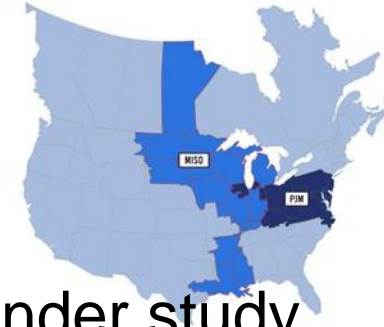


Market Efficiency Congestion Driver Criteria

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- NERC Book of Flowgates
 - Include *existing* coordinated flowgates
 - Does not cover all possible congested facilities under study assumptions
- Need to identify all congested facilities along the PJM-MISO seam eligible for M2M coordination
- This proposal will extend Market-to-Market principles to the MEP congestion driver identification process
 - Principles and procedures govern realized congestion in markets
 - Ensures the benefits of upgrades will be realized in PJM energy markets

- To establish a list of *external* interregional facilities to monitor PJM will employ the principles of the flowgate qualification tests outlined in Section 3.2.1 of Attachment 2 of the MISO-PJM JOA
- Principles will be applied to the list of monitored elements in the MISO MTEP model in conjunction with MISO and PJM identified contingencies used in both market efficiency models
- Qualification tests that rely on real-time topology shall not be employed



- Study 2) IDC GLDF
 - If any two or more generators have a GLDF of 5% or greater for a studied contingency, PJM will monitor this flowgate
- Study 4) IDC TDF
 - If any transfer between historic PJM Control Areas¹ have a TDF of 5% or greater for a studied contingency, PJM will monitor this flowgate

¹PJM historic Control Areas include American Electric Power, Commonwealth Edison, Duquesne, Dayton, Duke Energy Ohio and Kentucky, EKPC, First Energy, Dominion, and PJM Classic (Includes Allegheny Power and Mid-Atlantic areas)

- PJM must identify eligible congestion drivers
 - Not all congested flowgates are eligible congestion drivers
- Should include ‘regional’ and ‘interregional’ drivers (flowgates)
 - No need to differentiate
- Could receive Regional and/or Interregional project proposals for either ‘regional’ or ‘interregional’ drivers

Projects must address an ‘Economic Constraint’

“Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) **adding new enhancements or expansions that could relieve one or more economic constraints**, but for which no reliability-based need has been identified.”

Economic constraints are defined as:

“Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in section 7.4.2(c) of Schedule 1 of this Agreement; or (3) **significant simulated congestion as forecasted in the market efficiency analysis.**”

Current Manual 14-F § 8.2.1.1:

Consistent with Schedule 6 of the PJM Operating Agreement, a Market Efficiency proposal will relieve one or more economic constraint(s). If a proposal is submitted to mitigate one congestion driver, then in order to meet this criteria the proposal must relieve projected congestion on the driver by at least \$1. Similarly, if a proposal is submitted to address multiple congestion drivers, then in the order to meet this criteria the proposal shall relieve projected congestion on all the drivers by at least \$1.

Challenges:

- No consideration for congestion driver location (i.e. outside PJM)
- No limitation to ‘significant’ congestion drivers
 - If project moves congestion from \$10 → \$9 would be hard to justify as ‘significant’ but would appear to pass this criteria

- Process for identification of flowgates (potential congestion drivers) outside PJM
- Projects must address a PJM identified congestion driver
- Process PJM will use to determine significance of congestion issues and identify eligible congestion drivers
- Posting of PJM identified congestion drivers at opening of window