



# Submission of Supplemental Projects for Inclusion in the Local Plan

ComEd Local Plan - 2023

**Need Number:** ComEd-2022-004

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Previously Presented:**

Solutions Meeting 10/14/2022

Need Meeting 8/19/2022

**Project Driver:**

Equipment Material Condition, Performance and Risk

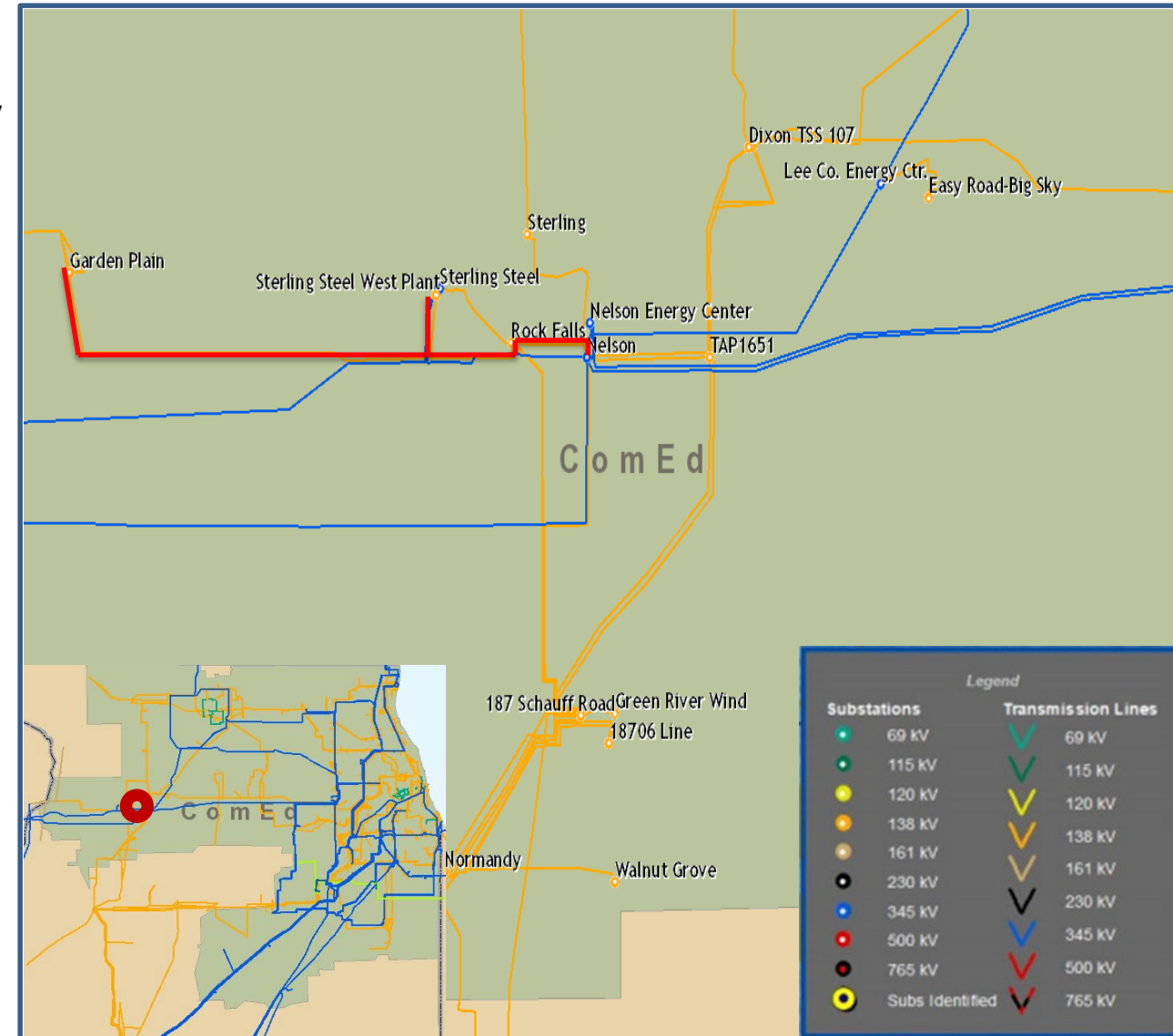
Operational Flexibility and Efficiency

**Specific Assumption Reference:**

- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions
- Programmatic review and/or replacement of breakers, relays, wood poles, etc.
- Enhancing system functionality, flexibility, visibility, or operability

**Problem Statement:** 138 kV L15518 is a three-terminal line between Rock Falls, Nelson, and Garden Plain.

- 202 structures built in 1965 with single wood poles are undersized by today's standards
- 104 structures built in 1951 are wood H-frame construction and are reaching end-of-life.
- In 2020 two different wind events caused failure of 11 wood pole structures. Another wood pole failed in the spring of 2022.
- An area of loose peat is causing existing structures to lean which require costly repairs.



**Need Number:** ComEd-2022-004

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Selected Solution:**

Rebuild 23 miles of wood poles with 1113 kCMIL conductor on steel towers. Eliminate three terminal line by extending 1113 kCMIL conductor from Rock Falls to the structure going to Garden Plain.

Line Rating capability:

Description	Summer Normal	Summer Emergency	Winter Normal	Winter Emergency
Existing	114	182	172	202
Proposed	351	449	421	500

Estimated Cost: \$ 94M

**Alternatives Considered:**

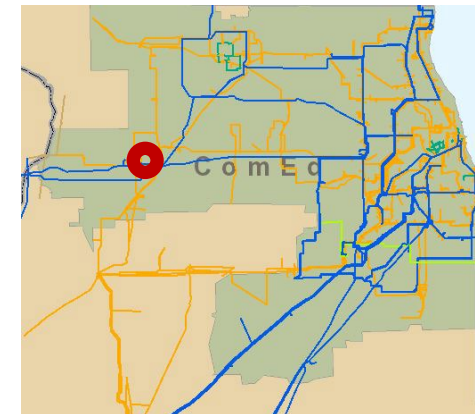
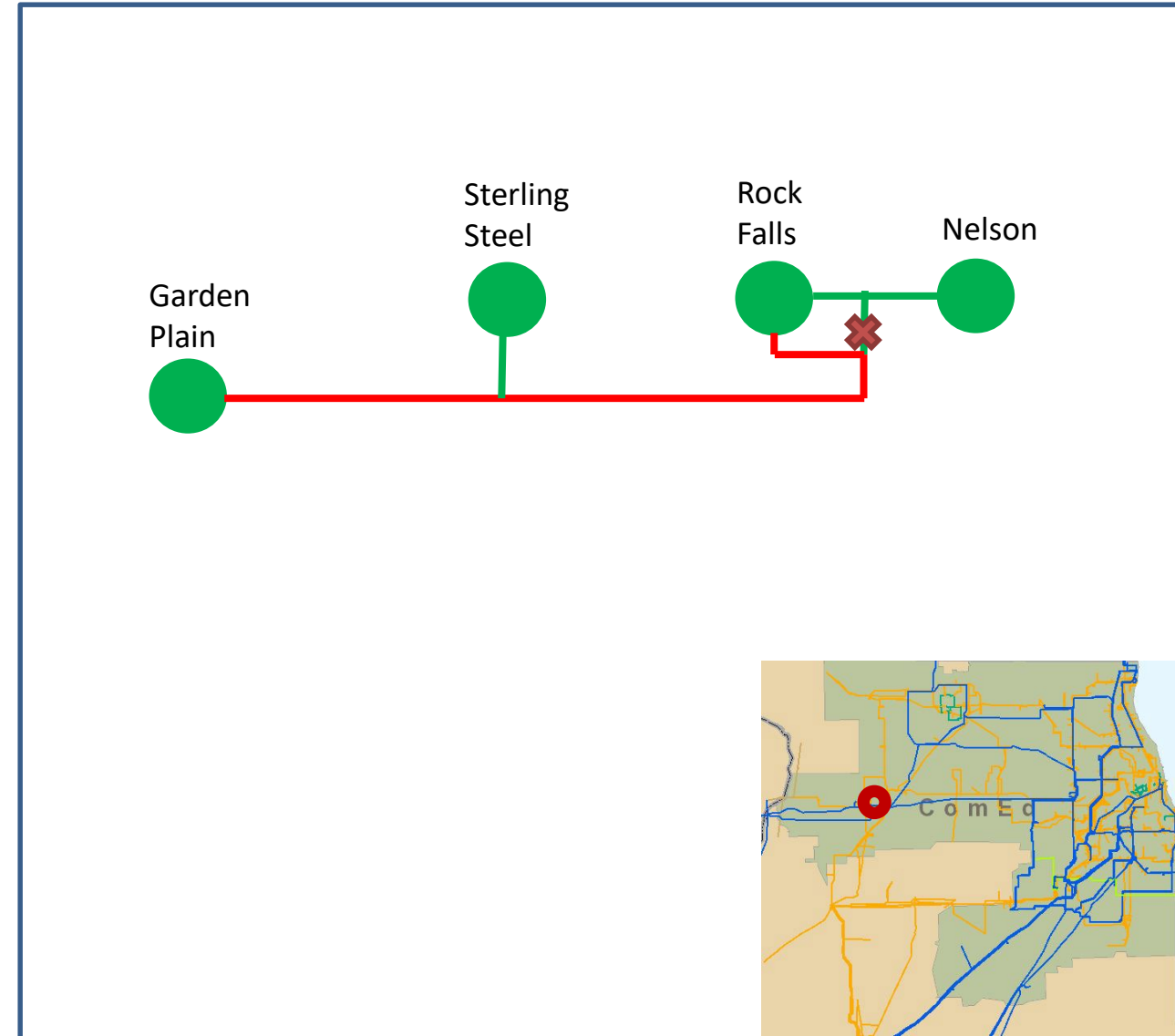
None

**Projected In-Service:** 12/31/2026

**Supplemental Project ID:** s2870

**Project Status:** Conceptual

**Model:** RTEP 2027



**Need Number:** ComEd-2022-005

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Previously Presented:**

Solutions Meeting 10/14/2022

Need Meeting 8/19/2022

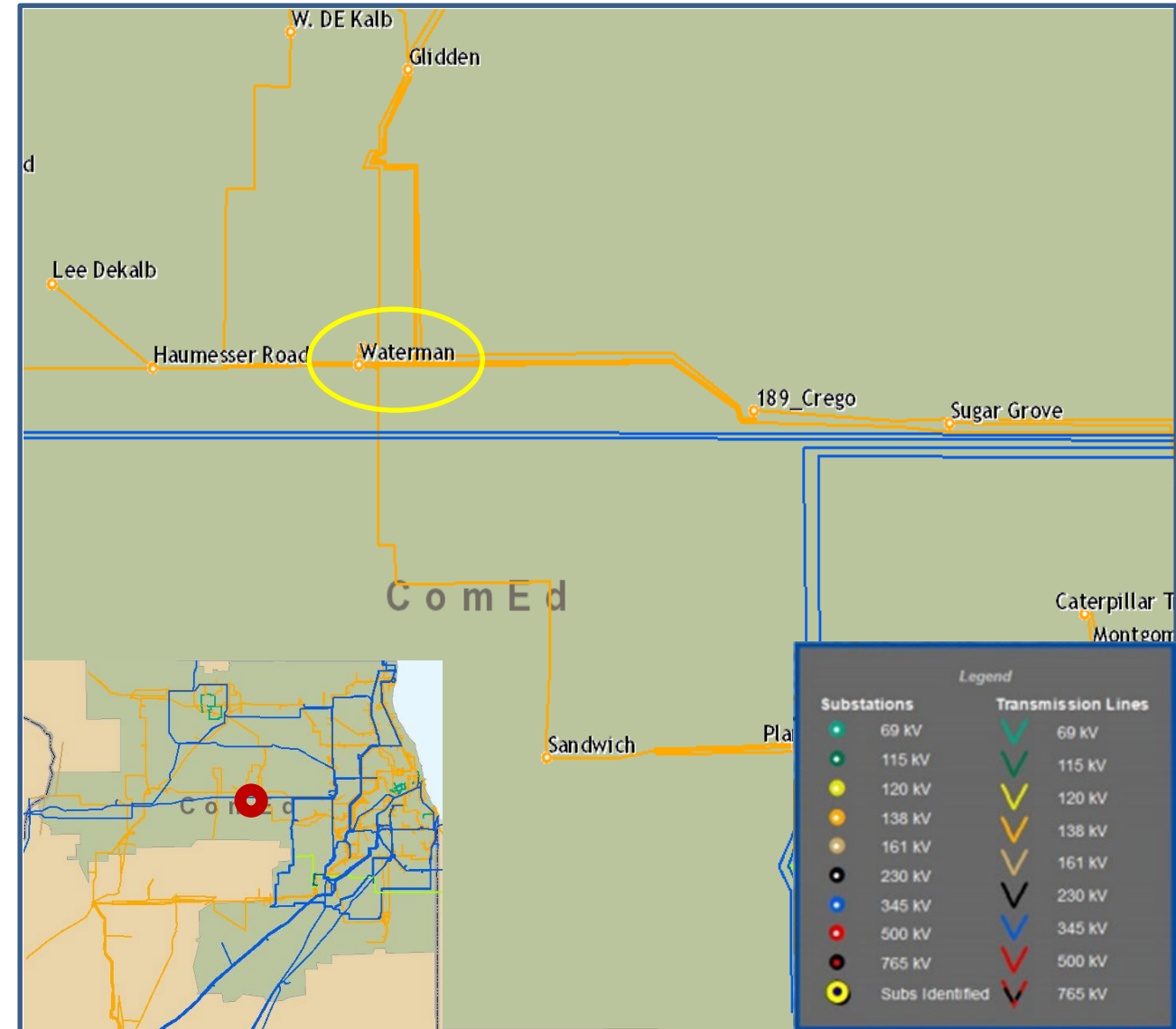
**Project Driver:**

Customer Service

**Specific Assumption Reference:**

- Transmission System configuration changes due to new or expansion of existing distribution substations

**Problem Statement:** Distribution load is increasing by 18 MVA at Waterman by 12/31/2023.



**Need Number:** ComEd-2022-005

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Selected Solution:**

Expand 138 kV bus at Waterman and install 138-34 kV 60 MVA transformer. Reconfigure 138 kV bus at Waterman and install 138 kV line CBs on Waterman to Crego 138 kV line and Waterman to Haumesser Road 138 kV line.

Estimated Transmission Cost: \$ 11.4 M

**Alternatives Considered:**

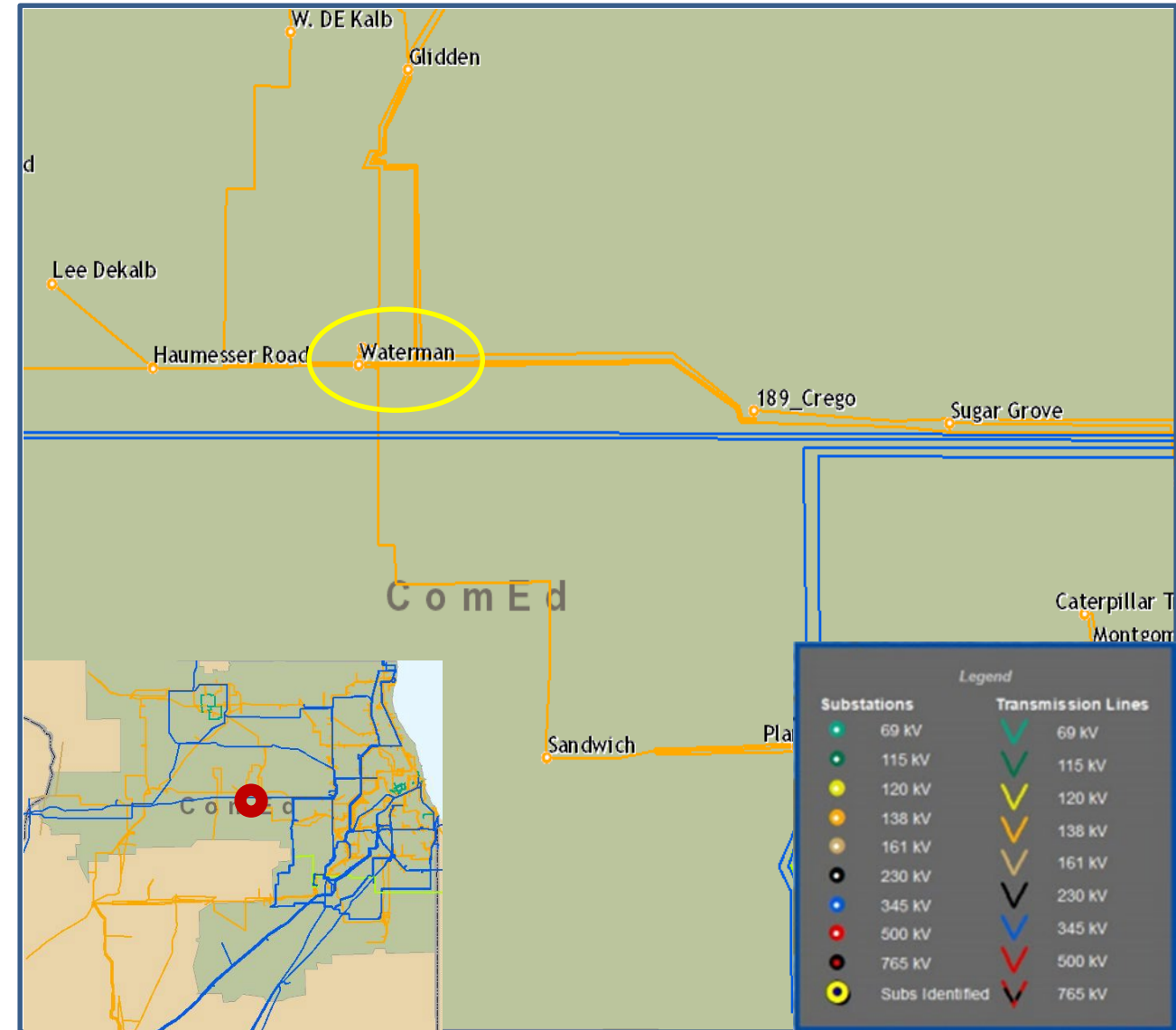
None

**Projected In-Service:** 12/31/2023

**Supplemental Project ID:** s2871

**Project Status:** Engineering

**Model:** RTEP 2027



**Need Number:** ComEd-2022-001

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Previously Presented:**

Solutions Meeting 11/18/2022

Need Meeting 2/18/2022

**Project Driver:**

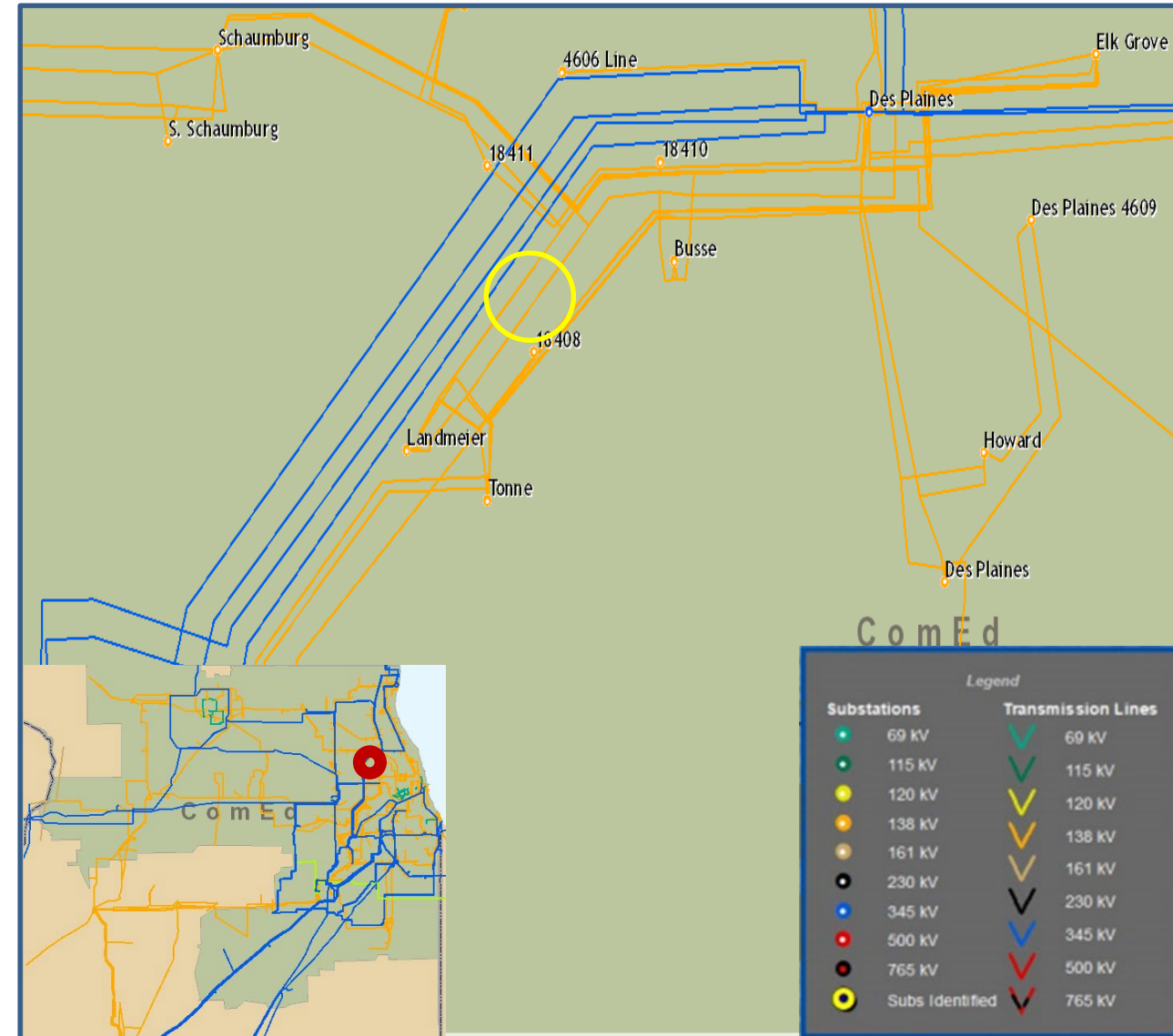
Customer Service

**Specific Assumption Reference:**

- New transmission customer interconnections or modification to an existing customer

**Problem Statement:**

New customer is looking for transmission service in Elk Grove. Initial loading is expected to be 24 MW in June 2023 with an ultimate load of 96 MW by the end of 2027.





**Need Number:** ComEd-2022-001

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan May 3, 2023

**Proposed Solution:**

Tap 138 kV lines from Elk Grove to Tonne and extend 0.12 miles to a new customer substation.

Estimated Transmission Cost: \$ 0

**Alternatives Considered:**

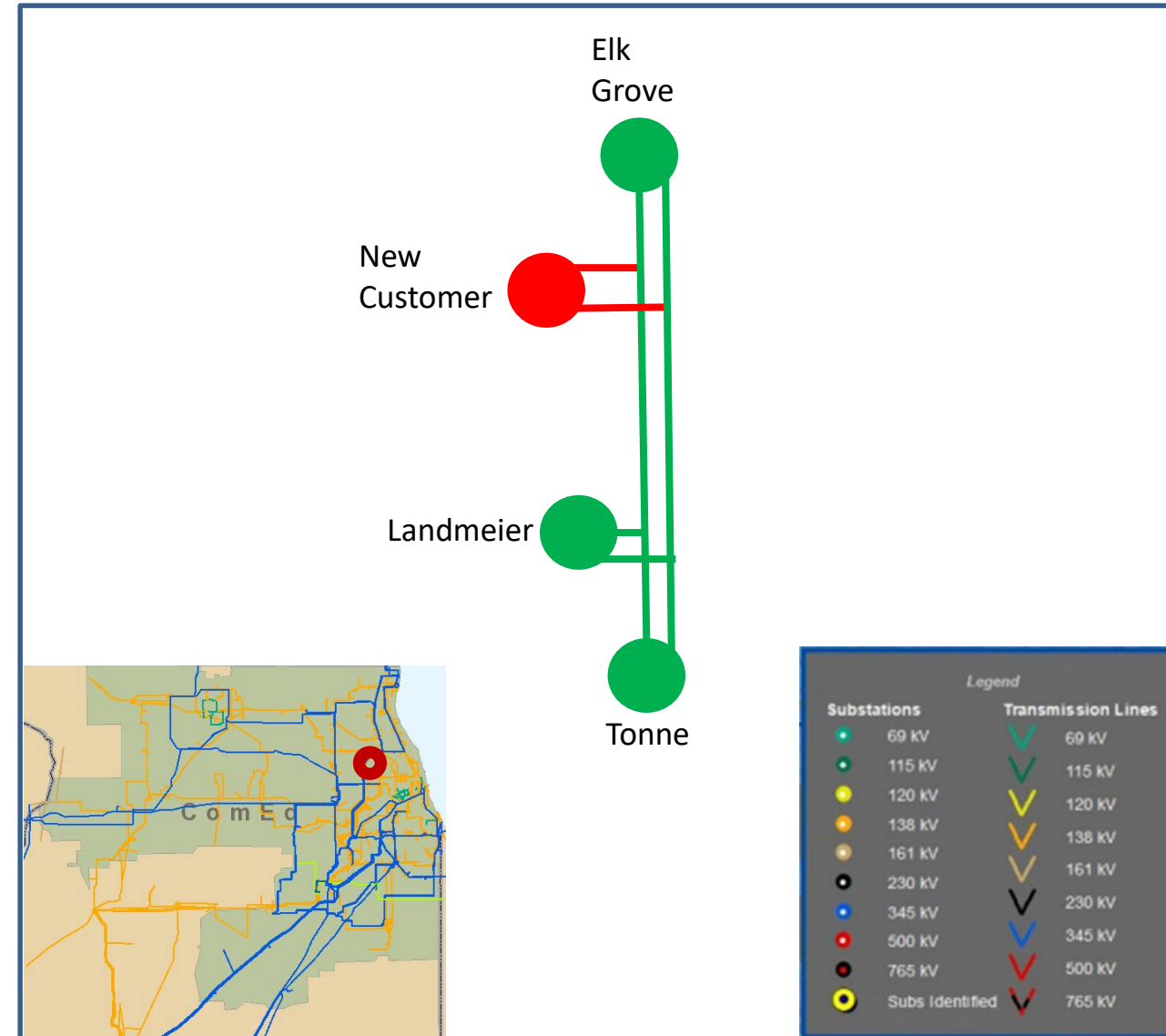
A networked connection with lines in and out of the new station was considered but rejected due to insufficient right-of-way availability.

**Projected In-Service:** 12/31/2024

**Supplemental Project ID:** s2872

**Project Status:** Conceptual

**Model:** RTEP 2027



**Need Number:** ComEd-2022-006

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan July 25, 2023

**Previously Presented:**

Solutions Meeting 2/17/2023

Need Meeting 11/18/2022

**Project Driver:**

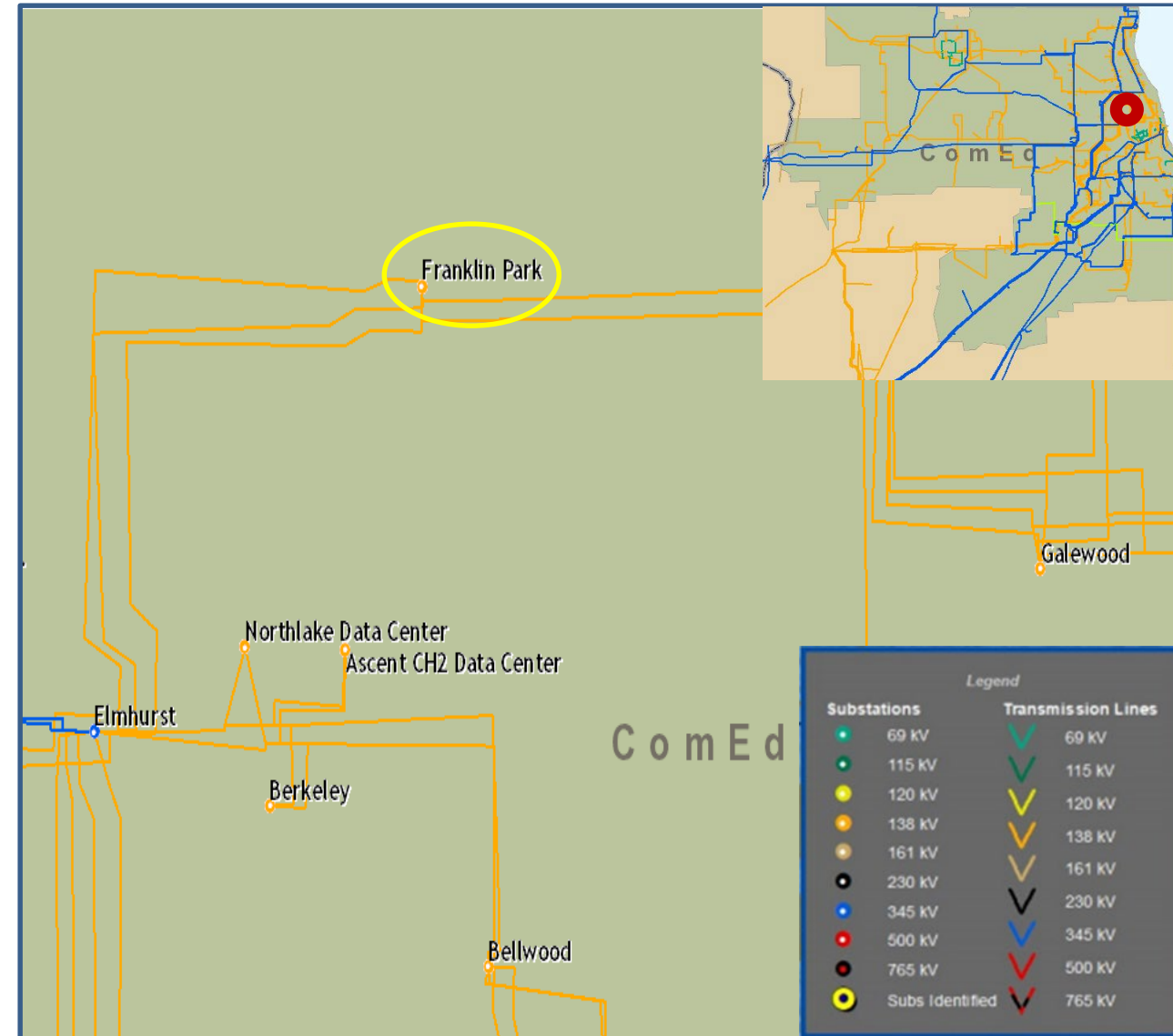
Operational Flexibility and Efficiency

**Specific Assumption Reference:**

- Enhancing system functionality, flexibility, visibility, or operability

**Problem Statement:**

There are three 138 kV lines from Elmhurst to Franklin Park. Two of the lines share a ring bus circuit breaker at Franklin Park resulting in the loss of two of the three lines for a stuck breaker contingency.





**Need Number:** ComEd-2022-006

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan July 25, 2023

**Proposed Solution:**

Install a new 138 kV CB between Bus 4 and existing BT 2-4 to create a new bus 6

Estimated Transmission Cost: \$ 3.2 M

**Alternatives Considered:**

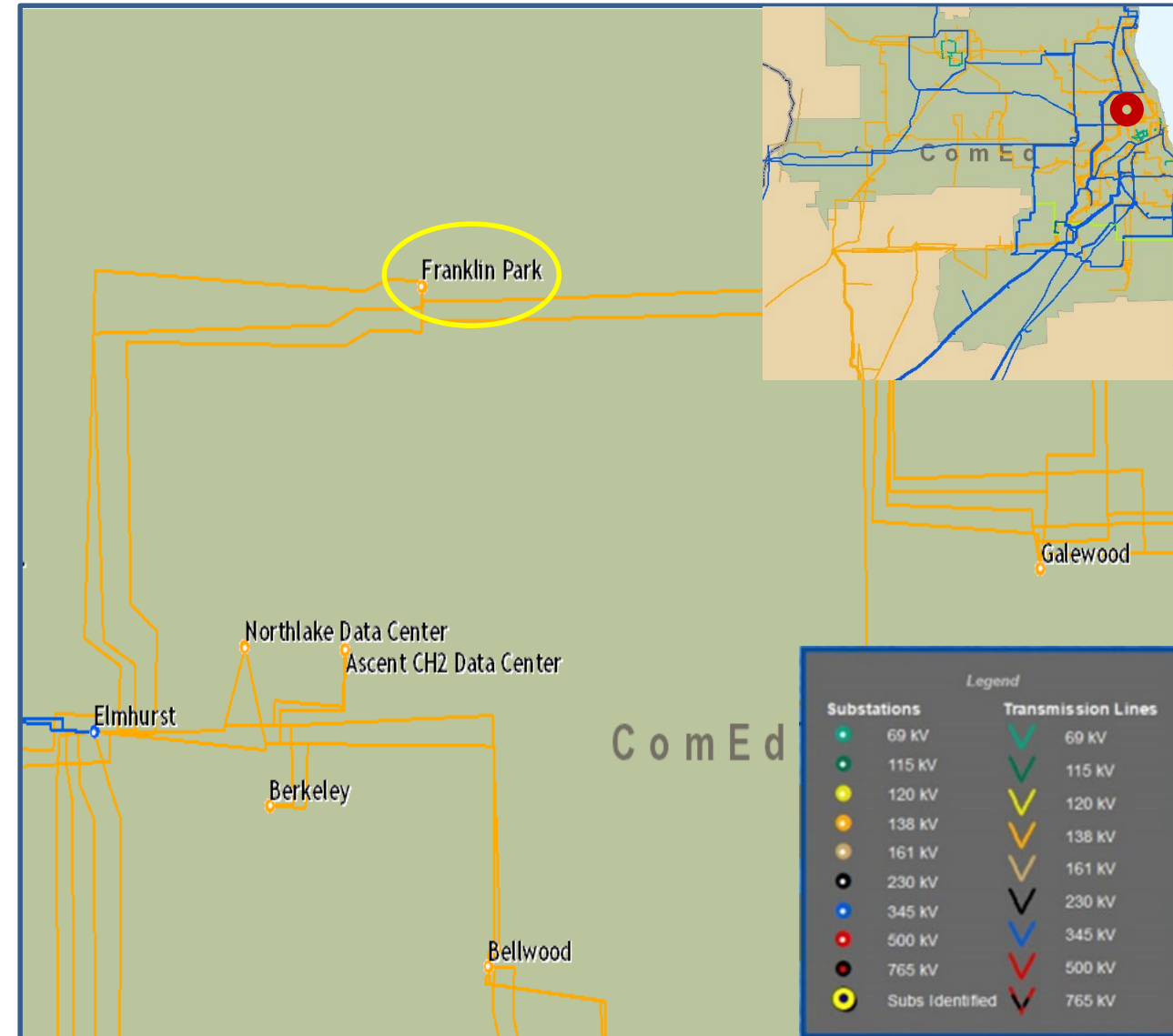
No feasible alternatives

**Projected In-Service:** 12/31/2023

**Supplemental Project ID:** s2927

**Project Status:** Engineering

**Model:** RTEP 2027



**Need Number:** ComEd-2022-007

**Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan July 25, 2023

**Previously Presented:**

Solutions Meeting 2/17/2023

Need Meeting 11/18/2022

**Project Driver:**

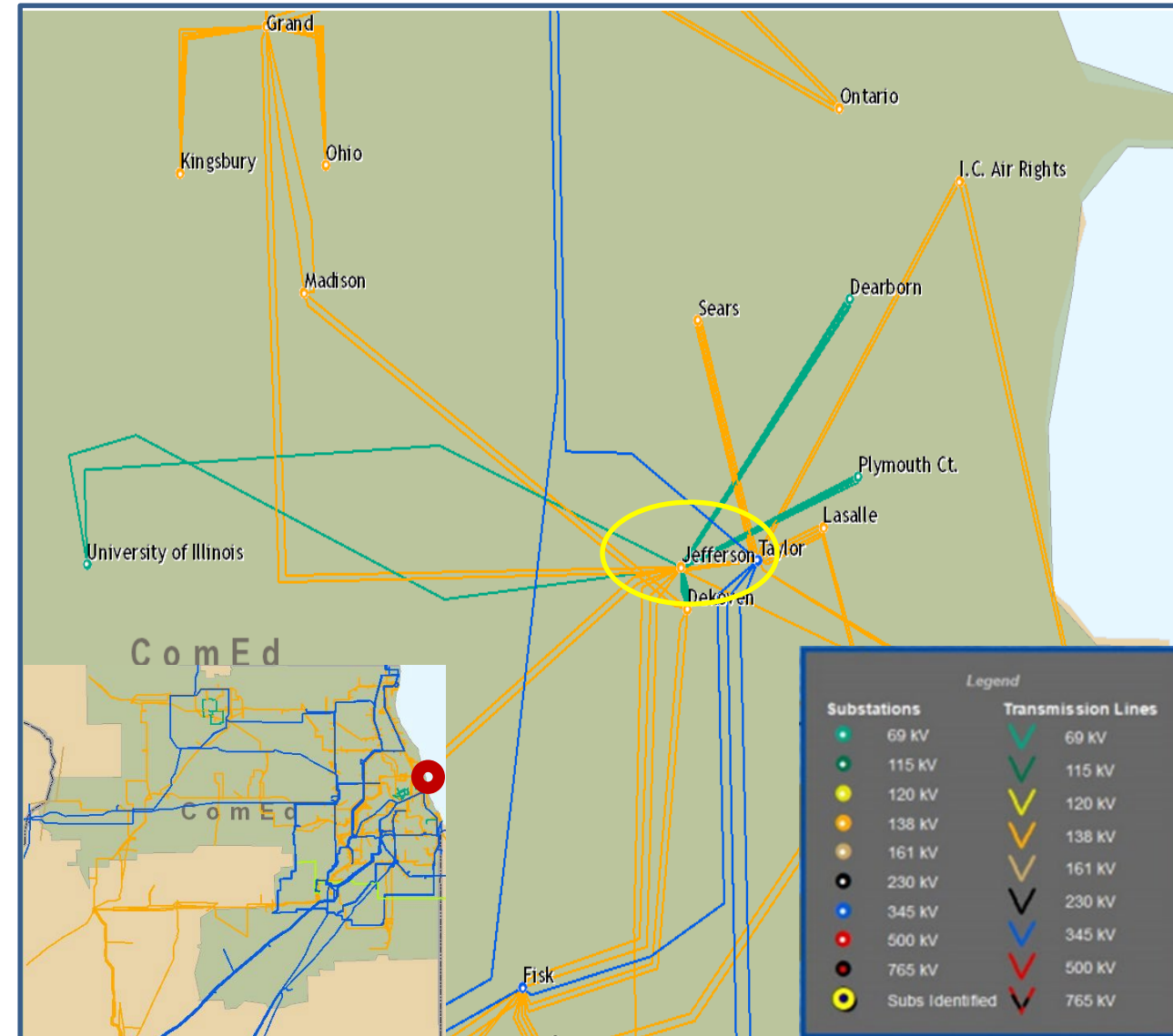
Customer Service

**Specific Assumption Reference:**

- Transmission System configuration changes due to new or expansion of existing distribution substations

**Problem Statement:**

ComEd Distribution has a need for an additional 138-12 kV transformer at Jefferson substation.



**Need Number:** ComEd-2022-007

**Proposed Solution:**

Install a new 138-12 kV transformer on bus 9 and move 138 kV Jefferson – Taylor line from bus 9 to Bus 8. Install 138 kV line breaker on 138 kV Jefferson – Taylor line.

Estimated Transmission Cost: \$ 4.5M

**Alternatives Considered:**

Install new 138-12 kV transformer on bus 8.

Estimated Transmission Cost: \$0

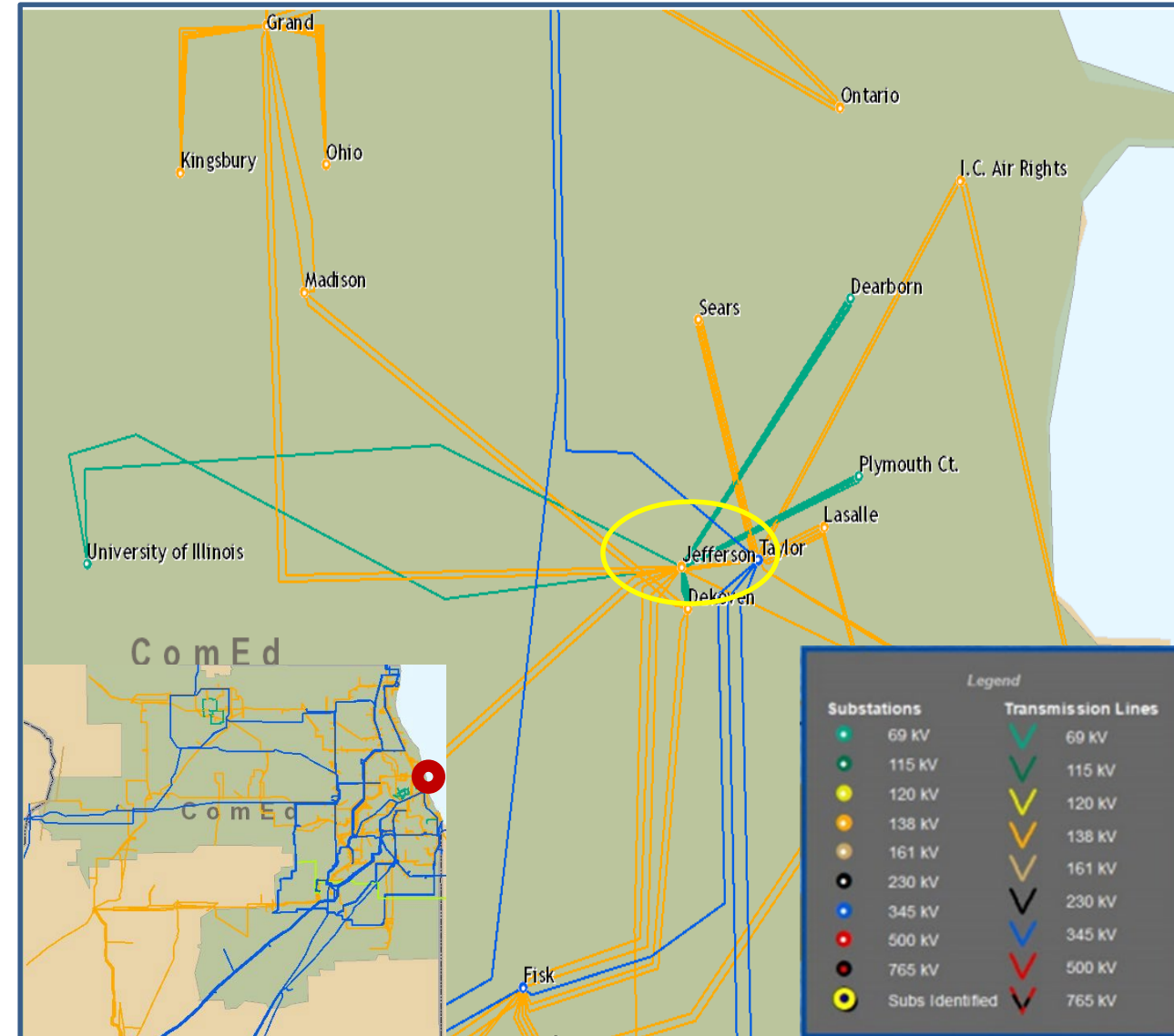
This alternative was not chosen because the new transformer would share a bus position with an existing transformer feeding the same distribution load resulting in reduced reliability.

**Projected In-Service:** 6/1/2023

**Supplemental Project ID:** s2928

**Project Status:** Engineering

**Model:** RTEP 2027



## Revision History

5/3/2023 – V1 Added slides #1-7, s2870-s2872

8/10/2023 – V2 Added slides #8-11, s2927 and s2928