

MISO Interface Pricing Update

MISO-PJM Joint and Common Market
February 19, 2015

Overview

- **Interface Pricing Small Group Update**
- **Current MISO Assessment**
- **Next Steps**

Interface Pricing Small Group (IPSG) Update

- **Objective**

- Coordinate development of interface pricing design among MISO and PJM including the two market monitors and stakeholders

- **MISO facilitated discussions at six IPSG meetings during June through December 2014**

- Participants included PJM, Potomac Economics, Monitoring Analytics and stakeholder subject matter experts
- Reached agreement on Guiding Principles and Practical Considerations (see appendix)
- Evaluated available solution methodologies and potential consequences
 - Price incentives and revenue adequacy
 - Impact on non-M2M constraints
 - Interaction with M2M process
 - Implementation requirements

MISO's Assessment

(assume adopted by both RTOs)

- **Defined problem statement and developed success criteria (see appendix)**
- **The MISO IMM proposal continues to appear superior based on MISO's evaluation and IPSG discussions**
 - MISO has developed conceptual design and is developing software development plan
 - MISO recommends PJM also implement this option in the long term
 - Implementation challenges raised by PJM can be addressed
- **Concerns with the PJM common interface approach have not been addressed**
 - Proposal has merits but does not fully address the primary objectives and potentially causes unintended consequences
 - Also requires implementation of the commercial market flow proposal which involves substantial effort (2-3 years to implement)

MISO's Path Forward

- **Drive toward long-term goal of adopting MISO IMM proposal unless any new issues are uncovered**
 - Estimated MISO implementation in 2016
- **Prefer to retain status quo as the interim option**
 - The common interface approach has more potentially adverse impacts and risks when compared to status quo
 - A new short-term solution has limited time to recover any incremental benefits to cover its cost
 - Implementation of the commercial market flow proposal requires significant update to the current M2M settlement process

Next Steps

- **Refine problem statement and continue developing design details of the MISO IMM proposal**
- **Retain current interface pricing methodology in the short term**
- **Develop joint work plan with SPP**
- **Continue to facilitate stakeholder discussions**
 - IPSG, MISO SMWG, MISO-PJM JCM, MISO-SPP JOA
- **Contact**
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Appendix

IPSG developed

Interface Pricing Guiding Principles

- **Each market's Interface prices should approximate its marginal cost of accommodating incremental interchange, just as the correct nodal LMP is the marginal cost of accommodating incremental generation or load at a specific node.**
- **This marginal cost depends not only on generation costs but also on M2M settlement impacts; accordingly, alignment between the interface definition and the JOA is required for efficient pricing.;**
- **Interface prices should approximate a market clearing price. Prices should be established such that interchange flows in the direction where it has the most value for both RTOs.**
- **Interface prices should reflect underlying generation re-dispatch costs.**

IPSG developed

Interface Pricing Practical Considerations

- **Shift factor calculation may not be precise and may move around based upon topology change and reference bus. The ultimate guide to a node's congestion impact is its LMP.**
- **Flow Modeling: Interface definitions should price interchange consistent with its flow impact.**
- **Gaming Incentives: Interface definitions should not introduce economic incentives that undermine congestion management achieved with LMP.**
- **Settlement Impacts: Interface definitions should not exacerbate negative settlement impacts, such as negative balancing congestion in Real Time.**
- **Intra-RTO Consistency between Markets: Interface definitions should not introduce inconsistency between FTR and DA market, or DA and RT markets.**
- **Inter-RTO Consistency: Interface definitions should facilitate spread between RTO interface prices that reflects congestion impact of incremental interchange**
- **Marginal Losses: Today the MLC of each RTO reflects only internal marginal loss impacts. This evaluation of interface price will focus only on congestion.**

MISO proposed

Interface Pricing Problem Statement

- **Deficiencies in the current MISO-PJM interface pricing methodologies has undesirable consequences for pricing, transaction scheduling and settlements**
 - Overstatement/understatement of congestion cost for external transactions leads to
 - Incorrect price signal for external transactions and
 - Revenue inadequacy for non-monitoring RTO - no mechanism to recover payments to the transactions when not using the monitoring RTOs “centroid” as the interface consistent with current M2M market flow definition
 - Current mismatch in interface price definitions creates
 - Challenges for participants to arbitrage price differences between the two markets
 - Impacts M2M process efficiency
 - Impacts interchange optimization efficiency
- **Inefficient scheduling of transactions hinders ability to lower overall operating cost for the joint region**

MISO proposed

Interface Pricing Success Criteria

- **Elimination of double counting of constraint impact on transaction pricing**
- **Elimination of systematic RTO revenue inadequacy resulting from interface modeling**
- **Accuracy of transaction price incentives**
- **Accuracy of non-M2M constraint models**
- **Implementation complexity commensurate with benefit expectations**
 - FTR, Day Ahead, Real Time software
 - M2M settlement process update