



Joint and Common Market

## II. MISO/PJM FTR COORDINATION UPDATE

# Background and Status

In 2013, MISO and PJM initiated discussions on enhanced coordination of FTR markets

- Outage Coordination
  - Effort to increase coordination efforts to increase confidence in modeled outages
    - ✓ PJM and MISO each utilize SDX for opposing RTO's outage data
- Monthly Auction Timing
  - Timing of auctions varied slightly between RTOs
    - ✓ PJM 2014 Monthly FTR Auctions scheduled slightly later than in 2013 to align better with MISO Monthly FTR Auction schedules
    - ✓ MISO 2014 Monthly FTR Auction scheduled slightly earlier than in 2013 to align better with PJM Monthly FTR Auction schedules

# FTR Modeling and Coordination

- Coordination of Flowgates and Constraints
  - ✓ MISO and PJM established the baseline Flowgates to be modeled in respective annual processes
    - ✓ This coordination resulted in MISO and PJM having the same starting point for constraint management
    - ✓ MISO and PJM modeled the same 264 MISO RCFs and 151 PJM RCFs
  - ✓ Developed procedure to determine and exchange each RTO's FTR limits for the annual process
  - ✓ Temporary constraints are being exchanged to represent known outages and other system conditions

# FTR Modeling and Coordination (cont)

PJM/MISO metrics developed to measure effectiveness of coordination

Binding M2M constraints – shortfall/ surplus

- Whether the constraint was captured in the auction processes
- Whether the constraint had improved coordination

Coordination results through October 2014

- Coordination efforts have contributed to improved model alignment between RTOs
- 100% of Day-ahead M2M constraints have been captured in the Monthly process
- >95% Day-ahead M2M constraints have been captured in the Annual process

# Significant improvement in modeling of the M2M constraints

RTO Conducting Auction	Planning Period	FG Monitoring RTO	Total Unique Flowgates Constrained in Day-ahead	% Modeled in Annual Auction	% Modeled in Monthly Auction	Day-Ahead Revenue Impact for Flowgates not modeled in Auctions	Total Revenue Adequacy*
PJM	2013/2014	PJM	13	84.6%	84.6%	\$151,252	73%
		MISO	34	73.5%	88.2%	-\$7,151,901	
	2014/2015 (6/1-11/1)	PJM	6	100%	100%	\$0	100%
		MISO	21	95.2%	100%	\$97,955	
MISO	2013/2014	PJM	30	60%	70%	\$1,319,913	97.7%
		MISO	83	56%	46.9%	-\$ 941,374	
	2014/2015 (6/1-11/1)	PJM	10	100%	100%	\$0	94.1%
		MISO	39	76%	56.4%	\$1,700,947	

\*Revenue Adequacy impacted by many factors including M2M

# FTR Coordination Milestones

#	St	Activity	By
1	Ⓢ	Coordinate outages for FTR auction	June 2013
2	Ⓢ	Aligned monthly FTR calendars for 2014 posted	November 2013
3	Ⓢ	Standing flowgates – Coordinate and exchange on monthly basis	December 2013
4	Ⓢ	Standing flowgates – Coordinate procedure to determine FFEs on other's flowgates and exchange on monthly basis	December 2013
5	Ⓢ	Type 1(temporary) constraints – Coordinate procedure and exchange constraints. This set would include outage-related temporary constraints. Ex: MISO's type 1 constraints in NIPS area shared with PJM	Q1 2014
6	Ⓢ	Develop monitoring and measuring metrics for items 3–5	Q1 2014
7	Ⓢ	Monitoring, measuring and reporting coordination effectiveness of items 3-5	Q2 2014

Ⓢ Complete

● In Progress

# Questions?

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