Inter-regional Update

- 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 – in progress
- TC & EC recommendations
  - construct validated production cost simulation model for EI transmission studies. License issues under consideration
  - NERC MOD 32 activity – continue to monitor

Interregional Update

- NCTPC
  - Preparation for 2016/17 operating year September 30 meeting
    - Draft coordinated operating plan discussed. Day ahead and Real time activities
    - Agreed to more closely coordinate power flow model interchange
- PJM/MISO JOA
  - Quick Hit upgrades
    - Tracking RTEP and MTEP upgrades addressing $300M congestion
    - Michigan Interface study light load issues in progress
      - Merged power flows
      - Coordinating market efficiency assumptions

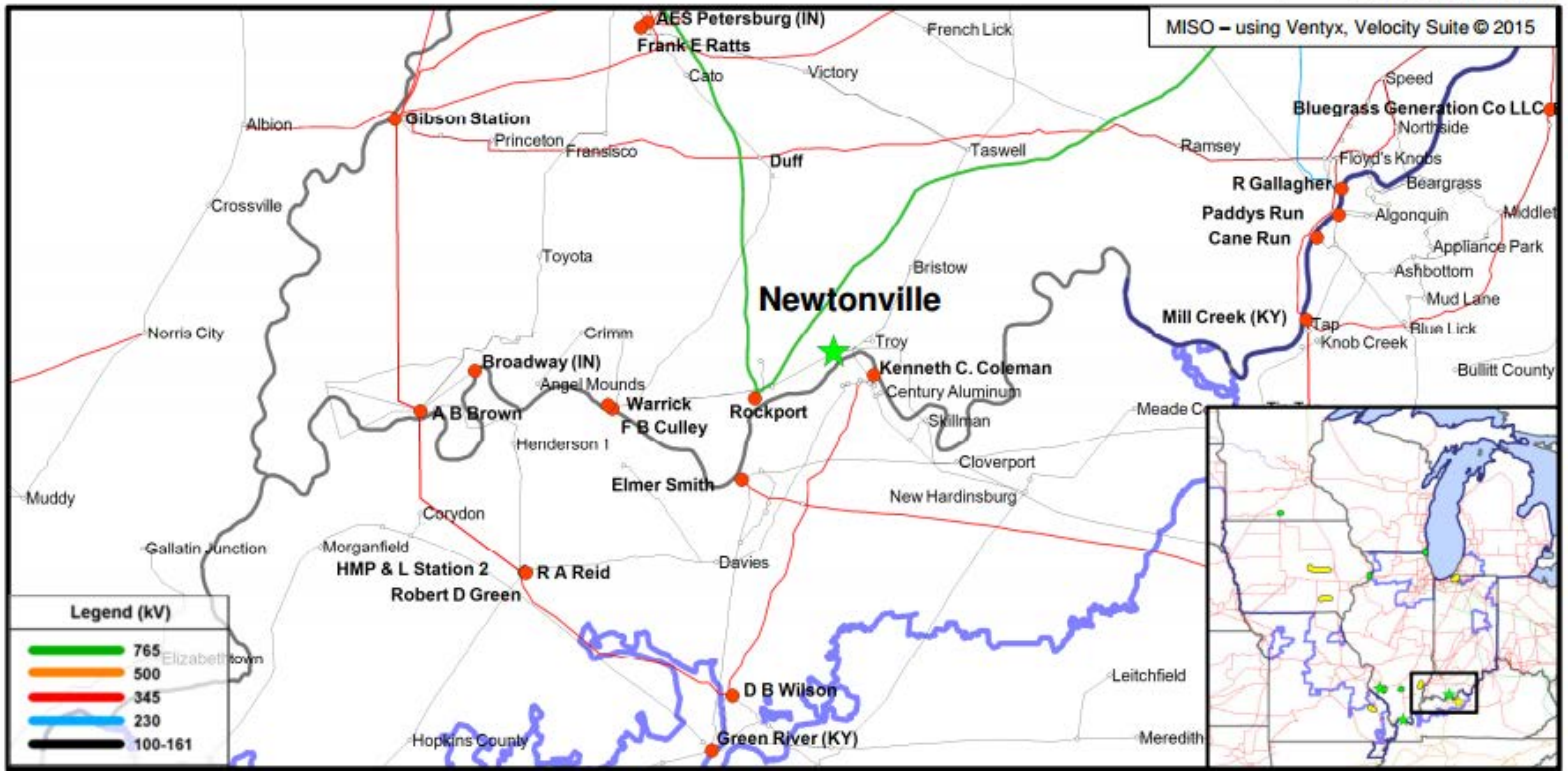
- PJM/MISO JOA
  - Process Timeline
    - Review transmission issues 4Q15
    - Data exchange 1Q16
    - Identify M2M issues, limiting elements and potential upgrades 2Q16
    - Identify regional issues – 3Q16
    - Project solicitations September 2016 – February 2017
    - Joint model development November 2016 – March 2017

- Process drives metric discussions
  - File to eliminate $20 million threshold in 2015
  - Consider MISO lower voltage threshold
  - Consider “quick hit” process/metric enhancements
  - Economic project process enhancements, such as
    - Streamline and simplify evaluations and approvals
    - Number/scope of analyses
    - Use of B/C screening
    - Consider congestion relief metrics

MISO MEP Coordination

Newtonville – Coleman 161 kV congestion

Southern IN Focus Area



Newtonville – Coleman 161 kV congestion

- Coordination on MISO MEP to relieve Newtonville – Coleman 161 kV congestion
  - MISO staff recommends Duff – Rockport – Coleman option
  - PJM found Duff – Rockport – Coleman option is more effective solution to Rockport operational issues
  - MISO board recommendation expected in December
  - To be included in RTEP power flows moving forward
  - AEP intends to include the project as a supplemental RTEP upgrade

PJM supporting analyses

- All PJM analyses are complete
- Studied Rockport – Coleman 345 kV DCTL
- Studied Rockport – Duff – Coleman 345 kV
- Analyses
  - Power flow, Stability, Short Circuit
- Results
  - No issues identified for Rockport – Duff – Coleman
  - Rockport - Coleman DCTL is unstable for specific area generation outputs and unity power factor at Rockport

Newtonville – Coleman 161 kV congestion

- Rockport – Coleman DCTL alternative studies complete
  - MISO identified $200 k reliability upgrades
  - Replaces Rockport SPS with minimal voltage limited operating guide required
  - No PJM thermal or voltage reliability issues identified
  - Administrative complexity for MISO - shared responsibility for double circuit tower line – cost sharing and competitive bid process
- Duff - Rockport – Coleman alternative studies complete
  - MISO identified $200 k reliability upgrades
  - Eliminates Rockport SPS – no operating guide required
  - No PJM thermal or voltage reliability issues identified
  - Less administrative complexity

MISO 9-16-2015 PAC excerpt

Network Upgrade	Duff – Coleman 345kV	Rockport – Coleman Double Circuit 345kV	Duff – Rockport - Coleman 345 kV
Total Project Cost ($M)	$67.2	$111.5	$152.5
MISO Portion of Cost ($M)	$67.2	$56.9	$67.2
PJM Portion of Cost ($M)	NA	$54.6	$85.3
MISO B/C ratio	15.6	19.1	16.1
Network Upgrade Costs from Reliability No Harm Test	$200K	$200K	$200K