



Inter-regional Planning Update

Transmission Expansion Advisory Committee

October 12, 2017



- Production Cost Database Assembly
 - Trial 4 results under review
 - Database renewal and potential next steps under discussion
- Responsibility for developing Eastern Interconnection frequency response case accepted
 - Timeline and working group being developed

- Modeling Workshop (Sept 6, 2017) (EIPC EC, NERC, ERAG, MMWG)
 - Current modeling scope and activities
 - Model users
 - Modeling feedback and needs
 - Modeling improvement ideas
 - Goal is agreement on modeling and assessment roles
 - EIPC preparation of a first draft Designated Entity agreement with NERC is in progress

- **PJM-MISO IPSAC** - <http://www.pjm.com/committees-and-groups/stakeholder-meetings/ipsac-midwest.aspx>
 - IPSAC October 20, 2017 (2PM-4PM) – Interregional MEP study update, TMEP update
- **NE Protocol IPSAC** - <http://www.pjm.com/committees-and-groups/stakeholder-meetings/ipsac-ny-ne.aspx>
 - IPSAC December 11, 2017 – regional updates, NCSP scope, 2018 work plan
- **PJM/NYISO Joint Transmission Benefits & Cost Allocation** - <http://pjm.com/committees-and-groups/stakeholder-meetings/pjm-nyiso.aspx>
 - October 31, 2017
- **SERTP**- regional process: www.southeasternrtp.com
 - 4th Quarter meeting December 12, 2017
 - Next biennial review – Spring 2018

Targeted Market Efficiency Project

- Driver is historical M2M congestion (whether or not it drives settlement payments)
- Each TMEP upgrade project to relieve congestion must be flowgate specific and meet other criteria
- Upgrade suggestions for general areas, conditions or collection of constraints may require longer term studies
- Limited scope and cost capped, TMEPs complement, not replace, MEPs

Longer Term Market Efficiency Project

- MEPs require regional issues in both RTOs and are subject to regional process project approval
- Candidate JOA MEP upgrades must also be entered for evaluation in a regional PJM competitive window in response to PJM issues
- MEP analysis is a longer and more rigorous process involving a long model development and review timeline with subsequent analysis
- Recent FERC orders involve changes to the MEP process
- MEP JOA and regional processes are under review and likely require further changes

- Limited to historically binding M2M flowgates
- Projects must be in service by 3rd summer peak
- Projects over \$20 million not eligible (must go through MEP process)
- Benefits based on relieving 2 years of historical congestion (DA + Balancing/ECF)
- Four years worth of benefits must completely cover project's installed capital cost
- Discount/inflation rate not necessary as all projects are near term
- Interregional cost allocation based on congestion relief in each RTO
 - Adjusted by M2M payments

DA = Day Ahead, ECF = Excess Congestion Fund (MISO) equivalent to Balancing (PJM)

- **JOA Changes**
 - Study process
 - Project criteria
 - Benefit definition and B/C test
 - Interregional cost allocation
- **PJM regional cost allocation**
 - Based on congestion contribution of load on the historical M2M congestion
- **MISO regional cost allocation**
 - Similar methodology as PJM with minimum allocation cutoffs

- December 30, 2016 PJM and MISO filed JOA changes to create the Targeted Market Efficiency Project Type (ER17-718)
- April 10, 2017 PJM filed regional cost allocation
- June 13, 2017 - FERC Workshop on TMEPs
- June 26, 2017 - JOA language accepted by FERC staff subject to refund or further Commission order
- August 4, 2017 - MISO filed regional cost allocation
- October 3, 2017 –
 - Accepted JOA revisions to enact TMEP subject to minor conditions
 - Accepted MISO regional cost allocation subject to minor condition
 - Accepted PJM regional cost allocation
- November 2, 2017 - 30 day compliance filings due

- Compliance filing for minor JOA changes to be submitted within 30 days (November 2):
 - Clarify RTOs will provide to stakeholders any additional criteria used to evaluate potential TMEP solutions
 - Provide to IPSAC
 - Why RTOs did not evaluate a potential TMEP
 - Why a potential TMEP the RTOs evaluated was not recommended

- TMEP study was conducted throughout 2016
- Regular updates and stakeholder interaction through IPSAC
- Five TMEPs recommended for board approval as result of study
- Have been waiting on FERC approval before submitting to PJM and MISO Boards
 - Expect projects to go to December Board meetings for approval

- 50 M2M flowgates investigated
- 13 potential upgrades evaluated
- 5 projects recommended
 - \$ 59 Million in historical congestion (2014 + 2015)
 - \$ 99.6 Million TMEP Benefit
 - \$ 17.25 Million total Cost
 - 5.8 average B/C ratio



Summary of Recommended TMEPs

Facility	Transmission Owner	TMEP Cost (Million \$)	TMEP Benefit (Million \$)	Benefit Allocation (%PJM/%MISO)
Burnham - Munster 345kV	CE - NIPS	7	32	88/12
Bayshore - Monroe 345kV	ATSI - ITC	1	17	89/11
Michigan City – Bosserman 138kV	NIPS - AEP	4.6	29.6	90/10
Reynolds-Magnetation 138kV	NIPS	0.15	14.5	41/59
Roxana - Praxair 138kV	NIPS	4.5	6.5	24/76

Note: All projects are upgrades to existing equipment

- V1 – 10/9/2017 – Original Version Posted to PJM.com