



MTEP23 Expedited Project Review

Planning Advisory Committee (PAC)

May 31, 2023

Purpose & Key Takeaways



Purpose:

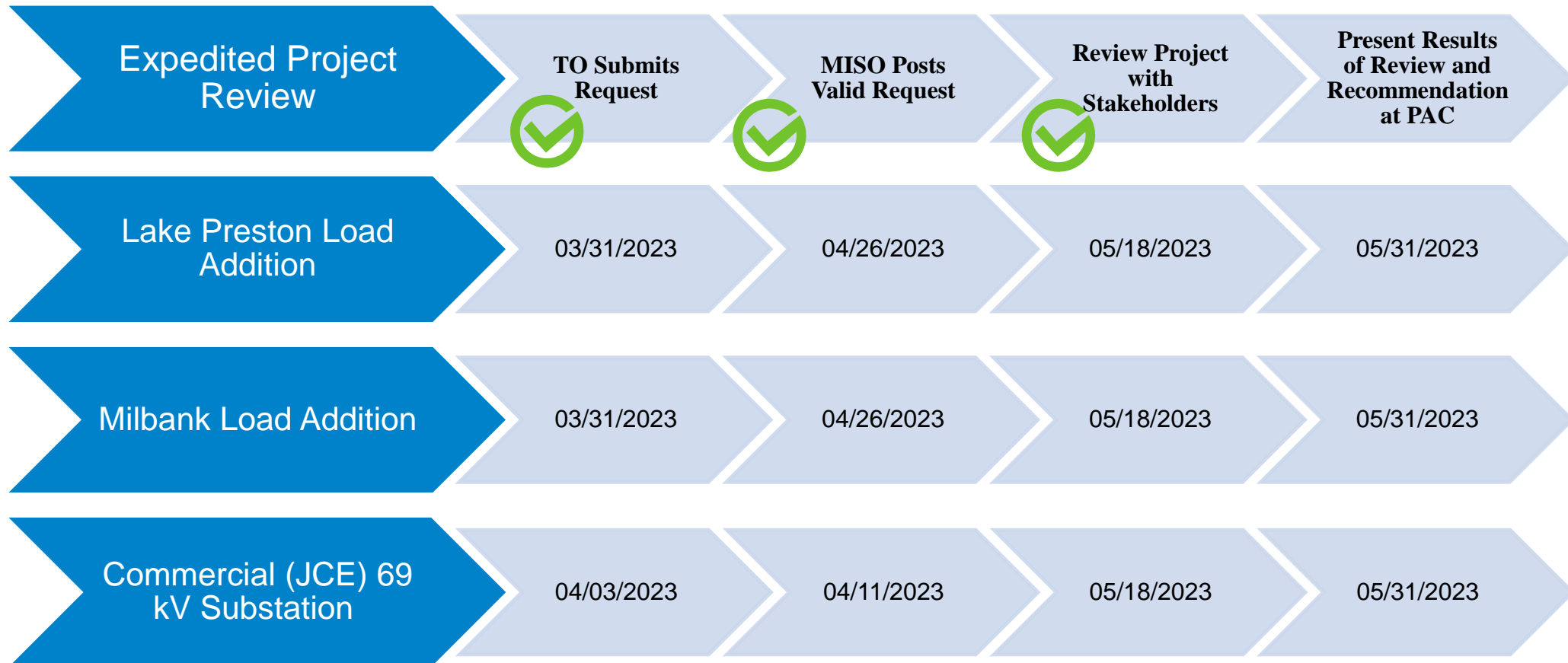
Present review of Expedited Project Requests

- *OTP Project #23806 Lake Preston Load addition*
- *OTP Project #23936 Milbank Load addition*
- *ITCM Project #24740 Commercial 69 kV Substation*
- *ITCM Project #24593 GM Orion Plan Expansion 120kV*
- *GRE Project #23919 Morris to Grant County to East Fergus Fall 115 kV Upgrade*

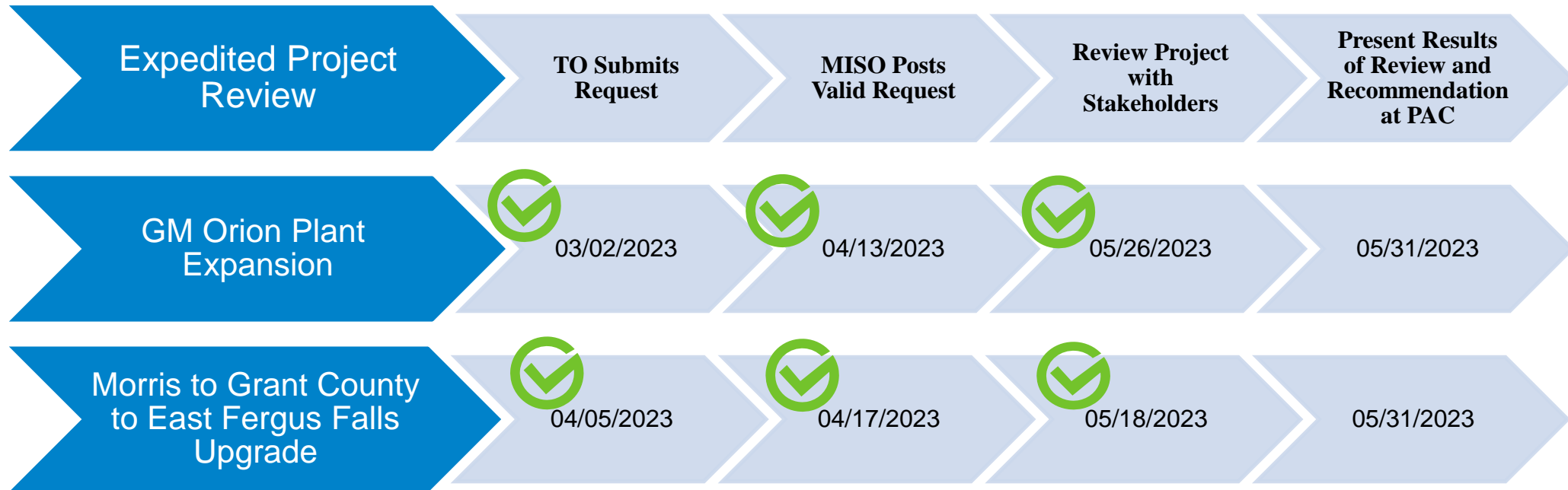
Key Takeaways:

- No reliability issues were identified as no new TPL violations were discovered as a result of these EPRs.
- MISO recommends these projects to be included in MTEP23, unless otherwise noted, 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

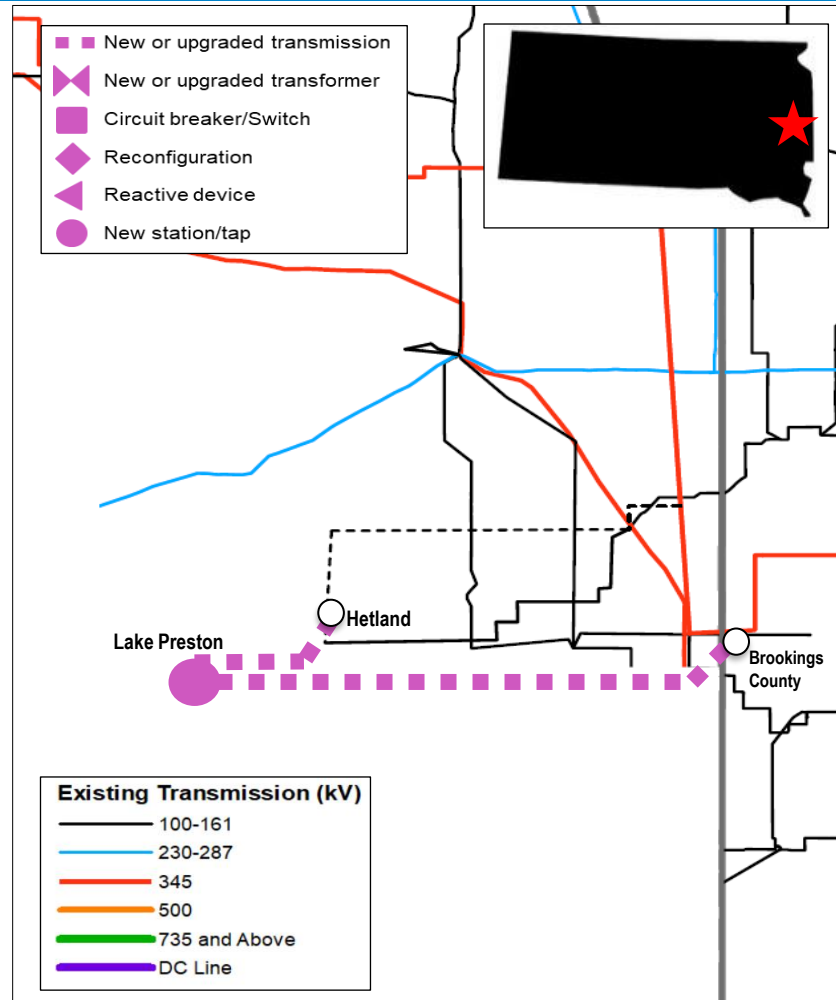


MISO follows Expedited Project Review provisions laid out in the TP BPM-020 for Expedited Project Review requests it receives from TOs



OTP project detail

OTP Project #23806 Lake Preston Load Addition



- **Project description: #23806**
 - OTP will serve a new load near Lake Preston, SD by completing the following:
 1. Hetland 115 kV substation termination addition
 2. Approximate 9.5 mile 115 kV line from Hetland 115 kV substation to a new Lake Preston 115/34.5 kV substation
 3. A new Lake Preston 115/34.5 kV substation with capacitors installed at the 115 kV level
 4. Approximate 45 mile 115 kV line from the new Lake Preston 115/34.5 kV substation to Xcel's Brookings County 345/115 kV substation
- **Expected Cost:** \$42.5M
- **Expected ISD:** 12/31/2024
- **Project Type:** Other: Load Growth
- **Target Appendix:** A in MTEP23

Proposed Alternatives Lake Preston Project

- Hetland - Lake Preston 115kV, new 115kV Lake Preston sub
- Broadland - Lake Preston 345kV, Lake Preston - Brookings County 345kV, new 345kV Lake Preston sub
- Hetland - Lake Preston 115kV, Lake Preston - Brookings 115kV WAPA Line Tap, new 115kV Lake Preston sub

MISO Recommends Lake Preston project for inclusion in MTEP23 appendix A

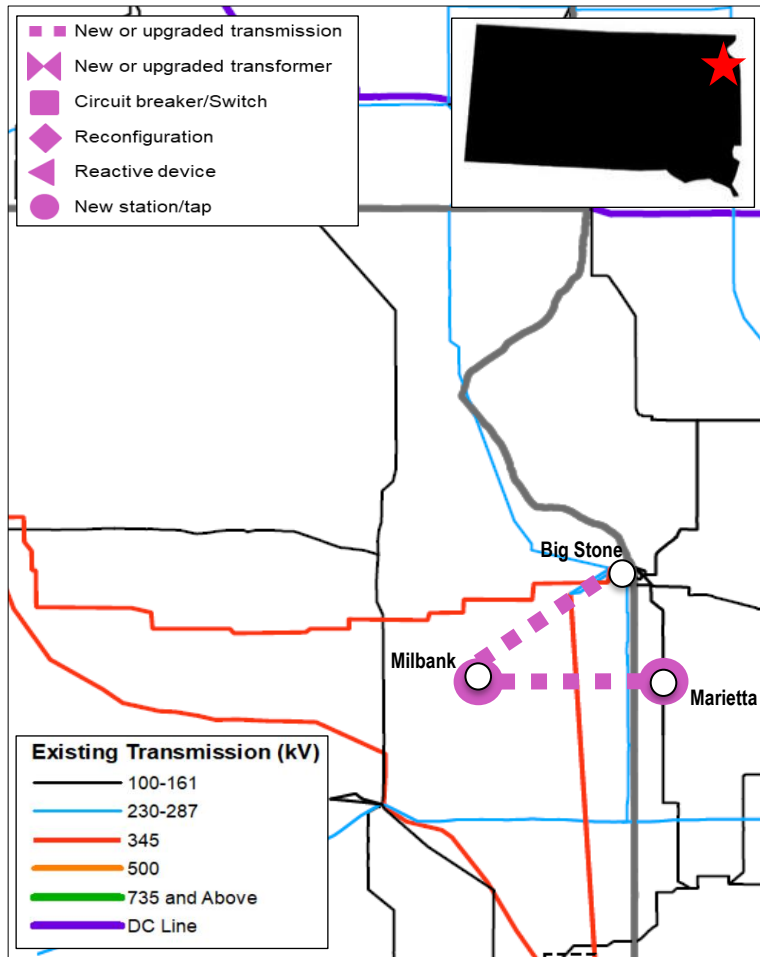
Reliability analysis results

- The EPR project supports the service of the 65 MW load that cannot be supported by the existing system.
- The full project ensures transmission system reliability is maintained while serving the new load at a low cost and meeting the customer's needs.

MISO recommendation

- MISO recommends that the Lake Preston project to be included in MTEP23 Appendix A, and that OTP may proceed with construction as needed to meet the in-service date.

OTP Project #23936 Milbank Load Addition



- **Project description: #23936**
 - OTP will serve a new load at Milbank, SD 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 15 mile 115 kV line from the new Milbank 115/12.5 kV substation to a new switching station located on the Big Stone - Marietta 115 kV line
 5. A new 115 kV switching station on the Big Stone - Marietta 115 kV line
- **System Needs**
 - OTP has received a new load request in Milbank, SD. The existing 41.6 kV system that serves Milbank and the surrounding area is no longer sufficient to reliably serve the load.
- **Expected Cost:** \$32.2M
- **Expected ISD:** 12/31/2024
- **Project Type:** Other: Load Growth
- **Target Appendix:** A in MTEP23

Proposed Alternatives Milbank Project

- New 230/41.6 kV source along the Big Stone to Blair 230 kV line
- Radial 115 kV service from the Big Stone 230/115 kV substation
- Big Stone Highway 12 substation to Milbank substation to Marietta line breaker station 115 kV loop
- Big Stone substation to Milbank substation to new Blair line tap 230/115

MISO Recommends Milbank project for inclusion in MTEP23 appendix A

Reliability analysis results

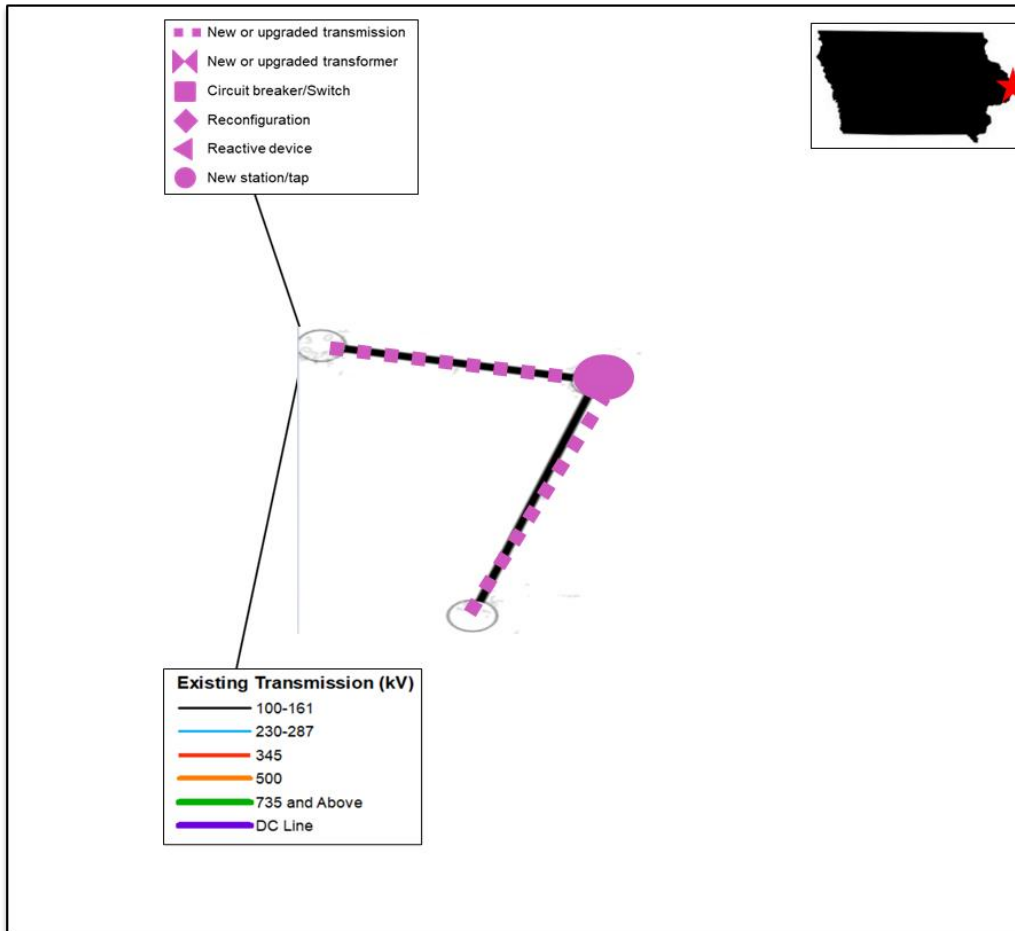
- The EPR project supports the service of the 21.5 MW load that cannot be supported by the existing system.
- This project ensures transmission system reliability is maintained while serving the new load at a low cost and meeting the customer's needs.

MISO recommendation

- MISO recommends that the Milbank project to be included in MTEP23 Appendix A, and that OTP may proceed with construction as needed to meet the in-service date.

ITCM project detail

Commercial (JCE) 69 kV substation project is driven by Other Local Needs



- **Project description: # 24740**
 - ITCM will install a new 69 kV substation with 2 69 kV line breakers, one distribution transformer position, and one mobile transformer position.
 - The new substation will allow Jo-Carroll to retire their existing Clay distribution substation which needs replacement and will be replaced with the new Commercial substation.
- **Estimated Cost:**
 - \$3.8 million
- **Expected ISD:**
 - 06/01/2024
- **Project Type:**
 - Other: Other Local Needs
- **Target Appendix:**
 - A in MTEP23

MISO Recommends ITCM's Commercial (JCE) 69 kV Substation for inclusion in MTEP23 Appendix A

Commercial (JCE) 69 kV Substation

- No adverse system impact caused by the project.

MISO recommendation

- MISO recommends that ITCM's Commercial (JCE) 69 kV Substation project be included in MTEP23 Appendix A, and that ITCM may proceed with construction as needed to meet the in-service date.

ITCT – Expedited Project Review Request: Project 24593

ITCT GM Orion Plant Expansion – Project Justification



MISO, using Ventyx Velocity Suite © 2014

- **Project description**

At Sunbird, expand the existing substation to include 3-120 kV line breakers, 1-120 kV section breaker, and create bus 103. Construct a 2nd Pontiac-Sunbird 120 kV line and install 2-120 kV pole top switches on the Colorado taps on the Pontiac-Sunbird #1 and Sunbird-Bloomfield 120 kV lines. At Pontiac, bypass the existing series reactor and install a line breaker on the new Pontiac-Sunbird #2 line position. Install OPGW between Pontiac and Sunbird.

- **System Need:** Load Growth Project
- **Estimated Cost:** \$22M
- **Expected ISD:** 05/31/2025
- **Target Appendix:** A in MTEP23

MISO recommends ITCT GM Orion Plant Expansion for inclusion in MTEP23 Appendix A

Reliability analysis results

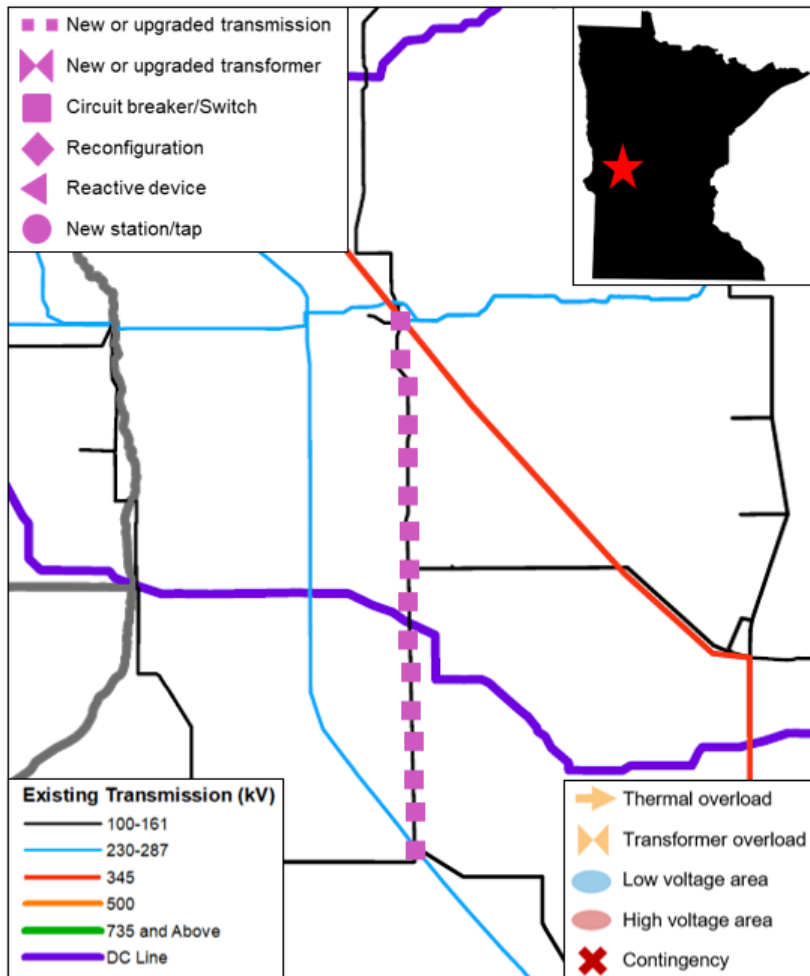
- No voltage reliability issues were identified as a result of the GM Orion Plant Expansion.
- All thermal issues identified were able to be mitigated by existing accepted projects.

MISO recommendation

- Construction of the ITCT GM Orion Plant Expansion project may proceed as needed to meet the in-service of 05/31/2025

MRES project detail

MRES: Morris to Grant County to East Fergus Falls Upgrade



Project Description: #23919

- Increase the rating of 115 kV lines from Morris to Grant County to East Fergus Falls.

Project Need:

- Xcel is requesting the upgrade through the MPFP process to mitigate local congestion caused by thermal overloads on these lines.

Estimated Cost: \$1.34 million

Expected ISD: 06/01/2024

Project Type: MPFP

Target Appendix: A in MTEP23

MISO recommends for inclusion in MTEP23 Appendix A

MISO Recommends MRES's Morris to Grant County to East Fergus Falls Upgrade for inclusion in MTEP23

Morris to Grant County to East Fergus Falls Upgrade

- No adverse system impact caused by the project.

MISO recommendation

- MISO recommends that MRES's Morris to Grant County to East Fergus Falls Upgrade project be included in MTEP23 Appendix A, and that MRES may proceed with construction as needed to meet the in-service date.

Questions & Contacts



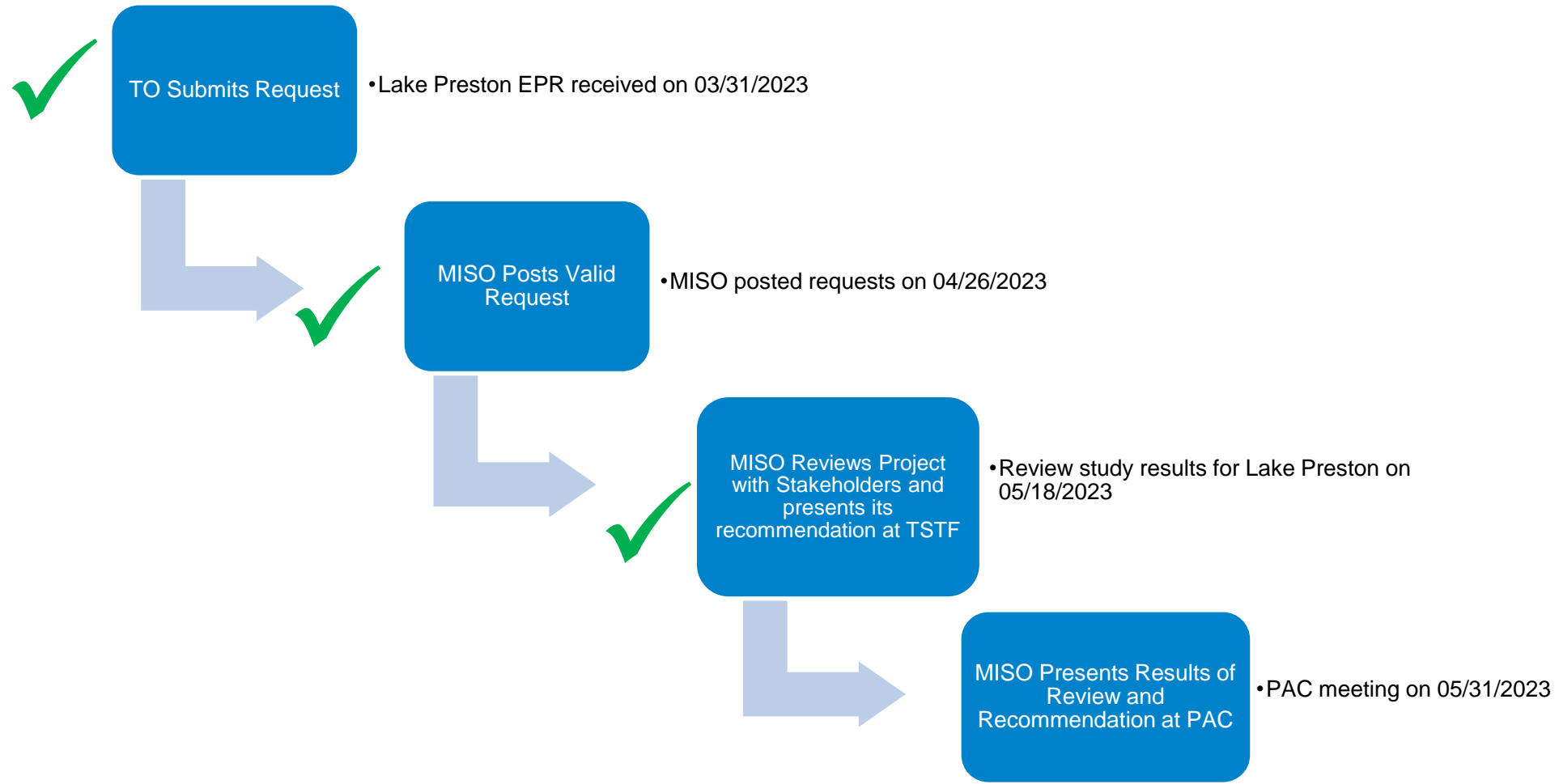
Questions?

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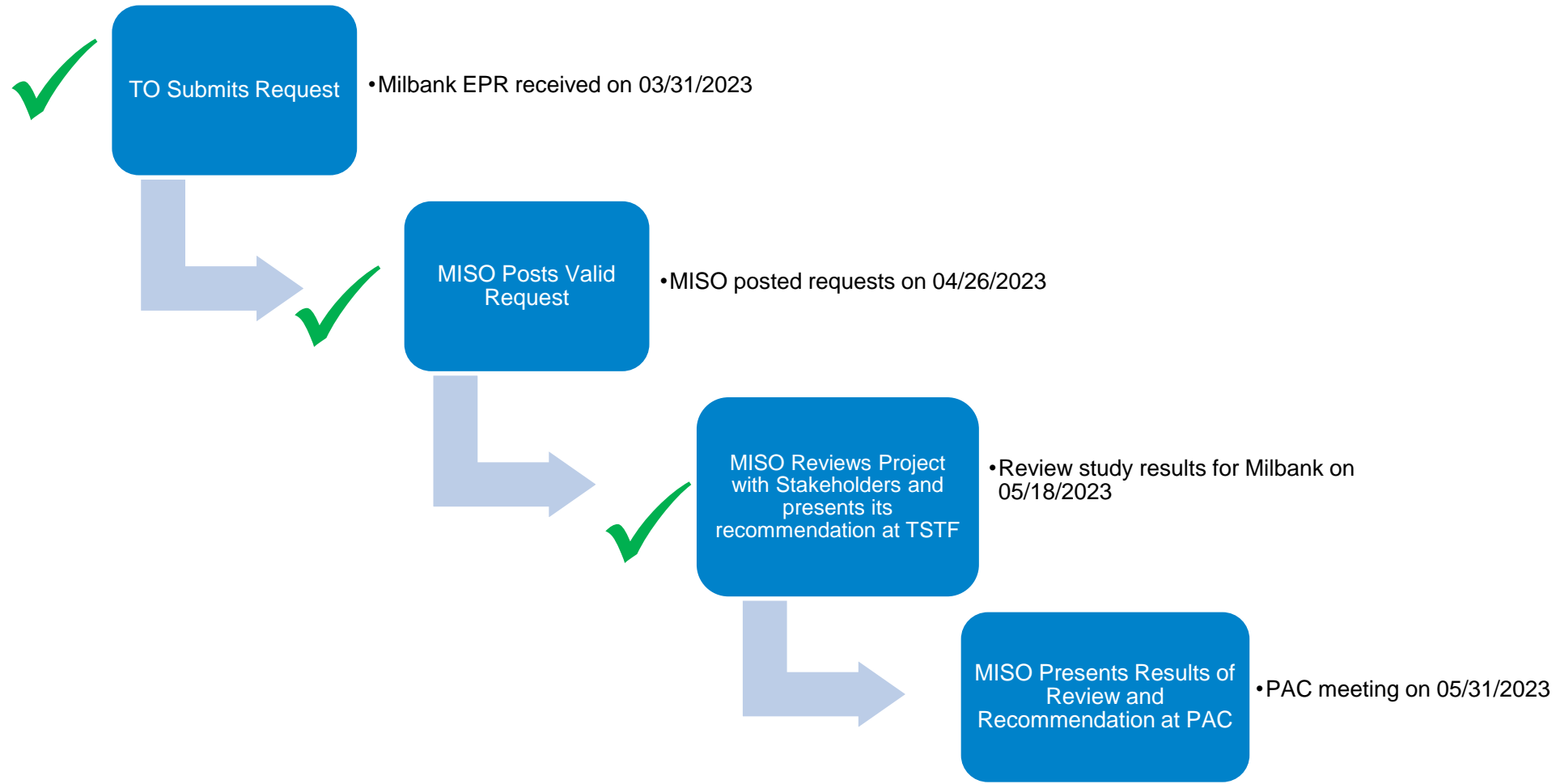
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Appendix

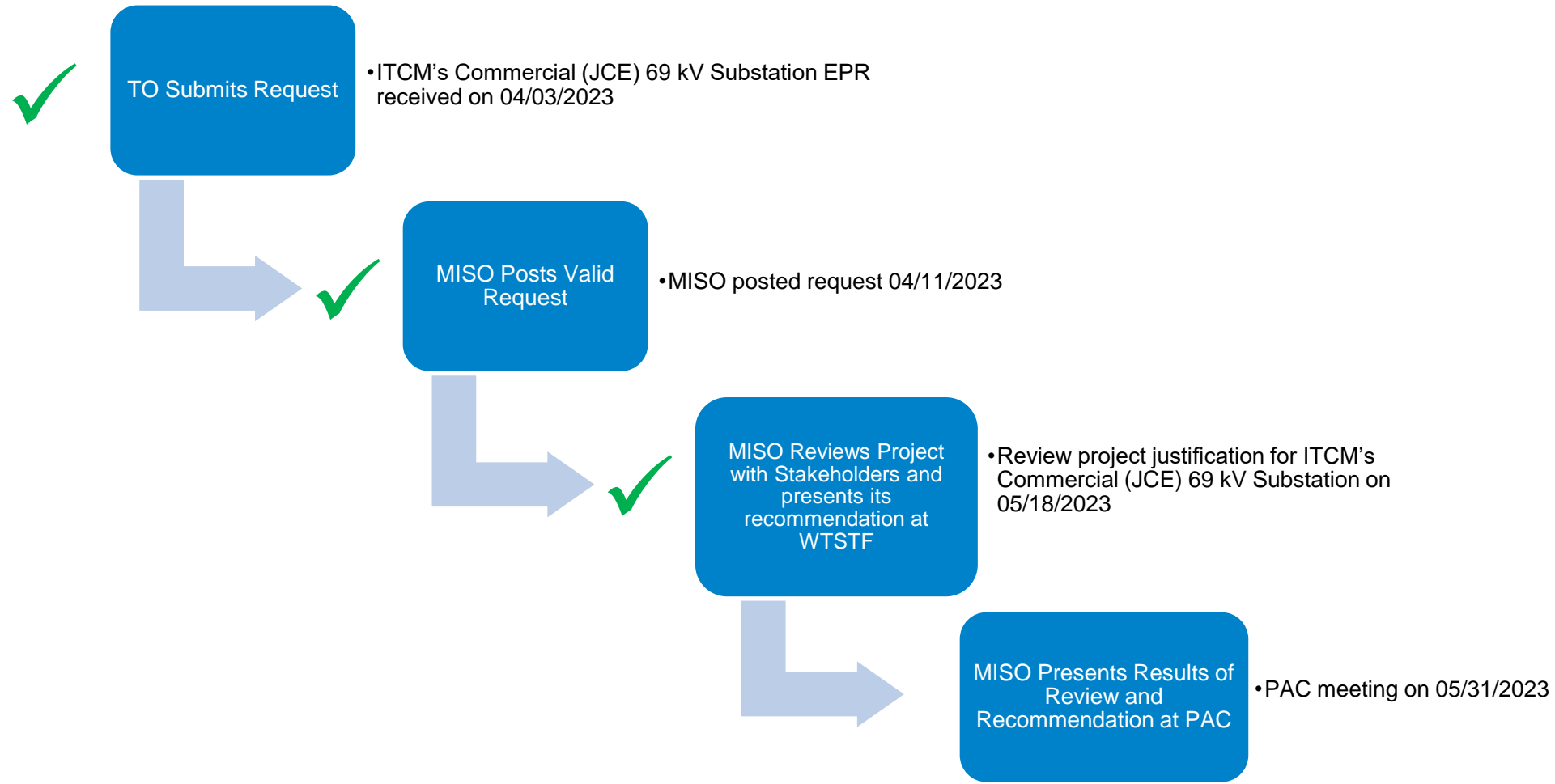
MISO follows Expedited Project Review provisions for the EPR request received from OTP



MISO follows Expedited Project Review provisions for the EPR request received from OTP



MISO follows Expedited Project Review provisions for the EPR request received from ITCM



MISO follows Expedited Project Review provisions for the EPR request received from MRES

