Expedited Project Review Results and Recommendation

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

December 02, 2025

Purpose and Key Takeaways

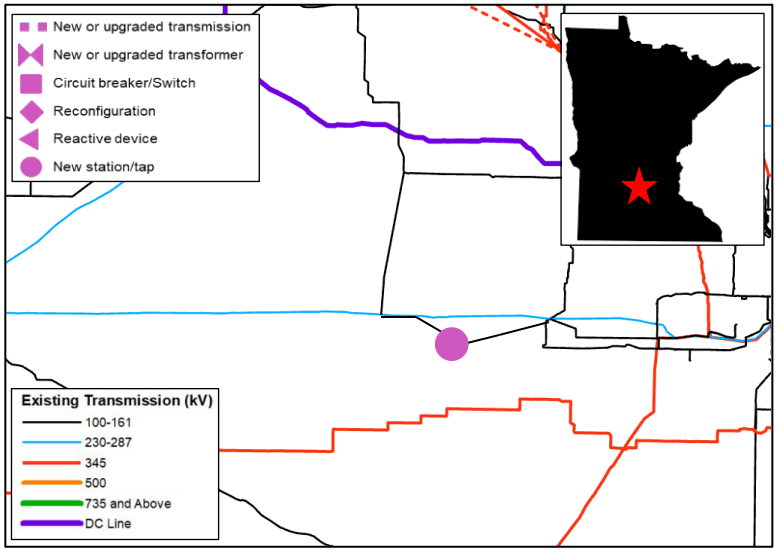
Purpose: Review results and provide MISO's recommendation for EPRs which have completed mitigation discussions

Key Takeaways:

- Eleven (11) EPRs have completed analysis and mitigation representing 2,350 MW of new spot load and other reliability concerns
  - Central region representing 8 projects for review
  - West region representing 3 projects for review
- MISO recommends the projects move to MTEP26/Appendix A after the PAC comment period.

[GRE] West Glencoe

GRE: West Glencoe



Project #	50780
Project Name	West Glencoe
Project Type	Other, Load Growth
Project Description	Add new Glencoe Light & Power (GLP) substation to serve a 40 MW load. The new substation will tap the existing McLeod-Armstrong 115kv line. Add 40 MVAr of capacitance to address N-1-1 low voltage concerns.
System Need	This project is needed due to a new load that has a proposed in-service date of Spring of 2026. GLP determined that, due to the size and location of the new load, a new substation needs to be built. Studies determined the need for additional capacitance.
Current Cost	$6.5 M
Expected ISD	10/31/2026
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 impacted entity feedback
  - Zero (0) new TPL violations or worsened reliability issues were identified
- No neighboring entities were impacted based on the analysis results.

[MRES] New Load on Existing HUC Plant 2 69 kV sub

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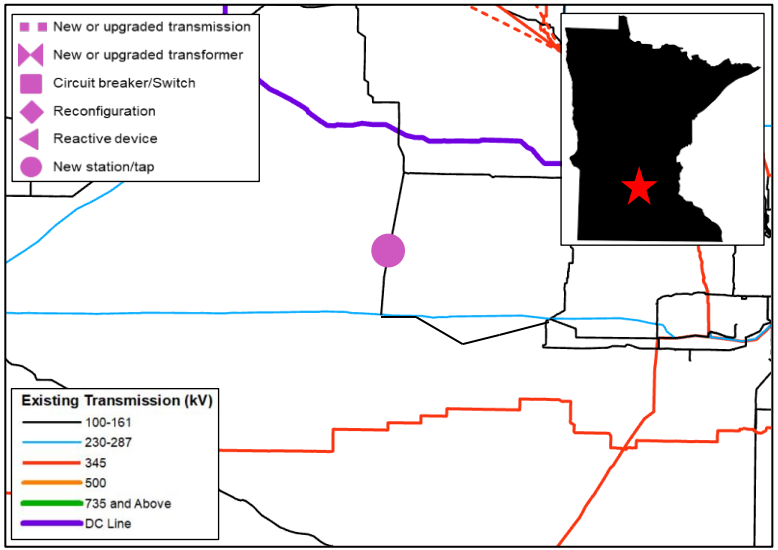

Project #	51086
Project Name	New Load on Existing HUC Plant 2 69 kV sub
Project Type	Other, Load Growth
Project Description	Add new 20 MW data center load to existing sub.
System Need	Meet customer's desired in service of Fall 2026.
Current Cost	$0 M
Expected ISD	11/30/2026
Target Appendix	A in MTEP26

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[MEC] Indian Creek West 161 kV Substation & Associated Upgrades

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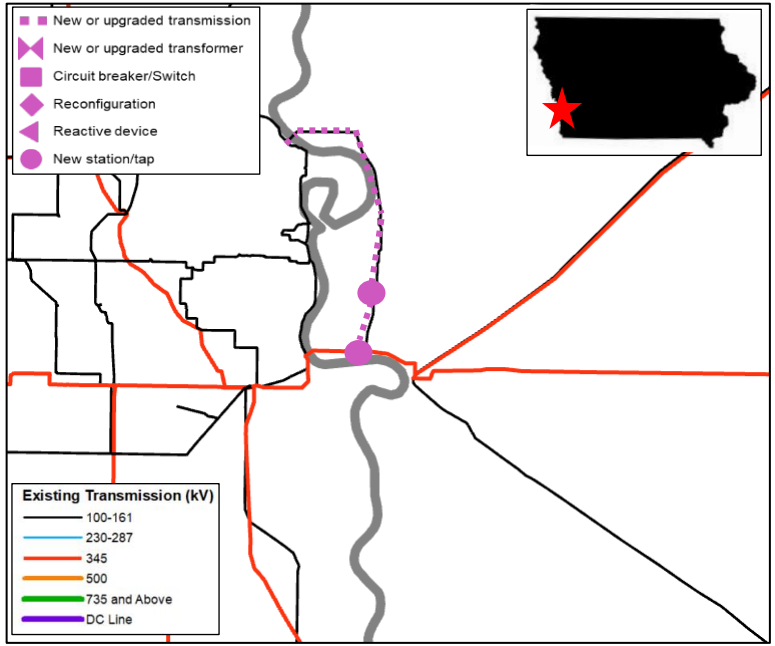

Project #	51087
Project Name	Indian Creek West 161 kV Substation & Associated Upgrades
Project Type	Other, Load Growth
Project Description	Construct new Indian Creek West Substation to serve new 200 MW customer load. Bisect the Indian Creek East-Manawa 161 kV line and bring line taps into Indian Creek West Substation. Construct the new Fox Run 345-161 kV Substation (includes 345-161 kV transformer), which will bisect the CBEC – S3456 345 kV line and the CBEC – S1206 161 kV line. Construct a new 161 kV line from Fox Run Substation to Indian Creek West Substation. Rebuild the Sub 701 – S1211 161 kV line and replace terminal equipment at each substation.
System Need	Serve Load
Current Cost	$103.1 M
Expected ISD	7/1/2029
Target Appendix	A in MTEP26

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[CECT] Repair Wittenberg Switching Station Access Road

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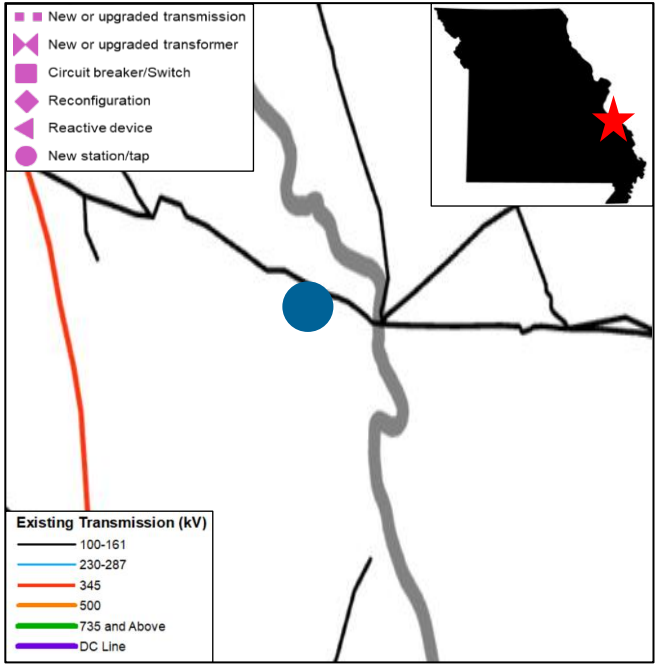

Project #	50796
Project Name	Repair Wittenberg 138 kV Switching Station Access Road
Project Type	Other, Age and Condition
Project Description	Temporary repairs to keep the existing road in a condition to allow emergency access and assess permanent repairs. This will consist of either repairing the existing access road or constructing a new access road in a different location.
System Need	The existing access road into the Wittenberg Switching Station has experience a severe slope failure resulting in limited accessibility to the substation.
Current Cost	$1.5 M
Expected ISD	6/1/2026
Target Appendix	A in MTEP26

This project has no topological change.

[CECT] Remediate Grand Tower 138 kV Foundation Erosion

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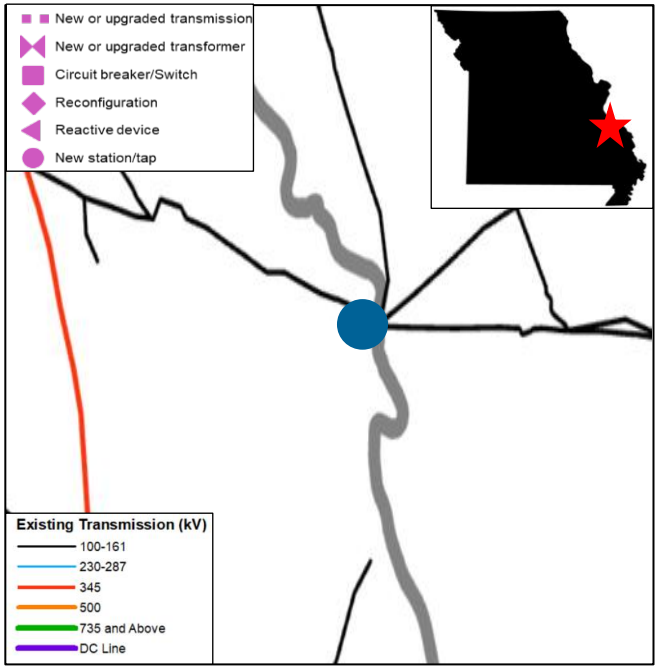
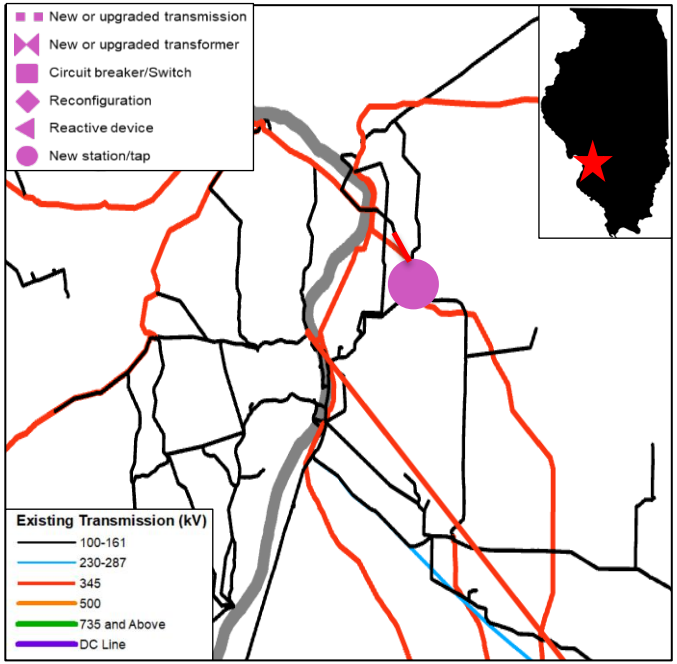


Project #	50797
Project Name	Remediate Grand Tower 138 kV Foundation Erosion
Project Type	Other, Age and Condition
Project Description	CEC proposes civil and structure analysis along with mitigation repairs to address soil erosion issues at an existing lattice tower structure. This structure supports the existing Grand Tower to Wittenberg 138 kV line as the line crosses the Mississippi River near the Grand Tower substation.
System Need	Higher-than-normal river levels recently causing erosion activities around the foundations of the existing lattice tower.
Current Cost	$1.5 M
Expected ISD	5/1/2026
Target Appendix	A in MTEP26

This project has no topological change.

[AMIL] New Load Addition at New Truett 345 kV substation

AMIL: Load Addition at New Truett 345 kV substation



Project #	50734
Project Name	New Load Addition at New Truett 345 kV Substation
Project Type	Other, Load Growth
Project Description	Construct a new 345 kV substation, 8 position ultimate BAAH bus arrangement for the connection of 1000 MW load addition at Pontoon Beach, IL.
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	$102.2 M
Expected ISD	12/1/2028
Target Appendix	A in MTEP26

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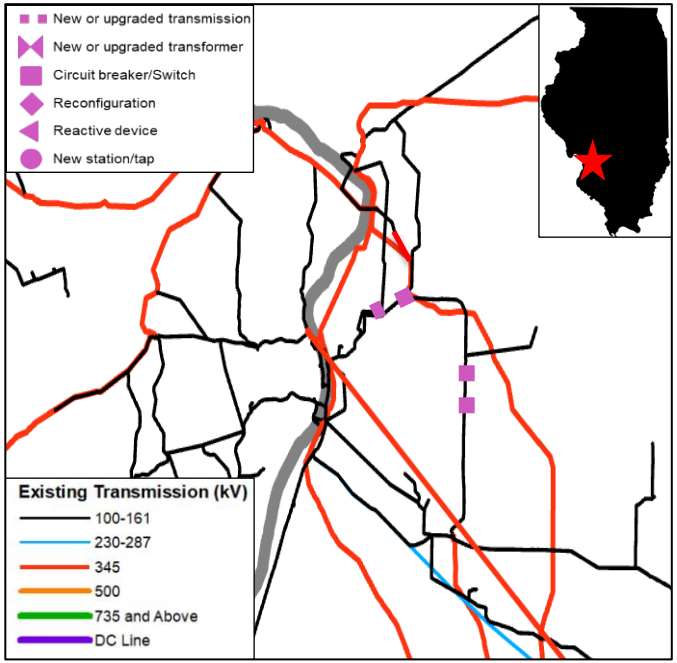
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
  - Results were posted for impacted entity feedback
  - One (1) additional CAP was required to mitigate observed issues
- MISO coordinated with impacted neighboring entities based on the analysis results
  - We appreciate the active coordination of the impacted parties as a part of this process

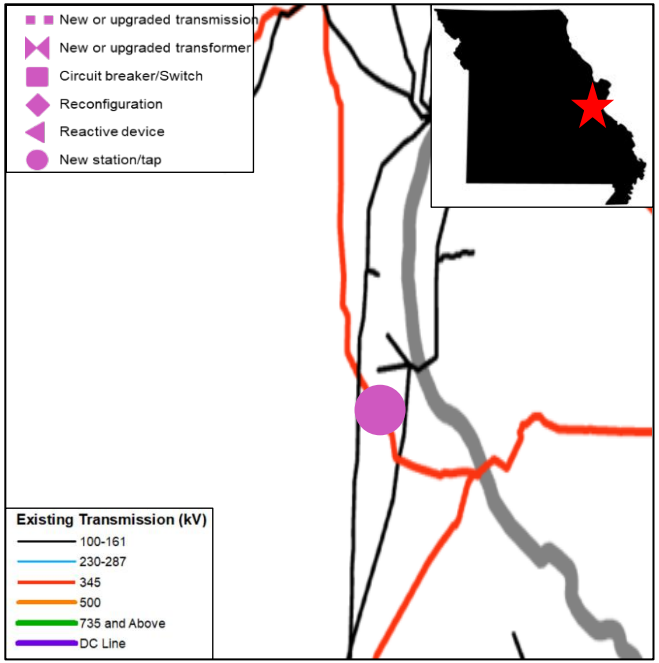
50734 Corrective Action Plan (CAP)
New MTEP26 BRP project



Project #	51121
Project Name	Reconductor Stallings-Canteen 138 kV and Kren-Porter Road 138 kV Lines
Project Type	BRP
Project Description	Increase rating to 2000 A for Stallings-Canteen 138 kV and Kren-PorterRoad 138 kV Lines
System Need	P6 Thermal Observations
Current Cost	$2 M
Expected ISD	12/1/2028
Target Appendix	A in MTEP26

[AMMO] New Load Addition at New Project Point 345 kV Substation

AMMO: Load Addition at New Project Point 345 kV Substation



Project #	50791
Project Name	New Project Point 345 kV BAAH substation
Project Type	Other, Load Growth
Project Description	Construct a new 8 position, 345kV BAAH switching station south of Joachim substation and route the following 2 345kV lines into this new switching station: Rush Island-Joacihm-2 and Rush Island-Tyson-5668 for 1000 MW load addition.
System Need	To support serving the load in this area, expected ISD requires 3 years for Engineering, Procurement, and Legislature approval prior to normal MTEP26 timeline.
Current Cost	$98.8 M
Expected ISD	12/1/2029
Target Appendix	A in MTEP26

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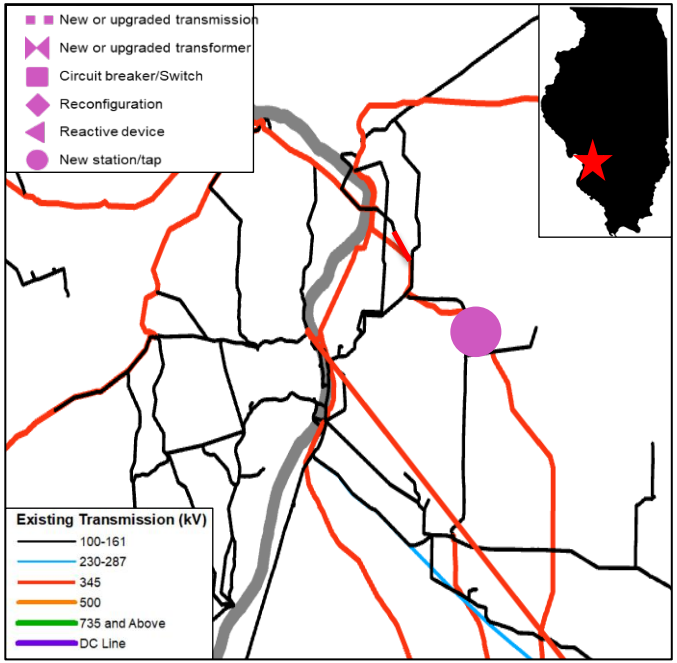
  - Results were posted for impacted entity feedback
  - Zero (0) new TPL violations or worsened reliability issues were identified
- No neighboring entities were impacted based on the analysis results.

[AMIL] New Load Addition at New CADC 138 kV Ring bus

AMIL: Load Addition at New CADC 138 kV Ring bus



Project #	50885
Project Name	New Load Addition at New CADC 138 kV Ring bus
Project Type	Other, Load Growth
Project Description	Construct a new 138 kV ring bus for the connection of Project CADC 90 MW load addition
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	$24.1 M
Expected ISD	12/1/2028
Target Appendix	A in MTEP26

Models, Reliability Analysis, and Neighbor Coordination

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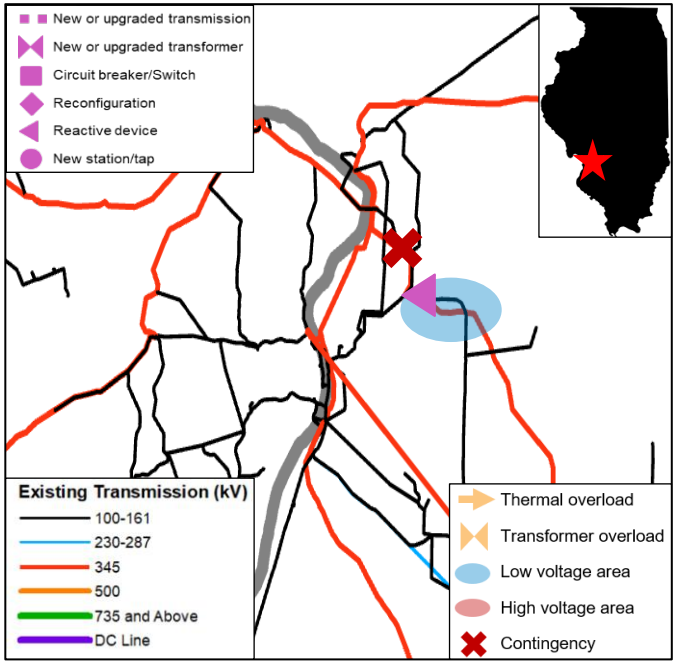
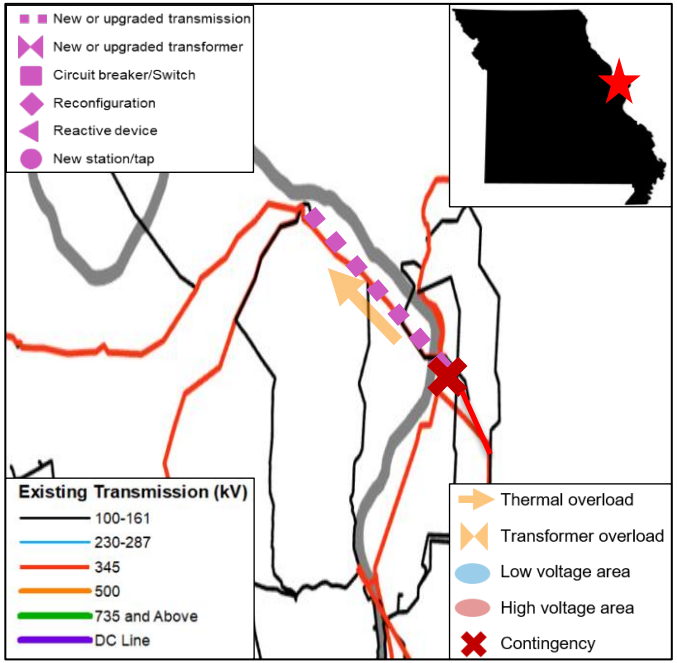
- MISO performed TPL-001-5.1 no-harm analysis utilizing n-1 and n-1-1 contingencies centered around the point of interconnection of the EPR
  - Results were posted for impacted entity feedback
  - Two (2) additional CAPs was required to mitigate observed issues
- MISO coordinated with impacted neighboring entities based on the analysis results
  - We appreciate the active coordination of the impacted parties as a part of this process

50885 Corrective Action Plan (CAP)
New MTEP26 BRP project



Project #	51123
Project Name	New 300 MVAR Cap Bank at Truett 345 kV Substation
Project Type	BRP
Project Description	Add 300 MVAR Cap Bank at Truett 345 kV Substation
System Need	P6 Voltage Observations
Current Cost	$12 M
Expected ISD	12/1/2028
Target Appendix	A in MTEP26

50885 Corrective Action Plan (CAP)
New MTEP26 BRP project



Project #	51128
Project Name	Upgrade Sioux-Roxford 138 kV Lines
Project Type	BRP
Project Description	Increase ampacity of both Sioux-Roxford-6704 & Sioux-Roxford-6700 138 kV lines to 1600 A minimum ampacity.
System Need	P3 and P6 Thermal Observations
Current Cost	$8 M
Expected ISD	12/1/2029
Target Appendix	A in MTEP26

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