

TEAC Committee ComEd Supplemental Projects

November 14, 2019

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-2019-006

Process Stage: Solutions Meeting 11/14/2019

Previously Presented:

Need Meeting 10/17/2019

Project Driver:

Equipment Material Condition, Performance, and Risk

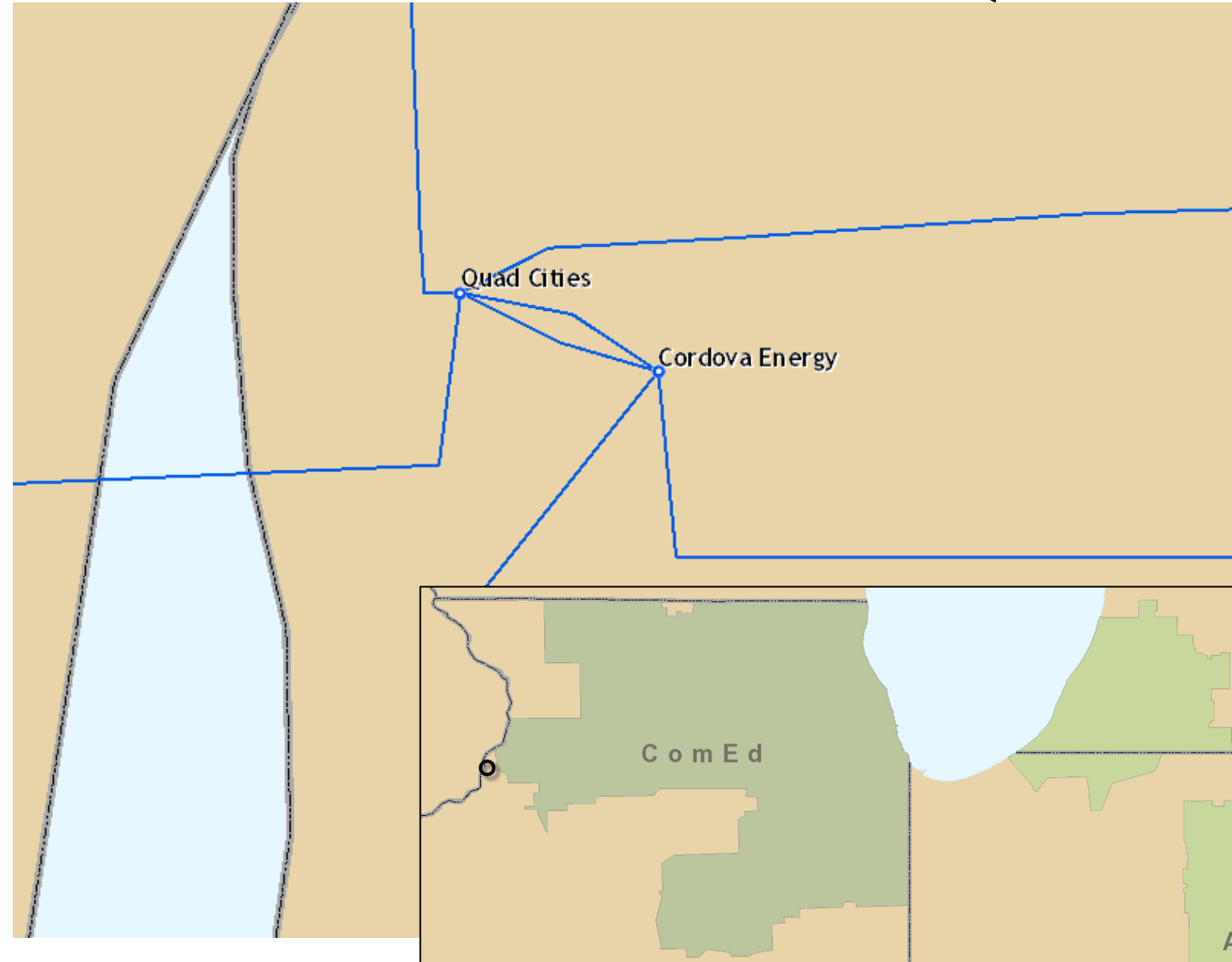
Specific Assumption Reference:

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

Problem Statement:

345 kV Line 0402 (Quad Cities – Cordova) has obsolete relays

- Becoming difficult to service REL352 phase comparison relays. They are being phased out of our system.
- Line is an intertie between PJM/MISO



Need Number: ComEd-2019-006

Process Stage: Solutions Meeting 11/14/2019

Proposed Solution:

Replace 345 kV Line 0402 relays and upgrade communications equipment, \$0.2M

Old ratings: (MVA) 973/1069/1193 SN/SE/SLD
1053/1143/1536 WN/WE/WLD

Projected ratings: 1173/1193/1193 SN/SE/SLD
1497/1569/1569 WN/WE/WLD

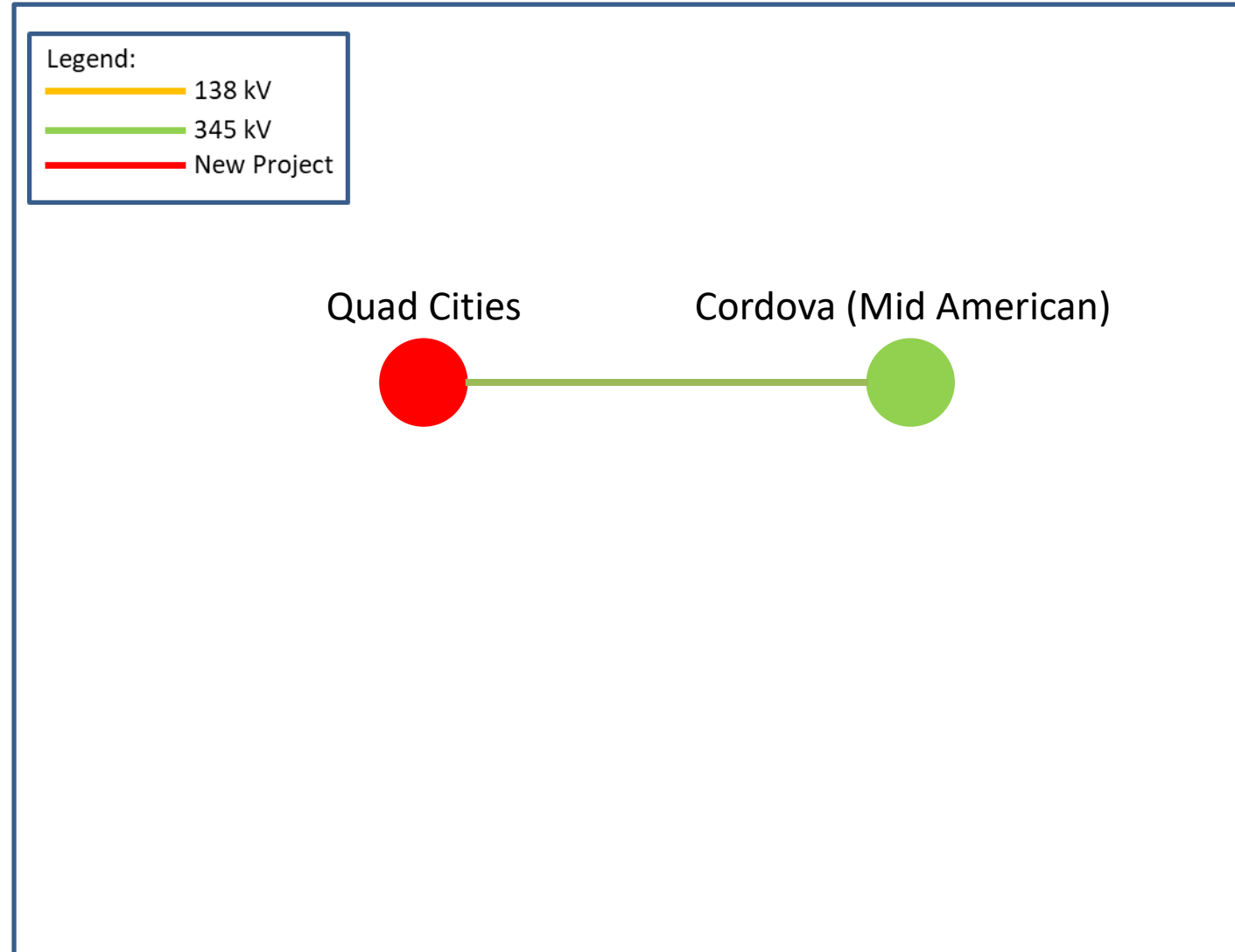
Alternatives Considered:

None

Projected In-Service: 6/1/2020

Project Status: Engineering

Model: PJM 2024 RTEP



ComEd Transmission Zone M-3 Process Kendall - Lockport

Need Number: ComEd-2019-007

Process Stage: Solutions Meeting 11/14/2019

Previously Presented:

Need Meeting 10/17/2019

Project Drivers:

Operational Flexibility and Efficiency

Equipment Material Condition, Performance, and Risk

Specific Assumption References:

Increasing system capacity

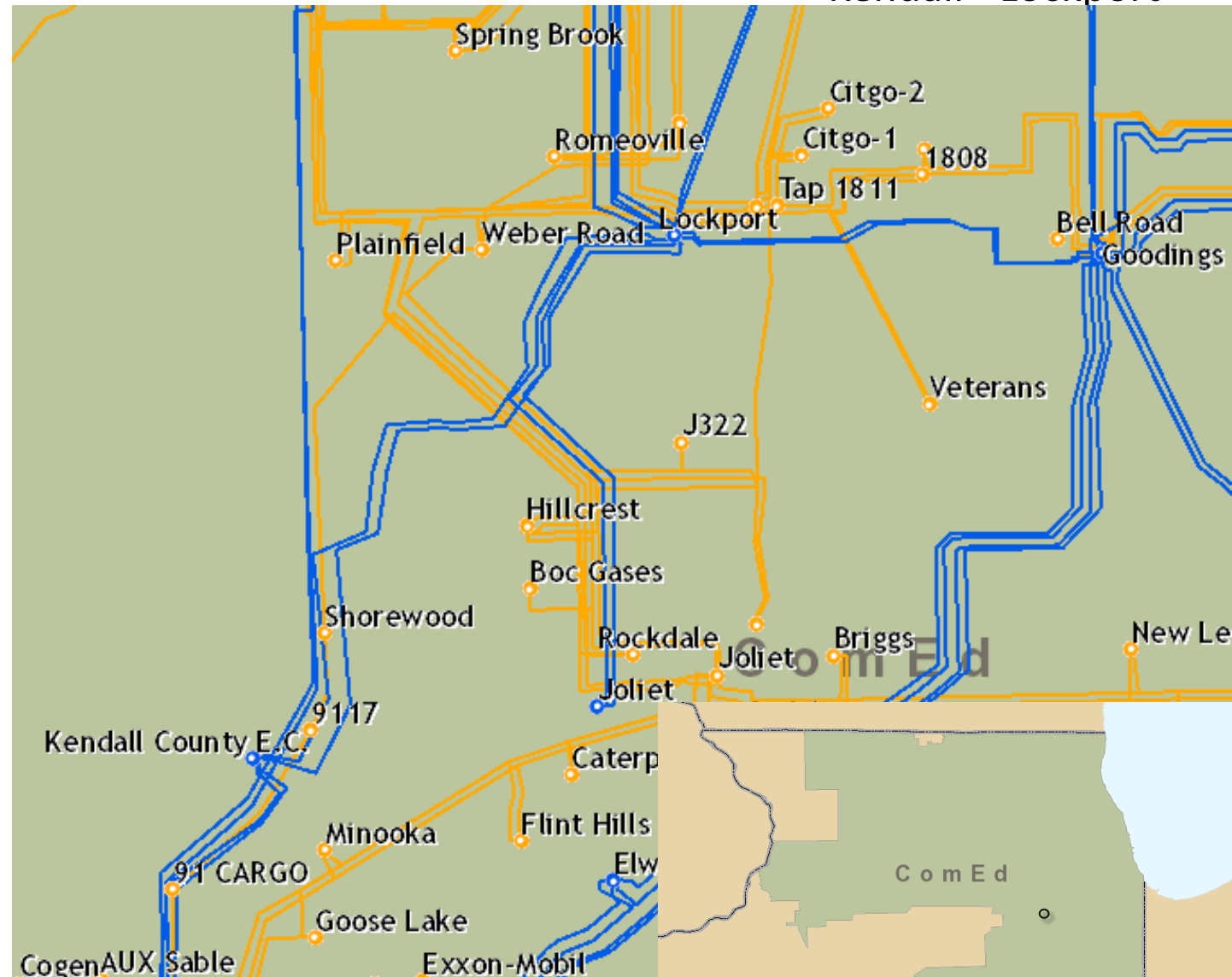
Programmatic replacement of breakers, relays, wood poles, cables, etc.

Supply strategy guidance resulting in standard conductor sizes and other standard equipment

Problem Statement:

Network project n5144 is rebuilding 345 kV Kendall – Lockport double circuit towers for 16 miles in 2022 to increase line 10805 rating. New conductor will be T2-1113 (1448 MVA SN/1863 MVA SE).

- 345 kV Line 10806 runs in parallel on the same towers. Existing conductor is 2156 kcm (1334 MVA SN/1726 MVA SE). The disconnect switch at Lockport is a non-standard 1600A switch.
- 138 kV lines 0908 (Joliet – Shorewood) and 9117 (Shorewood – Cargo Court) run along the same ROW for 10.5 miles on wood poles.
 - The wood poles are 59-60 years old
 - ComEd intends to eliminate wood poles on the transmission system.



Need Number: ComEd-2019-007

Process Stage: Solutions Meeting 11/14/2019

Proposed Solution:

- Install quad circuit towers for 10.5 miles between Kendall and Lockport. String 138 kV conductor and cut line 0908 and part of line 9117 over to new towers. Incremental cost \$12M
- Install T2-1113 conductor on line 10806 and OPGW static wire. Replace 10806 disconnect at Lockport. Incremental cost \$1.1M

Ancillary Benefits:

Risk to Shorewood and Cargo Court will be significantly reduced during construction due to shorter outage required.

Increased reliability of steel poles over wood

Alternatives Considered:

- Install quad circuit towers but string and move 138 kV lines over at a future date. Estimated cost: \$20M
- Install double circuit towers for n5144. Rebuild 138 kV wood pole line with steel in future. \$20M

Projected In-Service: 6/1/2022

Project Status: Conceptual

Model: PJM 2019 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

11/04/2019 – V1 – Original version posted to pjm.com