Modification to bid cost recovery uplift costs to implement higher costs for implicit virtual bidding than convergence bidding for imports

For an import an implicit strategy under current settlement rules would not be subject to real time uplift as the costs are applied to measured demand. Measured demand is defined as metered ISO demand plus scheduled exports. HASP exports that reduce IFM import schedules are not classified as measured demand. Therefore if a market participant reduces their day-ahead import in HASP, it would not currently be subject to real time uplift. Therefore, Management proposes to add HASP import decrements to real time uplift recovery. As a result, an implicit virtual bidding import strategy will be subject to real time uplift whereas convergence bidding is subject to residual unit commitment (RUC) uplift. The potential for RUC uplift costs is lower than real time uplift since the majority of resources committed pursuant to RUC are subject to the resource adequacy must offer bid price of $0.

Grid management charges (GMC) are higher for implicit virtual bidding than convergence bidding

The GMC rate structure results in lower transaction costs for purely financial trades that utilize convergence bidding. The ISO's settlements, metering, and client relations charge is equivalent between physical and convergence bidding. Forward scheduling costs are also equivalent between physical and convergence bidding in the day-ahead market; however, the billing rates differ as convergence bidding utilizes gross cleared MW as the billing determinant. The market usage forward energy costs, applicable to day-ahead energy transactions, will be slightly lower for convergence bidding because the virtual bid segment transaction fee offsets costs applied to market usage forward energy. This offset lowers the billing rate under convergence bidding. Most significantly, if a day-ahead award is reduced in HASP, the decrement schedules incur the real time market usage charge which is currently $0.4272 per MWh. Under convergence bidding market participants do not incur the real time market usage fee because the transaction is automatically reversed.

POSITIONS OF THE PARTIES

Market participants have had divergent views with regards to implementing a new firm e-tag timing requirement as a means to deter implicit virtual bidding. Although Management believes market participants generally support this proposal there are two areas where they have raised concerns:

1) Market participants may incur higher transmission costs by having to secure transmission earlier in order to minimize exposure to the HASP reversal settlement rule.

2) The ISO's inability to implement these changes immediately versus concurrently with convergence bidding.

While it is true that market participants may incur higher transmission costs, this proposal allows market participants significant flexibility for when they procure their transmission, more so than would be the case if an earlier e-tagging timeline were imposed. Management believes that this proposal provides a reasonable balance between these stakeholder concerns about costs and flexibility and the need for the ISO to ensure the legitimacy of physical intertie schedules prior to real-time operations.

Management believes that implementation of these new rules concurrently with convergence bidding allows sufficient time for the ISO and market participants to make any necessary system changes.

Stakeholder comments and concerns are summarized in a stakeholder matrix which is *Attachment A* to this memo.

MANAGEMENT RECOMMENDATION

Management recommends that ISO Board of Governors approve the proposal for aligning economic signals to deter implicit virtual bidding as described in this memorandum with an implementation target date of February 2011. Discouraging implicit virtual bidding will support the use of convergence bidding as a means to submit financial bids and help to ensure the feasibility of physical day-ahead intertie schedules.