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

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Appendix
IPS 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