

Inter-regional Update

PJM TEAC 9/10/2015 **1** PJM©2014



- 2025 summer and winter scenario build on schedule
 - June preliminary builds complete
 - July-August validation and final case posting complete
 - October transfer analysis in progress
 - December presentation & stakeholder input
- TC & EC recommendations
 - construct validated production cost simulation model for El transmission studies. Scoping work in progress
 - NERC MOD 32 activity continue to monitor

Interregional Update

NCTPC

- Preparation for 2016/17 operating year develop coordinated operating plan September 30
- PJM/MISO JOA
 - Quick Hit upgrades
 - Beaver Channel Sub 49 SCADA upgrade complete expected to address \$7M historical congestion continue to monitor
 - Michigan City Laporte historical congestion \$3M, 2015 congestion \$7.3M
 - RTEP Bosserman substation changes local 138 kV flow patterns (\$3M PJM baseline) remedied local voltage issues and improved LaPorte Reliability
 - Michigan City LaPorte now is Michigan City Bosserman line congestion lower but remains binding
 - Michigan City Trail Creek 138 kV increased congestion. Similar limit to Bosserman line
 - Tracking RTEP and MTEP upgrades addressing \$300M congestion

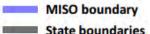


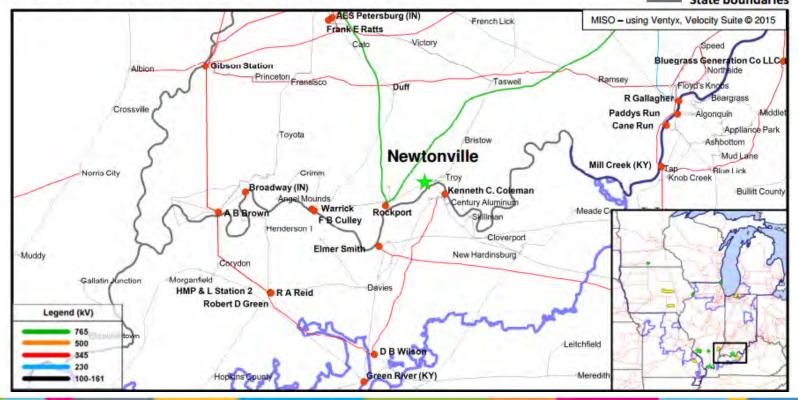
PJM/MISO JOA

- IPSAC September 28 focus Metrics & Process
 - Commitment to eliminate \$20M JOA threshold
 - MISO commitment to engage regional threshold issue
 - Outline new JOA implementation for next 2 year cycle
 - Michigan interface targeted ad hoc study update
- NIPSCO proceeding comments are complete
- MISO MEP Coordination update
 - Duff Coleman: PJM evaluating options to MISO proposed MEP
 - MISO board recommendation in December
 - Alternatives involving Rockport have been suggested potential PJM reliability operational performance benefits



Southern IN Focus Area







Rockport - Coleman 345kV Option

- MISO focus MEP under study early 2015
 - MISO evaluated Duff Coleman 345 kV \$67.2M
 - Extensive work and analysis in MTEP 2014 and 2015
 - Newtonville-Coleman 161kV congestion in Southern Indiana
 - Duff-Coleman B/C = 15.9
 - MISO evaluated single circuit Rockport-Coleman had higher benefits but higher costs for B/C=14.4
 - Rockport Coleman 345 kV \$76.3M (1ckt, 1xf)

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PJM Engagement

- PJM Rockport long standing operational complexity
 - SPS long part of Rockport operation
 - 4400 MW event in 2007 & subsequent NERC review
 - 2009 implemented additional SPS controls to mitigate 2007 event
 - Surrounding area flows and generation increase faster than transmission
 - PJM only alternatives are long HV lines
 - Due to electrical topology Interregional solutions are more cost effective
- Initial PJM review suggests MISO solutions involving Rockport may also address the operational performance issues at Rockport in addition to addressing MISO's regional need



- Complete evaluation of Rockport alternatives
 - Complete "No Harm" analysis
 - Finalize validation of SPS removal
- Cost sharing between PJM and MISO TBD
- MISO Schedule
 - July 29 PAC PJM option discussed with PJM support
 - August 19 PAC PJM initial results
 - September November MISO reviews (MISO PAC and SPC)
 - December 10 MISO BOD meet



Rockport / Duff-Coleman PJM Study Update

- Rockport-Coleman option
 - Reduces Rockport SPS to voltage guide
 - No harm shown from PJM studies
- Rockport-Coleman + Duff Coleman option
 - Eliminates SPS and No PJM harm
- Rockport-Duff-Coleman options under evaluation