

Transmission Expansion Advisory Committee: AEP Supplemental Projects

April 1, 2025

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

AEP Transmission Zone M-3 Process Olive, IN

Need Number: AEP-2025-IM005

Process Stage: Need Meeting 04/01/2025

Supplemental Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

Problem Statement:

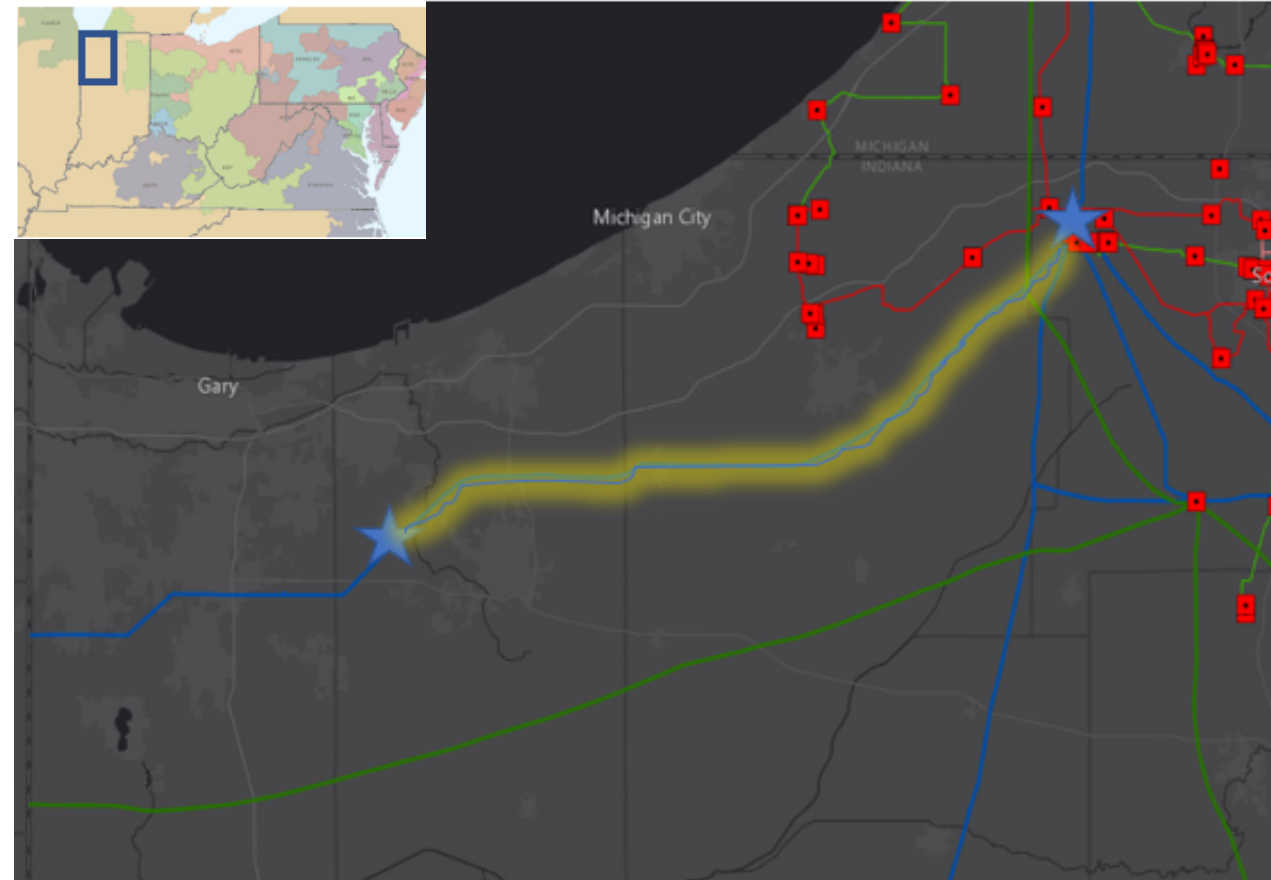
On 05/09/2023 AEP presented phase 1 of the Paper Expanded lines plan along with specific concerns to the paper expanded conductor lines on AEP's footprint. The below line is part of this plan. Please refer to this submittal for more information on PE lines.

Olive – Goodings Grove 345kV Line Need

The Olive – Goodings Grove 345kV line is 40.61 miles long originally constructed in 1957 utilizing double circuit steel lattice towers. The line is comprised of two circuits: Green Acres – Olive 345kV and Olive University Park 345kV. All 40.61 miles of this line is 1,414, CM ACSR/PE Conductor.

31 structures were assessed by an aerial drone and 26 were assessed by a ground crew. Of the assessed structures, all of them had reported conditions with the most common being:

- Corroded insulator attachment hardware
- Worn arm brackets where the C-hook insulator attachment hardware connects
- Approximately 40% of the towers have broken or flashed insulators
- Vertical insulator strings are contaminated from paint droppings when the towers were previously painted
- Bent dampers, and some have slid damper weights that results in the weight contacting the phase conductor. The vibration from the touching damper will break though conductor strands.



AEP Transmission Zone M-3 Process Olive, IN

Need Number: AEP-2025-IM005

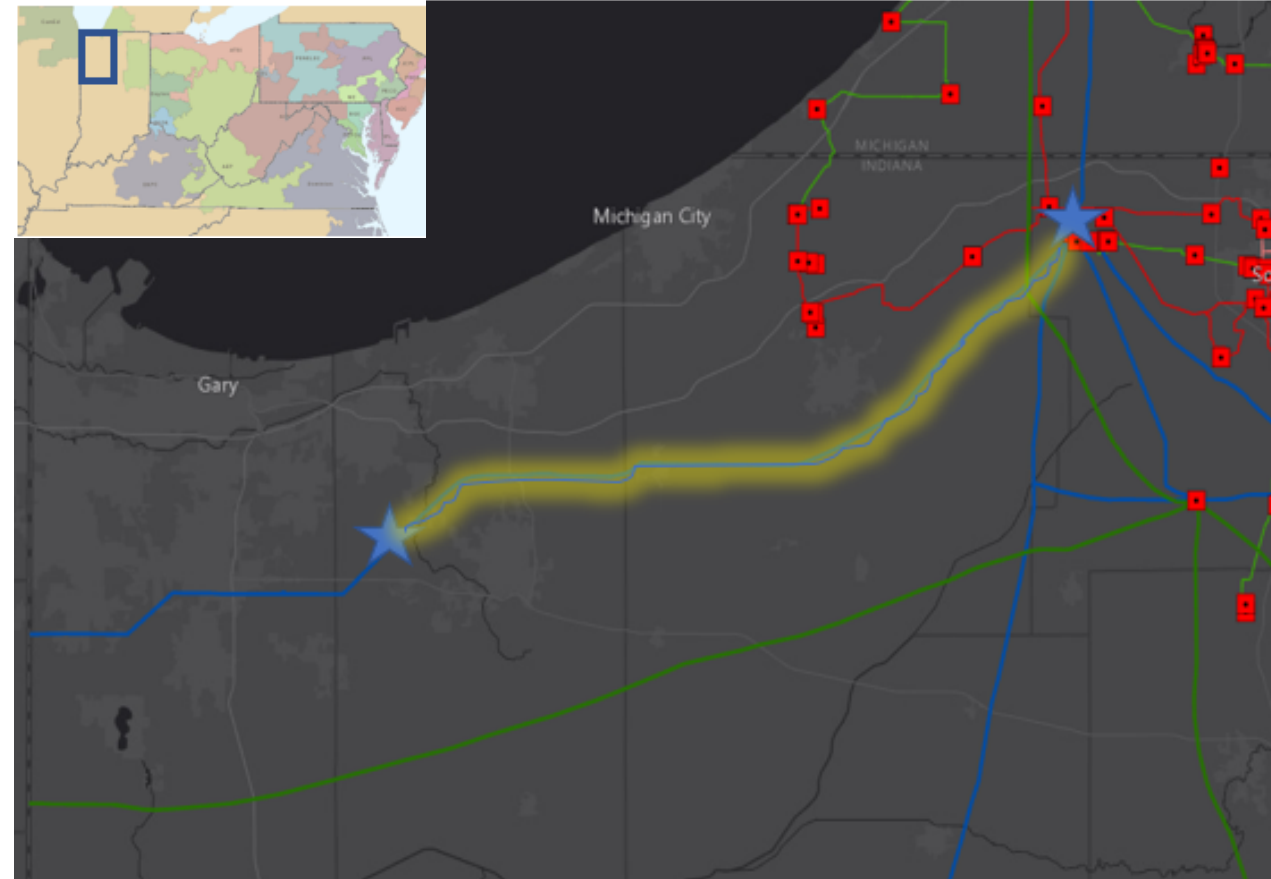
Process Stage: Need Meeting 04/01/2025

Problem Statement(continued):

Since 2018, the line has experienced 2 momentary and 1 permanent outage on Olive – Green Acres 345kV circuit and 2 momentary outages on Olive – University Park 345kV circuit.

Currently, there are 136 structures with at least one open structural, shielding, or hardware related condition which relates to 60% of the structures on the line. These open conditions include, but are not limited to:

- Lacing with galvanizing loss, bent and loose conditions
- Shield wire with broken strands and shield wire hardware with broken, loose, and worn conditions
- Conductor hardware with loose, broken, missing bolt conditions
- Insulators with burnt, broken, and rust conditions
- Suspension insulators with contaminated, burnt, broken, cracked, rust, and bird droppings conditions
- Insulator assembly hardware with broken and burnt conditions
- Shield wire suspension clamps with broken and rust conditions
- Corona rings with broken and damaged conditions



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

AEP Transmission Zone M-3 Process New Carlisle, IN

Need Number: AEP-2024-IM016

Process Stage: Solution Meeting TEAC - 04/01/2025

Previously Presented: Need Meeting 11/06/2024

Project Driver: Customer Service

Specific Assumption Reference: AEP Interconnection Guidelines
(AEP Assumptions Slide 12)

Problem Statement:

A customer has requested new service for 437MW of load in the New Carlisle, IN area. Initial service is requested by 3/15/2027.



Need number(s): AEP-2024-IM016

Process Stage: Solution Meeting TEAC - 04/01/2025

Proposed Solution:

Navistar 345kV Station: Construct a new station in a breaker and a half configuration consisting of eleven (11) 345kV 5000A 63kA breakers, two (2) 345kV meters, and station fiber cable to serve 437MW of new load. Construct two (2) 345kV bus ties from AEP's Navistar 345kV station to the customer station. Cut in the Dumont - New Prairie #1 and #2 345kV circuits into the new station.. Estimated Cost: \$50.364 M

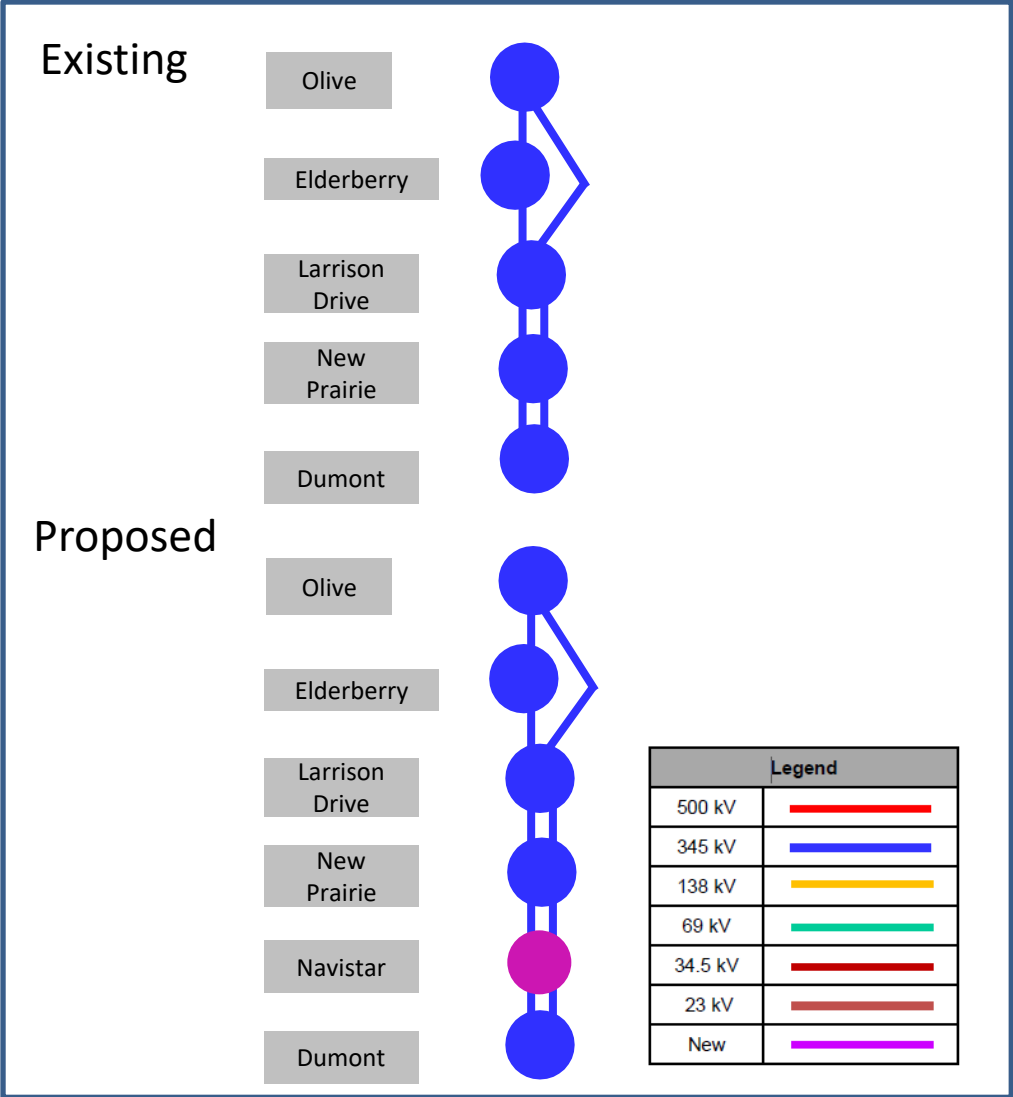
Transmission Cost Estimate: \$50.364 M

Alternatives Considered:

Considering the location of the requested load and availability of land on the customer site, no other alternates were viable. Expanding other stations in the area to accommodate the additional load was not viable due to customer plans for the space around the other stations.

Projected In-Service: 03/15/2027

Project Status: Scoping



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

3/21/2025 – V1 – Original version posted to pjm.com