



Item IV - Pseudo-tie Update

Joint and Common Market
November 18, 2015

- Pseudo-tied generation and load was located along the MISO-PJM seam
 - Reliability concerns with pseudo-ties were less significant
 - Detailed modeling by native and attaining Balancing Area
 - Attaining Balancing Area commits and dispatches the resource or share of the resource
- Significant amount of new incremental pseudo-tie requests from MISO to PJM

Miso Region	2015-2016	2016-2017	2017-2018	2018-2019
Central	156 MW	2061 MW	0 MW	100 MW
South	0 MW	0 MW	1,000 MW	0 MW

- Facilitate new pseudo-tie requests being implemented in a reliable and market efficient manner
- Address immediate (short term) concerns prior to June 1, 2016
- Explore opportunities for future refinements or alternatives post June 1, 2016 (long term)

- Reliability
 - Local reliability concerns (MISO)
 - Increased interregional outage coordination (PJM and MISO)
 - Expanding EMS to model per JOA (PJM and MISO)
- Markets
 - DA and RT M2M Impacts (PJM and MISO)
 - Out of merit dispatch for local reliability concerns (PJM and MISO)
 - Native and attaining bus LMP differences (MISO)
- Planning
 - Appropriateness of TSR study process (MISO)
 - Unit retirements (MISO)
- Compliance
 - Discuss NERC, NAESB, JOA and Tariff obligations (MISO and PJM)

- Reliability
 - RTOs enhance current procedures and develop new procedures (outage notification process and operating memos) (SHORT-TERM)
 - RTOs discuss settlement options for external commitments/de-commitments and (LONG-TERM)
 - RTOs agree on investigating modeling tools similar to EMS to ensure accurate calculation of shift factors and Market Flow (BOTH)
- Markets
 - RTOs discuss appropriate M2M calculations (financial congestion/loss calculation, M2M settlements) (LONG-TERM)
 - RTOs discuss LMP differences and efforts to enhance convergence (LONG-TERM)
- Planning
 - Discuss TSR study process and potential enhancements (LONG-TERM)
 - Discuss unit retirement rules (tariff) and alternatives including compensation mechanisms (BOTH)
- Compliance
 - RTOs enhance Tariff/JOA as necessary to accommodate alternatives (BOTH)
 - RTOs discuss how to address compliance obligations when developing solutions (BOTH)

- Short term goals – Pre 6/1/2016
 - Increased interregional outage coordination
 - Local reliability concerns
 - Out of merit dispatch for non M2M constraints
- Long term goals – Post 6/1/2016
 - Expanding modeling per JOA
 - DA and RT M2M Impacts
 - Appropriateness of TSR study process
 - Unit retirements
 - LMP differences and efforts to converge LMPs

- Collaboration
 - MISO and PJM met on October 2
 - PJM participated in MISO stakeholder meeting on October 14, 2015
- Current Activities
 - MISO published draft Issue Statement
 - PJM published dynamic transfer whitepaper

- MISO working with stakeholders to frame issues
- Continued discussion on reliability, market and planning challenges between MISO and PJM
- RTOs will update stakeholders during upcoming JCM sessions

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