

TEAC - Western Committee ComEd Supplemental Projects

March 4, 2025

Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Need Number: ComEd-2024-017

Process Stage: Solutions Meeting 3/4/2025

Previously Presented: Need Meeting 8/6/2024

Project Driver:

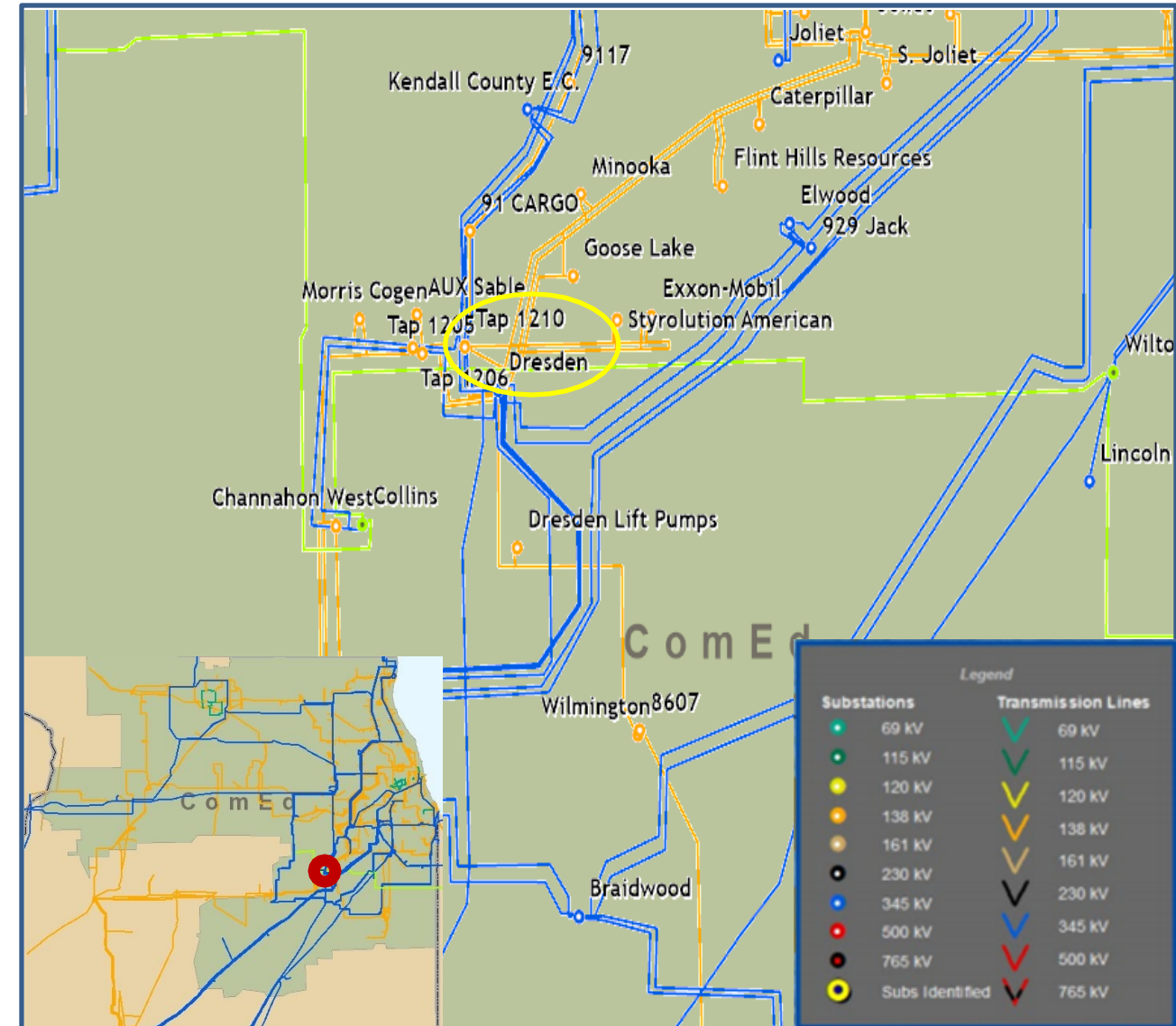
Equipment Material Condition, Performance, and Risk

Specific Assumption Reference:

- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions

Problem Statement:

- Dresden 345kV BT4-8 oil circuit breaker was installed in 1968. It is in deteriorating condition, has a lack of replacement parts and has elevated maintenance costs.



Need Number: ComEd-2024-017

Process Stage: Solutions Meeting 3/4/2025

Proposed Solution:

Replace 345 kV BT4-8 oil circuit breaker with new SF6 circuit breaker.

Existing rating 1600A, 40kA

Proposed rating 3000A, 63kA

Total Estimated Transmission Cost: \$2.7M

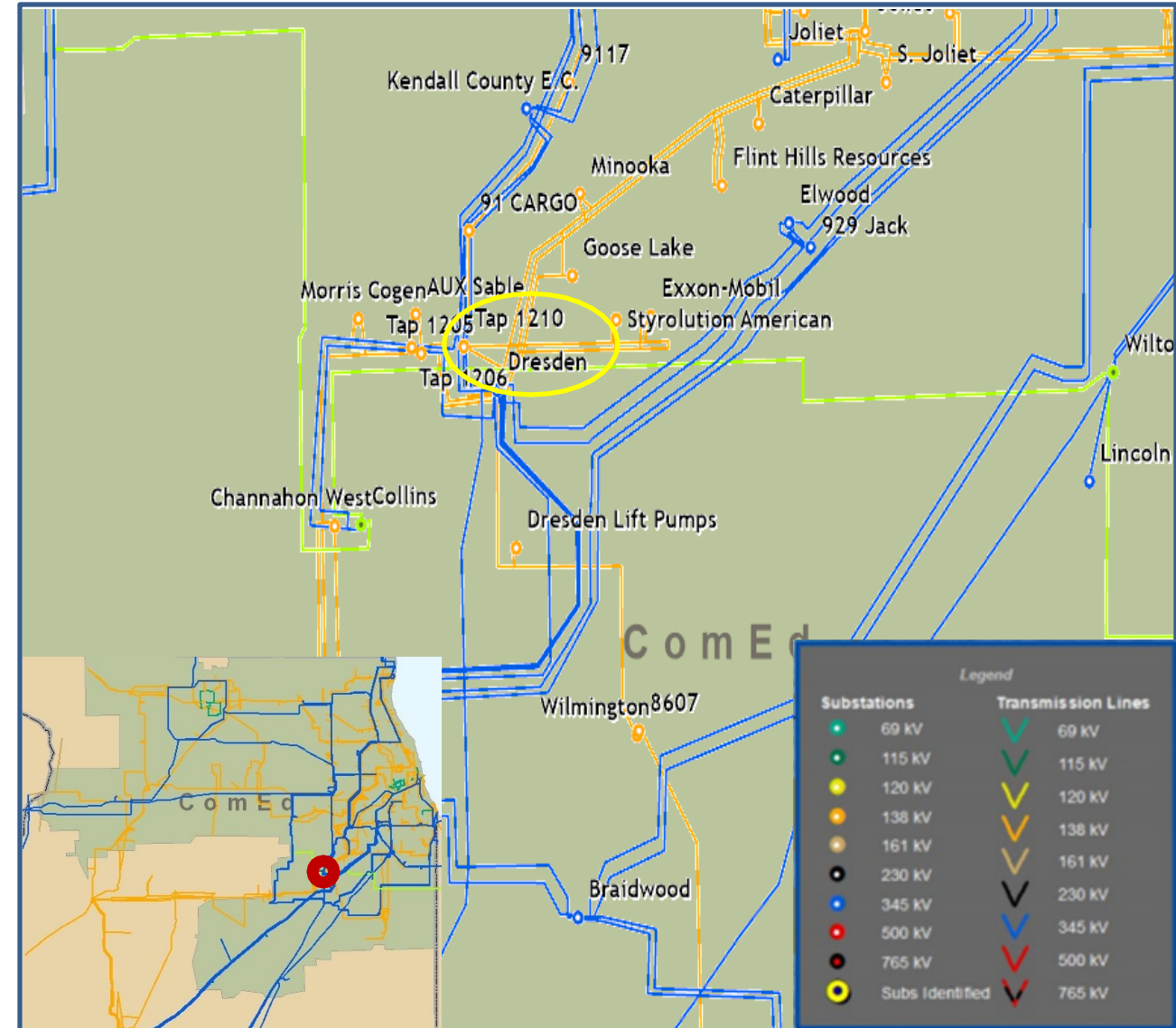
Alternatives Considered:

- No feasible alternatives available.

Projected In-Service: 12/31/2026

Project Status: Engineering

Model: 2029 RTEP



Need Number: ComEd-2024-015

Process Stage: Solutions Meeting 3/4/2025

Previously Presented: Need Meeting 8/6/2024

Project Driver:

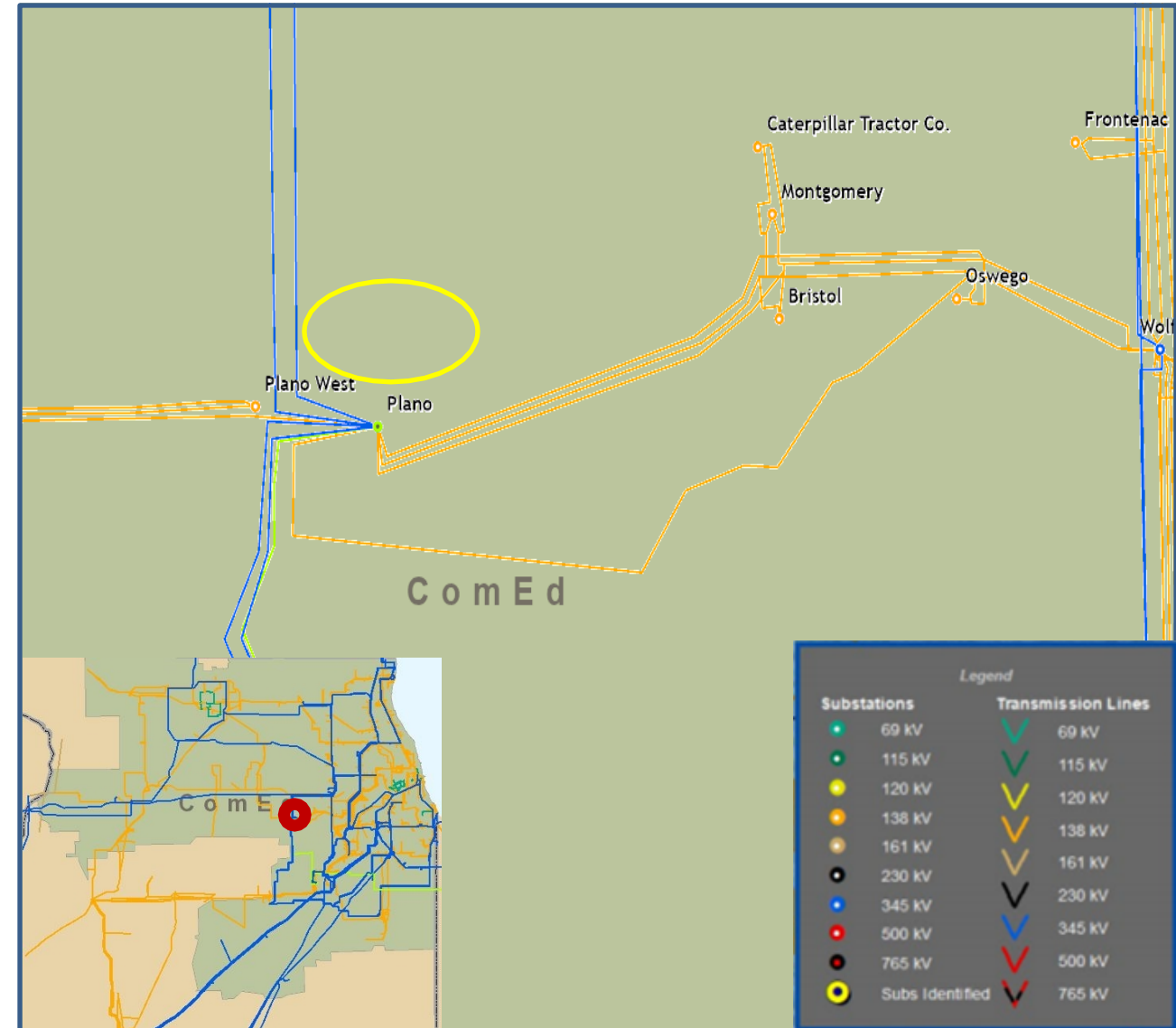
Customer Service

Specific Assumption Reference:

- New transmission customer interconnections or modification to an existing customer

Problem Statement:

- A new customer is looking for transmission service in the Plano area. Initial loading is expected to be 400 MW in June 2029, with an ultimate load of 600 MW.



Need Number: ComEd-2024-015

Process Stage: Solutions Meeting 3/4/2025

Proposed Solution:

- Cut into existing 345kV LaSalle – Plano line and extend 2 lines 0.4 miles each to a new Eldamain substation
- Eldamain substation will be initially installed as a 4-345 kV CBs ring bus configuration, ultimately expandable to a breaker and a half configuration.
- Provide two radial 345kV leads to customer owned substation

Total estimated transmission cost: \$40M

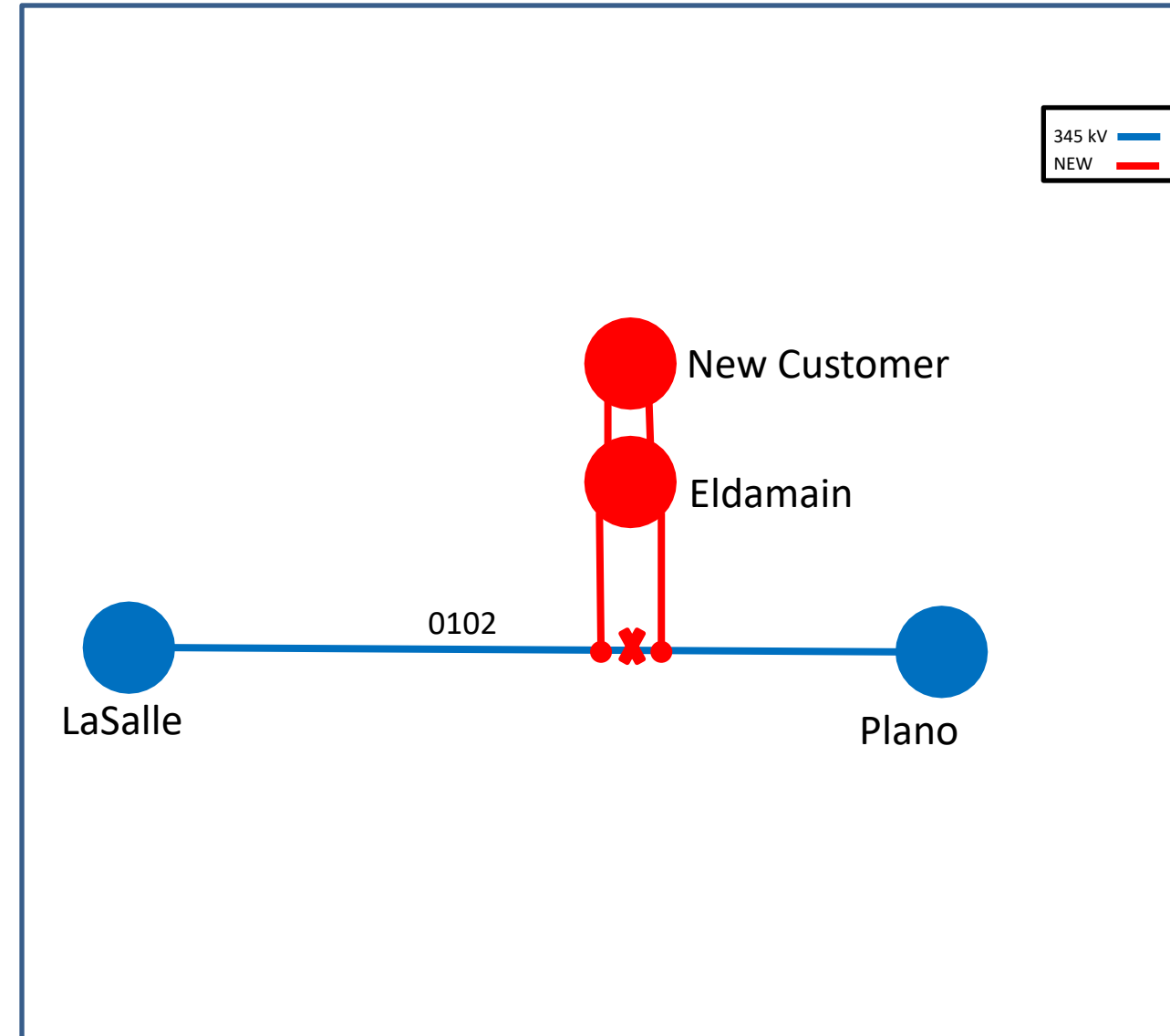
Alternatives Considered:

- No feasible alternatives available.

Projected In-Service: 6/1/2029

Project Status: Engineering

Model: 2029 RTEP



ComEd Transmission Zone M-3 Process MISO Tranche 2.1 Request

Need Number: ComEd 2024-023

Process Stage: Solutions Meeting 3/4/2025

Previously Presented:

Need Meeting 12/3/2024

Project Driver:

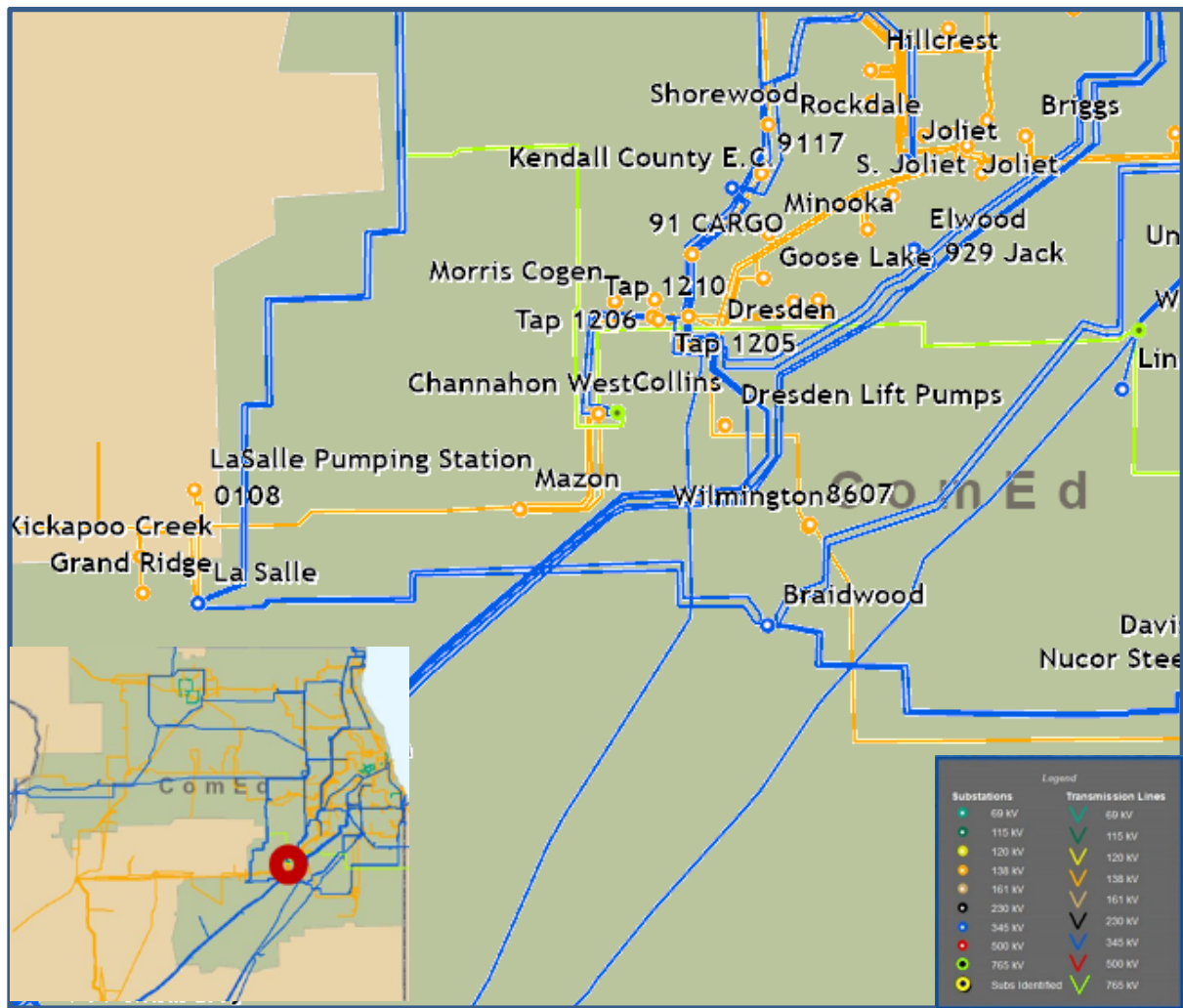
Other

Specific Assumption Reference:

Other (external public utilities and/or government requests)

Problem Statement:

- As part of its Long-Range Transmission Planning process (LRTP), MISO identified transmission overload and congestion issues through the Midwest region of the MISO transmission system that indicated a need for a MISO high voltage regional transmission backbone in the 10-year and 20-year planning horizons.
- In September 2024, MISO posted its draft 2024 MISO Transmission Expansion Plan (MTEP24) Appendix A for all facilities in the LRTP Tranche 2.1 Portfolio. The Appendix A facility-level details identified transmission facility work in PJM impacting the ComEd zone that is needed to accommodate the portfolio of MISO projects. MISO indicated assignment to PJM Transmission Owners for work in PJM associated with addressing MISO Appendix A identified transmission facility work in PJM.
- In Appendix A, MISO has requested:
 - Extension of two new 765kV transmission lines from ComEd's Collins 765kV substation to interconnect with MISO's Tranche 2.1 transmission projects.
 - Expansion of ComEd's Collins 765kV transmission substation to accommodate the two new 765kV transmission lines.
- MISO requested an in-service date of **6/1/2034**.



ComEd Transmission Zone M-3 Process MISO Tranche 2.1 Request

Need Number: ComEd 2024-023

Process Stage: Solutions Meeting 3/4/2025

Proposed Solution:

- Expand and reconfigure the existing ComEd Collins 765kV substation to install:
 - Bus positions for two new 765kV transmission lines
 - Two new 300 MVAR line reactors with dedicated circuit breakers for each of the two new outgoing 765kV lines
 - Two single-phase spare 765kV reactors (one for each new 765kV transmission line)
- Construct new 765kV transmission line from the existing ComEd Collins 765kV substation to an interconnection point with MISO near the Illinois/Wisconsin state border.
- Construct a segment of a new 765kV transmission line from the existing ComEd Collins 765kV substation to a new 765kV Woodford County substation. Interconnection point with MISO to be determined.
- Cut-in existing ComEd 345kV Powerton-Katydid and Powerton-Nevada transmission lines into a new Woodford County substation (MISO).
- Remote end coordination work necessary to support:
 - Cut-in existing Paris-Zion and Pleasant Prairie-Zion 345kV transmission lines into Lakeview substation (MISO).
 - Cut-in existing Olive-University Park and Olive-Green Acres 345kV transmission lines into Babcock substation.

Estimated transmission cost: \$874.2M*

Alternatives Considered:

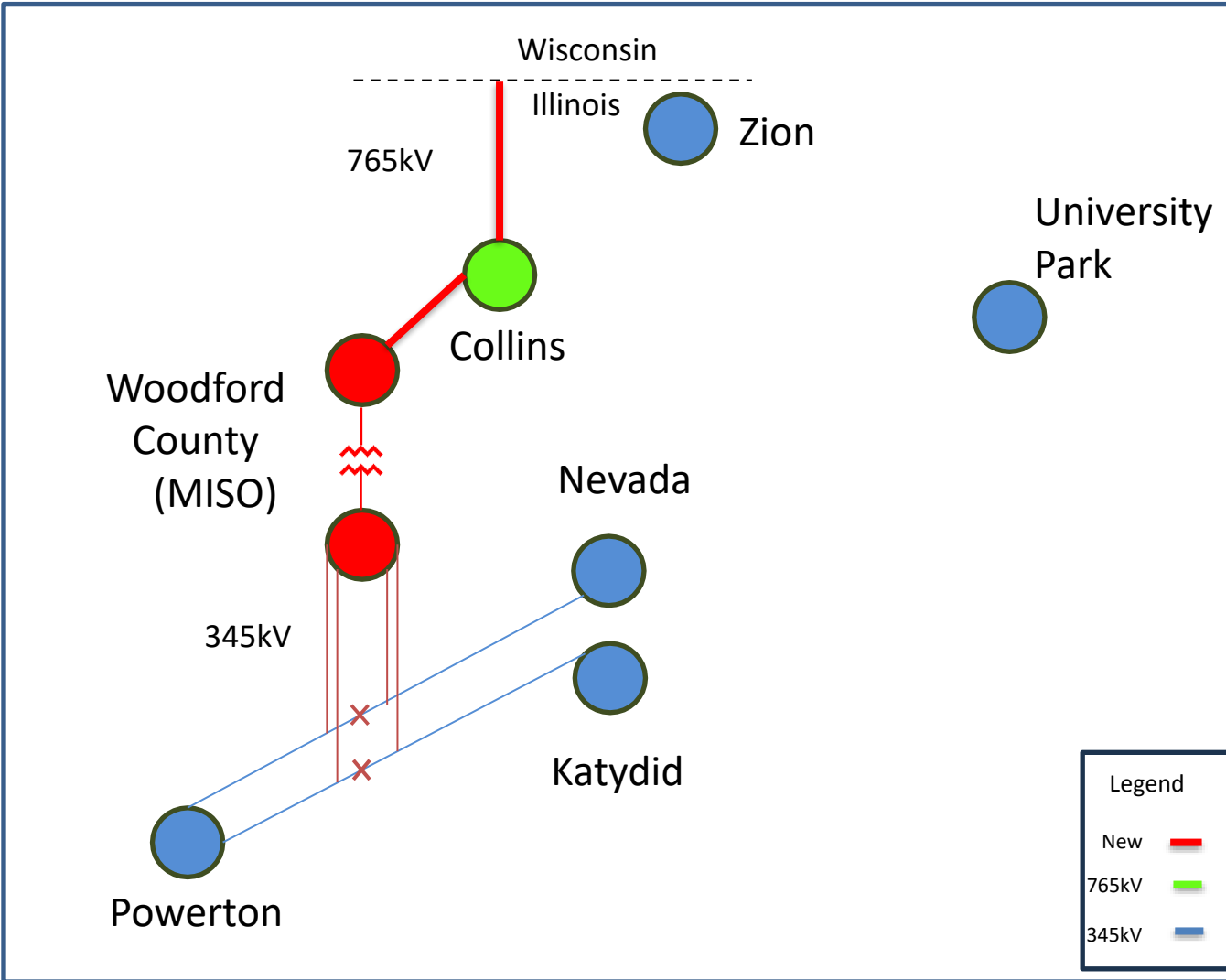
Alternatives considered as part of MISO LRTP process: [MTEP24 Chapter 2 - Regional Long Range Transmission Planning658124.pdf](#)

Projected In-Service: 6/1/2034

Project Status: Conceptual

Model: MISO MTEP 2032

*MISO Appendix A cost provided. Costs of the transmission projects and any additional projects that may be identified through the no-harm analysis will be allocated 100% to MISO customers.



Appendix

High Level M-3 Meeting Schedule

Assumptions

Activity	Timing
Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
Stakeholder comments	10 days after Assumptions Meeting

Needs

Activity	Timing
TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
Stakeholder comments	10 days after Needs Meeting

Solutions

Activity	Timing
TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
Stakeholder comments	10 days after Solutions Meeting

Submission of Supplemental Projects & Local Plan

Activity	Timing
Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
Post selected solution(s)	Following completion of DNH analysis
Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

Revision History

2/21/2024 – V1 – Original version posted to pjm.com