Draft Final Proposal
E-tag Timing Requirements Initiative

January 7, 2010

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1 Executive Summary

During the Convergence Bidding stakeholder process, the ISO committed to undertake a stakeholder process to consider new e-tagging requirements or some other mechanism to ensure that the ISO can differentiate between physical and financial (implicit or explicit virtual) bids on the interties. It is important to emphasize that it is impossible to determine definitively if a day-ahead intertie schedule is truly physical. This would require knowing a market participant's ultimate intent when submitting an offer to buy or sell energy at an intertie in the day-ahead market. Consequently, this proposal focuses on ensuring that an implicit virtual bidding strategy is more costly than implementing the same financial strategy through an explicit virtual strategy via convergence bidding.

The draft final proposal designates if a bid is physical or financial on the interties not by ensuring a physical schedule is truly physical, but by ensuring that an implicit virtual bidding strategy would be less economic than implementing a purely financial strategy through convergence bidding. The draft final proposal recommends the following modifications:

1. Instituting a HASP Reversal Settlement Rule that removes price arbitrage gains for reversed MW with no supporting e-tag. See section 5.4.
2. Applying the CRR Settlement Rule to day ahead awards which are reversed in the Hour Ahead Scheduling Process (HASP). See section 5.5.
3. Applying real time uplift charges to IFM imports which are decremented in HASP. See section 5.6.
4. No changing of the existing ISO e-tag timing requirements; however, in order to avoid the HASP Reversal Settlement Rule would require an e-tag for the full day ahead schedule.

The changes proposed in sections 5.4 through 5.6 will become effective once convergence bidding is implemented. Convergence bidding is currently scheduled to be implemented in February 2011.

2 Introduction

ISO market participants have identified e-tag timing requirements as an area potentially in need of revision, particularly with respect to the e-tagging of energy interchange schedules awarded in the ISO's day-ahead integrated forward market (IFM). The ISO currently subscribes to WECC Business Practice Standards, WECC (ISAS) Pre-scheduling conventions and NERC Reliability Standards related to e-tag processing and timing. However, the only applicable compliance requirement is the NERC reliability requirement, contained within NERC INT-008, which stipulates that e-tags are late if not submitted by the Purchasing Selling Entity at least 10 minutes prior to the hourly ramp, or 20 minutes prior to the start of the operating hour ("T-20" minutes) for the WECC.

The purpose of the e-tag timing requirements initiative is to evaluate the ISO's current e-tag timeline and associated monitoring and compliance procedures to assess whether any modifications are warranted and if so, to propose modifications in a manner that supports both the ISO market functions as well as the requirements of prudent and reliable grid operations.

3 Plan for Stakeholder Engagement

Item	Date
Post Final Draft Proposal	January 7, 2010
Stakeholder Conference Call	January 14, 2010
Stakeholder Comments Due	January 21, 2010
Board Meeting	February 11, 2010

4 Background

Certain market participants have expressed concern that the ISO's current e-tag timeline may result in reduced reliability and unintended market impacts. These parties assert that day-ahead import schedules for which scheduling coordinators have not procured energy and transmission in the day-ahead timeframe and not submitted day-ahead e-tags may not provide the ISO the same certainty regarding the real-time delivery of the imports as those for which scheduling coordinators have submitted day-ahead e-tags are submitted. In other words, when a market participant waits until after the HASP to procure the energy and transmission and submit an e-tag to physically schedule the interchange, the ISO market essentially receives an hour-ahead product for an award that was cleared in the day-ahead market and paid the day-ahead market price.

Some market participants argue that only requiring submission of Requests for Interchange (RFI's or e-tags) after HASP allows scheduling coordinators to engage in "implicit virtual bidding" at the interties, i.e., day-ahead interchange transactions which the scheduling coordinator intends to liquidate in the HASP rather than deliver in real time. This type of activity could have reliability impacts to the extent a schedule clears the HASP but the scheduling coordinator does not deliver energy in real time.

Market participants also argue that under convergence bidding, which the ISO intends to implement by February 1, 2011, scheduling coordinators may have incentives to provide "implicit virtual bids" to avoid market costs and rules such as the Congestion Revenue Rights (CRR) claw back rules, certain Grid Management Charges (GMC), and the convergence bidding IFM and Residual Unit Commitment (RUC) Tier 1 uplift cost allocation. These parties argue that when the ISO implements convergence bidding it will be important to guard against implicit virtual bidding" so that the ISO can accurately differentiate between physical schedules and virtual schedules over the interties.

The NERC e-tag timing requirement is currently 20 minutes before the start of the operating hours or T-20. However, it is common business practice within WECC for the vast majority of market participants to e-tag their day-ahead awards the day before actual delivery, in the WECC Pre-Scheduling timeframe. DMM analyzed HASP failures between July and September 2009. On average 91% of net imports MW were e-tagged in the day ahead timeframe. Additional detail can be found at http://www.caiso.com/2480/2480e27c256a0.pdf.

If changes are made to a scheduling coordinator's day-ahead schedule in the HASP, the scheduling coordinator then adjusts its e-tag to reflect the HASP quantity prior to the T-20 NERC deadline.

E-tag timing requirements are addressed by North American Electric Reliability Corporation (NERC) Reliability Standards, North American Energy Standards Board, Inc.

(NAESB) Business Practice Standards and Western Electricity Coordinating Council (WECC) Business Practice Standards.

NERC Standard INT-008-3[1] outlines the e-tag submission timeline for the Interchange Authority while INT-006-3[2] outlines the e-tag response timeline for the Balancing Authority and Transmission Service Provider. An e-tag submitted to an Interchange Authority after T-20 (10 minutes + 10 minute ramp) is deemed late by NERC for market participants within WECC.

Current WECC business practice standard INT-BPS-003-0[3] requires Purchasing Selling Entities to submit e-tags for preschedules at 1500 Pacific Prevailing Time on or before the day the interchange preschedule is submitted. Each Balancing Authority, Transmission Service Provider and Purchasing-Selling Entities shall produce evidence that the timing requirement was met. Compliance monitoring is the responsibility of the WECC entity as designated by the WECC Board of Directors.

There also may be potential unintended consequences that may result were the ISO to impose earlier e-tag requirements. An earlier requirement may reduce day-ahead market liquidity by reducing the time market participants have to secure energy and transmission to meet their day-ahead awards. Additionally, an earlier e-tag timing requirement may conflict with the timing of when transmission routinely becomes available in other balancing authority areas. In considering whether it is appropriate to implement earlier e-tagging requirements in the ISO's markets, it is important to assess the potential adverse impacts as well as the benefits.

5 Proposal

5.1 Summary

The ISO appreciates the many detailed comments received from stakeholders regarding this matter. This draft final proposal seeks to ensure that incentives, penalties and costs provide the appropriate economic signals to discourage implicit virtual bidding on the interties once the ISO implements convergence bidding in 2011. The ISO will classify any day ahead intertie award which has not selected the convergence bidding flag to be physical.

If costs were equivalent between physical and virtual awards, a market participant intending to perform a purely financial trade could submit an apparently physical bid. The fact that an award has the attributes of a physical schedule does not prevent a market participant from engaging in implicit virtual bidding. There are, however, valid economic justifications for reversing day ahead awards in HASP. This draft final proposal seeks to allow appropriate HASP reversals while closing potential incentives that may facilitate implicit virtual bidding.

5.2 E-Tag Timing Requirements

The ISO recommends no change to the current e-tag timing requirement of 20 minutes before the start of the operating hours or T-20. This requirement aligns with the NERC e-tag timing requirement. However, a market participant can only avoid the HASP Reversal Settlement Rule if the full day ahead schedule is e-tagged at some point.

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[1] http://www.nerc.com/files/INT-008-3.pdf

[2] http://www.nerc.com/files/INT-006-3.pdf

[3] http://www.wecc.biz/Standards/WECC%20Criteria/Business%20Practices/INT-BPS-003%20Interchange%20Prescheduling%20Calendar.pdf

5.3 HASP Intertie Schedules Decline Charges

ISO tariff section 11.31 - HASP Intertie Schedules Decline Charges - applies to any energy import or export when the schedule is not delivered for any reason. The current charge is the MWh quantity of the import or export not delivered multiplied by the greater of $10/MWh or fifty percent (50%) of the HASP intertie LMP. The charge is applied to the quantity of MWhs that exceed the applicable exemption threshold during the trading month. The current HASP Intertie Schedules Decline Charges is only applied to the amount of an import/export that is dispatched in HASP that is an increase to an IFM import/export schedule and not to the total HASP import/export schedule. The decline charge was implemented because if incremental HASP dispatches are not delivered, the market participant does not pay the real time energy price and there is no settlement aside from the decline charge. Meanwhile, market participants must pay the real time LMP for imports (receive LMP for exports) for undelivered IFM schedules. As part of this initiative, the ISO sought stakeholder comment on whether to eliminate or reduce the exemption threshold, increase the decline charge floor price and the percentage of the HASP intertie LMP, and apply to the full HASP import/export schedule. This draft final proposal recommends no change to the existing HASP Intertie Schedules Decline Charges. Instead this proposal recommends a new HASP Reversal Settlement Rule.

5.4 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 an e-tag is submitted, but applies to the MW quantity which is not e-tagged. The MW quantity e-tagged is based upon the highest quantity simultaneously tagged of the day ahead award at the tie point. For IFM import/export schedules, the settlement rule is triggered if the HASP MW quantity is less than the IFM schedule. The settlement rule for an import is if the HASP price is less than the day ahead price then the MW quantity not e-tagged is charged the day ahead price less the HASP price. There is no charge for an import if the HASP price is greater than the day ahead price. The settlement rule for an export is if the HASP price is greater than the day ahead price then the MW quantity not e-tagged is charged the HASP price less the day ahead price. There is no charge for an export if the HASP price is less than the day ahead price. The scenarios below reflect how this proposed rule would work:

Scenario 1 – Potential Implicit Import

Day Ahead Price = $50.00, HASP Price = $40.00

Sell 100MW in Day Ahead

Buy 100MW in HASP

No E-tag

Charge = $1000 = ($50 - $40) X (100MW – 0MW)

Scenario 2 – Potential Implicit Import

Day Ahead Price = $50.00, HASP Price = $40.00

Sell 100MW in Day Ahead

Buy 100MW in HASP

100MW E-tag prior to HASP

Charge = $0 = ($50 - $40) X (100MW – 100MW)

Scenario 3 – Potential Implicit Import

Day Ahead Price = $50.00, HASP Price = $40.00

Sell 100MW in Day Ahead

100MW E-tag at T-20

Charge = $0 = ($50 - $40) X (100MW – 100MW)

Scenario 4 – Potential Implicit Import

Day Ahead Price = $50.00, HASP Price = $40.00

Sell 100MW in Day Ahead

Buy 20MW in HASP

80MW E-tag at T-20

Charge = $200 = ($50 - $40) X (100MW – 80MW)

Scenario 5 – Potential Implicit Export

Day Ahead Price = $50.00, HASP Price = $40.00

Buy 100MW in Day Ahead

Sell 80MW in HASP

20MW E-tag at T-20

Charge = $0 = ($0) X (100MW – 80MW)

Scenario 6 – Potential Implicit Export

Day Ahead Price = $40.00, HASP Price = $50.00

Buy 100MW in Day Ahead

Sell 80MW in HASP

20MW E-tag prior to HASP

Charge = $800 = ($50 - $40) X (100MW – 20MW)

Scenario 7 – Potential Implicit Export

Day Ahead Price = $40.00, HASP Price = $50.00

Buy 100MW in Day Ahead

Sell 20MW in HASP

80MW E-tag at T-20

Charge = $200 = ($50 - $40) X (100MW – 20MW)

5.5 CRR Settlement Rule Applied to Intertie HASP Reversals

During the convergence bidding stakeholder process, a congestion revenue rights (CRR) settlement rule was developed to deter the potential use of convergence bidding to increase CRR payments. The rule is outlined in Attachment B to the Convergence Bidding Final Proposal and can be found at http://www.caiso.com/243b/243beb92187a0.pdf. A day ahead intertie award reversed in HASP by a market participant will be considered an accepted virtual bid and subject to the provisions of the CRR settlement rule for convergence bids. For

example, a 100MW IFM import schedule that is reduced by 25MW in HASP will be considered a 25MW accepted virtual supply bid. The timing or presence of an e-tag is not applicable to designating a HASP reversal as an accepted virtual supply bid for purposes of the CRR settlement rule. By applying the same rule to implicit virtual bidding and convergence bidding, the ISO is removing a potential incentive not to select the convergence bidding flag in the day ahead market.

5.6 Bid Cost Recovery Uplift Physical vs. Convergence Bidding

Explicit virtual bids under convergence bidding face lower average potential uplift charges for Bid Cost Recovery than physical trades. For an export trade, an implicit virtual bidding strategy would result in potential Tier 1 and Tier 2 IFM uplift whereas convergence bidding has potential for only Tier 1 IFM uplift. In addition, the IFM uplift for convergence bidding is triggered if (1) net positive demand system wide, (2) virtual demand plus physical demand minus virtual supply is greater than measure demand, and (3) the market participant has a net virtual demand portfolio. For an import trade, 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 CAISO demand plus scheduled exports. HASP decrements to IFM import schedules are not classified as measured demand. This proposal recommends that HASP import decrements be added to the real time uplift. Real time uplift costs going forward will be allocated to measured demand plus HASP import decrements. As a result, an implicit import strategy will be subject to real time uplift whereas convergence bidding is subject to RUC uplift. The potential for RUC uplift costs is lower than real time uplift since the majority of resources committed via RUC are subject to the resource adequacy must offer bid price of $0. In addition, the RUC uplift is only triggered if (1) net positive supply system wide and (2) the market participant has a net virtual supply portfolio. The table below summarizes uplift charges by strategy.

	Implicit Export	Explicit Export	Implicit Import	Explicit Import
IFM Uplift	Yes (Tier 1 & Tier 2)	Yes (Tier 1 Only)*	No	No
RUC Uplift	No	No	No	Yes (Tier 1 Only)**
Real Time Uplift	No	No	NEW	No

Implicit Export: Buy in DA, Sell in HASP
Implicit Import: Sell in DA, Buy in HASP
Explicit Export: Buy in DA, CB Auto Reversal
Explicit Import: Sell in DA, CB Auto Reversal

* Trigger: 1. Net Positive Demand System Wide, 2. VD+PD-VS>Measured Demand, 3. Net VD portfolio
** Trigger: 1. Net Positive Supply System Wide, 2. Net VS portfolio

5.7 GMC Rate Charges Physical vs. Convergence Bidding

The GMC rate structure results in lower transaction costs for purely financial trades that utilize convergence bidding. The 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 as the convergence bidding bid segment transaction fee

offsets costs applied to market usage forward energy which lowers the billing rate. Finally, if a day ahead award is reversed in HASP, schedules incur the market usage charge (currently $0.4272 per MWh), applicable to HASP transactions. For convergence bidding, since the transaction is automatically reversed, no market usage charge is incurred. As a result, there is a higher transaction cost for implicit virtual bidding than if a scheduling coordinator utilizes convergence bidding.

6 Next Steps

The ISO will hold a stakeholder teleconference on January 14, 2010 to discuss the proposal presented in this Draft Final Proposal. Stakeholders should submit written comments by January 21, 2010 to etagtiming@caiso.com