



MTEP24 Expedited Project Review

Planning Advisory Committee (PAC)

October 11, 2023

Purpose & Key Takeaways



Purpose:

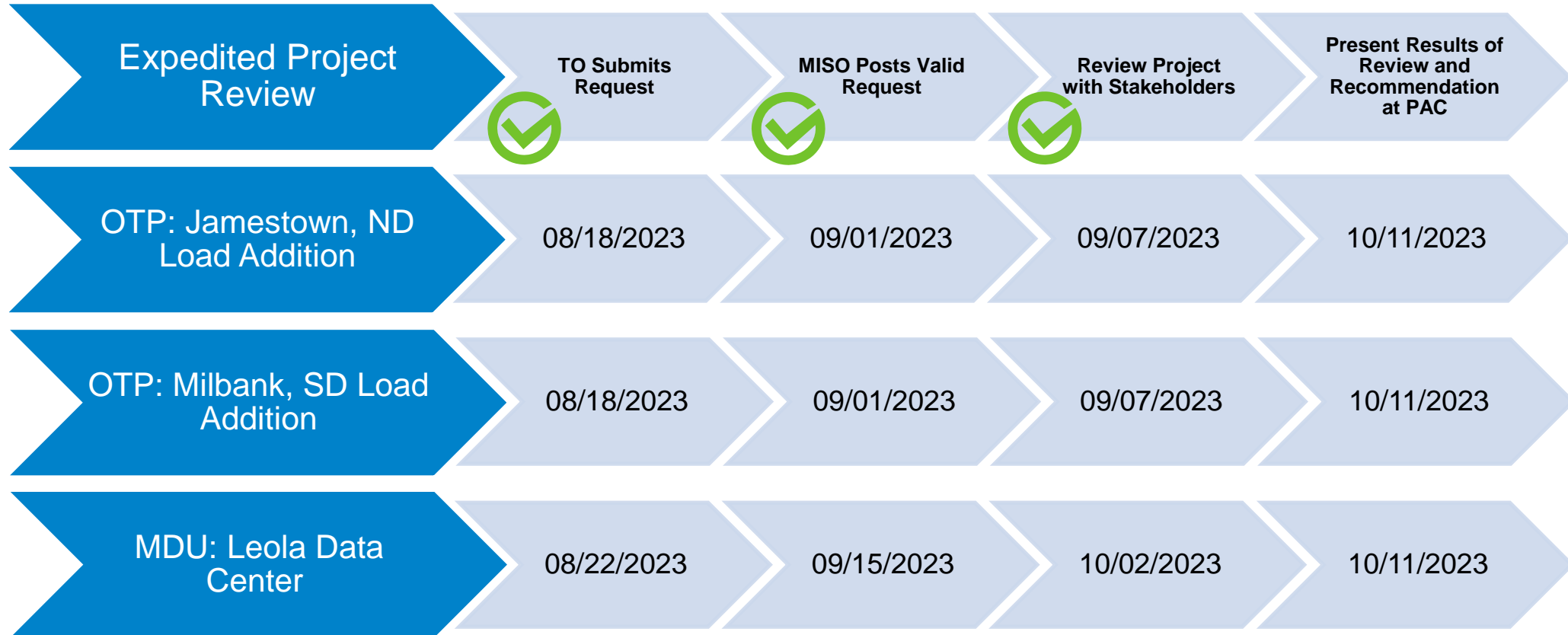
Present review of Expedited Project Requests

- *OTP - Jamestown, ND Load Addition*
- *OTP - Milbank, SD Load Addition*
- *MDU - Leola Data Center*
- *Entergy - Kolbs to Port Acres 230 kV Upgrade Project*
- *Entergy - Sandling 230 kV Customer Load Addition Project*
- *Entergy - Legend to Sandling 230 kV Circuit 2 Project*
- *Entergy - Virililia 230 kV Substation*
- *Entergy - Andes 500/230 kV Substation*
- *Entergy - Cosmos 230 kV Substation*
- *ITCM - Winnebago City Substation Interconnections*

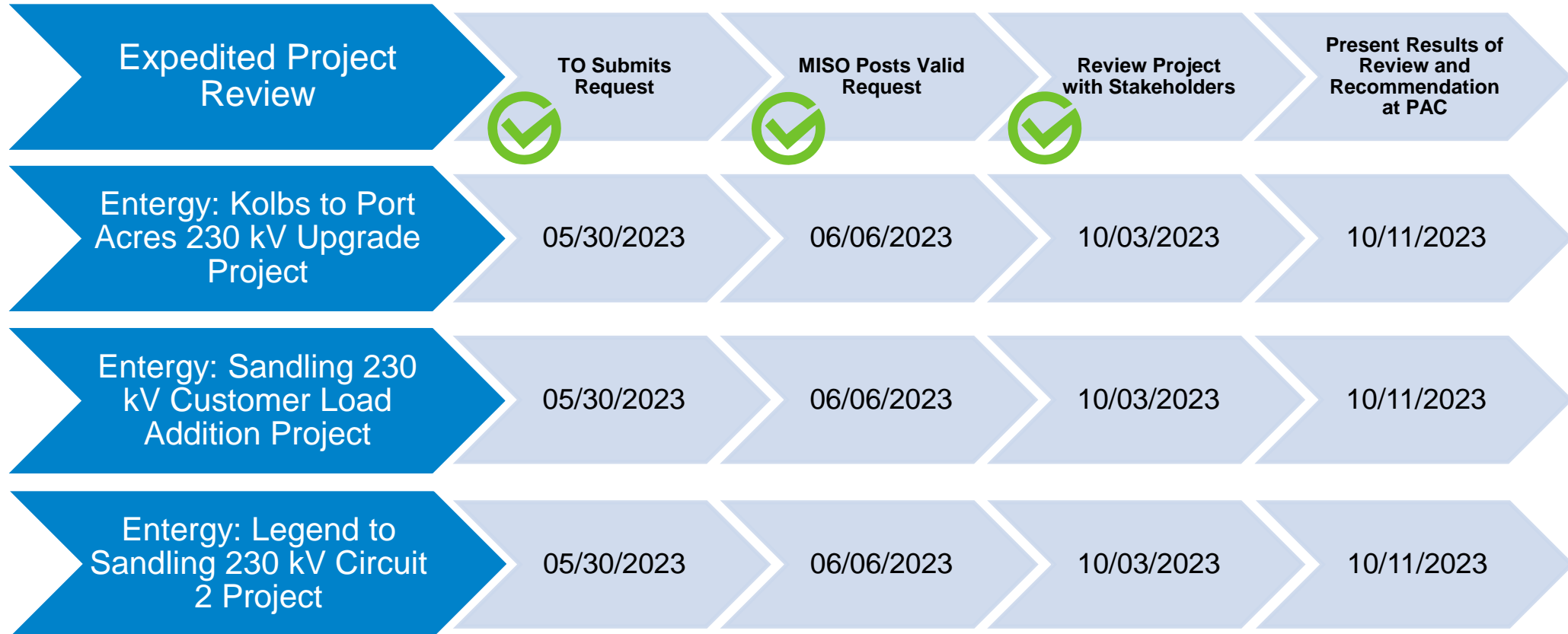
Key Takeaways:

- The projects above result in no reliability violations without pre-existing corrective action plans.
- MISO recommends these projects be included in MTEP24 and construction to commence in order to meet associated in-service dates.

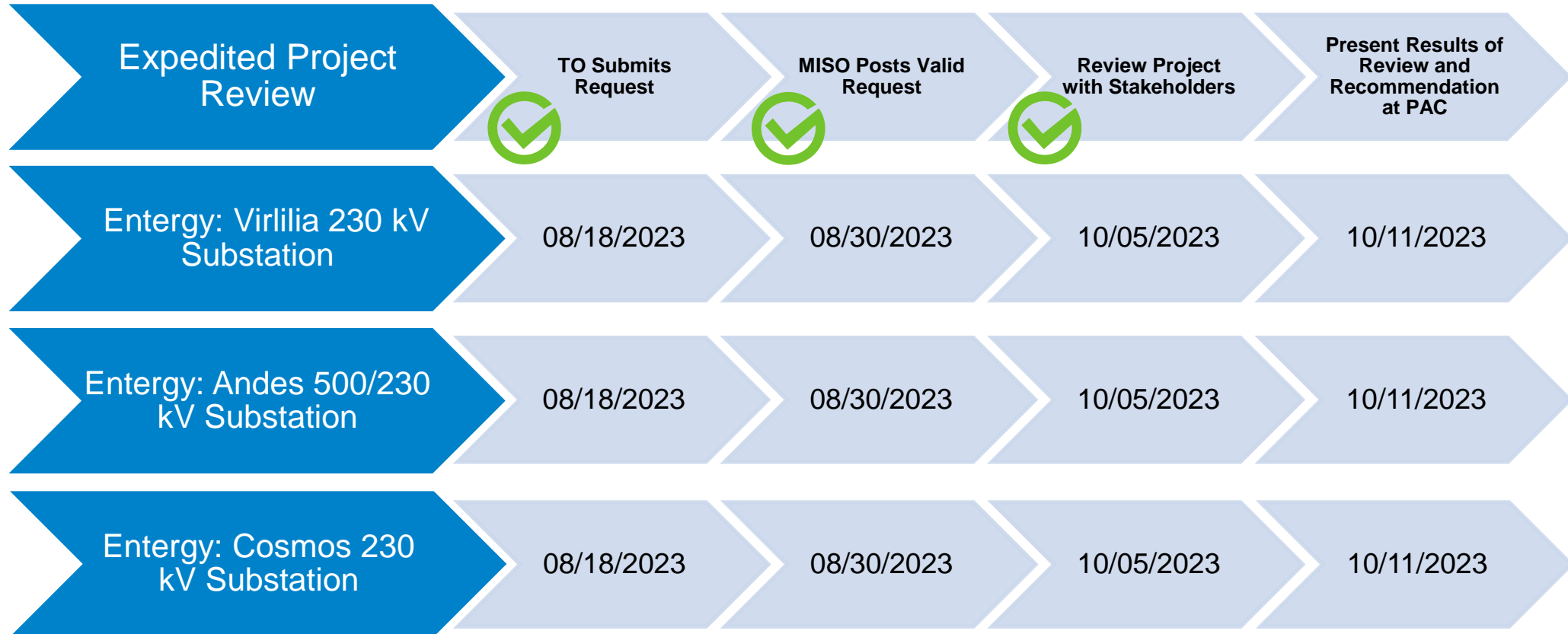
MISO follows Expedited Project Review provisions laid out in the TP BPM-020 for Expedited Project Review requests it receives from TOs



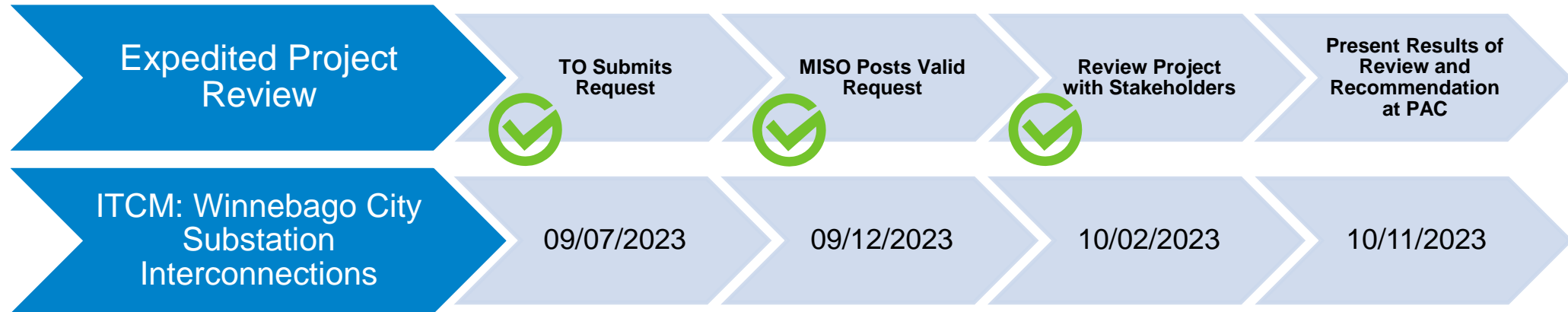
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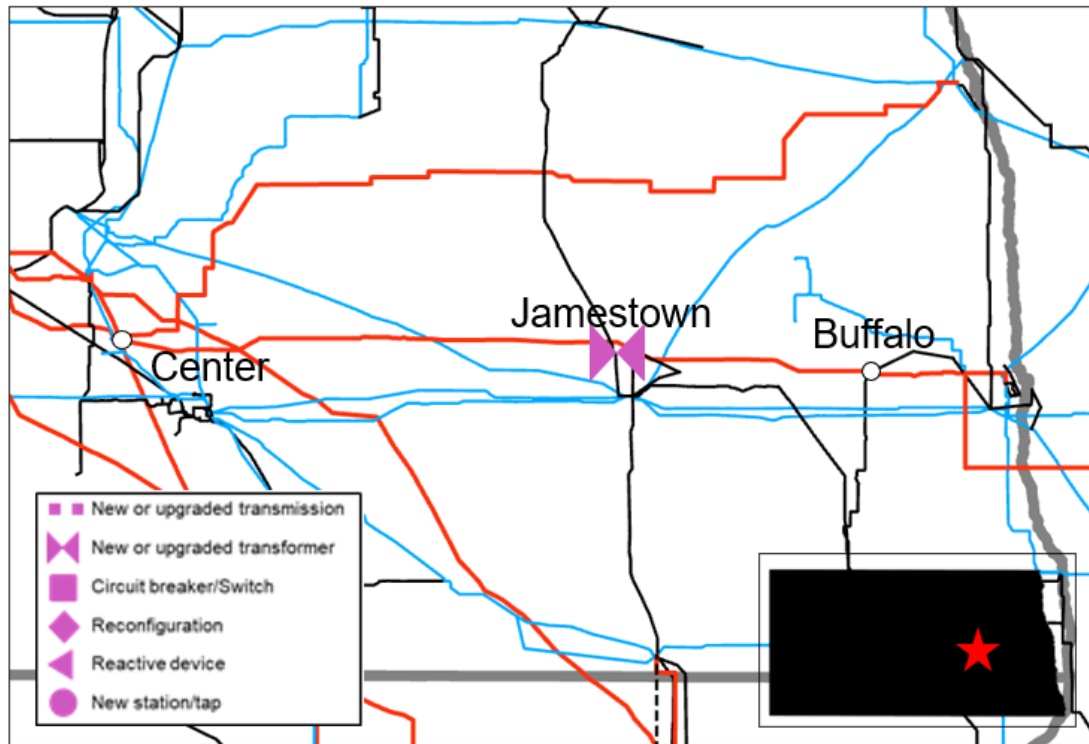


MISO follows Expedited Project Review provisions laid out in the TP BPM-020 for Expedited Project Review requests it receives from TOs



OTP project detail

OTP: Jamestown, ND Load Addition



Project Description: #25256

- Add a 115/41.6 kV transformer to the 115 kV bus at OTP’s Jamestown 345 kV substation to serve a 10 MW expansion of an existing customer’s load. The new transformer will also be connected to OTP’s existing 41.6 kV transmission system for backup service via a normally open breaker.

Estimated Cost: \$3.25M

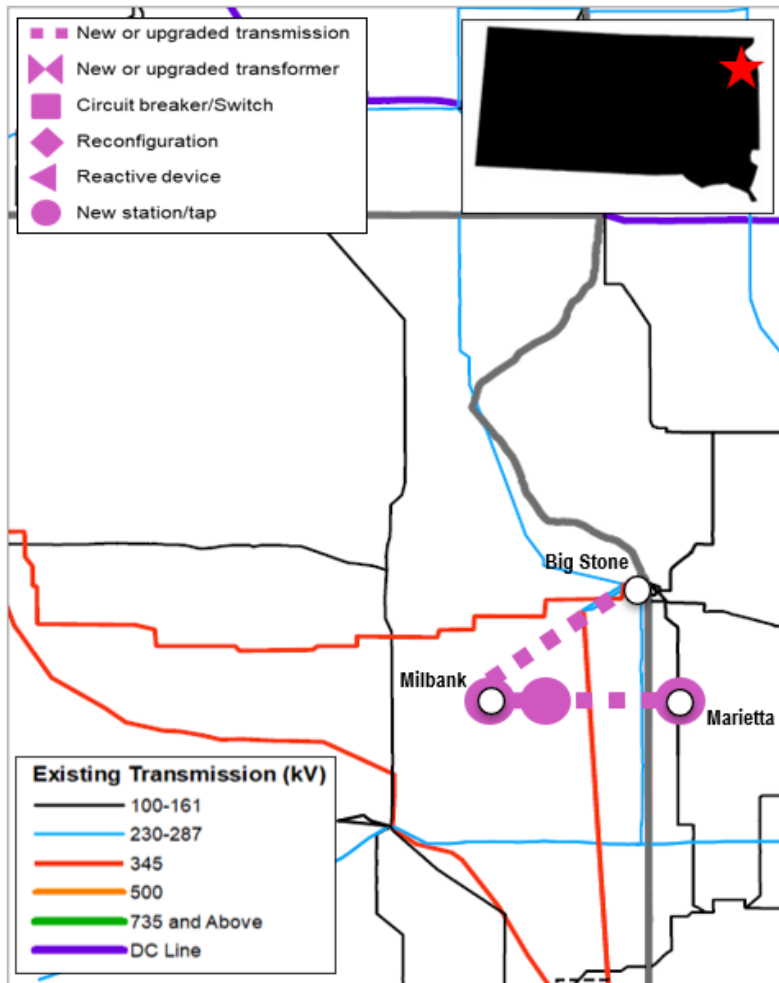
Expected ISD: 06/01/2024

Project Type: Other – Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

OTP: Milbank, SD Load Addition



Project Description: #25305

- OTP will serve a new 4.5 MW load at Milbank, SD and support the conversion of a 9.5 MW electric boiler moving from non-firm service to firms service by completing the following:
 1. Expansion of the Big Stone 115 kV bus to accommodate an additional 115 kV termination.
 2. A new approximate 12.5 mile 115 kV line from Big Stone 115 kV substation to a new Milbank 115/12.5 kV substation.
 3. A new Milbank 115/12.5 kV substation.
 4. A new approximate 18.5 mile 115 kV line from the new Milbank 115/12.5 kV substation to a new 115 kV breaker station located on the Big Stone - Marietta 115 kV line.
 5. A new 115 kV breaker station on the Big Stone - Marietta 115 kV line.
 6. A new 115 kV tap along the new 115 kV line from the new Milbank 115/12.5 kV substation to the new 115 kV breaker station to convert an existing distribution substation to the 115 kV system.

Estimated Cost: \$36.3M

Expected ISD: 12/31/2024

Project Type: Other – Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

MISO recommends OTP's EPRs for inclusion in MTEP24 Appendix A

Reliability Analysis Results

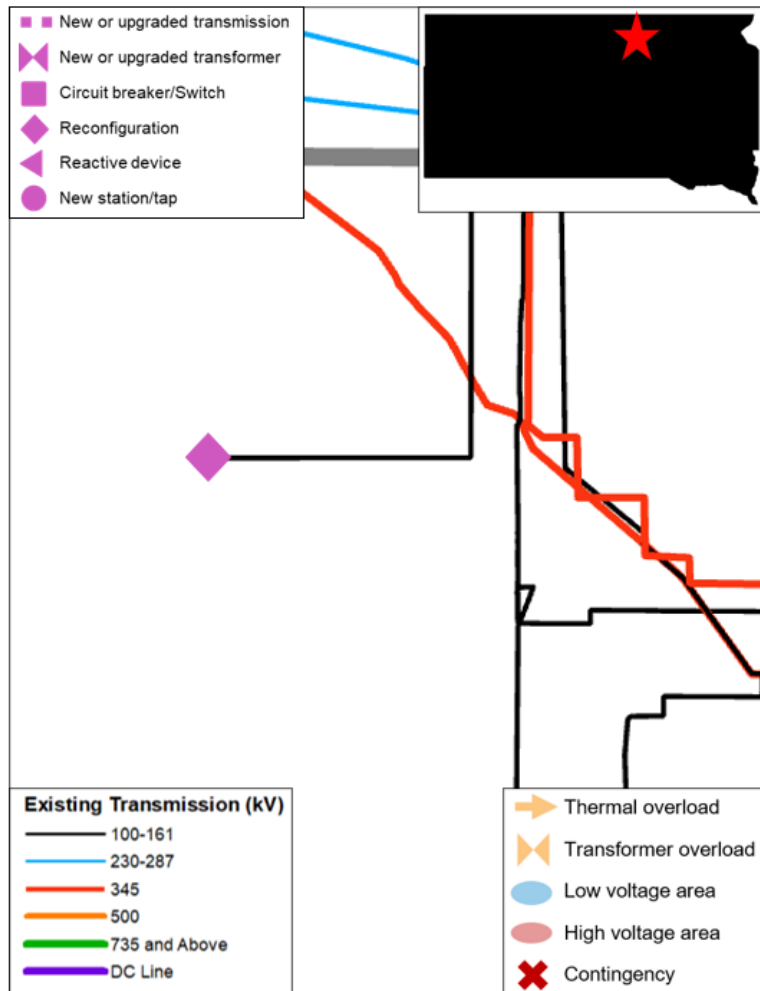
- No reliability violations without pre-existing corrective action plans were discovered as a result of the OTP EPRs.

MISO Recommendation

- MISO will move these projects to Appendix A in MTEP24 and request OTP to proceed with construction to meet the in-service date.

MDU project detail

MDU: Leola Data Center



Project Description: #25301

- Addition of a new customer with a 50 MW facility. The new customer load will be served from MDU's 41.6 kV system at the Leola Substation. Two cap banks will be added on the 115 kV side of the substation to support the load addition.

Estimated Cost: \$3.6M

Expected ISD: 06/01/2023

Project Type: Other – Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

MISO recommends MDU's Leola Data Center for inclusion in MTEP24 Appendix A

Reliability Analysis Results

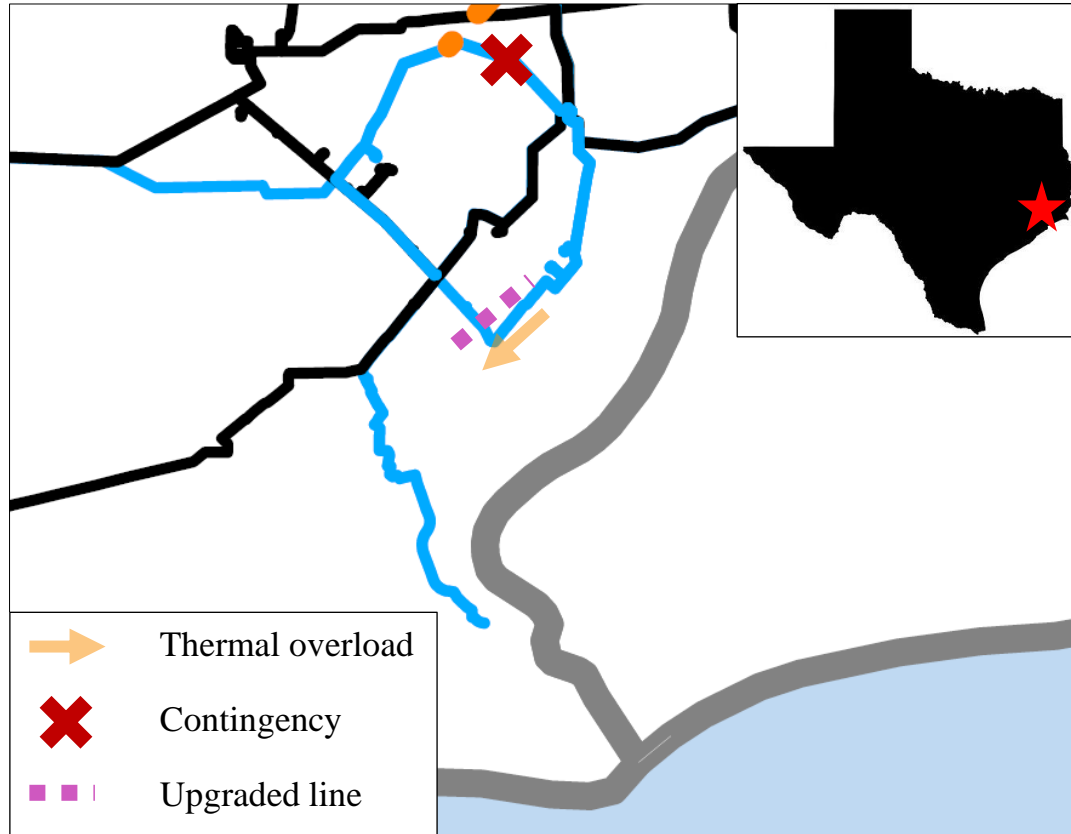
- No reliability violations without pre-existing corrective action plans were discovered as a result of the Leola Data Center project.

MISO Recommendation

- MISO will move this project to Appendix A in MTEP24 and request MDU to proceed with construction to meet the in-service date.

Entergy Texas project detail

Entergy: Kolbs to Port Acres 230 kV Upgrade Project



Project Description: #24959

- Entergy is proposing to upgrade the Port Acres Bulk to Kolbs 230 kV line due to load growth in the Port Arthur, TX area. The existing Port Acres to Kolbs 230 kV line overloads for the P7 common structure contingency of the Sabine to McFadden and Sabine to Nederland 230 kV lines.

Estimated Cost: \$14.7M

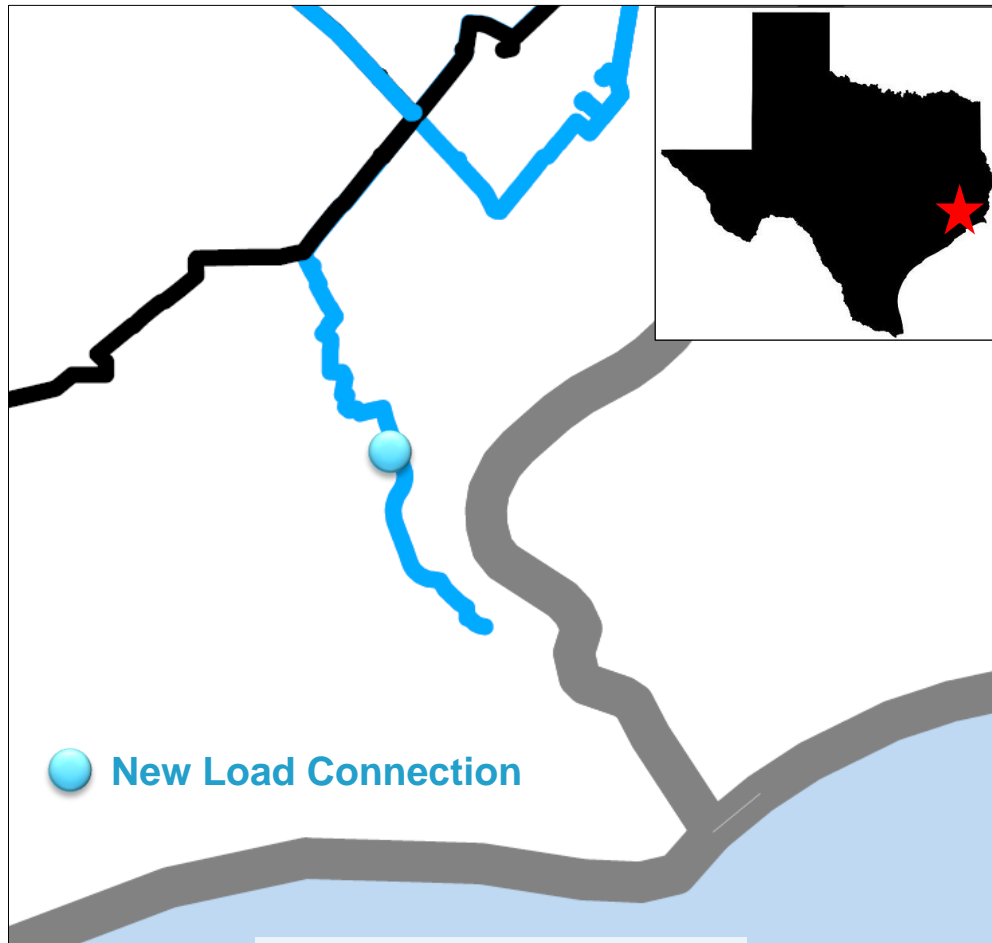
Expected ISD: 06/30/2025

Project Type: Baseline Reliability Project

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

Entergy: Sandling 230 kV Customer Load Addition



Project Description: #24958

- Entergy is proposing to construct a new 230 kV transmission station called Sandling 230 kV which will serve a new industrial customer's ~270 MW of load near Port Arthur, TX. Two capacitor banks will also be installed in the new Sandling 230 kV station.

Estimated Cost: \$122.6M

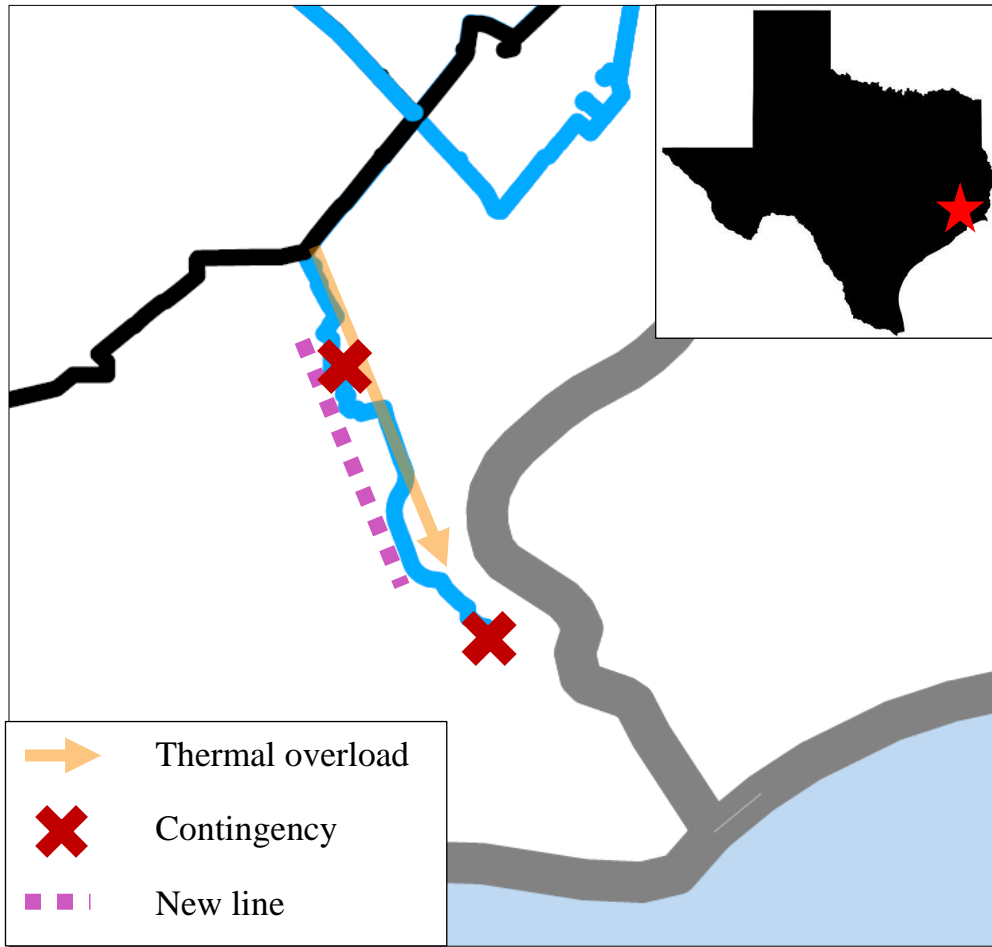
Expected ISD: 01/30/2026

Project Type: Other - Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24
Appendix A

Entergy: Legend to Sandling 230 kV Circuit 2 Project



Project Description: #24960

- Entergy is proposing to construct a new 230 kV transmission line between Legend and Sandling 230 kV Stations near Port Arthur, TX. The Legend to Sandling 230 kV circuit 2 is driven by a P3 contingency overloading either Legend to Sandling or Port Acres to Sandling 230 kV lines.

Estimated Cost: \$121.2M

Expected ISD: 07/31/2027

Project Type: Baseline Reliability Project

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24
Appendix A

MISO recommends Entergy Texas EPRs for inclusion in MTEP24 Appendix A

Reliability Analysis Results

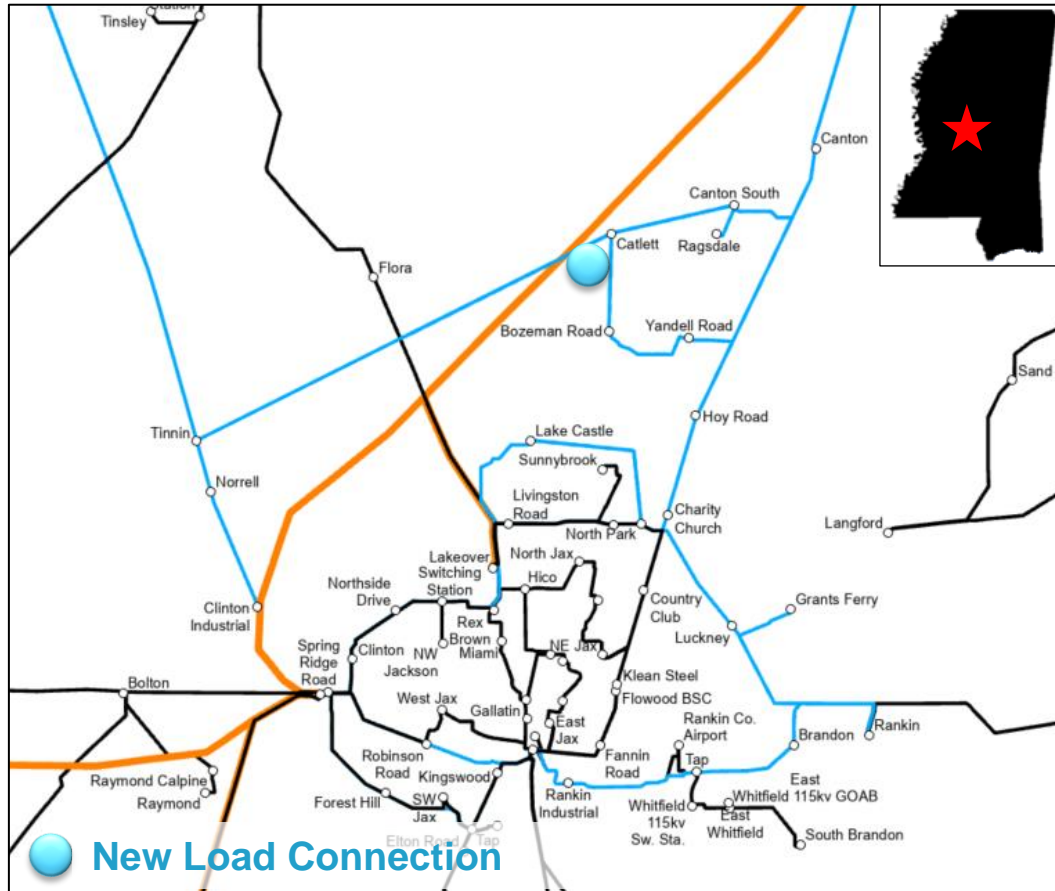
- No reliability violations without pre-existing corrective action plans were discovered as a result of the Entergy EPRs.

MISO Recommendation

- MISO will move these projects to Appendix A in MTEP24 and request Entergy to proceed with construction to meet the in-service dates.

Entergy Mississippi project detail

Entergy: Virililia 230 kV Substation



Project Description: #25214

- The Virililia 230 kV breaker and a half substation will be fed out of the existing Catlett 230 kV substation. The existing Catlett substation will be reconfigured into a breaker and a half substation with two additional bays to connect to (2) 230 kV lines to the Virililia 230 kV substation. A 108 MVAR capacitor bank will also be added to the new Virililia 230 kV substation. Customer load will be fed out of (3) 150 MVA 230/34.5 kV transformers.

Estimated Cost: \$79.5M

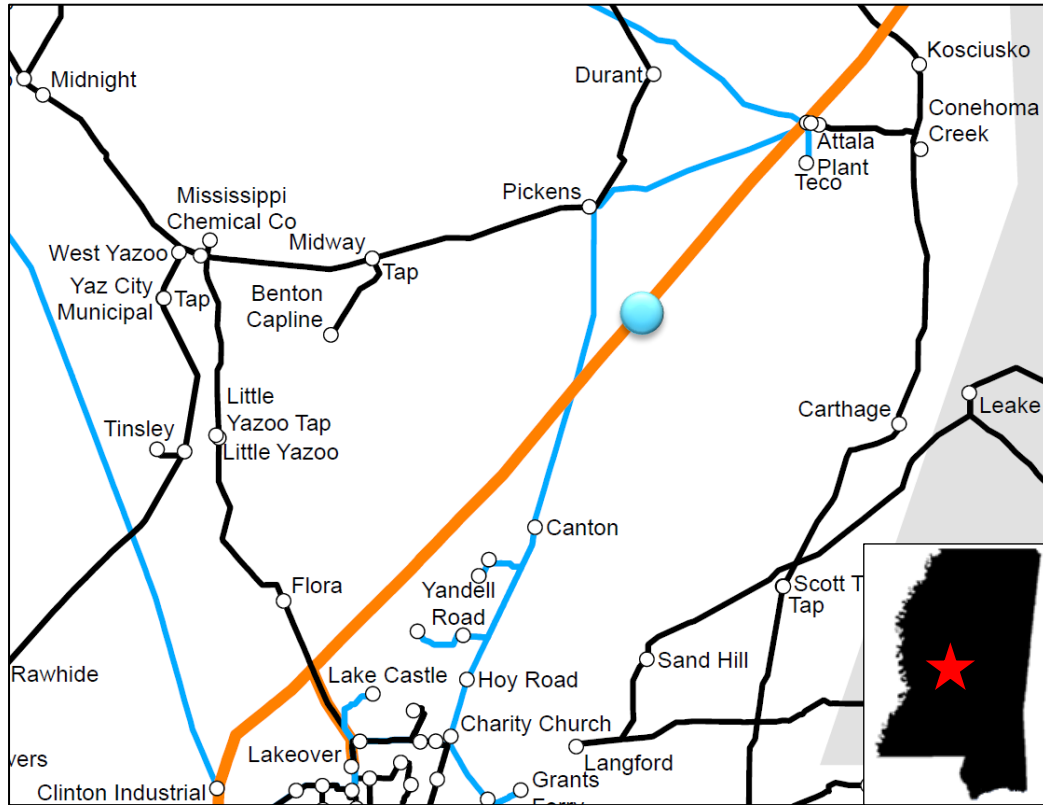
Expected ISD: 01/01/2025

Project Type: Other - Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

Entergy: Andes 500/230 kV Substation



 **New Load Connection**

Project Description: #25215

- The Andes 500 kV four breaker ring bus station will cut into the existing Lakeover – McAdams 500 kV transmission line. Two 720 MVA autotransformers (2 x 3 single phase 240 MVA autotransformers + 2 single phase spares) will connect the 500 kV ring bus to the 230 kV breaker and a half station. A 108 MVAR capacitor bank will also be added to the new 230 kV substation. Customer load will be fed out of (6) 150 MVA 230/34.5 kV transformers.

Estimated Cost: \$158M

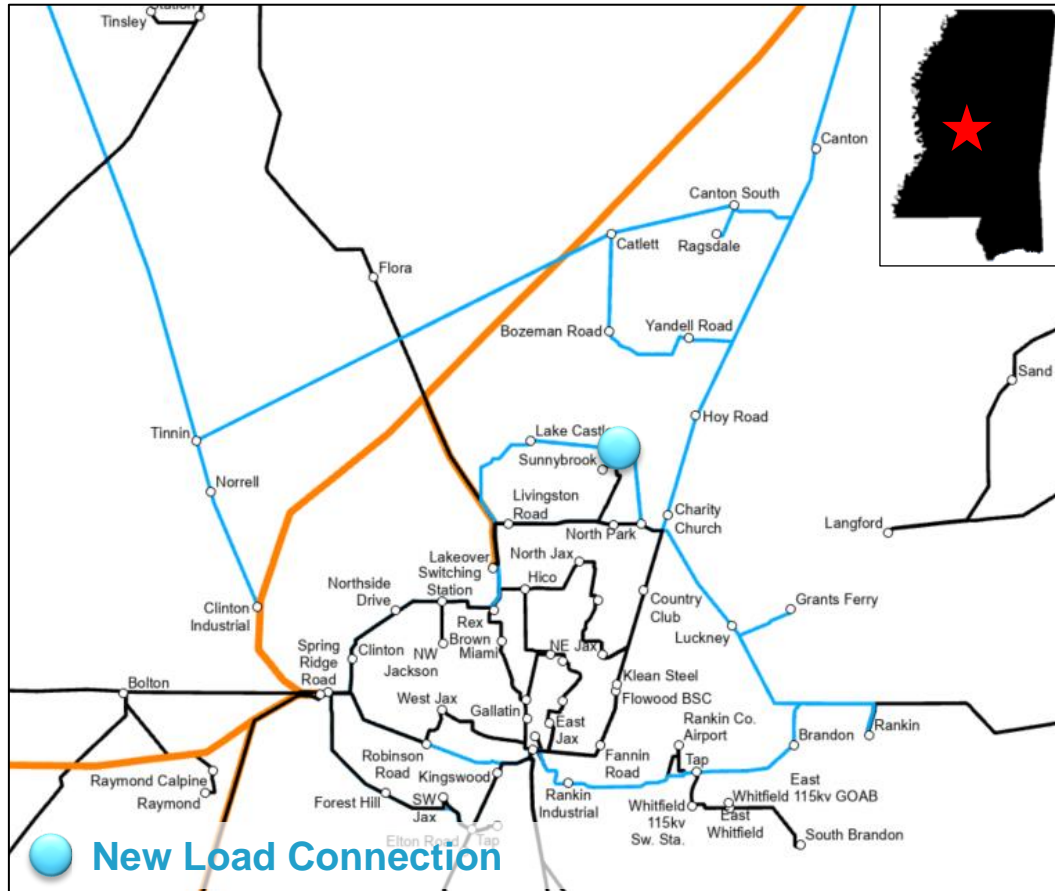
Expected ISD: 06/01/2027

Project Type: Other - Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

Entergy: Cosmos 230 kV Substation



Project Description: #25229

- The Cosmos 230 kV breaker and a half substation will cut into the existing Lake Castle – North Park 230 kV transmission line. A 108 MVAR capacitor bank will also be added to the new Cosmos 230 kV substation. Customer load will be fed out of (3) 150 MVA 230/34.5 kV transformers.

Estimated Cost: \$44.5M

Expected ISD: 01/01/2026

Project Type: Other - Load Growth

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24 Appendix A

MISO recommends Entergy Mississippi EPRs for inclusion in MTEP24 Appendix A

Reliability Analysis Results

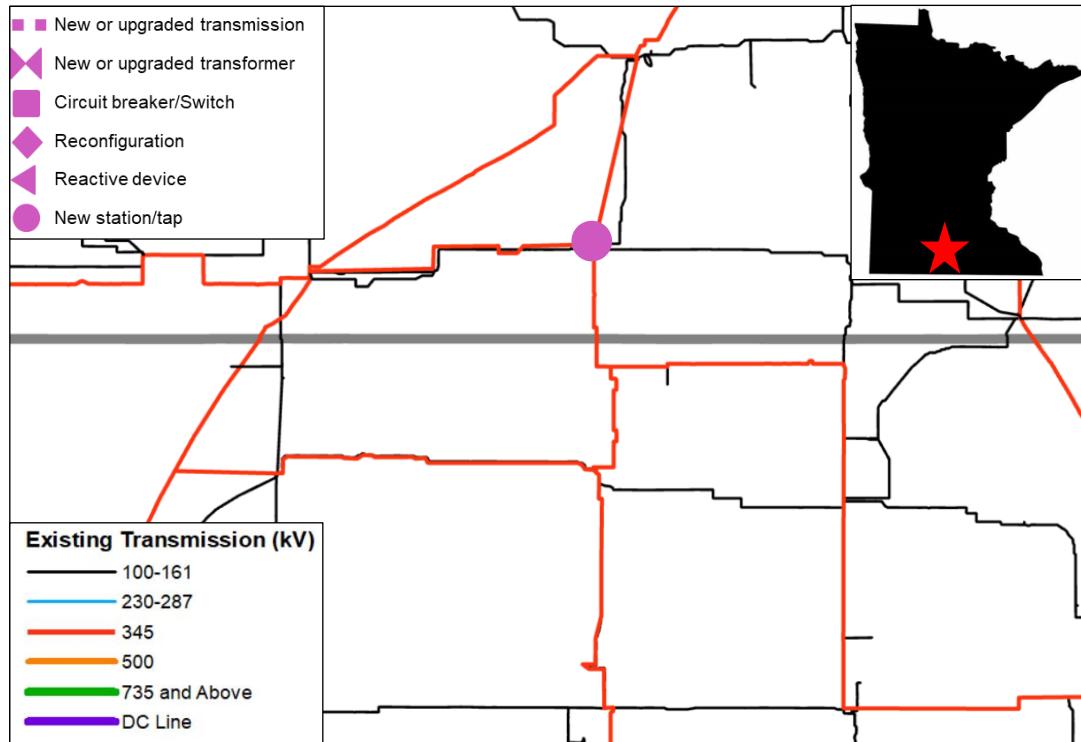
- No reliability violations without pre-existing corrective action plans were discovered as a result of the Entergy EPRs.

MISO Recommendation

- MISO will move these projects to Appendix A in MTEP24 and request Entergy to proceed with construction to meet the in-service dates.

ITCM project detail

ITCM: Winnebago City Substation Interconnections



Project description: #25321

- Construct two new 69 kV busses with four-line breakers and provisions for a 69 kV bus tier breaker and two transformer position for BENCO. Retire transmission portion of existing Winnebago Local substation as there are space constraints which limit rebuilding the substation in its current location.

Estimated Cost: \$7.9M

Expected ISD: 10/31/2025

Project Type: Other - Other Reliability

Target Appendix: A in MTEP24

MISO recommends for inclusion in MTEP24

Appendix A

MISO recommends ITCM's Winnebago City Substation Interconnections for inclusion in MTEP24 Appendix A.

Reliability Analysis Results

- No reliability violations without pre-existing corrective action plans were discovered as a result of the Winnebago City Substation project.

MISO Recommendation

- MISO will move this project to Appendix A in MTEP24 and request ITCM to proceed with construction to meet the in-service date.



Questions?

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