Transmission Expansion Advisory Committee

Interregional Planning Update

August 13, 2015

EIPC

- 2025 summer and winter scenario build – on schedule
  - June preliminary builds
  - July-August validation and final case posting
  - October transfer analysis
  - December presentation & stakeholder input
- TC & EC recommendations
  - Commit to “step 1” - construct validated model for EI transmission studies. PC’s choose level of commitment
  - No commitment to NERC MOD 32 activity – monitor NERC progress
- Grant Work
  - Complete. Last invoice to DOE by August 15

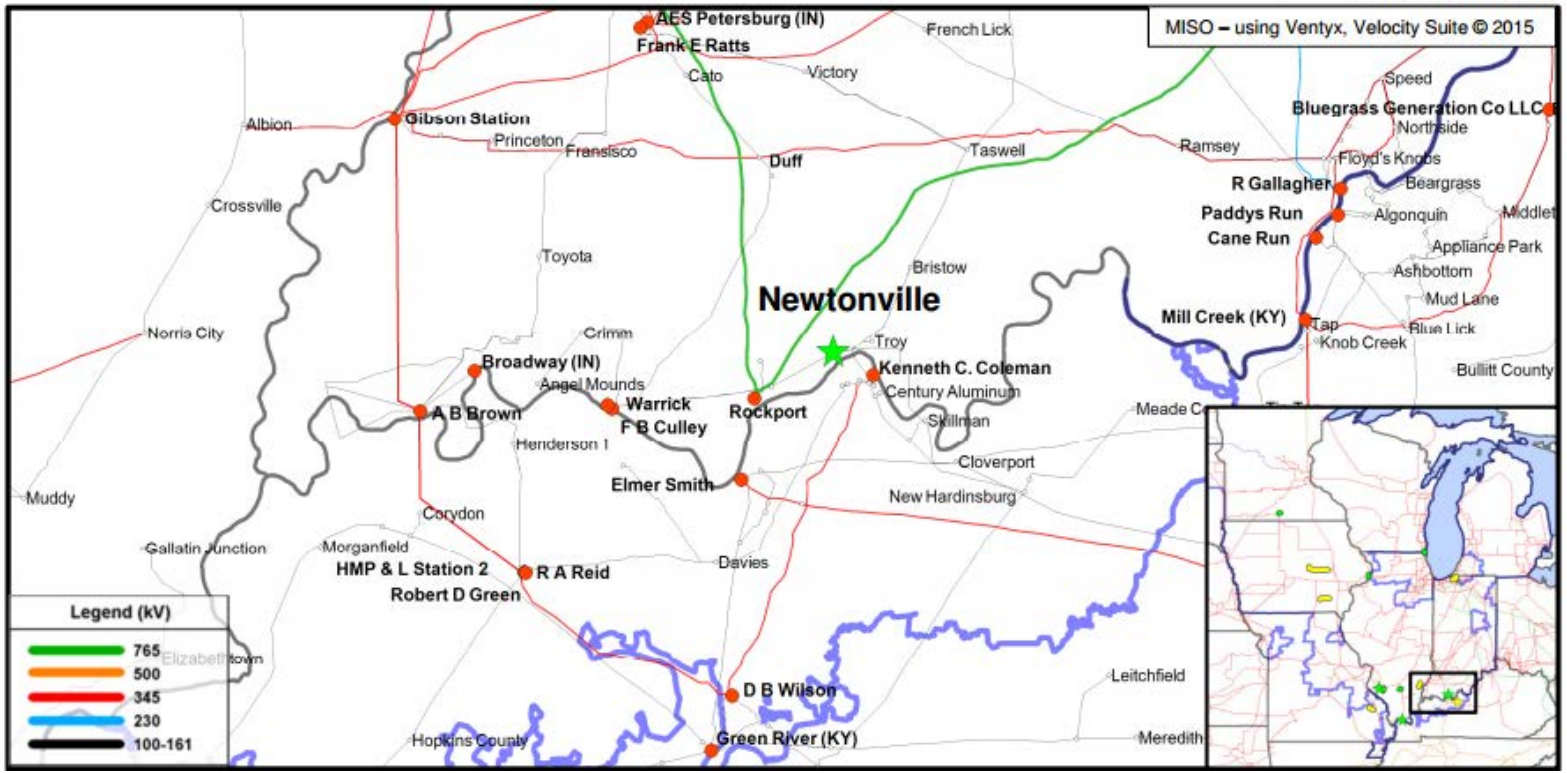
Interregional Update

- Order 1000 interregional Compliance filings complete
  - Focus turns to implementation
- NCTPC
  - Operating guide discussions - September 30
- PJM/MISO JOA
  - Quick Hit upgrades
    - Commitment on Beaver Channel – Sub 49 upgrade – 2013/14 benefit $7M
    - Michigan City – Laporte discussions continue – 2013/14 benefit $3M, 2015 DA congestion to date $7.3M
    - Tracking RTEP and MTEP upgrades addressing $300M congestion

Interregional Update

- PJM/MISO JOA
  - IPSAC August 21 – focus Metrics & Process
    - Engage discussion to accomplish near-term improvements
    - Outline longer-term enhancements
    - Michigan interface targeted ad hoc study
  - Reply to FERC August 14 – NIPSCO proceeding
  - MISO MEP Coordination
    - MISO Duff – Coleman 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)

PJM Engagement

- PJM recently informed of Rockport – Coleman option
- 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

Other Alternatives

- Rockport – Coleman 345 kV option
- Duff – Rockport – Coleman 345 kV

Next Steps

- 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

Questions?

Email: RTEP@pjm.com

- Revision History
  - Original version distributed to the PJM TEAC