

Interregional Coordination Update

Joseph Ciabattoni Manager, Interregional Market Operations Markets Implementation Committee May 13, 2020

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The most recent Joint and Common Market meeting was held on February 25, 2019



The next joint stakeholder meeting will be hosted by PJM on August 18, 2020 in-person or via WebEx



Meeting materials are posted approximately one week in advance at the PJM/MISO Joint and Common Market Initiative as well as the Joint and Common Market websites



Tentative Planned 2020 PJM-MISO JCM Topics

Planning Issues

Interregional Planning

Market Issues

- Freeze Date
- M2M Enhancements

Administrative

- M2M Settlement Adjustments
- Issue Status
- Biennial Review

Submit additional Stakeholder topics Joseph.Ciabattoni@pjm.com

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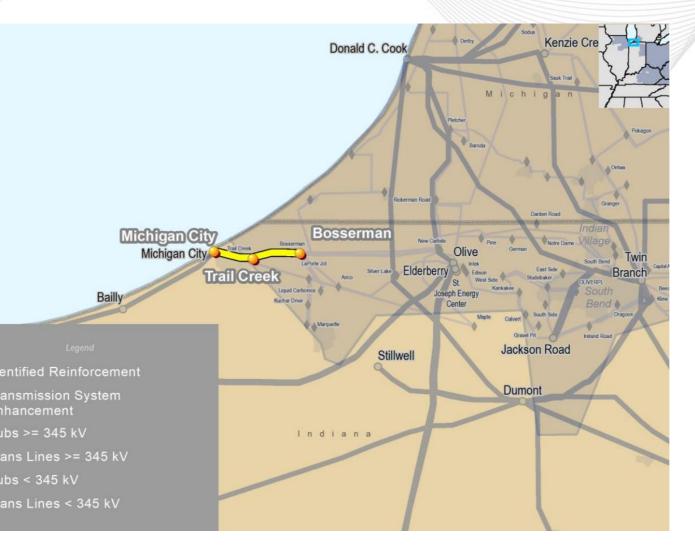
PJM-MISO Issue Status & Market-to-Market Settlement Adjustments

- Issue status and drill down reports available at below websites:
 - PJM/MISO Joint and Common Market Initiative
 - Joint and Common Market
- Biennial Review of MISO-PJM Joint Operating Agreement:
 - https://pjm.com/markets-and-operations/energy/market-to-market.aspx
- Pending market-to-market settlement adjustments
 - Pseudo-Tie Overlapping Congestion (PTOC) Settlement was filed with FERC March 18, 2020, MISO and PJM are waiting for FERC approval.





Interregional Market Efficiency Project



- The PJM Board approved project b3142 (BT-481), the rebuild of Michigan City to Trail Creek to Bosserman138kV lines, December 3, 2019
 - The approval is conditional on MISO approval of same project
- MISO included Project NC-11 in Appendix B of MTEP19 Approved by Board
 - MISO expects Board approval in June 2020



- PJM and NYISO discussed changes to the current Firm Flow Entitlement (FFE) calculation:
 - PJM and NYISO implemented updated FFEs on April 7, 2020



- PJM and TVA continue to review the Joint Reliability Coordination Agreement (JRCA)
 - General review of JRCA
 - Updating Article IX Planning section
 - Adding LGE-KU to the JRCA
 - Final language is being moved through the TOA-AC and PC for planning changes
 - FERC filing for changes (as it applies to PJM and LGE-KU) expected in Q3,
 2020
 - Updates will be reviewed with PJM Stakeholders prior to FERC filing
 - OC, MC Webinar



Status

- JOA changes were filed with FERC on December 19, 2019
- MISO-PJM submitted a clarification filing on February 18, 2020
- FERC accepted the filing March 6, 2020
- Deactivation of Constraint Relaxation on MISO-PJM M2M flowgates was delayed due to software issues
 - MISO and PJM are testing new software release
 - Expected implementation either June 1 or July 1, pending successful completion of testing



Appendix

PJM-MISO Freeze Date and Firm Flow Entitlements Reference date of April 1, 2004, known as "Freeze date", is used as a mechanism to determine firm rights on flowgates based on premarket firm flows.

- CMP Members (PJM, MISO, SPP, TVA, Manitoba Hydro, and LGE/KU) have been developing a collaborative solution to update these firm rights
- CMP Members are working on the final items for the Phase 2 solution:
 - Phase 2 implementation date will be determined when individual Planning discussions are completed by each entity
 - CMP members have developed design components for the Phase 2 solution
 - Firm Flow Entitlement (FFE) solution is almost finalized; Firm Flow Limit (FFL) rem open item
 - Discussions will continue to finalize design components and whitepaper
 - Stakeholder education will occur during future MIC and JCM meetings
 - Stakeholders will be updated prior to FERC filing



 PJM and MISO are conducting a two-year Interregional Market Efficiency Project (IMEP) study in 2020/2021

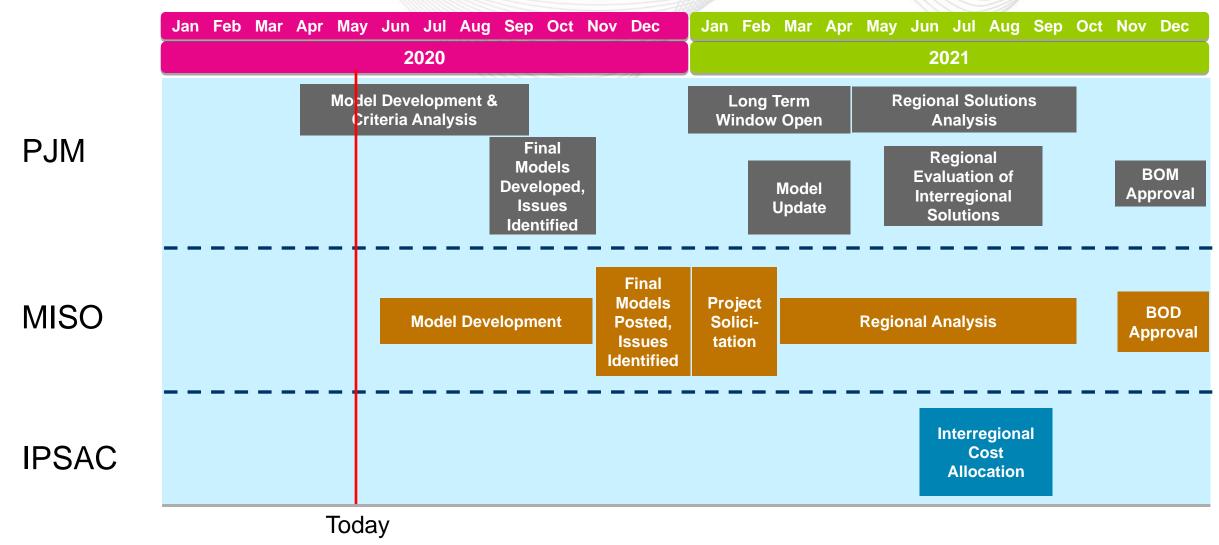
- Issues identification and benefit determination conducted in each regional process consistent with current effective JOA
- Interregional proposals must:
 - Address at least one identified issue in each region
 - (could be same issue if identified by both RTOs)
 - Be submitted to both regional processes



- Benefits to each RTO are determined by that RTO using their respective regional process and metrics (Tariff)
 - Note inconsistent study years and discount rates
- Costs are allocated inter-regionally based on pro rata share of benefits, as determined above
- Interregional projects must meet the B/C criteria in each RTO (based on allocated costs), qualify as an MEP under both the MISO and PJM process, and be approved by each RTO's board
- Final recommendations will be presented to the PJM Board of Managers for consideration in the November-December (2021) time frame



Market Efficiency - Estimated Timeline





Key Takeaways

- MISO/PJM pursuing turning off Constraint Relaxation on M2M flowgates
- Constraint Relaxation was deactivated:
 - MISO for internal constraints on Feb 1, 2012
 - PJM for internal constraints on Feb 1, 2019
- Removal of Constraint Relaxation allows constraints that would otherwise unbind to bind at the penalty factor
- More consistent dispatch and market signals

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