Western Sub Regional RTEP: AEP Supplemental Projects

January 17, 2025

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 Fort Wayne, IN

Need Number: AEP-2023-IM018

Process Stage: Solution Meeting SRRTEP-W - 1/17/2025

Previously Presented: Need Meeting 07/21/2023

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption Reference: AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

Problem Statement:

Lawton Park-Lawton Switch:

- Lawton Park- Lawton Switch 34.5kV line is 2.59 miles long that was originally installed in 1956 and mostly consists of single wood poles
- Structures fail to meet NESC Grade B and AEP structural strength requirements
- The grounding method utilizes butt wraps on every other structure, which is inadequate for current AEP Standards.
- The shield angle on a typical tangent structure is measured at 45 degrees, which is inadequate for current AEP shield angle requirements and can lead to poor lightening performance
- There are 63 structures with that have at least one (1) open condition (82% of line). These conditions specifically affecting the pole include woodpecker damage, insect damage, split, cracked, damaged, rot heart, broken, leaning transverse and rot shell conditions
- Out of 32 structures assessed (22 by aerial drone and 10 by ground crew), the following conditions were found:
 - Greater than 50% of wood poles assessed have moderate to advanced decay of the shell or ground line heart
 - Most poles have decayed tops, crossarms have light to moderate decay, crossarm braces have advanced decay and insect damage





AEP Transmission Zone M-3 Process Fort Wayne, IN

Need Number: AEP-2023-IM018

Process Stage: Solution Meeting SRRTEP-W - 1/17/2025

Proposed Solution:

Spy Run - Bass 34.5kV line: Rebuild ~2.4 miles of 34.5kV line (built to 69kV line standards) between Spy Run and Bass. Costs include removal and ROW. This line rebuild is in an urban area with distribution underbuilds. Additionally, there is an existing 138kV/34.5kV line crossing with the Industrial Park-Spy Run 138kV transmission line, to accommodate the 69kV line rebuild 2x 138kV towers will need to be raised for the crossing. Estimated Cost: \$6.758 M

Transmission Cost Estimate: \$6.758 M

Alternatives Considered:

Retire the Spy Run-Bass 34.5kV lines and convert customer stations Bass and Spring St to 138kV and customer station Slater Steel to 69kV. Estimated cost: \$10M

Projected In-Service: 3/17/2028 Project Status: Scoping





AEP Transmission Zone M-3 Process New Albany, OH

Need Number: AEP-2023-OH068

Process Stage: Solution Meeting SRRTEP-W - 01/17/2025

Previously Presented: Need Meeting 07/21/2023

Project Driver: Customer Service

Specific Assumption Reference:

AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

Problem Statement:

- An existing customer served out of AEP's Anguin Station in New Albany, OH, has requested an additional service for a new bulk load addition of 96 MW. This will bring the total load for the customer's site to 646 MW. The customer has indicated the possibility to ultimately go to 720 MW at the site.
- Customer requested in-service date of 01/31/2025.





AEP Transmission Zone M-3 Process Anguin, OH/NBY-7A, OH



Need Number: AEP-2023-OH068

Process Stage: Solution Meeting SRRTEP-W - 1/17/2025

Proposed Solution:

NBY-7 138 kV Extension: In order to serve the customer's new delivery referred to as NBY-7, a new double circuit line extension will be constructed by tapping into the existing radial line to the customer's NBY6 station fed from AEP's Anguin station and extending it to the customer's new NBY-7 station on their site. This will involve about ~0.25 miles of double circuit line utilizing ACSS Drake 795 (26/7) conductor (SE 360 MV) that will terminate into the customer's NBY-7 station. Estimated Cost: \$0.6 M

Transmission Cost Estimate: \$0.6 M

Alternatives Considered:

Given the location of the request, no other cost-effective transmission alternatives to meet the customer's requested service were identified

Projected In-Service: 8/1/2025 Project Status: Engineering

Appendix

High Level M-3 Meeting Schedule

Assum	ptions
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Activity	Timing
Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
Stakeholder comments	10 days after Assumptions Meeting

Needs

Solutions

Submission of Supplemental Projects & Local Plan

Activity	Timing
TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
Stakeholder comments	10 days after Needs Meeting

Activity	Timing
TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
Stakeholder comments	10 days after Solutions Meeting

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

1/7/2025 – V1 – Original version posted to pjm.com