



# TEAC - Western Committee ComEd Supplemental Projects

August 6, 2024

# Needs

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-2024-014

**Process Stage:** Need Meeting 8/6/2024

**Project Driver:**

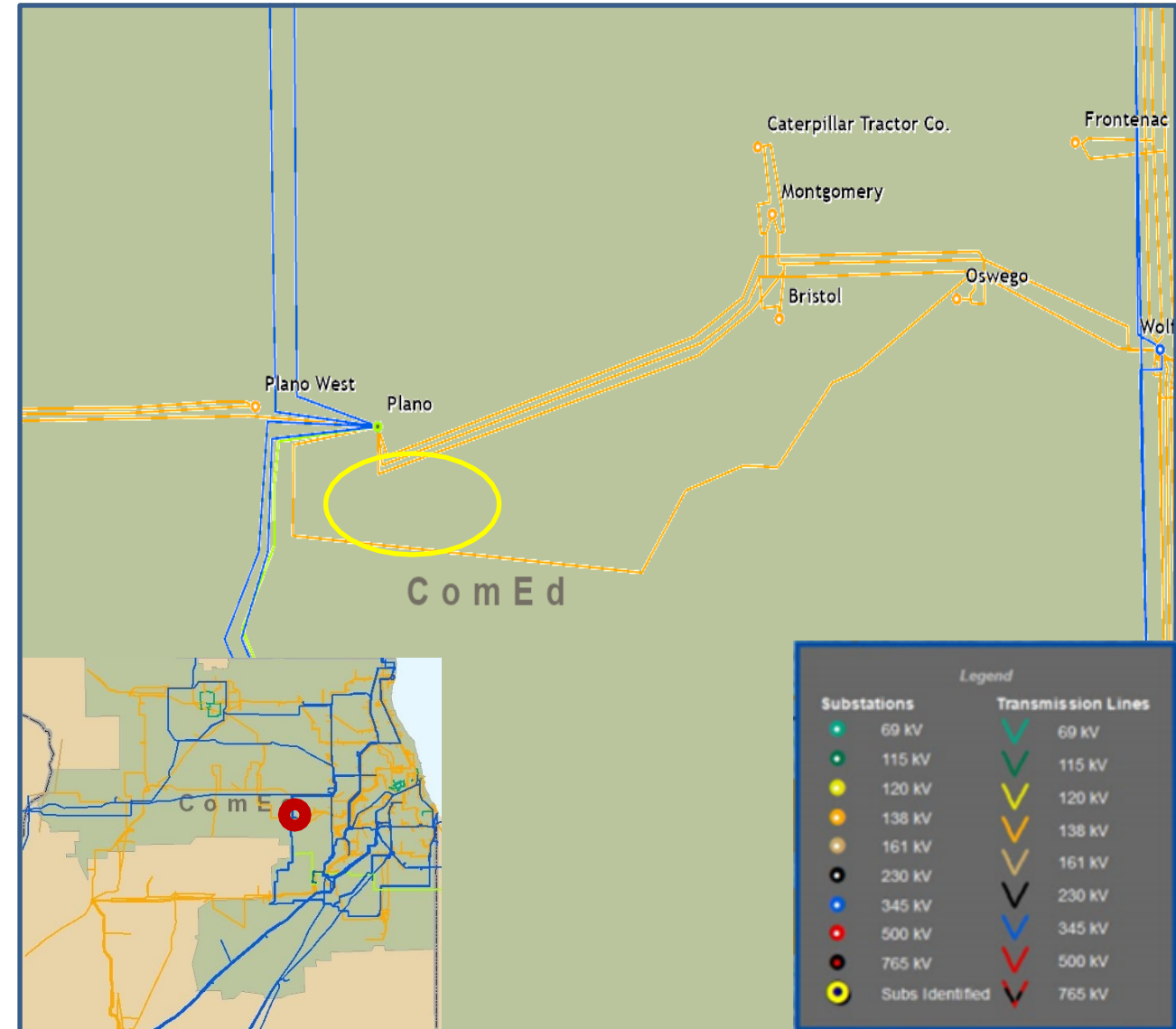
Customer Service

**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 54 MW in June 2026, 216 MW in 2028, with an ultimate load of 480 MW.



**Need Number:** ComEd-2024-015

**Process Stage:** Need Meeting 8/6/2024

**Project Driver:**

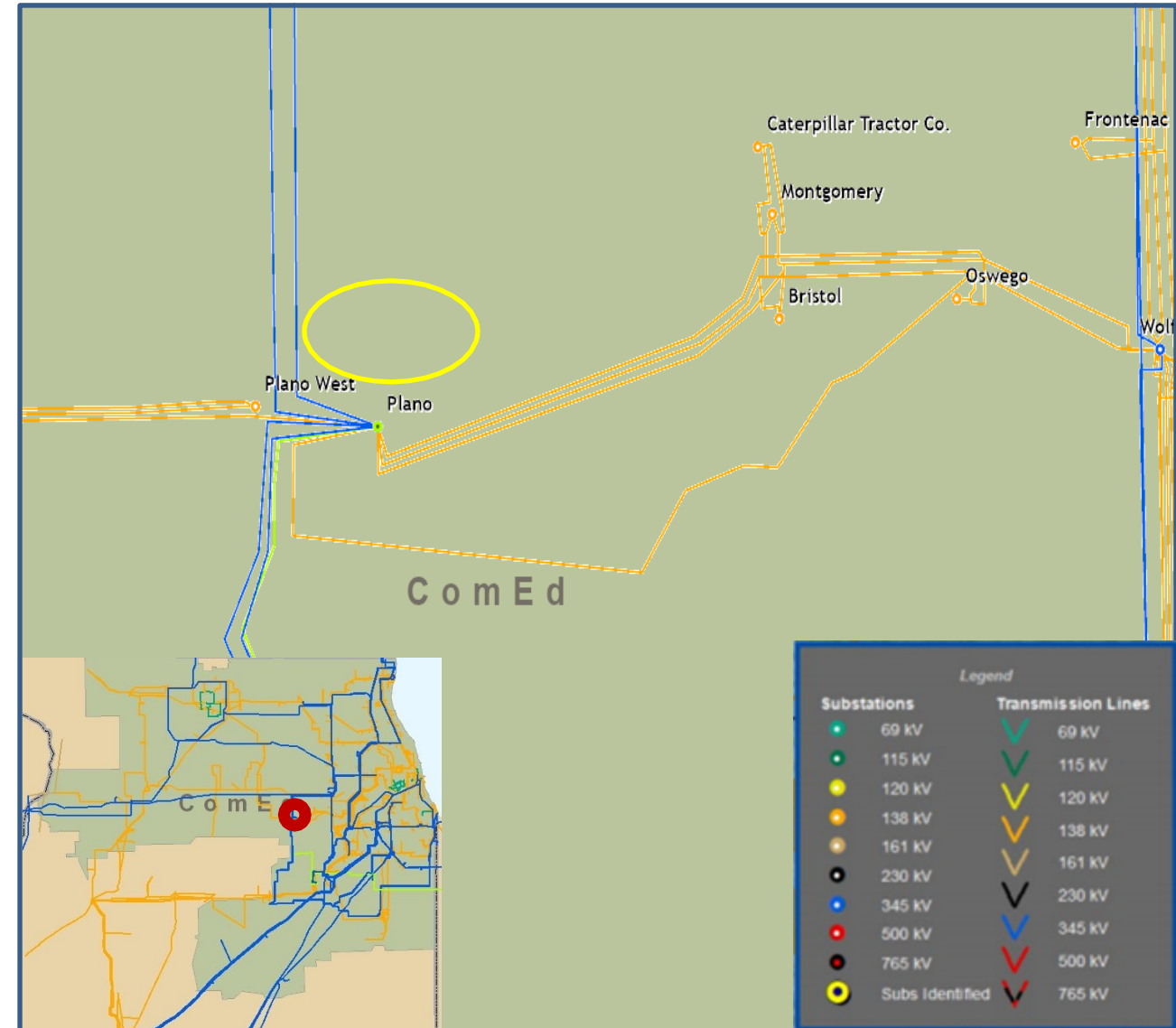
Customer Service

**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-2024-016

**Process Stage:** Need Meeting 8/6/2024

**Project Driver:**

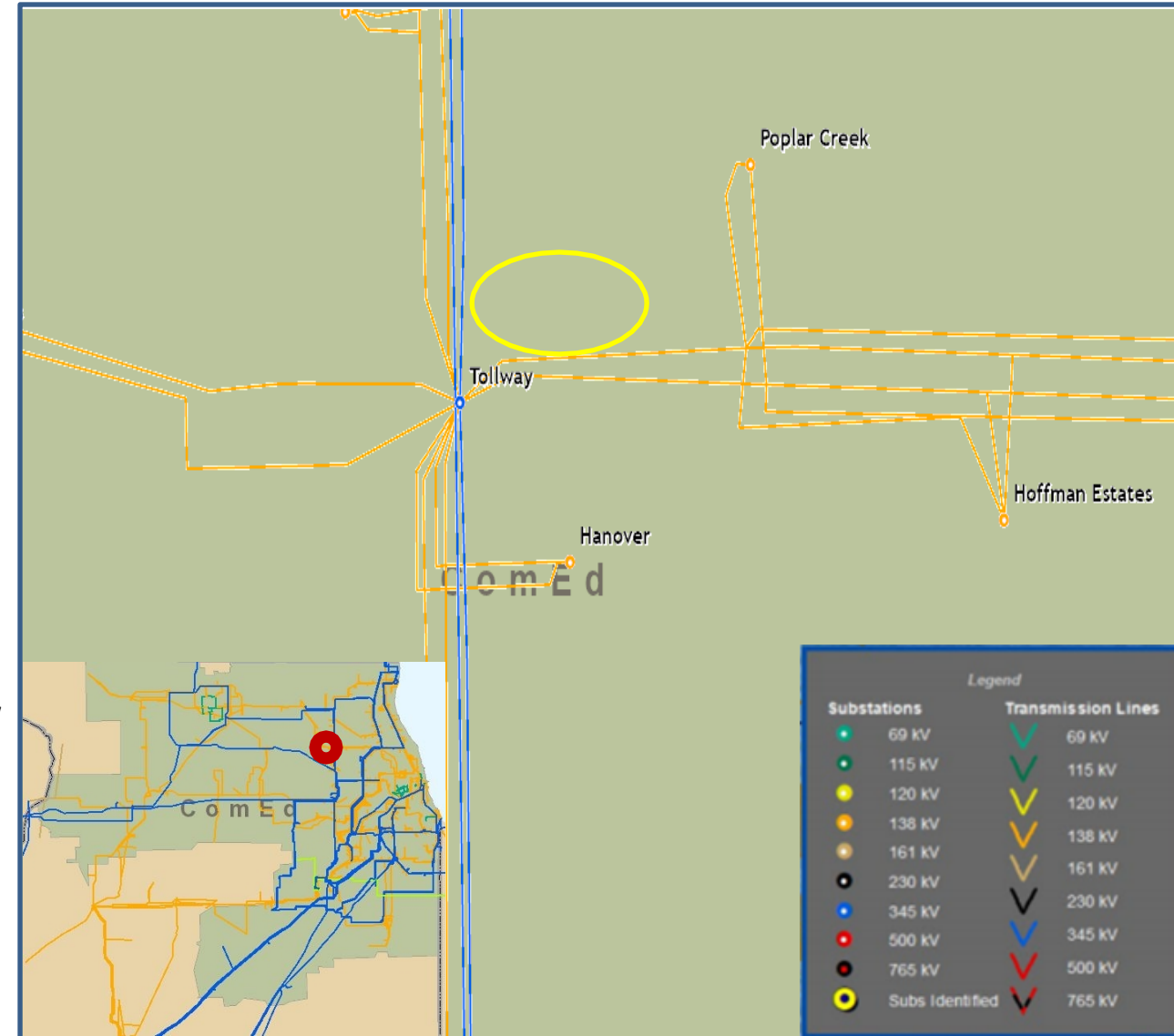
Customer Service

**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 Hoffman Estates area. Initial loading is expected to be 9 MW in October 2026, 198 MW in 2028, with an ultimate load of 612 MW.



**Need Number:** ComEd-2024-017

**Process Stage:** Need Meeting 8/6/2024

**Project Driver:**

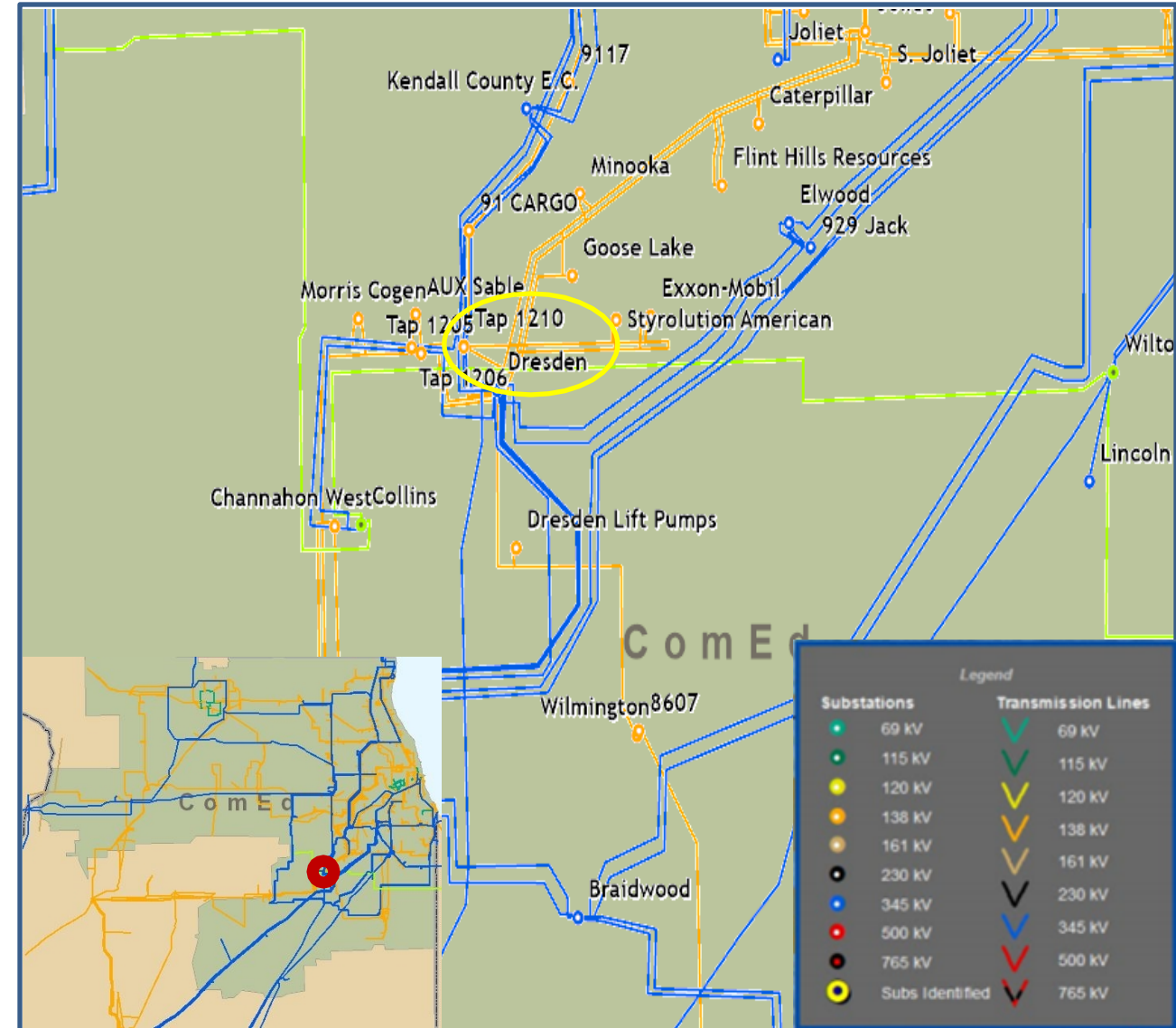
Equipment Material Condition, Performance, and Risk

**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.



# 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-2023-008

**Process Stage:** Solutions Meeting 8/6/2024

**Previously Presented:** Need Meeting 9/15/2023

**Project Driver:**

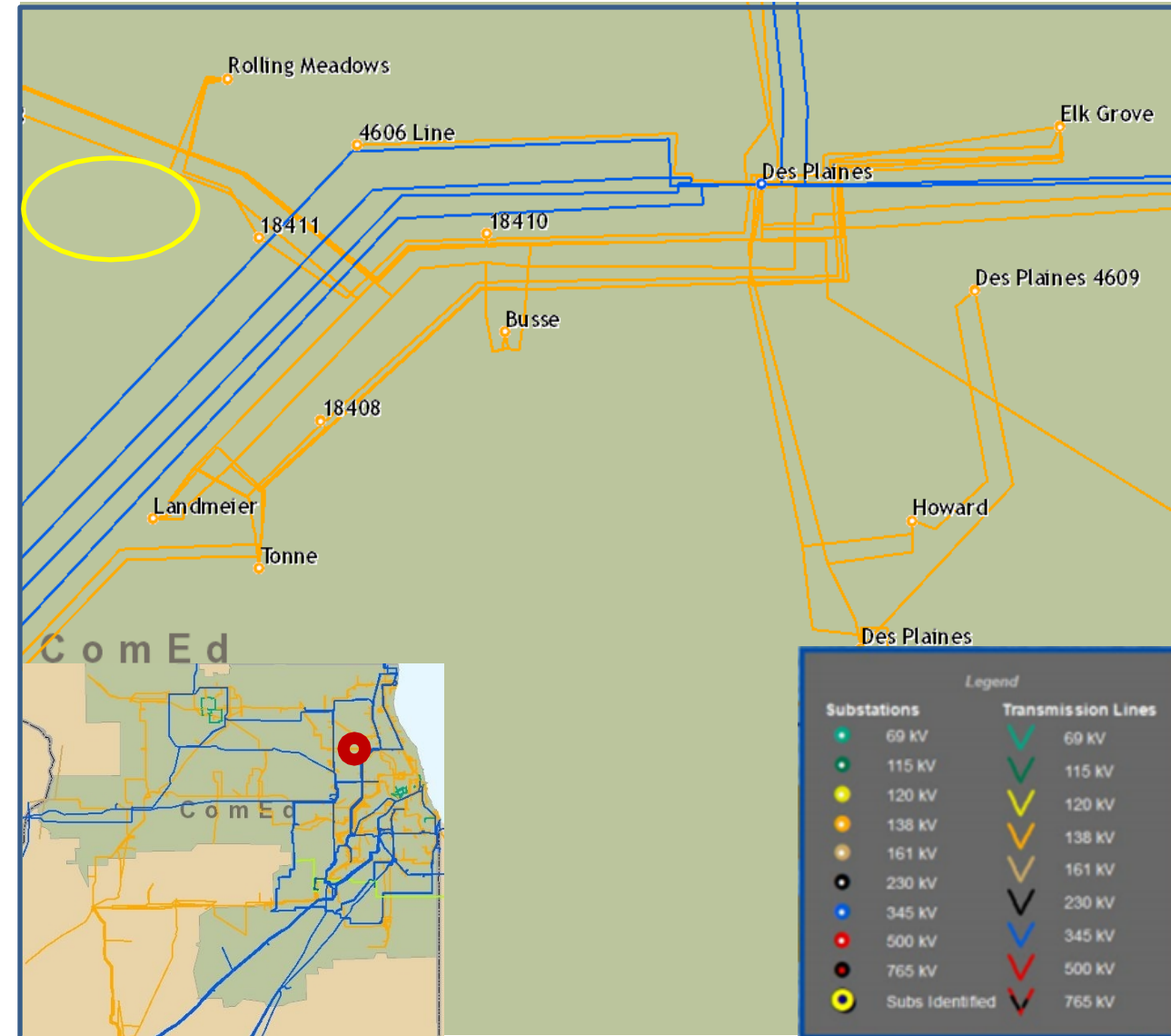
Customer Service

**Specific Assumption Reference:**

- New transmission customer interconnections or modification to an existing customer

**Problem Statement:**

New customer is looking for transmission service in the Elk Grove area. Initial loading is expected to be **117 MW** in **December 2026**, **333 MW** in 2028, with an ultimate load of 378 MW.





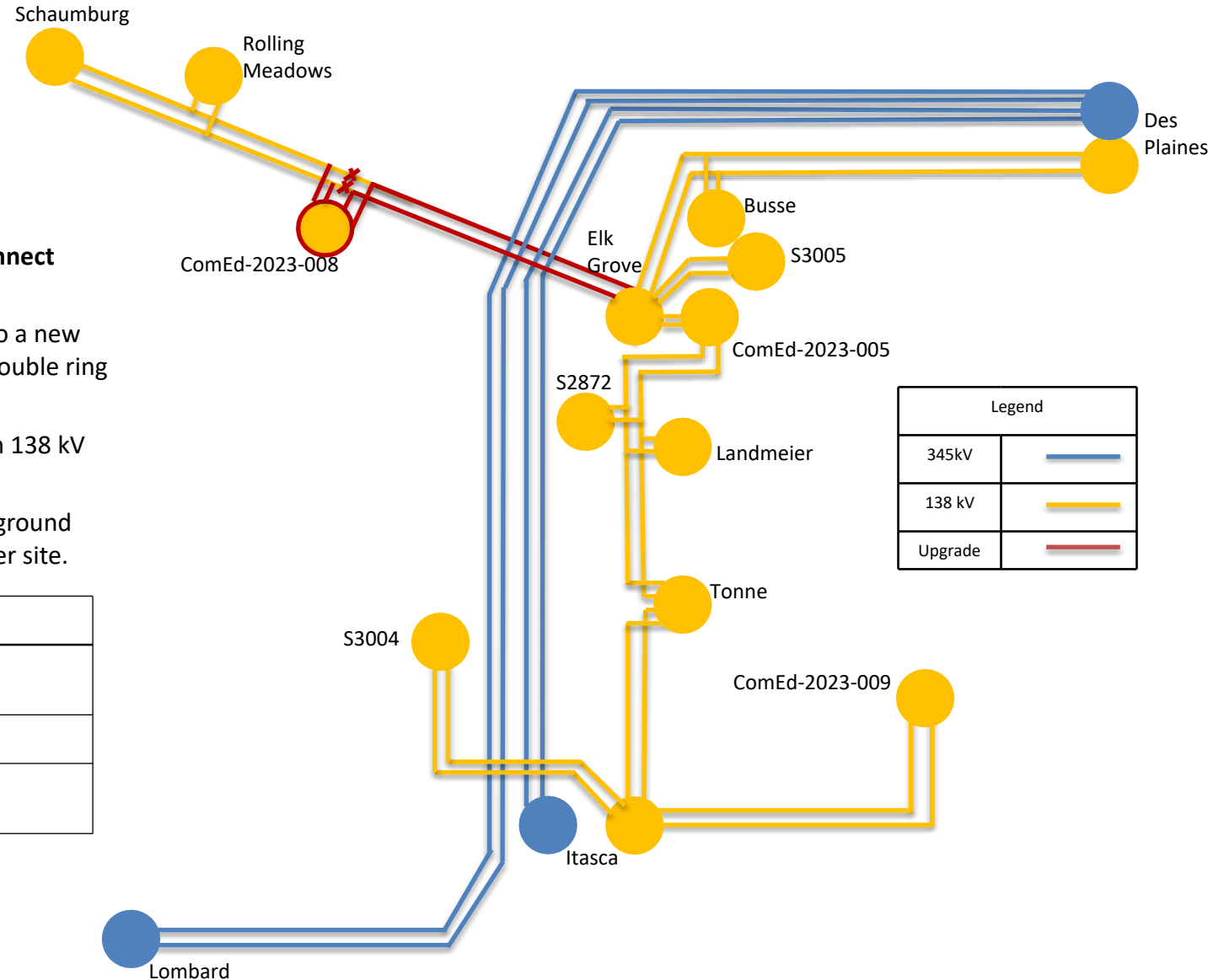
**Need Number:** ComEd-2023-008

**Process Stage:** Solutions Meeting 8/6/2024

**Proposed Solution:**

The following scope of work is all direct connect facilities to physically connect demand to the grid.

- Cut into existing 138 kV Elk Grove – Schaumburg lines, extend 4 lines to a new customer substation. Customer substation will be sixteen 138 kV CB, double ring bus configuration with five 138/34 kV 112 MVA transformers.
- Reconductor 1.25 miles of existing 636 ACSR with 1033.5 ACSS on each 138 kV line from Elk Grove to new customer site.
- Replace existing 1600 XLPE underground cables with 2500 XLPE underground cables (two per phase) on each 138 kV line out of Elk Grove to customer site.



Existing ratings MVA)	SN/SE	WN/WE
Elk Grove – Rolling Meadows (Red)	249/317	298/353
Elk Grove – Rolling Meadows (Blue)	249/317	298/353
New Ratings (MVA)	SN/SE	WN/WE
Elk Grove – ComEd-2023-008 (Red)	521/521	521/521
Elk Grove – ComEd-2023-008 (Blue)	521/521	521/521

**The following components are system reinforcements required to serve the load and meet applicable TPL-001, PJM, and Exelon transmission planning criteria:**

- Cut into existing 345kV Des Plaines – Lombard lines and extend 4 lines to a new Elk Grove twelve (12) CB 345 kV GIS bus in a breaker-and-a-half configuration.
- Install 2 new 420 MVA 345/138 kV autotransformers at Elk Grove

Estimated system reinforcement transmission cost: \$158M

**Alternatives Considered:**

- Install the direct customer facilities (Slide 9) and install new Elk Grove area substation with four autotransformers and new 345 kV lines from TSS 101 Itasca.

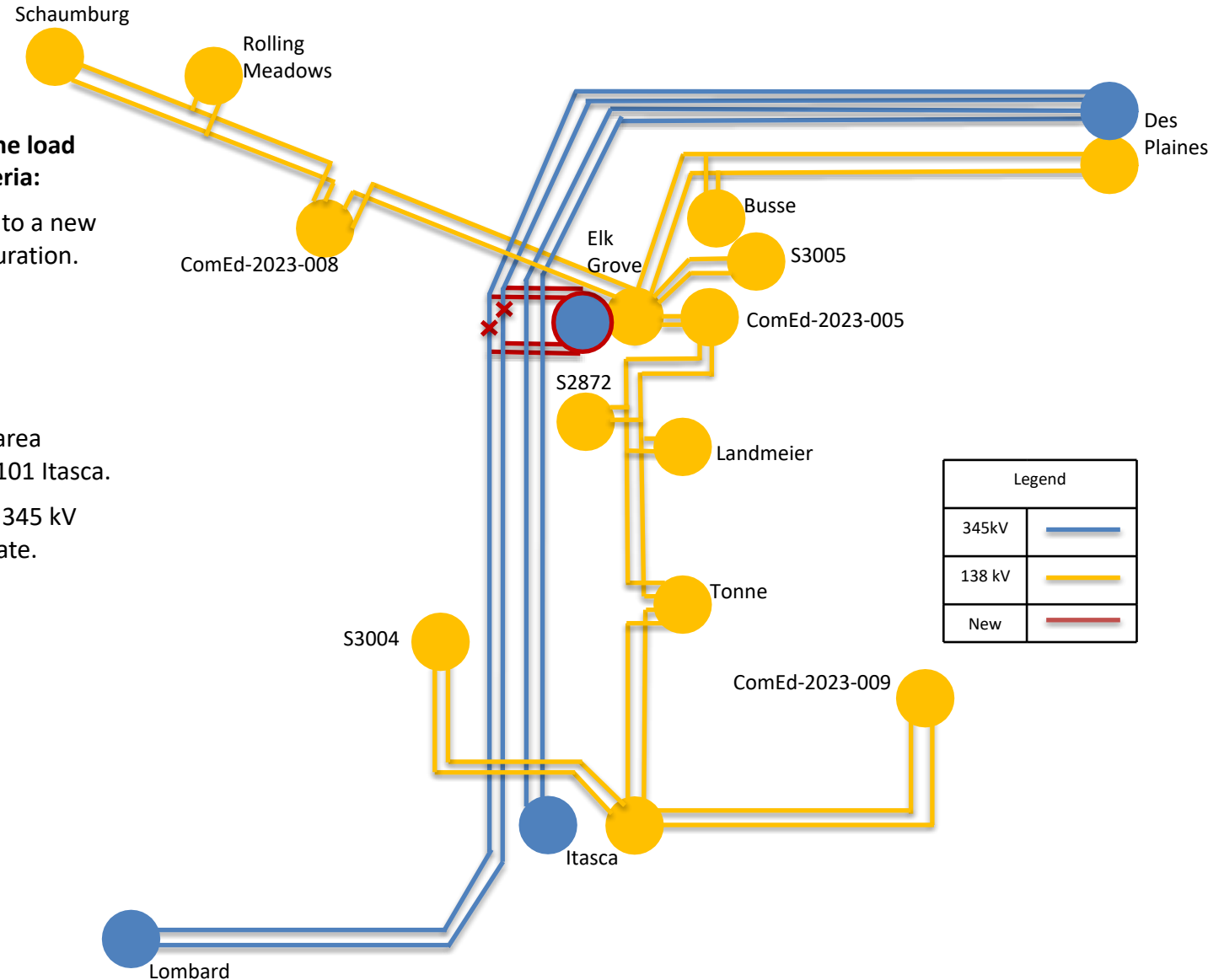
This alternative is not recommended since it requires a greenfield site with 345 kV and 138 kV expansion and would not be able to meet the customer need date.

Total estimated transmission cost: \$158M

**Projected In-Service:** 12/31/2026 (Customer Direct), 12/31/2026 (System Reinforcement)

**Project Status:** Conceptual

**Model:** 2028 RTEP



**Need Number:** ComEd-2024-004

**Process Stage:** Solutions Meeting 8/6/2024

**Previously Presented:** Need Meeting 1/19/2024

**Project Driver:**

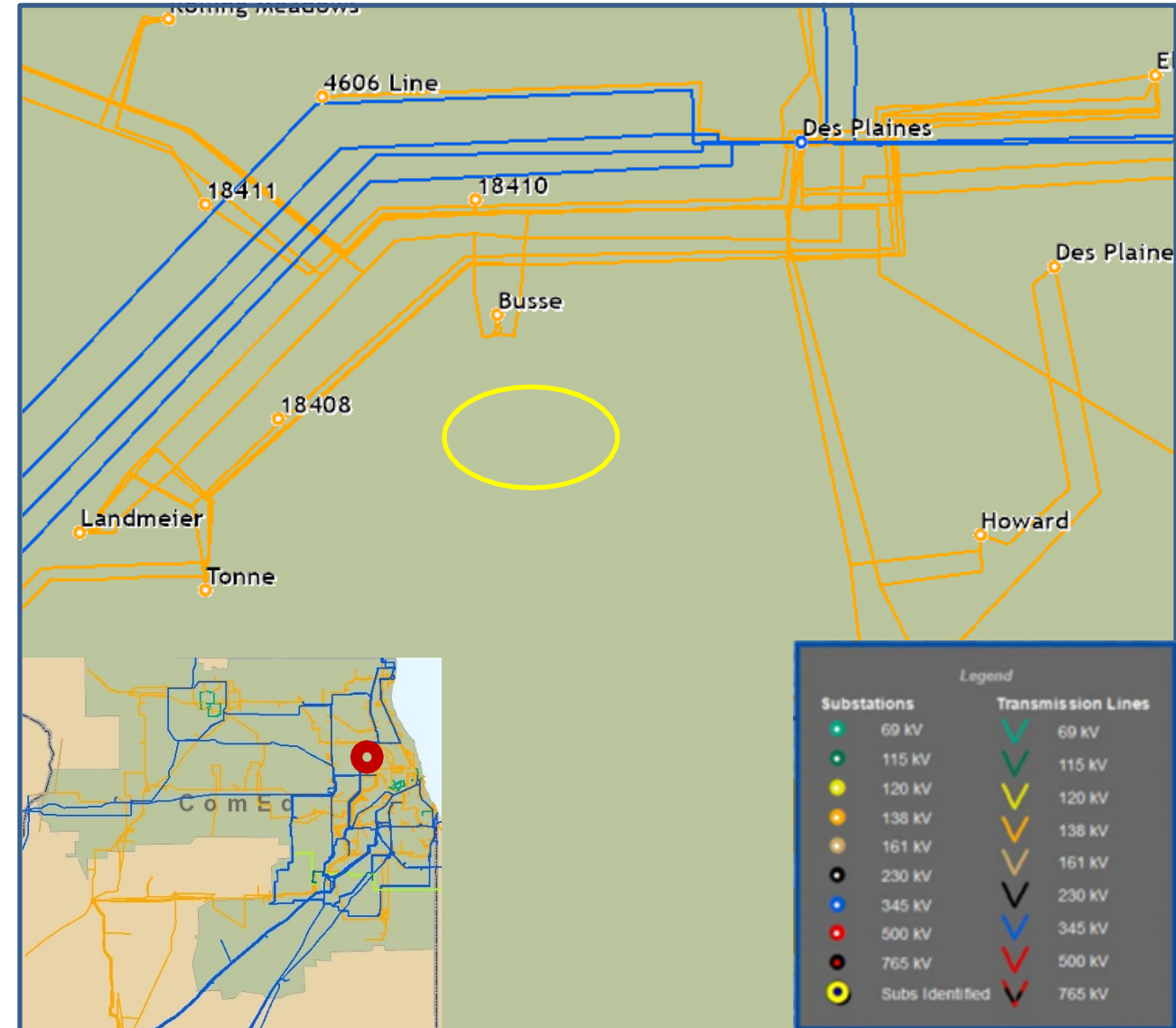
Customer Service

**Specific Assumption Reference:**

- New transmission customer interconnections or modification to an existing customer

**Problem Statement:**

New customer is looking for transmission service in the Elk Grove area. Initial loading is expected to be 25 MW in June 2027, 87 MW in 2028, with an ultimate load of 260 MW.



**Need Number:** ComEd-2024-004  
**Process Stage:** Solutions Meeting 8/6/2024  
**Proposed Solution:**

**The following scope of work is all direct connect facilities to physically connect demand to the grid.**

- New customer will be radially served by two new 1.7 mile 138 kV lines from Elk Grove East substation (ComEd-2023-005) to the customer site. Customer substation will be a fifteen CB, double ring bus configuration with 6 – 138/34 kV, 112 MVA transformers.
- Install 4 new 138kV GIS CBs to the breaker-and-a-half configuration at Elk Grove East to connect the new radial lines to the customer substation

Estimated direct connect facilities transmission cost: \$12M

**The following components are system reinforcements required to serve the load and meet applicable TPL-001, PJM, and Exelon transmission planning criteria:**

- Install 2 new 345 kV CBs, 2 new 138 kV CBs and install 2 new 345/138 kV, 420 MVA autotransformers at Itasca substation

Estimated system reinforcement transmission cost: \$28.6M

**Alternatives Considered:**

- Install the direct customer facilities listed above and install new Elk Grove area substation with four autotransformers and new 345 kV lines from TSS 101 Itasca.

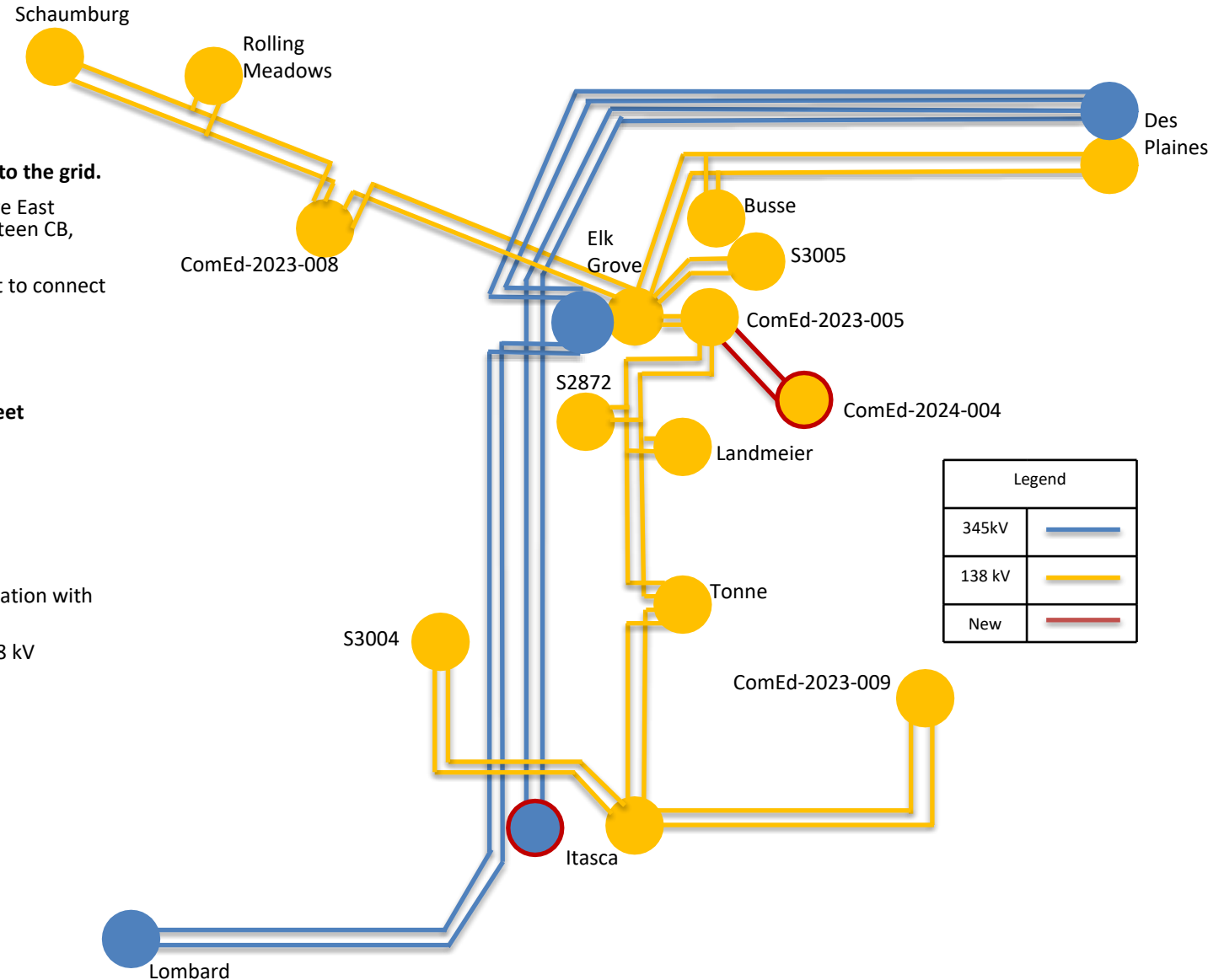
This alternative is not recommended since it requires a greenfield site with 345 kV and 138 kV expansion and would not be able to meet the customer need date.

Total Estimated Transmission Cost: \$40.6M

**Projected In-Service:** 12/31/2026 (Customer Direct), 12/31/2027 (System Reinforcement)

**Project Status:** Conceptual

**Model:** 2028 RTEP



# 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

7/26/2024 – V1 – Original version posted to pjm.com