

# **Comments on FERC Order 764 Compliance 15-Minute Scheduling and Settlement Draft Final Proposal**

**Department of Market Monitoring  
April 24, 2013**

## **I. Summary**

The Department of Market Monitoring (DMM) appreciates the opportunity to provide comments on the FERC Order 764 Compliance 15-Minute Scheduling and Settlement Draft Final Proposal.

We support the ISO's proposal to settle all intertie and internal load and generation on a 15-minute market. We expect the overall proposal to have a significant positive impact on reducing real-time imbalance offset charges and supporting renewable integration. Therefore, despite the persistence of some concerns raised in previous comments, we generally support the proposal moving forward on schedule towards implementation.<sup>1,2,3</sup>

We provide detail on several aspects of the proposal below.

## **II. Eliminate most real-time imbalance energy offset cost**

Eliminating financial settlement in the hour-ahead market and settling all internal and intertie schedules (including virtual schedules) on a 15-minute market should eliminate most of the energy portion of real-time imbalance offset charges. This is because the main cause of the RTIEO is the net intertie energy bought (or sold) by the ISO at the hour-ahead market price that must be offset by an equal but opposite quantity of internal energy that settles at the 5-minute market prices. Under the ISO proposal, all changes to intertie and internal day-ahead schedules in the 15-minute market will settle on the 15-minute market system energy price. Therefore, every incremental change to a day-ahead schedule in the 15-minute market will be offset by a decremental change to some other day-ahead schedule that settles at the same system energy price.

As a result, the 15-minute market proposal allows the net exchange of real-time energy between internal and external market participants to be priced by the one market in which the exchange occurs. The proposal eliminates the out-of-market uplift required to offset

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<sup>1</sup> See DMM's comments on the FERC Order 764 Straw Proposal at [http://www.aiso.com/Documents/DMM-Comments-FERC\\_Order764MarketChangesStrawProposal.pdf](http://www.aiso.com/Documents/DMM-Comments-FERC_Order764MarketChangesStrawProposal.pdf).

<sup>2</sup> See DMM's comments on the FERC Order 764 Dec 18, 2012 Straw Proposal Technical Workshop at [http://www.aiso.com/Documents/DMM-CommentsFERC\\_Order764MarketChangesStrawProposalTechnicalWorkshop.pdf](http://www.aiso.com/Documents/DMM-CommentsFERC_Order764MarketChangesStrawProposalTechnicalWorkshop.pdf)

<sup>3</sup> See DMM's comments on the FERC Order 764 Revised Straw Proposal at [http://www.aiso.com/Documents/DMM-Comments-FERC\\_Order764MarketChangesRevisedStrawProposal.pdf](http://www.aiso.com/Documents/DMM-Comments-FERC_Order764MarketChangesRevisedStrawProposal.pdf)

the revenue imbalance caused by settling this exchange at a different system-wide price for internal market participants than for external market participants.

### **III. No bid cost recovery for hourly block schedules**

We strongly support the portion of the ISO proposal regarding bid-cost recovery for hourly block inter-tie schedules. The proposal does not grant bid cost recovery to these schedules. Granting bid cost recovery (BCR) to hourly block schedules (including those that allow an intra-hour schedule change) would transfer much of the out-of-market transaction cost described above from one form of uplift (RTIEO) to another (BCR). Granting BCR to hourly block schedules would therefore undermine this market initiative's most significant benefit.

Providing BCR of imports and exports would re-instate the same "bid or better" settlement rules for hourly intertie schedules that lead to over \$33 million in uplifts from the time this rules were implemented on October 1, 2004 until the time these rules were changed on March 25, 2005 through the filing of Amendment 66 to the ISO tariff.<sup>4</sup> By the time these rules were changed, this uplift was averaging about \$400,000 per day. As explained in the ISO's Amendment 66 filing, these uplifts inevitably result when real-time prices are either higher or lower than the projected or advisory prices used to clear the hour-ahead market. A very large portion of this uplift was paid for off-setting import and export bids (by the same or different participants) that provided no net energy to the ISO system.

Under the ISO's proposal, hourly block schedules can incorporate into their hourly bid prices the risk of 15-minute market prices exceeding their costs. The no-BCR proposal therefore transfers the current risk of the price difference between HASP and the 5-minute market to participants submitting inter-tie schedules. The risk would transfer *from* the entities administratively assigned the out-of-market uplift charges and transfer *to* imports and exports that could adjust their bids to reflect the risk. Therefore, the proposal would cause this risk currently paid through out-of-market uplift to be incorporated into real-time market prices. DMM supports this approach.

In particular, incremental real-time hourly block import bids will be exposed to the risk of 15-minute market prices settling below the hourly block advisory price. These incremental imports can raise their bid price in order to hedge themselves against this risk. By raising their bid prices, incremental import bids would clear in hour-ahead market conditions that caused their expected compensation from expected 15-minute market prices to cover them for the risk of 15-minute market prices materializing at levels below their bid price.

Similarly, decremental real-time hourly block imports will be exposed to the risk of 15-minute market prices settling above the hourly block advisory price. These decremental imports can lower their bid price in order to hedge themselves against this risk. By lowering their bid prices, decremental import bids would clear in hour-ahead market

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<sup>4</sup> [http://www.caiso.com/Documents/Req\\_ExpeditedConsideration\\_ShortenedCommPeriod.pdf](http://www.caiso.com/Documents/Req_ExpeditedConsideration_ShortenedCommPeriod.pdf)

conditions that caused their expected compensation from expected 15-minute market prices to cover them for the risk of 15-minute market prices materializing at levels above their bid price.

Because hourly block schedules would incorporate the risk of price differences between the hour-ahead advisory price and the 15-minute market prices into their bids, the risk of these price differences would be incorporated into the 15-minute market clearing prices. If incremental hourly block imports bid sufficiently high enough to not clear the hour-ahead process, 15-minute market prices will rise due to the shortened supply curve in the 15-minute market. These higher prices will benefit internal generation and incremental imports that participate in the 15-minute market ('15-minute market imports'). As a result, the market creates the proper price signals for hourly block imports to participate in the 15-minute market. Similarly, if decremental hourly block imports bid sufficiently low enough to not be decremented in the hour-ahead process, 15-minute market prices will drop due to the increased supply curve in the 15-minute market. These lower prices will benefit flexible internal generation and decremental 15-minute imports. Again, this market dynamic creates the proper price signals for decremental hourly block imports to participate in the 15-minute market.

Because market prices will reflect scarcity of hourly incremental or decremental import bids each hour, there is little risk of such scarcity arising due to the lack of BCR for hourly block schedules. The energy that may not be offered due to no BCR guarantee to hourly block schedules is inherently energy that is available to respond up or down each hour based on price signals. Energy that is not responsive to hourly price signals will not be impacted by the existence or non-existence of BCR for hourly block schedules. Therefore, if the 15-minute market prices of an hour reflect some scarcity of incremental or decremental hourly block import bids, the volume of hourly block import bids will subsequently adjust to the scarcity reflected in the 15-minute market prices. Furthermore, the incremental or decremental import bid prices will have built-in risk premium to hedge them from the risk of unfavorable 15-minute market prices.

Therefore, not granting BCR to hourly block schedules would allow the risk of hour-ahead prices differing from 15-minute market prices to be incorporated into bids and therefore the market prices themselves. This would allow the market to perform its fundamental role of setting prices that reflect the underlying costs, including risk premiums, of supplying power. Prices would also reflect the underlying demand for power that is flexible in 15-minute intervals. Granting BCR to hourly block schedules, on the other hand, would inequitably assign the cost of this risk administratively. Furthermore, granting BCR would not allow the market to create the price signals to incent incremental and decremental imports to participate in 15-minute markets and to provide the 15-minute flexibility required for efficient renewable integration.

#### **IV. Intertie virtual bids**

The 15-minute market structure proposed by the ISO greatly reduces potential for the high revenue imbalance costs that led to suspension of virtual bidding on interties in 2011. However, DMM cautions that virtual bidding on interties could still inflate real-time revenue imbalances in the event that constraint limits need to be adjusted downward in the 15-minute process to account for unscheduled flows not incorporated in the day-ahead market model. For reasons explained in our comments on the Revised Straw Proposal, intertie virtuals can be expected to exacerbate real-time congestion imbalance offset charges in the same way internal virtual schedules do. In other words, the ISO's proposed real-time market structure simply eliminates most distinctions between internal and intertie virtual schedules with regards to real-time congestion imbalance offset charges.

Thus, DMM recommends the ISO carefully consider this issue and that if virtual bidding on interties is re-implemented this be done in a limited and gradual manner contingent on the observed performance of this new market re-design. We also strongly recommend the ISO continue to address the root structural cause of RTCIO through better incorporating the expected real-time limits of constraints into the constraint limits in the day-ahead and CRR market models. We also recommend the ISO consider alternative cost allocation options for mitigating the financial impact that virtual schedules (both internal and intertie) have on exacerbating RTCIO. In DMM's forthcoming 2012 annual report, we describe an analytical framework that might provide a more equitable and efficient way of allocating RTCIO costs associated with virtual bidding.

#### **V. PIRP**

DMM appreciates elements of the ISO proposal that further integrate variable energy resources into the wholesale spot market. Moving the scheduling basis where forecasts are incorporated from prior to the HASP market execution to the 15-minute market run provides a schedule basis derived from a significantly more accurate forecast and reduces the amount of VER energy exposed to 5-minute market prices. We support the improvement in use of forecast as well as the accompanying elimination of monthly netting of uninstructed energy for settlement. Better exposing VERs to real-time market prices creates the proper price incentives for VERs to integrate into the spot and imbalance markets and contribute to market efficiency.