Western Sub Regional RTEP:
AEP Supplemental Projects

November 13, 2026

Cancellation of Existing 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
Wheeling, WV

Need Number: AEP-2023-OH079

Process Stage: Need Meeting 07/21/2023

Previously presented: Need Meeting 07/21/2023

Project Driver:

Customer Service

Specific Assumption Reference:

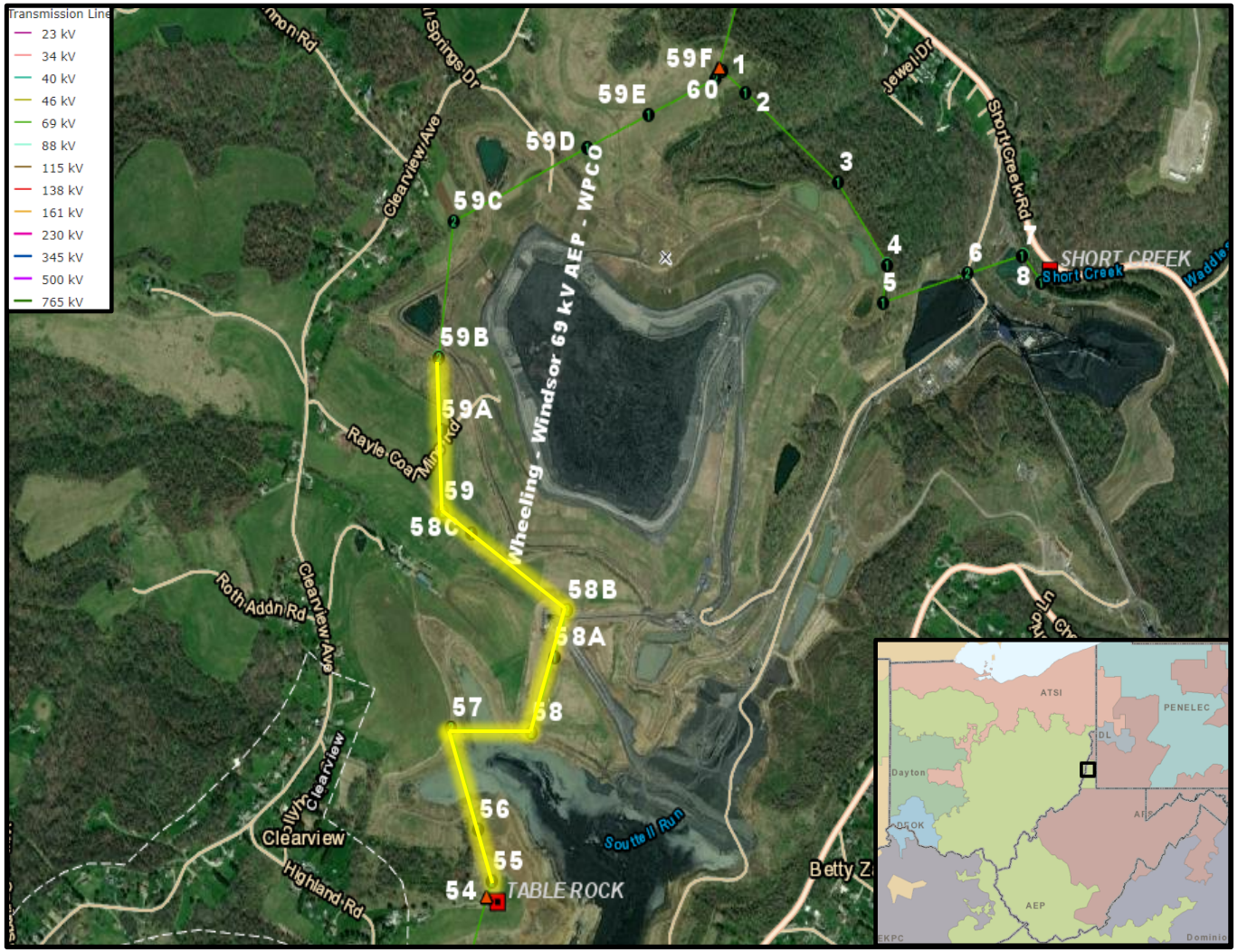
AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

Problem Statement:

In Wheeling, WV a property-owner has requested the relocation of structures 56 – 59A (8 total structures & ~0.96-miles of line) on the Wheeling – Windsor 69 kV double circuit line, due to an increase in mining activity around these structures.

Reason for Cancellation:

The Project scope did not end up impacting the topology of the system, thus did not meet criteria of M-3 submission.



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
North Coshocton Customer

Need Number: AEP-2026-OH032

Process Stage: Need Meeting SRRTEP-W - 11/13/2026

Project Driver:

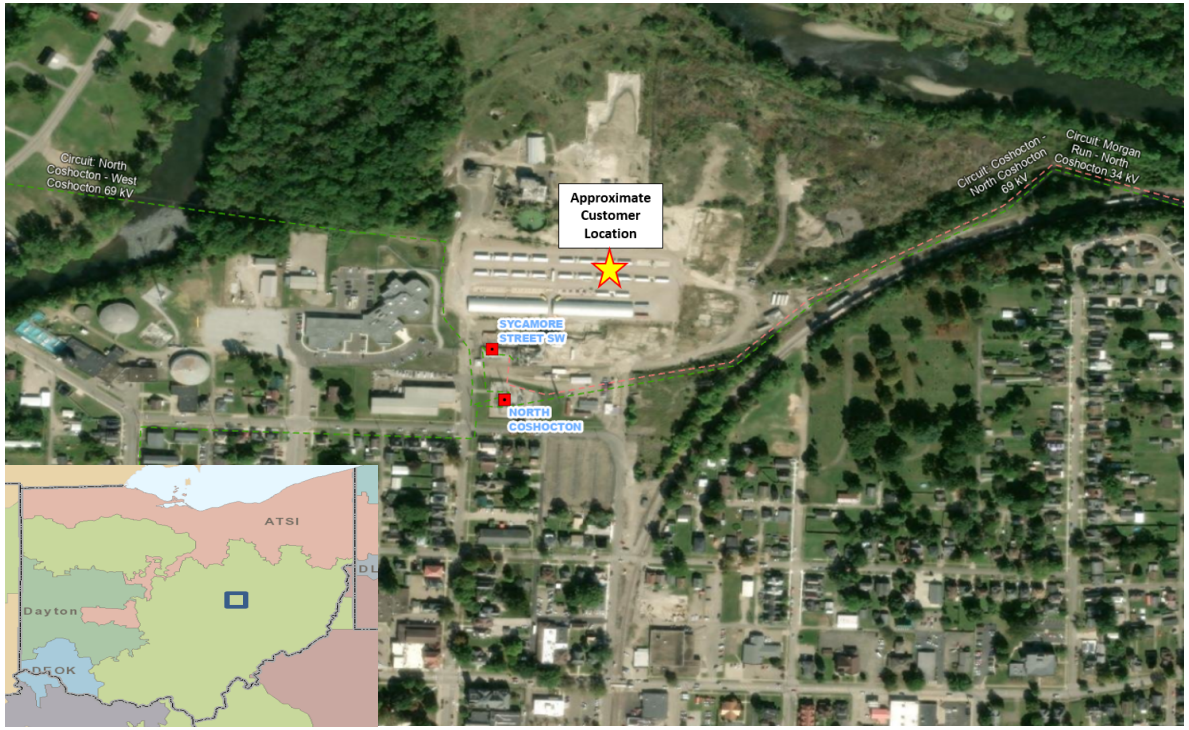
- *Customer Service*

Specific Assumption References:

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

Problem Statement:

A customer has requested service to a new site in Coshocton Ohio, North of AEP's North Coshocton 69kV Station. The initial load at this site is anticipated to be 50 MW by 6/01/2028. The ultimate peak load at the site is expected to be 75 MW by 05/01/2029.



AEP Transmission Zone M-3 Process
Grace - Patten Mills 69 kV

Need Number: AEP-2026-OH045

Process Stage: Need Meeting SRRTEP-W - 11/13/2026

Project Driver:

- *Equipment Condition/Performance/Risk*

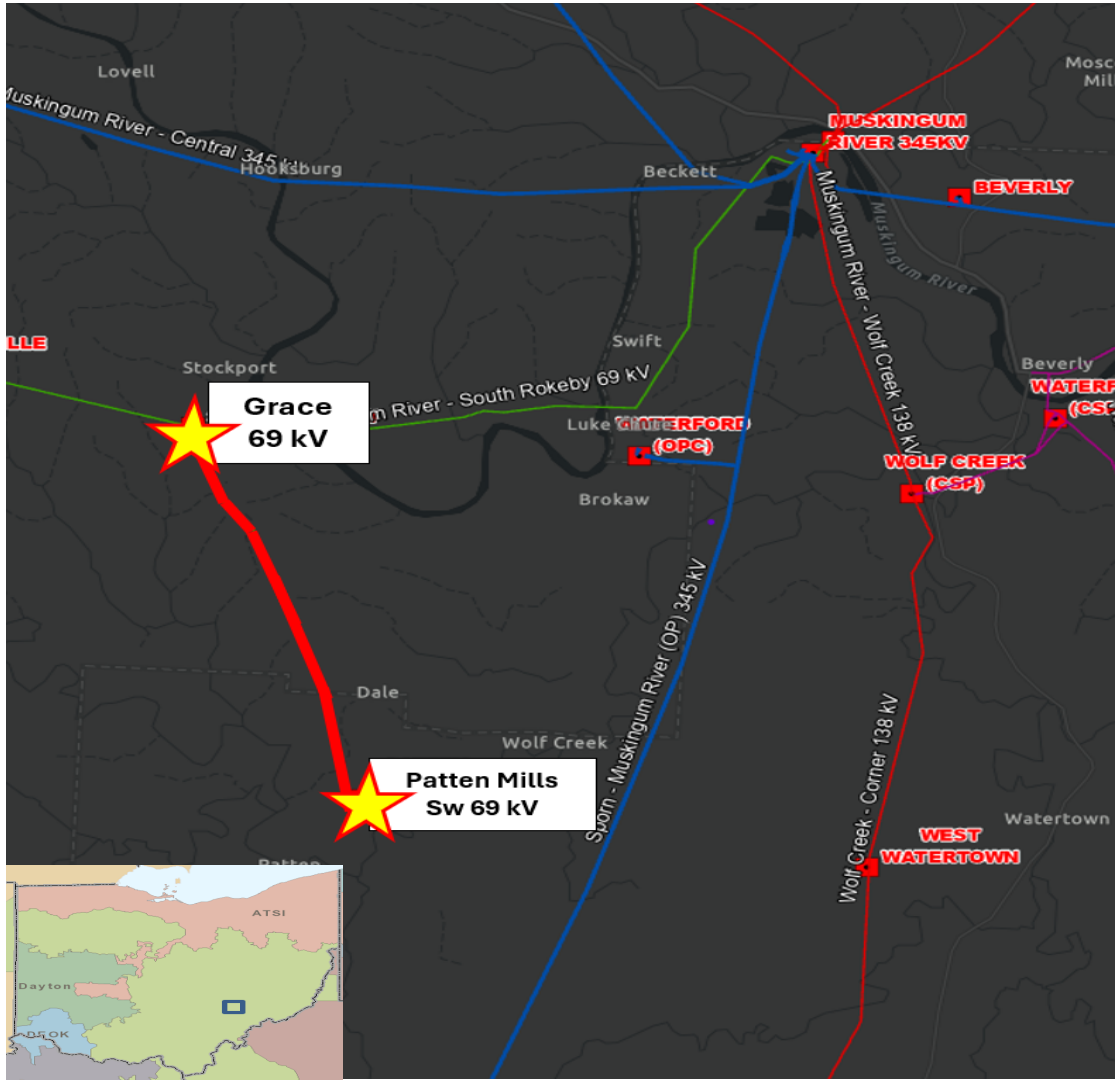
Specific Assumption References:

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

Problem Statement:

Grace - Patten Mills 69 kV

- Grace - Patten Mills 69 kV is a section of the Muskingum River - South Rokeby 69 kV circuit.
- Grace station is under a separate project (s2401)
- Original Install Date: 1979
- Total Length of Line: ~5.09 miles.
- Structures: 41 wood poles currently in service (41 of 41 total structures).
- Conductor: 4/0 AWG ACSR 6/1 (Penguin/ACSR).
- Average Structure Age: 45 years.
- Open Structure Conditions: 17% of structures have at least one structural condition reported
- Customer Impact: 2,617,777 customer minutes interrupted (CMI) recorded between 1/1/2019 and 10/16/2026.

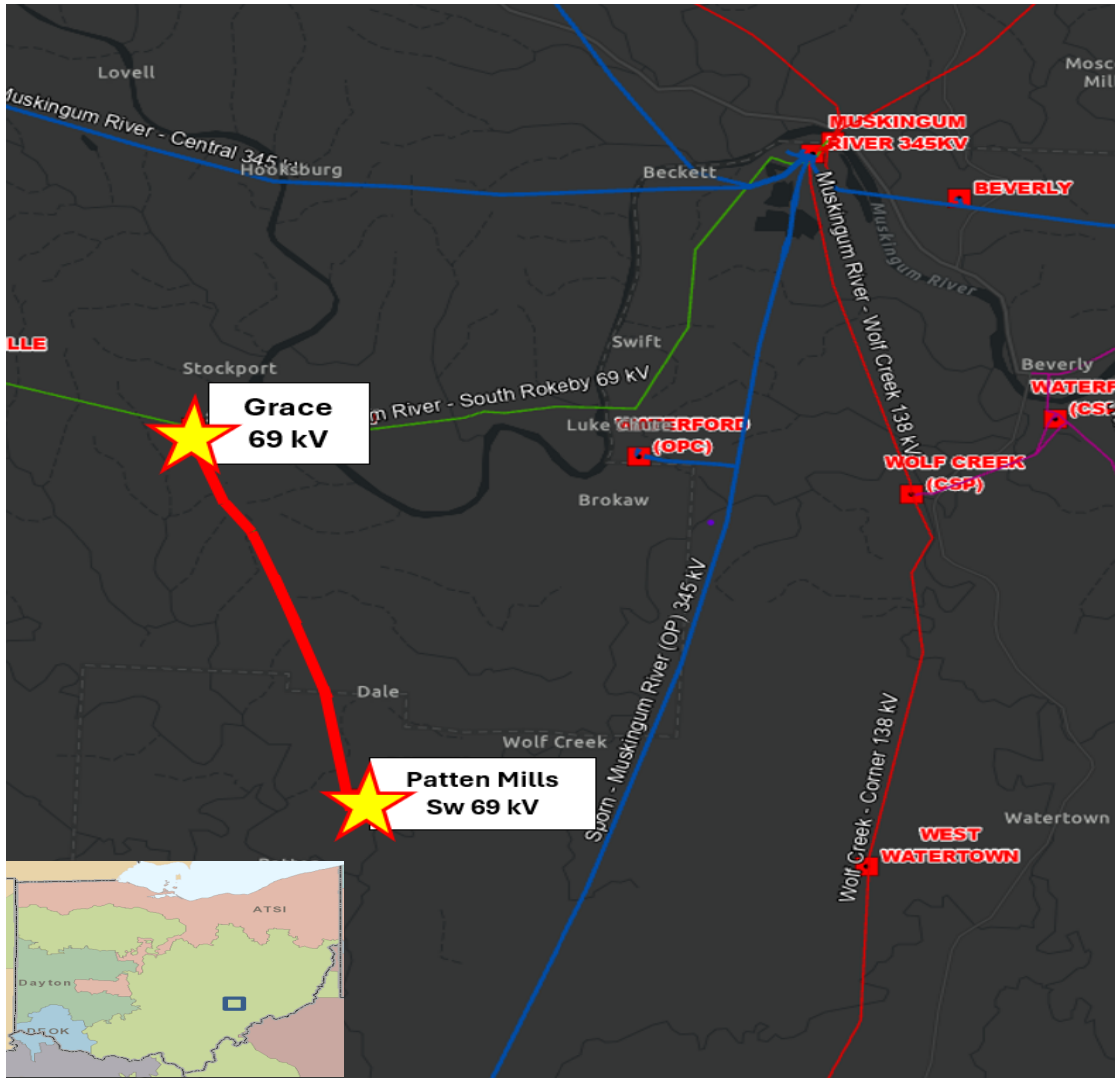


AEP Transmission Zone M-3 Process
Grace - Patten Mills 69 kV

Need Number: AEP-2026-OH045

Problem Statement: Continued from previous slide...

- Outage History:
  - Failed AC Circuit Equipment (Conductor): 12-minute outage resulting in 403,778 CMI in 2025.
  - Failed AC Circuit Equipment (Static Wire): 48-minute outage resulting in 283,292 CMI in 2023.
- Additional outages during the review period were weather related or momentary.



AEP Transmission Zone M-3 Process
Tamarack

Need Number: AEP-2026-AP009

Process Stage: Need Meeting SRRTEP-W - 11/13/2026

Project Driver:

- *Customer Service*

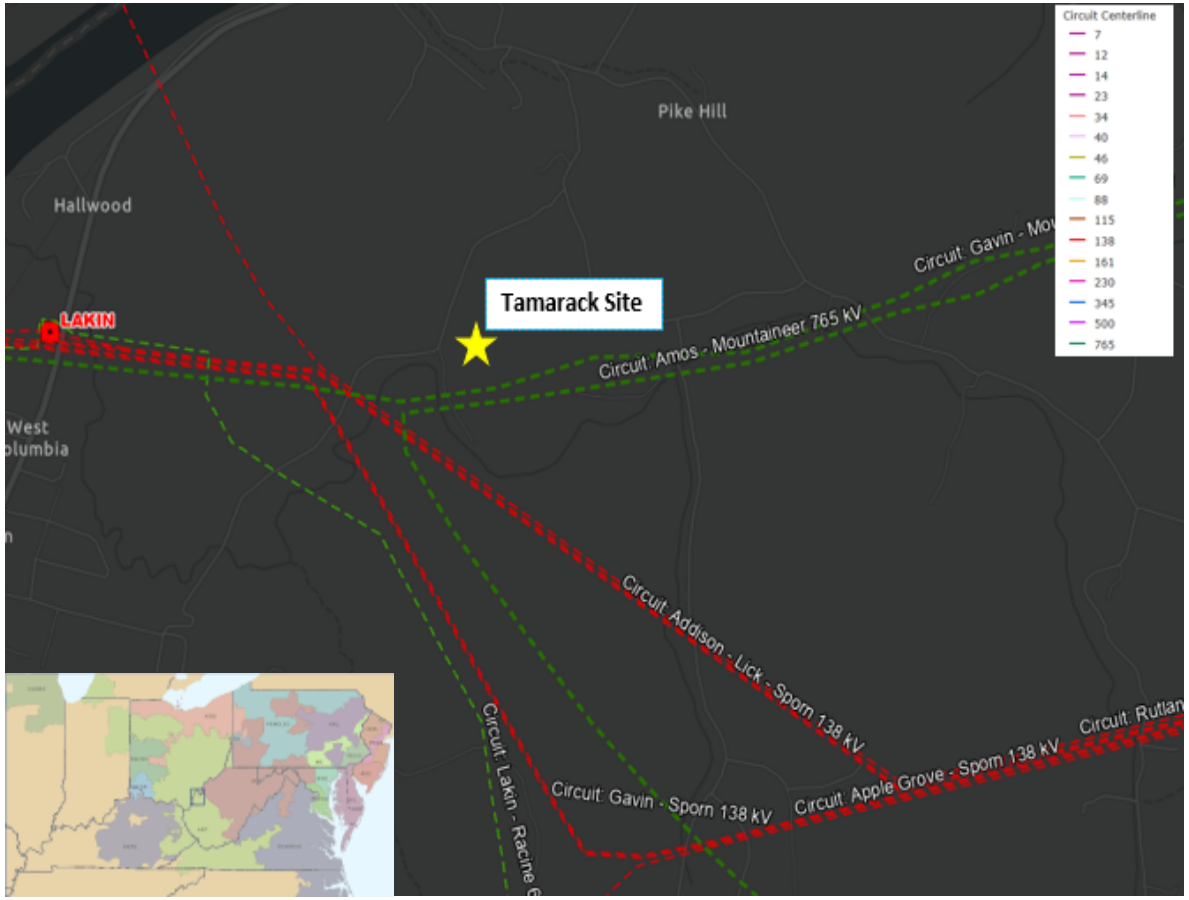
Specific Assumption References:

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

Problem Statement:

A customer has requested new service for 1080 MW in Mason County, West Virginia by 2/2029.

- Initial Load: 96 MW, Expected Date: 02/2029
- Total Load: 1,080 MW, Expected Date: 09/2031



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
Mink Station Expansion

Need Number: AEP-2025-OH008

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Previously Presented: Need Meeting SRRTEP-W - 06/13/2025

Project Driver:

- *Customer Service*

Specific Assumption References:

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

Problem Statement:

AEP Ohio has requested additional distribution deliveries at Mink station to serve additional customers in the area. The additional peak load is approximately 25 MW. The requested in-service date for the distribution facilities is 12/1/2026.



AEP Transmission Zone M-3 Process
Mink Station Expansion

Need Number: AEP-2025-OH008
Process Stage: Solution Meeting SRRTEP-W - 11/13/2026
Proposed Solution:
Mink Station

- Expand the existing Mink Station by installing two distribution - 138/34.5/13.8 kVA transformers, three - 138 kV breakers to the breaker-and-a-half strings, six - 34.5 kV feeder breakers, three - 34.5 kV transformer breakers to serve the new customer. This work is 100% reimbursable from the customer.
- Estimated Cost: 0

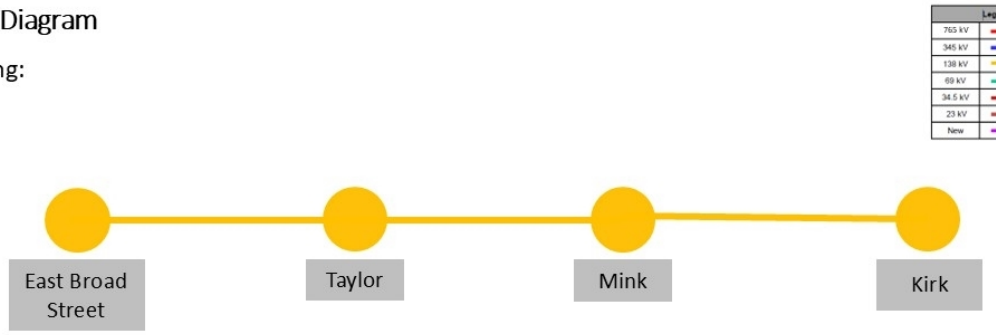
Ratings MVA (SN/SE/WN/WE):
Mink Station

- *H037Y2 138 kV Breaker*
  - Before Proposed Solution: 0 kA
  - After Proposed Solution: 63 kA
- *H037Y5 138 kV Breaker*
  - Before Proposed Solution: 0 kA
  - After Proposed Solution: 63 kA
- *H035G2 138 kV Breaker*
  - Before Proposed Solution: 0 kA
  - After Proposed Solution: 63 kA

Alternatives Considered:
Considering the location of the customer request, a new delivery point was not neede d to serve the load. No other viable transmission alternates were identified.
Transmission Cost Estimate: 0 (The project is 100% reimbursed by the customer be served.)
Projected In-Service: 06/30/2028
Project Status: Engineering
Model: 2030 RTEP

Bubble Diagram

Existing:



Proposed:



AEP Confidential 1

AEP Transmission Zone M-3 Process
Endor Station

Need Number: AEP-2025-OH010

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Previously Presented: Need Meeting SRRTEP-W - 10/17/2025, 07/18/2025

Project Driver:

- *Customer Service*

Specific Assumption References:

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

Problem Statement:

A customer has requested 138 kV transmission delivery to a site in Pickaway County, OH. The site is North of the AEP owned Lockbourne – Good Hope SW 138 kV section of the Lockbourne – Lemaster 138 kV circuit. An initial demand of 12.1MW by 02/2026 has been requested. The ultimate demand at this delivery point is expected to be 135 MW.



AEP Transmission Zone M-3 Process
Endor Station

Need Number: AEP-2025-OH010

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution:

Endor Station

- Construct a greenfield five breaker ring bus station operated with five 138kV circuit breakers. There will be two 138kV 46MVAr cap banks and two 138kV deliveries points to the customer.
- Estimated Cost: $23.5 M

Harrison CB Install

- Add one 138kV circuit breaker at the existing Harrison station to support the installation of the second 138kV circuit to Endor station.
- Estimated Cost: $1.6 M

Good Hope Switch - Harrison 138kV line

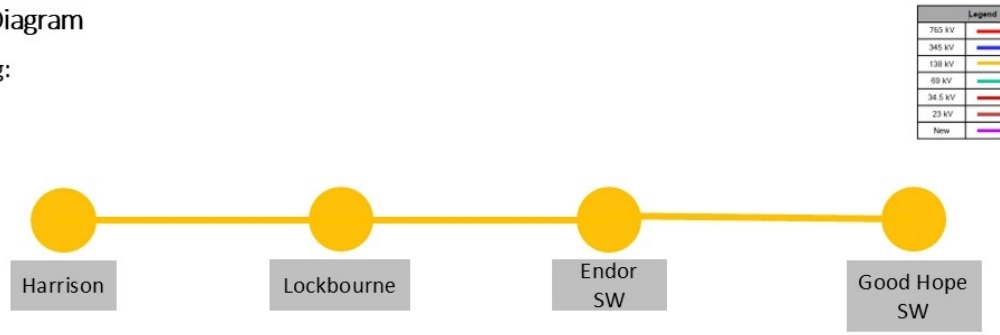
- To eliminate identified voltage violations caused by the new load, the existing Good Hope Switch - Harrison 138kV single circuit line will be rebuilt from Harrison station to Endor station as double circuit at roughly 5.3 miles to install a second feed to Endor from Harrison.
- Estimated Cost: $28.56 M

Customer Feeds

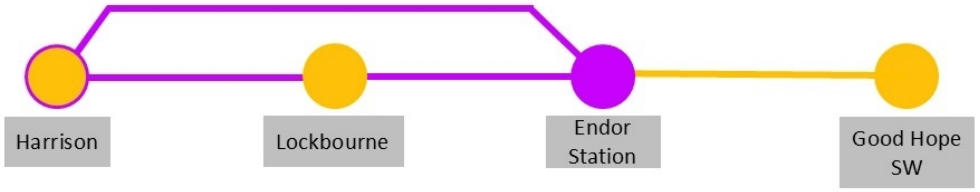
- Construct two 138kV feeds from Endor station to the customer station at roughly 0.2 miles.
- Estimated Cost: $1.227 M

Bubble Diagram

Existing:



Proposed:



AEP Transmission Zone M-3 Process
Endor Station

Need Number: AEP-2025-OH010

Proposed Solution: Continued from previous slide...

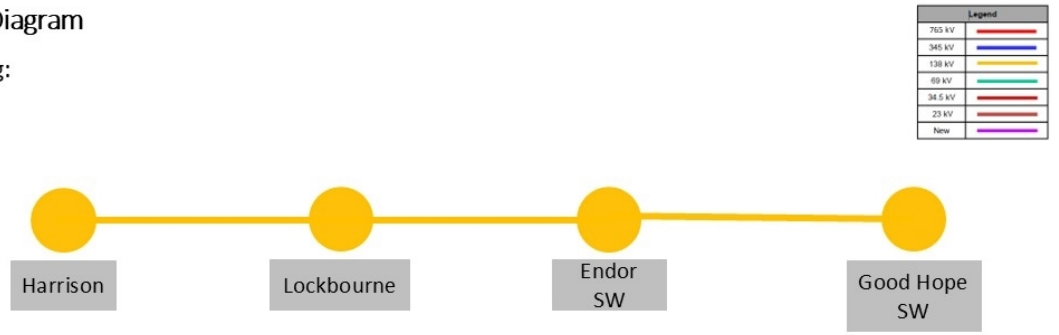
Ratings MVA (SN/SE/WN/WE):

Endor Station

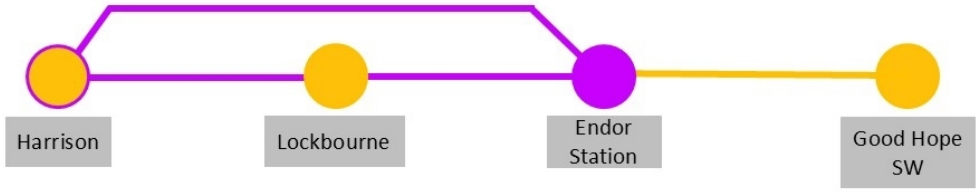
- *H035E2 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA
- *H035E5 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA
- *H035E8 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA
- *H035D2 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA
- *H035D8 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA
- *H035C2 138 kV Breaker*

Bubble Diagram

Existing:



Proposed:



AEP Transmission Zone M-3 Process
Endor Station

Need Number: AEP-2025-OH010

Ratings MVA (SN/SE/WN/WE): Continued from previous slide...

- Before Proposed Solution: NA kA
- After Proposed Solution: 40 kA

- *H035C8 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 40 kA

Harrison CB Install

- *3E 138 kV Breaker*
  - Before Proposed Solution: NA kA
  - After Proposed Solution: 63 kA

Good Hope Switch - Harrison 138kV line

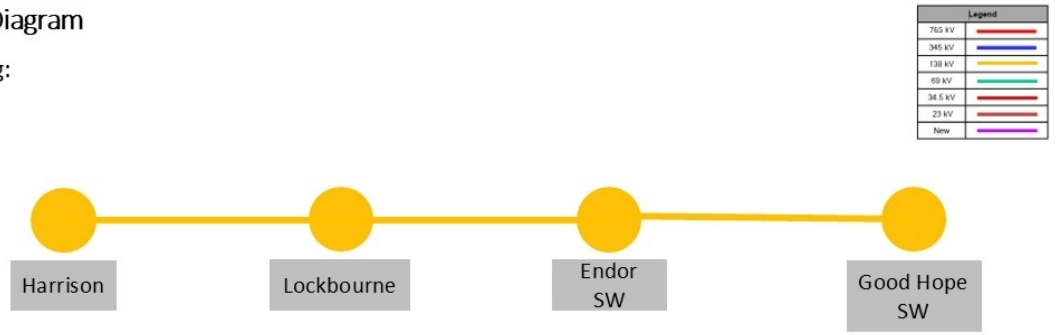
- Before Proposed Solution: 295/411/373/461
- After Proposed Solution: 295/411/373/461

Customer Feeds

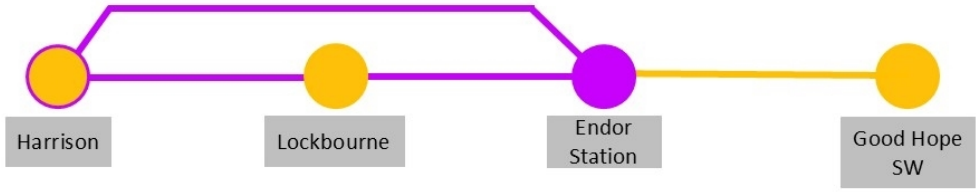
- Before Proposed Solution: NA/NA/NA/NA
- After Proposed Solution: 295/411/373/461

Bubble Diagram

Existing:



Proposed:



AEP Transmission Zone M-3 Process
Endor Station

Need Number: AEP-2025-OH010

Continued from previous slide...

Alternatives Considered:

The alternative plan to serve this site is to cut into the Harrison - Circleville 138kV circuit and construct a new ~4.7-mile 138kV double circuit transmission line to the new Endor Station. This plan was not preferred due to a higher cost and challenge from a ROW/siting perspective in comparison to the proposed service plan. Additionally, the voltage issues could be resolved by installing a 138 kV STATCOM in the area instead of rebuilding the 138 kV line as double circuit. However, the cost of a STATCOM is much more than the proposed line rebuild to double circuit and so was not pursued.

Transmission Cost Estimate: $54.887 M

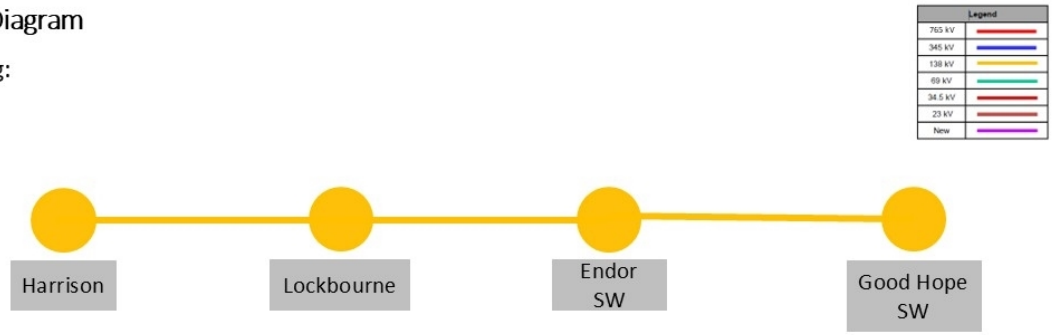
Projected In-Service: 01/01/2029

Project Status: Detailed Scoping

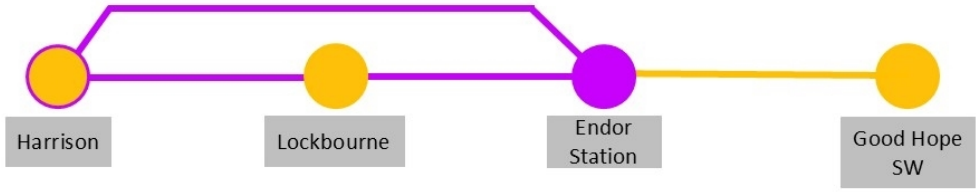
Model: 2030 RTEP

Bubble Diagram

Existing:



Proposed:



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

11/03/2026– V1 – Original version posted to pjm.com