



Expedited Project Review Results and Recommendation

**Expedited Project Review Technical
Study Task Force (EPR-TSTF)**

October 07, 2025

Purpose and Key Takeaways



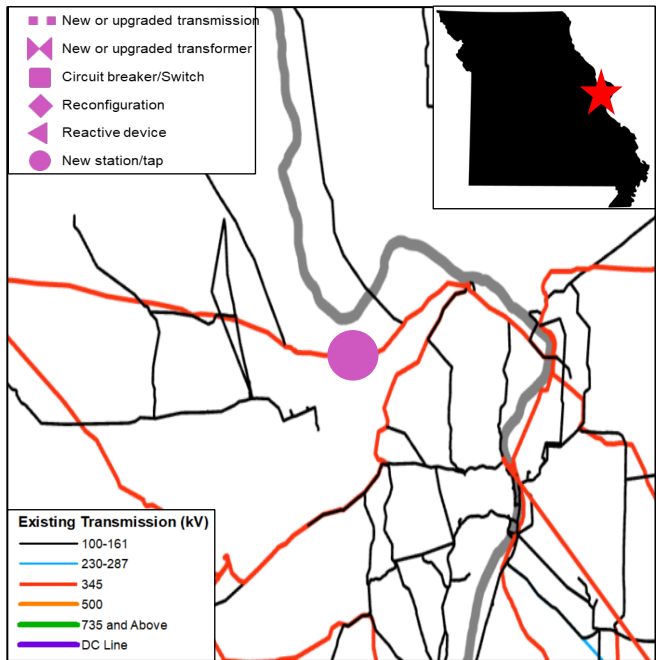
Purpose: Review results and provide MISO's recommendation for EPRs which have completed mitigation discussions

Key Takeaways:

- Five (5) EPRs have completed analysis and mitigation representing 719 MW of new spot load and other reliability concerns
 - [AMMO] New Hayford 345 kV Substation for Load Addition
 - [ITCT] Cortland 120 kV Station Expansion
 - [MEC] East Kanesville 161 kV Substation and 161 kV Lines
 - [1803] 1803 – 2025 Age and Condition Program
 - [ETEC] New Sub – 138kV Fish Lake
- MISO recommends the projects move to MTEP26/Appendix A after the PAC comment period.

[AMMO] New Hayford 345 kV Substation for Load Addition

AMMO: New Hayford 345 kV substation



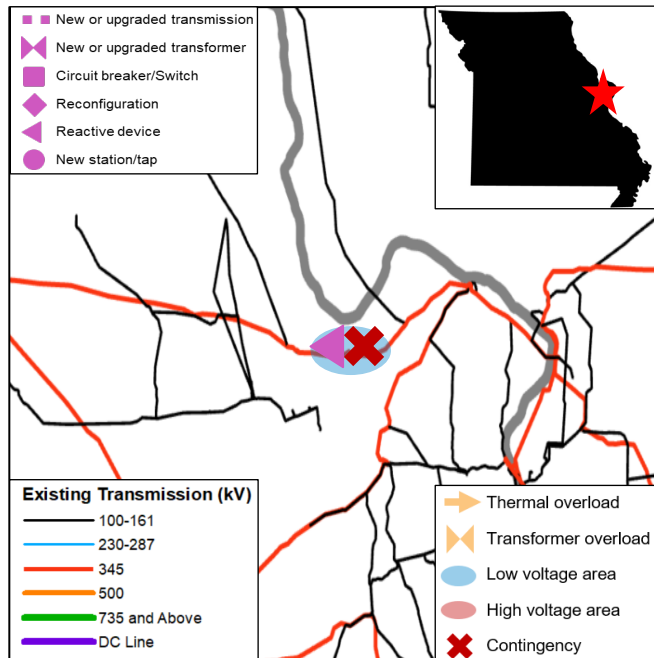
Project #	50695
Project Name	New Hayford 345 KV substation for load addition
Project Type	Other, Load Growth
Project Description	Construct a new 345 kV BAAH substation on Sioux-Belleau 345 kV line.
System Need	To support serving the load in this area, expected ISD requires 2 years for Engineering, Procurement, and Legislature approval prior to normal MTEP26 timeline.
Current Cost	\$12 M
Expected ISD	12/31/2027
Target Appendix	A in MTEP26

Models, Reliability Analysis, and Neighbor Coordination

- The EPR was applied to all applicable MTEP models based on the In-Service Date. Models were posted for review prior to analysis.
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
 - Results were posted for member feedback
 - An additional CAP was required to mitigate observed issues
- MISO coordinated with impacted neighboring entities based on the analysis results
 - We appreciate the active coordination of the impacted parties as a part of this process

Corrective Action Plans (CAPs)

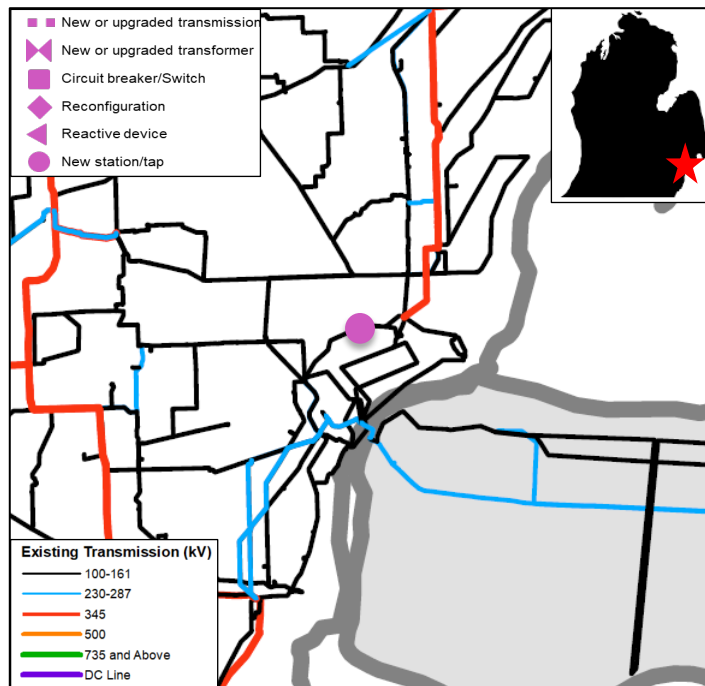
New MTEP26 BRP project



Project #	50743
Project Name	New Elkhorn 280 MVAR Cap Bank
Project Type	BRP
Project Description	Add 280 MVAR Cap Bank for voltage support to increased load
System Need	P6 and P7 LV observations
Current Cost	\$12 M
Expected ISD	12/1/2028
Target Appendix	A in MTEP26

[ITCT] Cortland 120 kV Station Expansion

ITCT: Cortland 120 kV Station Expansion



Project #	50730
Project Name	Cortland 120 kV Station Expansion
Project Type	Other, Local Needs
Project Description	Build new 120 kV nine breaker modified breaker and a half station to connect to existing DTE Cortland. Install new control house. Re-terminate existing Cortland-Warren/ Midtown/Caniff UG circuits to new station. Connect three new circuits to DTE's Cortland station. Remove major ITC equipment at existing Cortland station.
System Need	To facilitate a DTE interconnection request regarding DTE transformer replacements.
Current Cost	\$42.7 M
Expected ISD	12/31/2030
Target Appendix	A in MTEP26

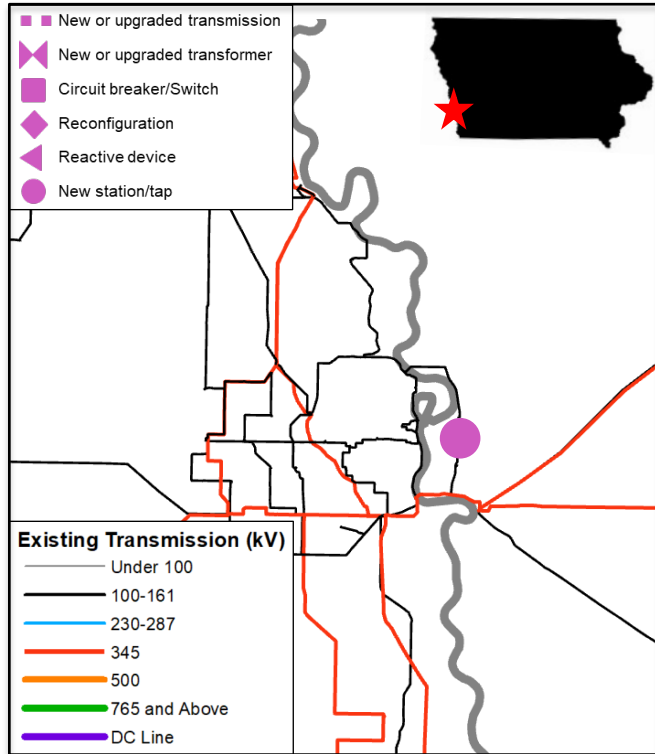
Models, Reliability Analysis, and Neighbor Coordination

- The EPR was applied to all applicable MTEP models based on the in-service date. Models were posted for review prior to analysis.
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
 - Results were posted for member feedback
 - Zero (0) new TPL violations or worsened reliability issues were identified
- No neighboring entities were impacted based on the analysis results.

[MEC] East Kaneshville 161 kV Substation and 161 kV Lines

MEC: East Kanesville 161 kV Substation & 161 kV Lines

August 2025 Cycle



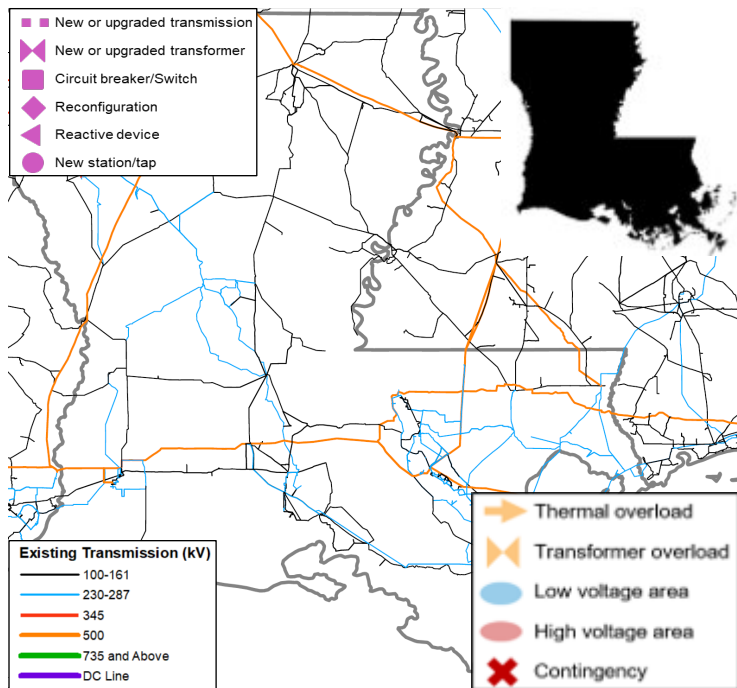
Project #	50721
Project Name	East Kanesville 161 kV Substation & 161 kV Lines
Project Type	Other, Load Growth
Project Description	Construct the new East Kanesville Substation. The project will consist of bisecting the Quick-Sub 701 161 kV line and bringing two one span 161 kV lines into the new East Kanesville Substation, adding a new 161 kV line terminal at Overland Trail Substation and constructing a new 161 kV line from Overland Trail Substation to East Kanesville Substation. The new East Kanesville Substation will also have a 161 kV, 25 MVAR capacitor bank.
System Need	Serve load
Current Cost	\$57M
Expected ISD	6/1/2029
Target Appendix	A in MTEP26

Models, Reliability Analysis, and Neighbor Coordination

- The EPR was applied to all applicable MTEP models based on the In-Service Date. Models were posted for review prior to analysis.
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
 - Results were posted for member feedback
 - All identified TPL violations worsened by this project already have valid Corrective Action Plans in place to resolve them.
- MISO coordinated with impacted neighboring entities based on the analysis results

[1803] 1803 – 2025 Age and Condition Program

1803 Inc. : 2025 Age and Condition Program

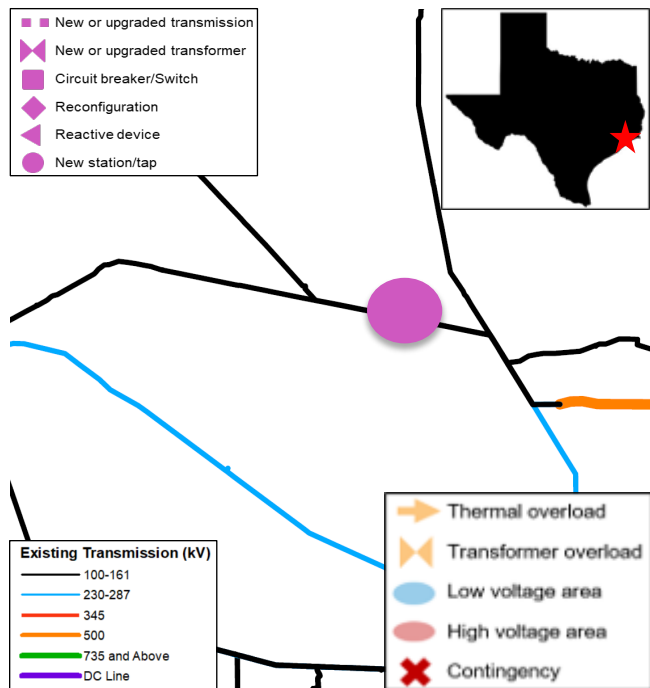


Project #	50746
Project Name	1803 - 2025 Age and Condition Program
Project Type	Other, Age & Condition
Project Description	The 1803 Age and Condition Program prioritizes replacing aged and/or degraded transmission substation assets prioritized on equipment condition assessments. This project covers the execution of this program in 2025 to replace aging equipment such as: arrestors, breakers, switches, motor operated switches, current transformers, potential transformers, communication equipment, protective relays, battery banks, or battery chargers.
System Need	1803 Electric Cooperative, Inc was approved as a MISO TO on June 12, 2025. This EPR request is for the evaluation of a 2025 MTEP "Other - Age and Condition" project for work to be performed during calendar year 2025. Due to expected lead times of BES equipment 1803 requests approval of this project ahead of the MTEP26 cycle.
Current Cost	\$ 0.73 M
Expected ISD	12/31/2025
Target Appendix	A in MTEP26

This is a like for like replacement with no topological change.

[ETEC] New Sub – 138kV Fish Lake

ETEC: New Sub – 138kV Fish Lake



Project #	50747
Project Name	New Sub – 138kV Fish Lake
Project Type	Other, Local Reliability
Project Description	The current distribution system is energized by a 230 kV/69 kV substation situated at Sour Lake Substation, within the Midcontinent Independent System Operator (MISO) region. The existing distribution system will connect to a new 138kV substation (Fish Lake) by tapping the Cypress (#334319)-Rye (#334194) transmission line, which is located approximately 16.5 miles north of Sour Lake Substation.
System Need	The reason for this system change is because SHECO has had this load involuntarily disconnected by their Transmission Operator several times without notice or warning. This is a reliability issue for customers who are fed off the Sour Lake Substation. We've provided metrics to show the outages.
Current Cost	\$10 M
Expected ISD	10/1/2027
Target Appendix	A in MTEP26

Models, Reliability Analysis, and Neighbor Coordination

- The EPR was applied to all applicable MTEP models based on the In-Service Date. Models were posted for review prior to analysis.
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
 - No new or worsened violations were identified as a result of this EPR.
- No neighboring entities were impacted based on the analysis results.

Contact Information

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Questions

MTEP26 reliability analysis scope is consistent with previous cycle to ensure compliance with NERC standards

Steady State Analysis	Transient Stability Analysis	Voltage Stability Analysis	Transfer Capability Assessment	Nuclear Plant Assessment	Generator Deliverability Analysis
Contingency analysis for both planning and extreme events	Disturbance analysis for both planning and extreme events	Identify voltage stability limits under a set of transfer scenarios	Evaluate transfer capability of the system under various transfer scenarios	Monitor and identify potential NPIR violations	Determine deliverability of existing network resources
Near and Long term horizons (year 2, 5, 10)	Near and Long term horizons (year 5, 10*)	Near term horizon (year 5)	Near term horizon (year 5)	Near and Long term horizons (year 2, 5,10)	Near and Long term horizons (year 5, 10)
TPL-001-5.1 FAC-014 PRC-023	TPL-001-4 FAC-014 PRC-023	FAC-014 PRC-023	FAC-013 FAC-014 PRC-023	NUC-001 PRC-023	

NERC TPL-001-5.1 establishes contingencies and acceptable mitigation requirements

TPL Category	Description	Acceptable Mitigation		
		BES Level	Physical Upgrade Required?	Load Shed or Redispatch Allowed?
P0	System intact	EHV, HV	Yes	No
P1	Single contingency (Fault of a shunt device- fixed, switched or SVC/STATCOM is new)	EHV, HV	Yes	No
P2	Single event which may result in multiple element outage. Open line w/o fault, bus section fault, internal breaker fault	EHV HV	Yes No	No Yes
P3	Loss of generator unit followed by system adjustments + P1. No load shed is allowed	EHV, HV	Yes	Yes
P4	Fault + stuck breaker events	EHV HV	Yes No	No Yes
P5	Fault + relay failure to operate (new)	EHV HV	Yes No	No Yes
P6	Two overlapping singles (not generator)	EHV, HV	No	Yes
P7	Common tower outages; loss of bipolar DC	EHV, HV	No	Yes