

PJM-MISO IPSAC

December 15, 2022

- Coordinated System Plan Study
 - TMEP Study Status
 - IPSAC Work Schedule
- PJM Regional Process and Criteria
- MISO Regional Process Update
- Annual Issues Review Notice




Coordinated System Plan Study

- Stakeholder Input Due: January 18, 2022
- Issues Review IPSAC: February 17, 2022
- JRPC notifies IPSAC of CSP study decision: March 30, 2022 (email to stakeholders)
- April 25, 2022 IPSAC meeting - Presented CSP study scope
 - 23 Flowgates: potential TMEP Study candidates
- 23 TMEP Study Candidate status
 - July 21, 2022 IPSAC Meeting
 - 19 candidates eliminated, 4 candidates remain under study
 - October 4, 2022 IPSAC Meeting
 - 2 candidates eliminated, 2 candidates remain under study

- Historically binding (2020 + 2021) Market-to-Market flowgates
 - Focus on constraints with >\$1 million congestion
- Study steps:
 - Look for outages when the congestion occurred (if so, determine congestion benefit discount).
 - Determine whether the congestion is expected to persist.
 - Identify planned upgrades and their impact on alleviating the congestion.
 - Work with asset owners to determine if any TMEP type solutions exist.
 - Evaluate the effectiveness of TMEP solutions.
 - Ensure TMEP solutions meet all JOA criteria.
- Focused on 2 remaining TMEP candidates discussed at the October 4, 2022 IPSAC meeting.

1. Limited to historically binding M2M flowgates
2. Projects must be in service by 3rd summer peak
3. Projects over \$20 million not eligible
4. Benefits based on relieving average of past 2 years of historical congestion (Day Ahead + Balancing)
5. Four years worth of benefits must completely cover project's installed capital cost
6. Discount/inflation rate not necessary as all projects are near term
7. Interregional cost allocation based on congestion relief in each RTO
 1. Adjusted by M2M payments



| Monitored Facility | Flowgate Description | Notes |
|-----------------------------|---|--|
| Chicago-Praxair 13831 | Chicago-Praxair 13831 I/o Wilton CenterDumont 765 | Eliminated from consideration <ul style="list-style-type: none">• Congestion was not persistent• Additional congestion analysis confirmed significant part of historical congestion due to nearby outages |
| Powerton - Towerline 138 kV | Powerton - Towerline 138 kV I/o Fargo - Sandburg 345 kV | Congestion mitigation project recommended <ul style="list-style-type: none">• November 11, 2022 – JRPC recommends project• November 30, 2022 – Initial review at MISO PAC Meeting• December 6, 2022 – First Read at PJM TEAC Meeting |

Reference: PJM/MISO JOA – Article 9 – Interregional TMEP Analysis

Assumptions: 2-year historical congestion (2020, 2021)

Analytical Framework: 2022 Coordinated System Plan Study

TMEP Candidate: Yes

Problem Statement:

Greater than \$1 M of historical congestion identified on the Powerton-Towerline 138kV tie-line with MISO (Ameren)

Existing Facility Rating: SN/SE/WN/WE = 195 / 214 / 211 / 229

Proposed Facility Rating: SN/SE/WN/WE = 207 / 268 / 252 / 298

Proposed Solution:

TMEP-2022-01: At Powerton Substation (ComEd), replace most limiting facility, 800A wave trap with 2000A wave trap, on the Powerton-Towerline 138kV line terminal.

Cost/Benefit Analysis:

- **Estimated TMEP Cost:** \$0.2 M
- **Annual TMEP Congestion Benefit:** \$ 1.827 M/Year (2-Years Hist. Cong. Avg.)
- **Expected TMEP Future Congestion Relief:** \$ 7.31 M = 4 x \$ 1.827 M/Year (Sum of \$ 1.827 M annual congestion benefit over 4 years period after study year).

Criterion: TMEP Capital Cost < Expected TMEP Future Congestion Relief

\$0.2 M < \$ 7.31 M

Alternatives: None

Required In-Service: 6/1/2025

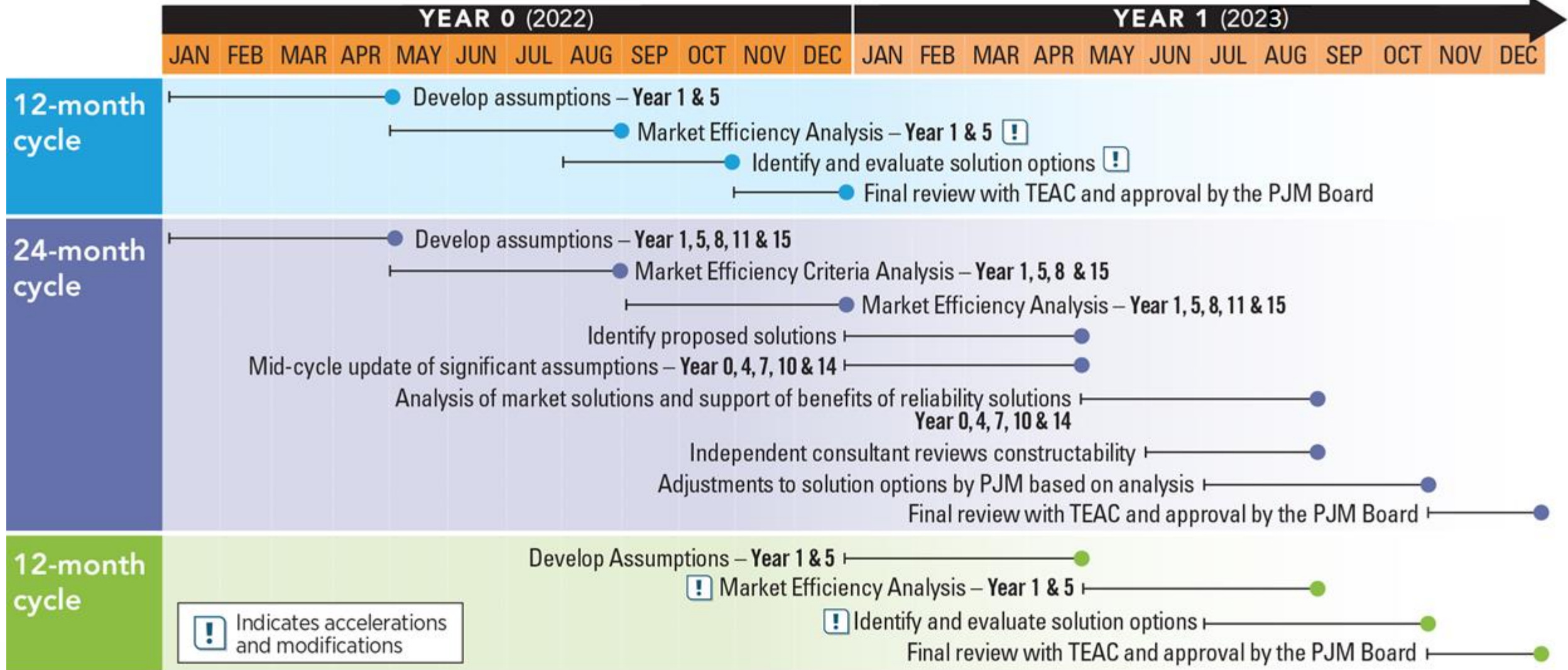
| Powerton-Towerline 138 kV | PJM | MISO |
|---------------------------|--------------|--------------|
| Congestion | \$ 2,364,357 | \$ 1,282,034 |
| M2M Payments | \$ 253,457 | \$ (244,719) |
| Benefit | \$ 2,617,814 | \$ 1,037,315 |
| Benefit Share | 71.62% | 28.38% |

IPSAC Work Schedule

- Target Timeline
 - December - January
 - Joint presentation of results and JRPC recommendation to Boards
- Next IPSAC meeting is scheduled for February 17, 2023
 - JOA required Annual Issues review meeting

PJM Regional Process Status Update

- [Reliability Proposal Window 1](#)
 - Opened on 7/1/2022 Closed on 8/30/2022
 - 17 total proposals submitted from 7 different entities
 - 6 Greenfields and 11 Upgrades
- RTEP Retool
 - Near-Term Reliability Review [Manual 14b](#) Section 2.3.3
 - Significant model changes include, model correction, deactivations, baseline projects board approved after case building, newly signed ISA queue projects and withdrawn ISA queue projects
- [Multi-Driver Proposal Window 1](#)
 - Opened on 6/7/2022 Closed on 8/8/2022
 - 14 total proposals submitted from 3 different entities
 - 8 Greenfields and 6 Upgrades
- [PJM Board Review – December 2022](#)
- PJM Board Review – February 2023



Indicates accelerations and modifications


- New 2022/23 24-month cycle started January 2022.
- Current PJM Market Efficiency Base Case posted on the [PJM Market Efficiency](#) page (PROMOD 11.4 XML format).
- Updated Market Efficiency Base Case to be posted before the start of 2022/23 Long-Term Market Efficiency Window.
- 2022/23 Long-Term Market Efficiency Window to open at beginning of 2023 once the congestion drivers are finalized.

MISO Regional Process Status Update

- The 2022 MISO Transmission Expansion Plan (MTEP22) was approved by MISO Board of Directors in December 2022
 - The [2022 MTEP report](#) is posted to the MISO public website
- Projects targeting MTEP 2023 are under evaluation and will be discussed at the respective [MISO sub-regional planning meetings](#) beginning in Q1 2023
 - [MTEP23 preliminary project list](#) is posted to the MISO website
 - MTEP23 powerflow models will be available in Q1 2023
- [MISO Long Range Transmission Planning](#) (LRTP) effort will continue into 2023 and beyond

Notice of Annual Issues Review

- In the 4th quarter, RTOs exchange planning information (to be completed in December 2022):
 - Regional issues and newly approved projects near the seam
 - New regional issues
 - M2M historical congestion
- RTOs to jointly review above in January/February 2023
- Receive Third Party issues in first quarter, but no less than 30 days before Issues Review IPSAC
- Issues Review IPSAC
 - Held in the first quarter of each year
 - Must provide 60 calendar day notice of scheduled date
 - Stakeholder feedback due 30 days prior to IPSAC
- Within 45 calendar days after the Issues Review IPSAC the JRPC shall determine the need for a Coordinated System Plan study
- JRPC notifies the IPSAC of its decision within 5 business days



Annual Issues Review (including stakeholder feedback) provides basis for JRPC to determine Coordinated System Plan (CSP) study needs

CSP studies could include:

- Interregional Market Efficiency Project (IMEP)
- Targeted Market Efficiency Project (TMEP)
- Interregional Reliability Project (IRP)
- Public Policy
- Ad Hoc studies

- The 2022 Annual Issues Review IPSAC meeting is scheduled for **February 17, 2023**
- MISO and PJM will review and solicit stakeholder feedback at the meeting
 - Regional issues & solutions
 - 3rd party issues
- Issues and plans will be/have been discussed at regional meetings
 - PJM issues presented at [TEAC meetings](#)
 - MISO issues presented at [Subregional Planning Meetings](#) (SPMs)

- 3rd parties may submit input to the Annual Issues Review process
- MISO and PJM will send an email request to their respective planning distribution lists, or you may contact the email addresses below
- Feedback is required by COB **January 18, 2023** (30 days prior to IPSAC meeting) to both MISO and PJM
 - PJM: inter.regional.planning.team@pjm.com
 - MISO: vjones@misoenergy.org

- Stakeholder input due: January 18, 2023
- Annual Issues Review IPSAC: February 17, 2023
- JRPC determines whether to perform a CSP study in 2023: April 3, 2023 (at the latest)
 - JRPC will inform IPSAC within 5 days of the decision

Open Discussion

- Jeffery Goldberg
jeffrey.goldberg@pjm.com
- Nick Dumitriu
nicolae.dumitriu@pjm.com
- Victoria Jones
vjones@misoenergy.org

- 12/9/2022 – Original issue
- 12/12/2022 – Revised slide #8 background format from PJM to PJM/MISO