Submission of Supplemental Projects for Inclusion in the Local Plan

ComEd Local Plan - 2026

ComEd Transmission Zone M-3 Process
Skokie 345/138 kV Transformer 82

Need Number: ComEd-2024-021

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/5/2026

Previously Presented:

Solution Meeting 8/5/2025

Need Meeting 9/13/2024

Project Driver:

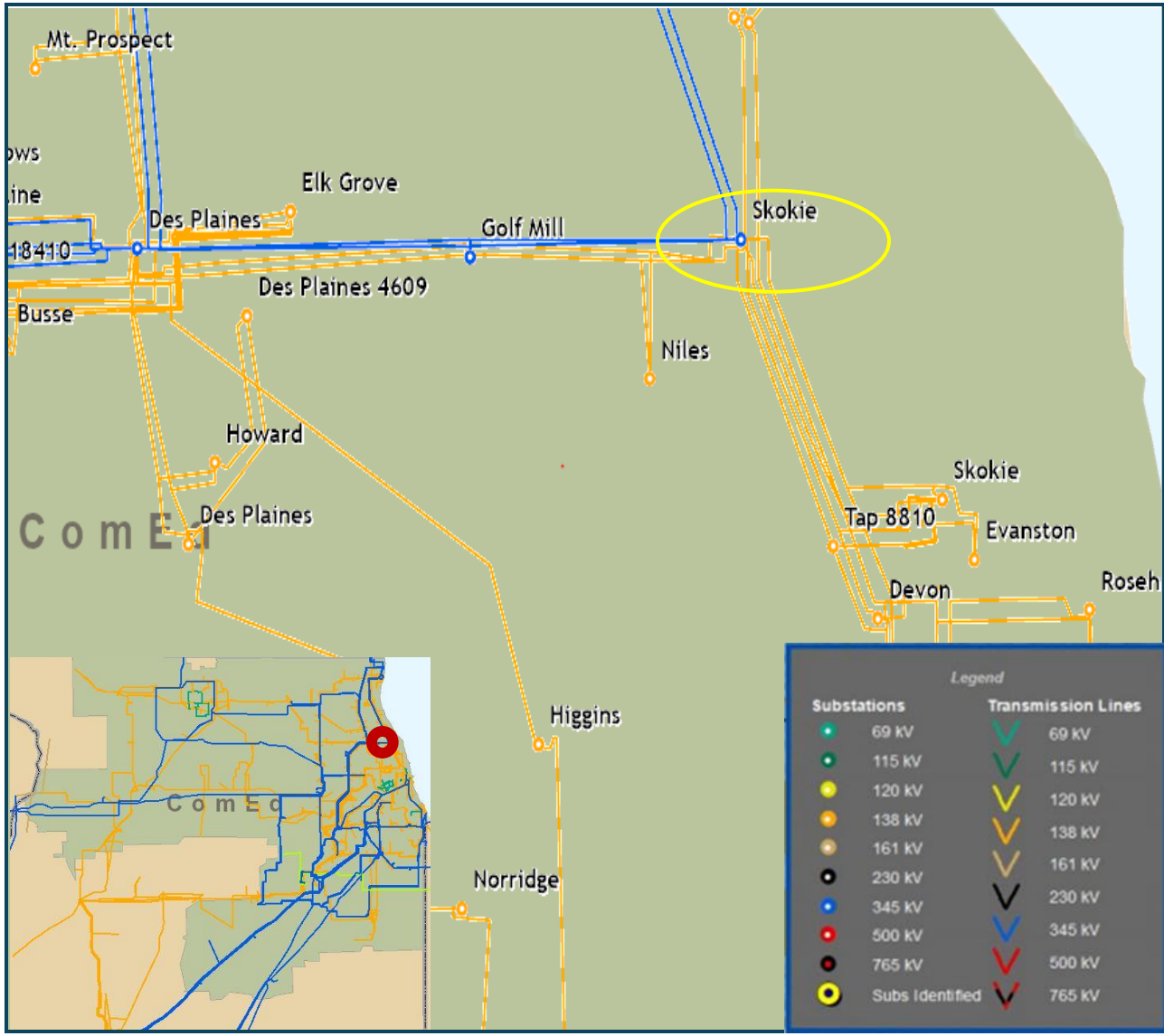
Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

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

Problem Statement:

- 345/138 kV autotransformer 82 at Skokie was installed in 1975.
- Acoustics test results showed sharp increases in sonic and ultrasonic levels and increases in vibration levels associated with the looseness of the core/coil assembly
- Autotransformer cannot be re-blocked.
- 138 kV Transformer 82 oil circuit breaker was installed in 1974. It is in deteriorating condition, has a lack of replacement parts, and has elevated maintenance costs.



ComEd Transmission Zone M-3 Process
Skokie 345/138 kV Transformer 82

Need Number: ComEd-2024-021

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/5/2026

Selected Solution:

Phase 1:

Install a new 138 kV, 115.2 MVAR capacitor bank on 138 kV bus 1 at Skokie.

Phase 2:

Remove tertiary 34 kV capacitor bank on 345/138 kV autotransformer 82. Replace 345/138 kV autotransformer 82 with a new 420 MVA 345/138 kV transformer. Replace 138 kV TR 82 oil circuit breaker with a 3000 A, 63kA SF6 circuit breaker.

Existing ratings (MVA)	**SN/SE**	**WN/WE**
Skokie 345/138 kV TR 82	400/465	400/465
New Ratings (MVA)	**SN/SE**	**WN/WE**
Skokie 345/138 kV TR 82	420/480	420/480

Estimated cost: Phase 1: $ 9.04 M Phase 2: $ 15.36 M

Alternatives Considered:

No feasible alternatives available

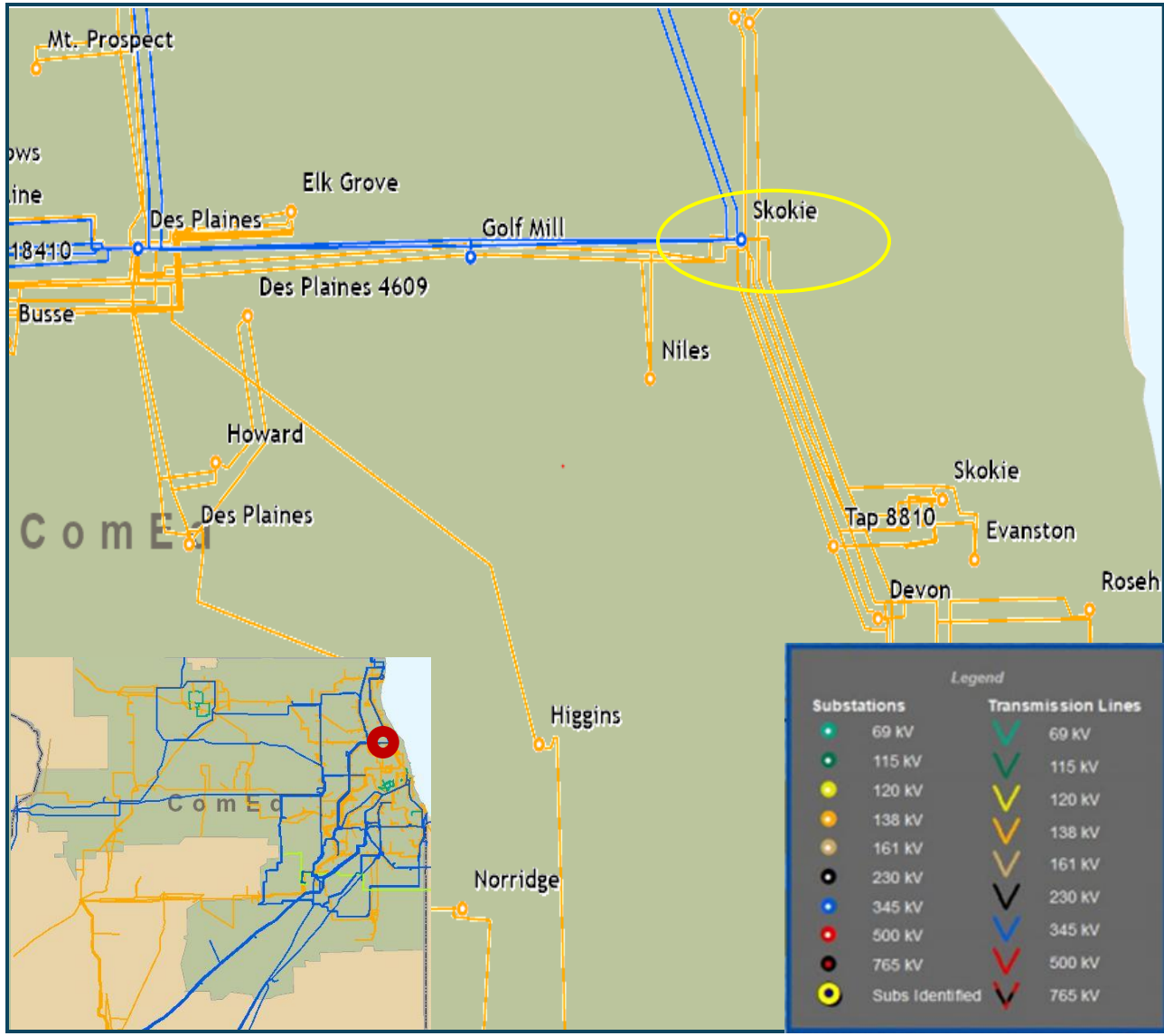
Projected In-Service:

Phase 1: 12/31/2026, Phase 2: 12/31/2028

Supplemental Project ID: s3824

Project Status: Engineering

Model: 2029 RTEP



ComEd Transmission Zone M-3 Process
Customer Expansion in Chicago

Need Number: ComEd-2025-004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/5/2026

Previously Presented:

Solution Meeting 6/13/2025

Need Meeting 3/14/2025

Project Driver:

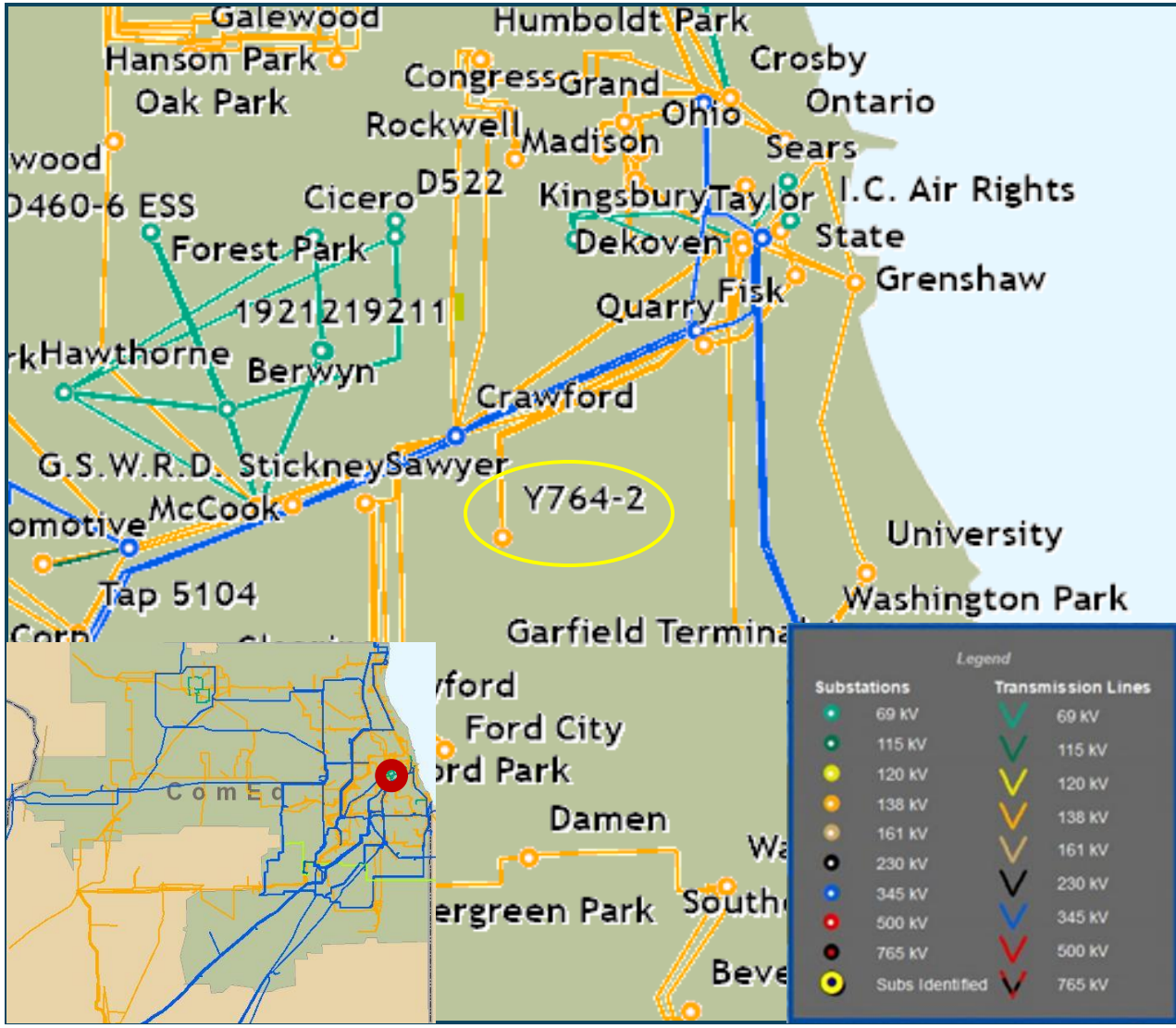
Customer Service

Specific Assumption Reference:

- New transmission customer interconnections or modification to an existing customer

Problem Statement:

An existing customer is looking for expansion of their transmission service in the Chicago area. Initial load increase is expected to be 40 MW in June 2028, 52 MW in 2029, with an ultimate load increase of 52 MW.



ComEd Transmission Zone M-3 Process
Customer Expansion in Chicago

Need Number: ComEd-2025-004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/5/2026

Selected Solution:

- Install 2 new 50 MVA, 138/12 kV transformers and install 4 new 138 kV bus tie CBs to complete double ring bus configuration at station Y764-2.

Estimated transmission cost: $0M

Alternatives Considered:

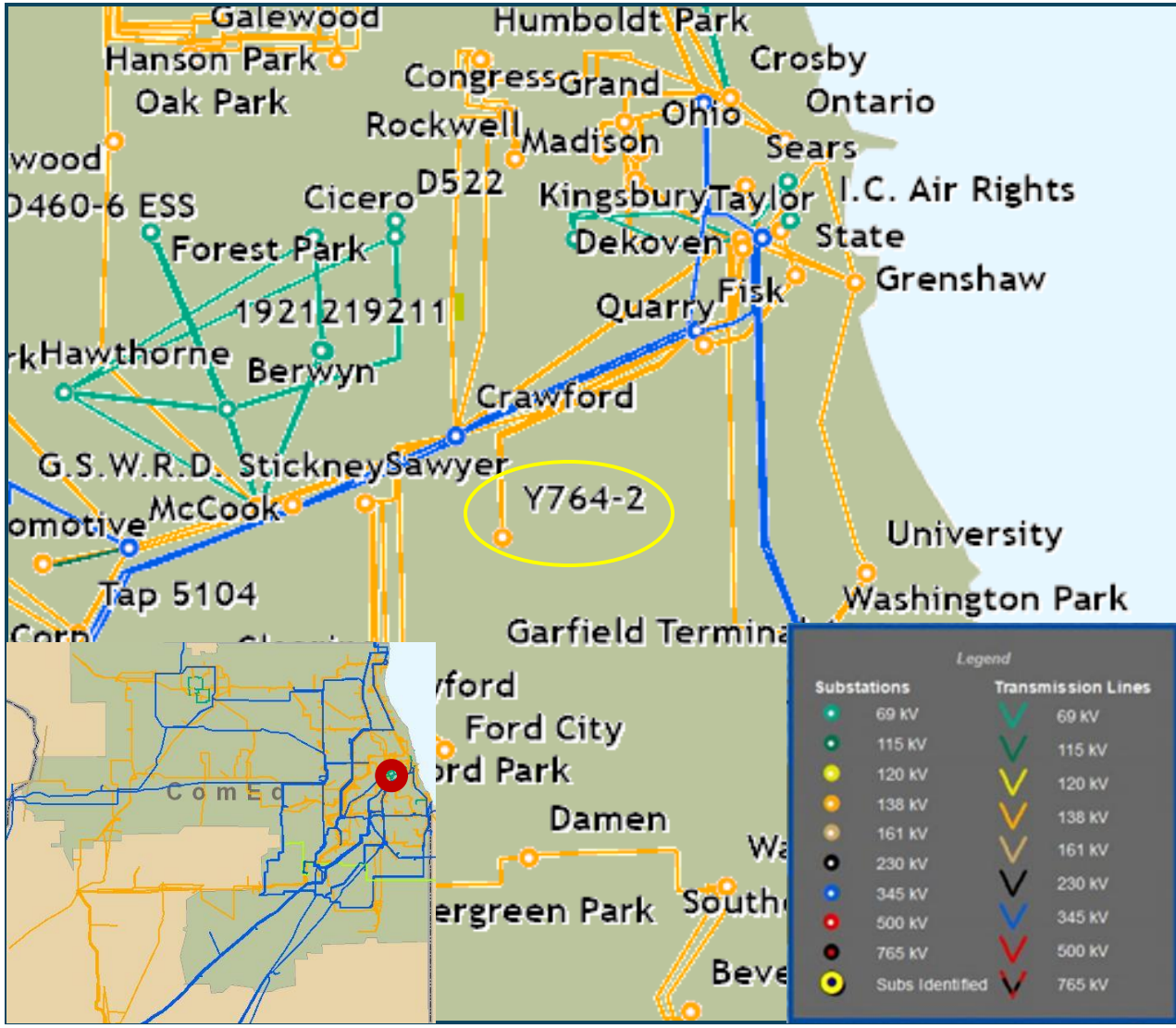
- No feasible alternatives available

Projected In-Service: 12/31/27

Supplemental Project ID: s3823

Project Status: Engineering

Model: 2029 RTEP



ComEd Transmission Zone M-3 Process
MISO Tranche 2.1 Request

Need Number: ComEd 2024-023

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 6/4/2026

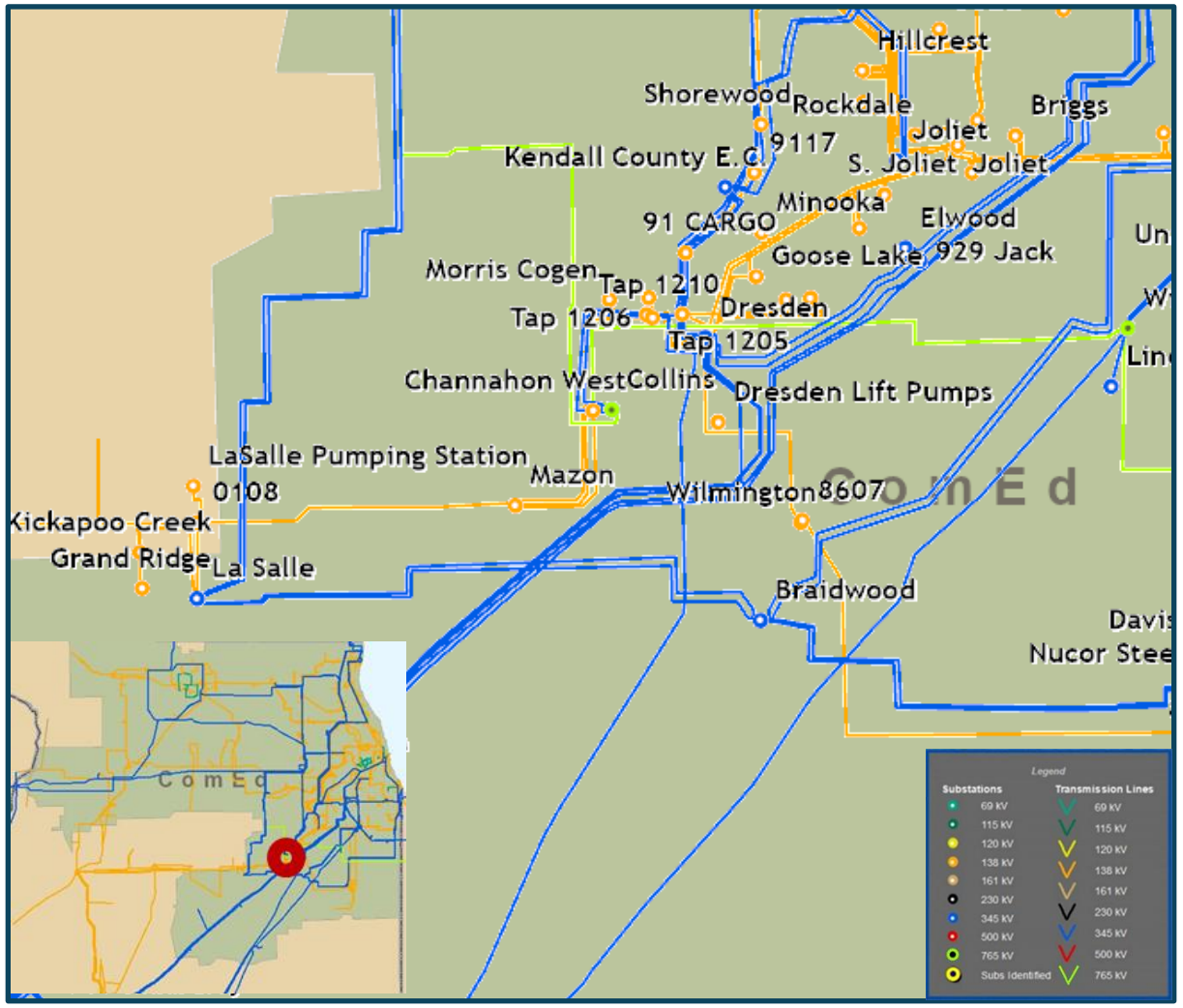
Previously Presented:
Solutions Meeting 3/4/2025, 11/4/2025
Need Meeting 12/3/2024

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: Submission of Supplemental Project for inclusion in the Local Plan 6/4/2026

Selected 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).
- Replace 345 kV BT 5-6 oil CB at Powerton
  - Old rating: 2000 A, 40 kA New Rating: 3000 A, 63 kA
- Replace 345 kV BT 5-6 and BT 17-18 oil CBs at Zion
  - Old rating: 2000 A, 50 kA New Rating: 3000 A, 63 kA
- Replace 345 kV BT 1-5, BT 2-5, BT 2-3, L4620, L4621, and L12006 oil CBs at Des Plaines
  - Old rating: 2000 A, 40 kA New Rating: 3000 A, 63 kA
- Mitigate sag limit on 345 kV line from Zion-Paris (ATC) and replace line trap at Zion.
- 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: $908.7M *

Alternatives Considered:

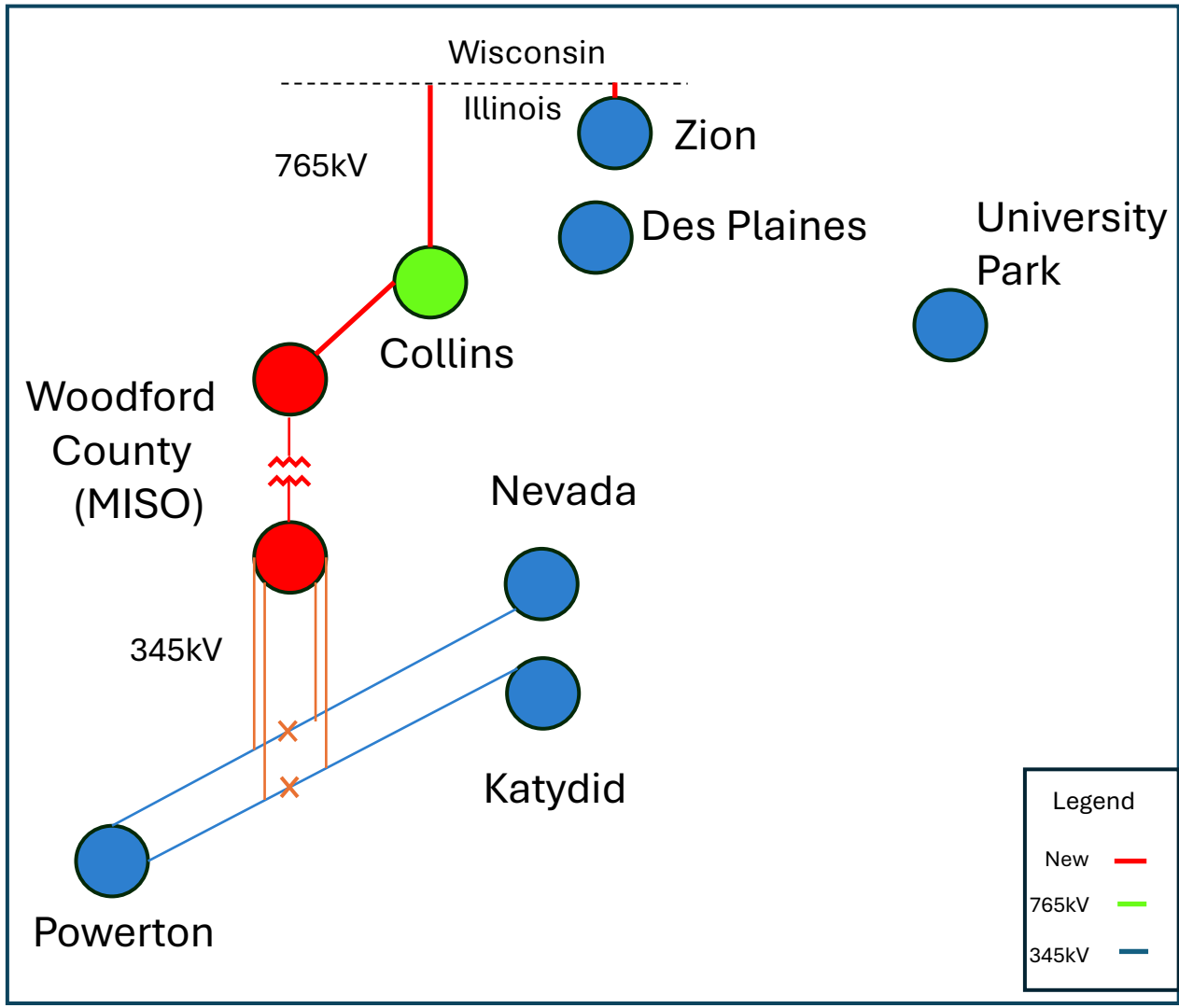
Alternatives considered as part of MISO LRTP process: MTEP24 Chapter 2 - Regional Long Range Transmission Planning658124.pdf

Projected In-Service: 6/1/2034

Supplemental Project ID: s3843

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.

Revision History

5/5/2026 – V1 Added slides #1-5, s3823-s3824

6/4/2026 – V2 Added slides #6-7, s3843