

MISO Tranche 2.1 Evaluation Update

December 5, 2025 IPSAC Presentation

PJM and MISO Staff

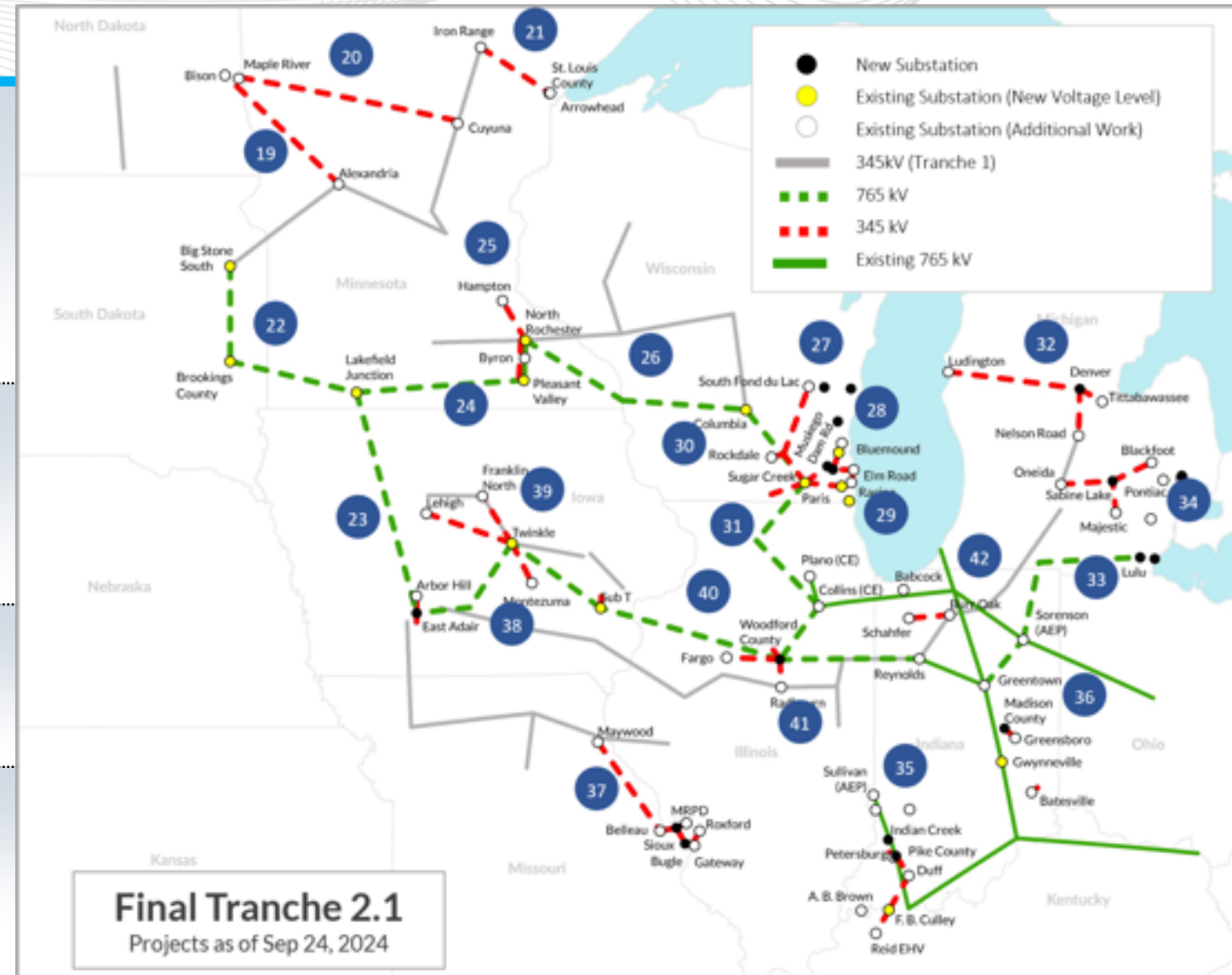
**24 Projects & 323 Facilities
Across MISO Midwest
Subregion**

\$21.8 B

(MISO internal system upgrade costs)

In-service from 2032 to 2034

Includes 765 kV and 345 kV



PJM analysis purpose:

Identify and address any potential harm to the PJM system as a result of the MISO Tranche 2.1 projects.

Full PJM Network Modeling and Reliability Analysis

- PJM reliability criteria
- Local TO planning criteria (FERC 715)

Power Flow and Short-Circuit Analysis

Coordination With PJM TOs

Scope, time and cost estimates for required PJM reliability upgrades

ComEd Transmission Zone	Total cost: \$34.5 M
▪ Zion-Lakeview 345 kV (8.8-mile transmission facility) – Required thermal upgrades to improve capability (line trap and re-sag)	\$3 M
▪ Short-circuit upgrades – Replace nine 345 kV breakers.	\$31.5 M
FirstEnergy (ATSI) Transmission Zone	Total cost: \$86.57 M
▪ Morocco-Allen 345 kV (terminal equipment)	
▪ Lakeview-Greenfield 138 kV (14.5 miles add second circuit to Greenfield – Lakeview 138 kV Line, 6.1 miles of new line construction)	
▪ Lakeview-Ottawa 138 kV (2.7 miles of reconductor)	
▪ No short-circuit requirements	

TOTAL PJM DO NO HARM REQUIRED REINFORCEMENT COST = \$121.07 M

- **AEP/DEOK have T2.1 physical connections;** however, no PJM or local TO requirements were required.

- **Costs are preliminary** and subject to further review by the PJM TOs.

- PJM Attachment M-3 Process
 - PJM TEAC (230 kV and greater solutions)
 - PJM SRRTEP (less than 230 kV solutions)
- MISO is negotiating a universal construction, cost allocation, and funding agreement with the constructing PJM TOs which will be filed with FERC
- Provide the next update at the MISO-PJM Q1 IPSAC

- November 22, 2024 - [MISO LRTP Tranche 2.1 Update](#)
- March 7, 2025 - [MISO-PJM IPSAC Item 02 MISO T2.1 IPSAC Update – Legal and Technical update.pdf](#)
- June 25, 2025 - [MISO-PJM IPSAC Item 01 PJM Update on Analysis of MISO LRTP T2.1.pdf](#)

PJM:

inter.regional.planning.team@pjm.com

MISO:

interregionalplanning@misoenergy.org