MISO PJM IPSAC

May 6, 2016

Agenda

- Targeted Market Efficiency Project Study
- TMEP Proposed JOA Language
- FERC Order on EL13-88
- FERC Order on Order No. 1000 Compliance
- IPSAC Work Schedule

Targeted Market Efficiency Project Study

TMEP Concept vs. Longer Term MEP

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

Targeted Study Status

- M2M flowgate congestion presented at March IPSAC
- Complete list of M2M flowgates being evaluated was posted with April IPSAC
- RTOs working with facility owners to determine:
  - Congestion caused by transmission outages and nature of outages
  - Planned or recent upgrades that may relieve congestion
  - All limiting element(s) and conductor ratings
  - Potential low cost, quick implementation upgrades
- Facility specific information will be reviewed to ensure appropriate treatment of any CEII or confidential information
- RTOs collaborating to ensure complete information for tie lines

Targeted Study Model Status

- PJM is developing a “as-is” PROMOD model of the 2015 system
  - Incorporates historical data such as:
    - Load
    - Fuel prices
    - Significant transmission outages
    - Transactions (interchange)
  - Consistent with methodology used last year
  - Model is up and running, working to fine tune areas of interest on seam
- MISO is using 2016 Summer Coordinated Seasonal Assessment powerflow base case
  - Consistent with methodology used last year
  - Model is ready for use

TMEP Proposed JOA Language

Section 9.3 & 9.4 Redlines

- Sections 9.3 and 9.4 were posted following the April meeting
- Section 9.4 was updated with comments where changes may be made based on stakeholder feedback
- Stakeholder suggestions for TMEP process improvements under review
  - TMEP cost caps
  - Improve accuracy of TMEP project benefit determination
- Additional details on concept expected next month
- PJM & MISO welcome additional, constructive feedback on redlines

FERC Order on EL13-88

- Complaint filed by Northern Indiana Public Service Company regarding Interregional Planning between PJM and MISO, September 11, 2013
- FERC hosted Technical Conference on Interregional Planning, June 25, 2015
- FERC granted the complaint in part, and denied the complaint in part, April 21, 2016
- MISO and PJM required to make compliance and informational filings, 60, 120, 180 days

EL13-88 Ruling Summary

- Transmission Planning Cycles
  - Complaint granted in part
  - RTOs to create step-by-step deadlines for CSP in JOA
- Modeling and Criteria
  - Complaint denied
  - RTOs to submit informational filing on how a joint model with the same regional assumptions and criteria could be implemented

EL13-88 Ruling Summary (Cont.)

- Cost Allocation and Lower Voltage Transmission
  - Complaint granted in part
  - MISO to lower 345 kV threshold to 100 kV for interregional MEPs
  - MISO to eliminate $5M cost threshold for interregional MEPs
  - RTOs to remove interregional B/C analysis
  - Regional benefit metrics used to determine cost split of interregional MEPs
    - No mention of joint or regional model
    - FERC example on following slide

EL13-88 Cost Split Example

FERC Example in EL13-88 Ruling:

- Proposed interregional economic transmission project has an estimated cost of $9 million
- MISO calculates that it will receive $20 million in benefits from the proposed interregional economic transmission project using its MTEP analysis
- PJM calculates that it would receive $10 million in benefits using its RTEP analysis
- MISO would conduct its cost-to-benefit calculation by assuming it would be allocated $6 million for the proposed interregional transmission project (because MISO estimated that it would receive two-thirds ($20 million) of the total $30 million of total estimated benefits)
- PJM would assume it would be allocated $3 million (because PJM estimated that it will receive one-third ($10 million) of the total estimated $30 million of benefits).

EL13-88 Ruling Summary (Cont.)

- Market-to-Market Payments
  - Complaint denied – M2M payments are duplicative (no directive)
- Generation Interconnections and Retirements
  - Generation complaint denied, retirement complaint granted
  - RTOs to include interconnection coordination procedures from their business practice manual in JOA
  - RTOs to include retirement coordination procedures in JOA

FERC Order on Order No. 1000 Compliance

Order 1000

- On April 5, 2016, FERC Conditionally Accepted PJM and MISO's July 2015 Interregional Order No. 1000 Compliance Filing
- Subject to 6 Additional Compliance Directives
- 30 Day Due Date (May 5, 2016)
- Requested Extension on May 28, 2016
- FERC Rejected MISO TOs' January 2015 Request for Rehearing

Order 1000 Compliance Directives

- Submit revisions to the JOA to restore the existing Cross-Border Baseline Reliability Project category and cost allocation method to the JOA. (¶ 27)
- Revise the JOA to state that MISO and PJM will quantify benefits of an interregional transmission project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan for purposes of cost allocation that would be displaced if the proposed interregional transmission project was included in the plan. (¶ 51)
- Revise the avoided cost-only method in section 9.4.3.1.1 (Interregional Reliability Project Criteria) to make clear that "reliability projects" include MISO's MVPs and BRPs. (¶ 52)

Order 1000 Compliance Directives (Cont.)

- Revise JOA section 9.4.3.1.3 (Interregional Public Policy Project Criteria) to make clear that "public policy projects" include Multi-Value Projects in MISO and both economic and reliability projects in PJM. (¶ 53)
- Explain the differences in applicable discount rate(s) used by MISO for determining the avoided costs of regional transmission projects displaced by, and therefore the benefits of, Interregional Reliability and Public Policy Projects. (¶ 54)
- Revise the cost allocation method to make transparent the types of transmission facilities that will be considered in the benefit metric calculation for Interregional Market Efficiency Projects. This is to be done by revising section 9.4.3.1.2 (Interregional Market Efficiency Project Criteria) to allow Interregional Market Efficiency Projects to qualify as a Market Efficiency Project or a Multi-Value Project under Attachment FF of MISO's Tariff. (¶s 59, 61)

IPSAC Work Schedule

IPSAC Schedule Cont.

Q2 2016

- Conduct evaluations of potential Targeted upgrades
- Evaluate impact of FERC rulings on both targeted and long term MEP processes
- Make progress on both targeted and long term MEP Metric and Process discussions with stakeholders

Q3/Q4 2016

- Complete Targeted analysis and recommend projects as appropriate
- Conclude Targeted Metrics & Process review and implement changes
- Identify potential longer term interregional issues from regional processes; solicit projects from stakeholders

Open Discussion

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