Western Sub Regional RTEP:
AEP Supplemental Projects

April 15, 2026

Changes to 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
Heath, OH

Need Number: AEP-2024-OH037

Process Stage: Need Meeting 04/15/2026, 07/19/2024

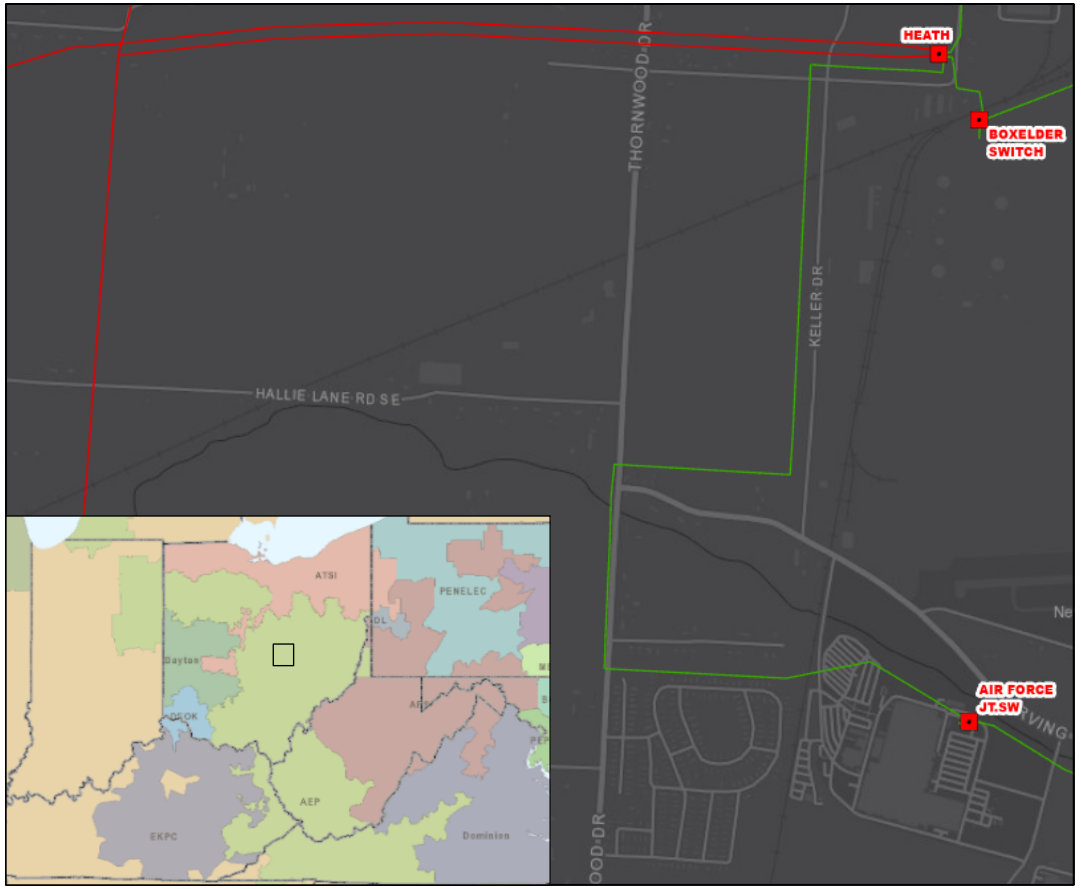
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested Transmission service at a site just Southwest of AEP's existing Heath station in Heath, OH. The customer has indicated an initial peak demand of ~~50 MW~~ 100 MW with an ultimate capacity of up to 300 MW at the site. Customer requested an initial in-service date of ~~12/01/2025~~ 12/01/2027.



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
Bixby, OH

Need Number: AEP-2026-OH002

Process Stage: Need Meeting 04/15/2026

Project Driver: Customer Service

Specific Assumption References:

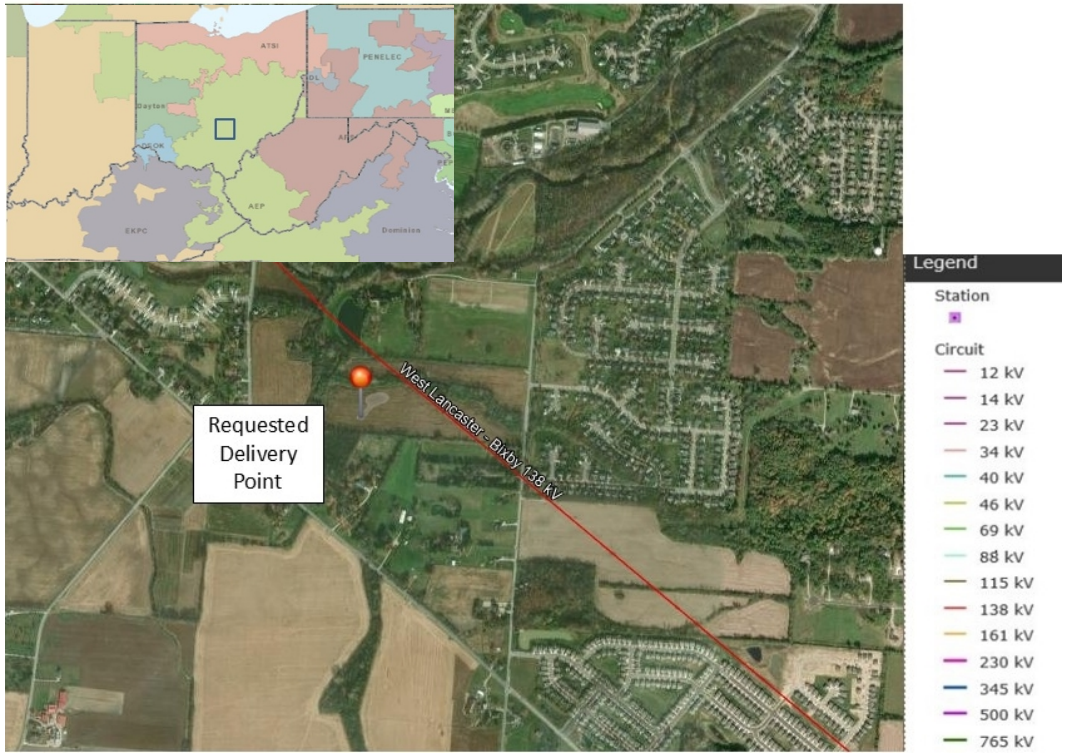
AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

Problem Statement:

A customer has requested a new 138 kV delivery point in Canal Winchester, OH.

The delivery point is intended to serve an initial demand of 36.8 MWs by the ISD and a peak demand of 43.2MWs by 2035.

Customer requested in-service date of Q2 2028.



AEP Transmission Zone M-3 Process
Anguin, OH

Need Number: AEP-2026-OH012

Process Stage: Need Meeting 04/15/2026

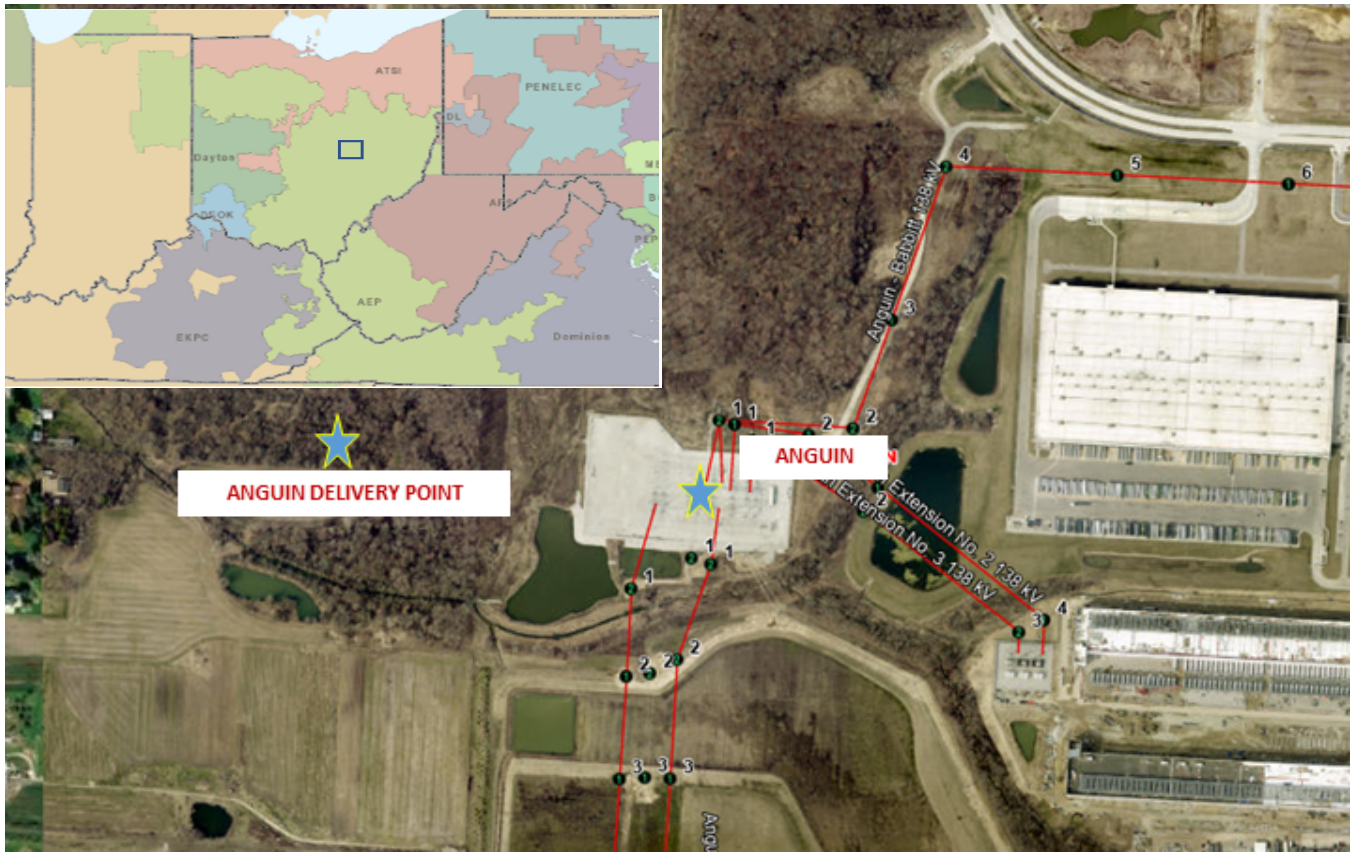
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested new delivery point in New Albany to serve 244 MW of load. The requested ISD is 06/01/2030



AEP Transmission Zone M-3 Process
Jug Street, OH

Need Number: AEP-2026-OH013

Process Stage: Need Meeting 04/15/2026

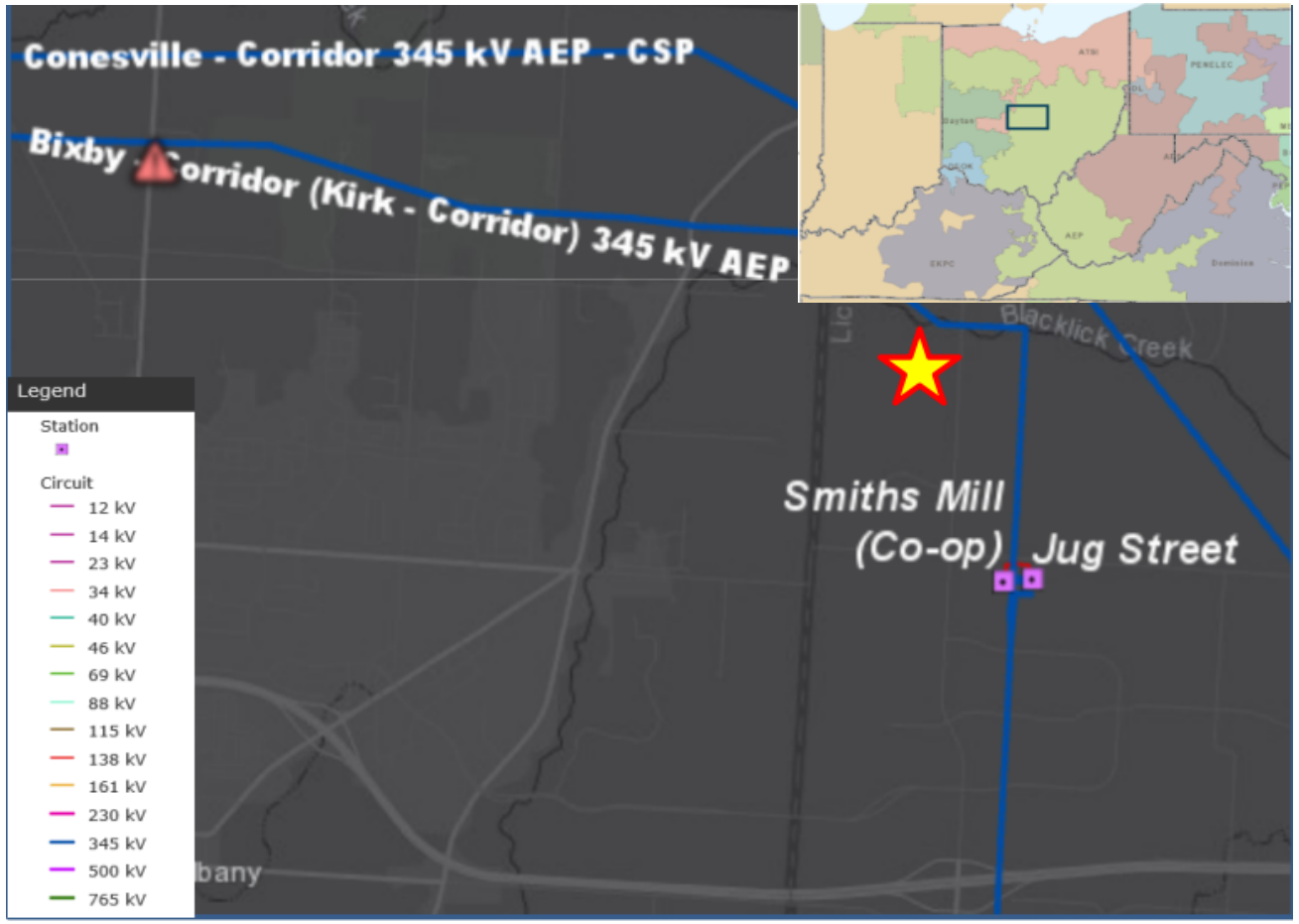
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested a 50 MW load increase from their proposed delivery point at Fiesta 138kV substation (S3442.11) located in New Albany, OH.



AEP Transmission Zone M-3 Process
West Hebron, OH

Need Number: AEP-2026-OH014

Process Stage: Need Meeting 04/15/2026

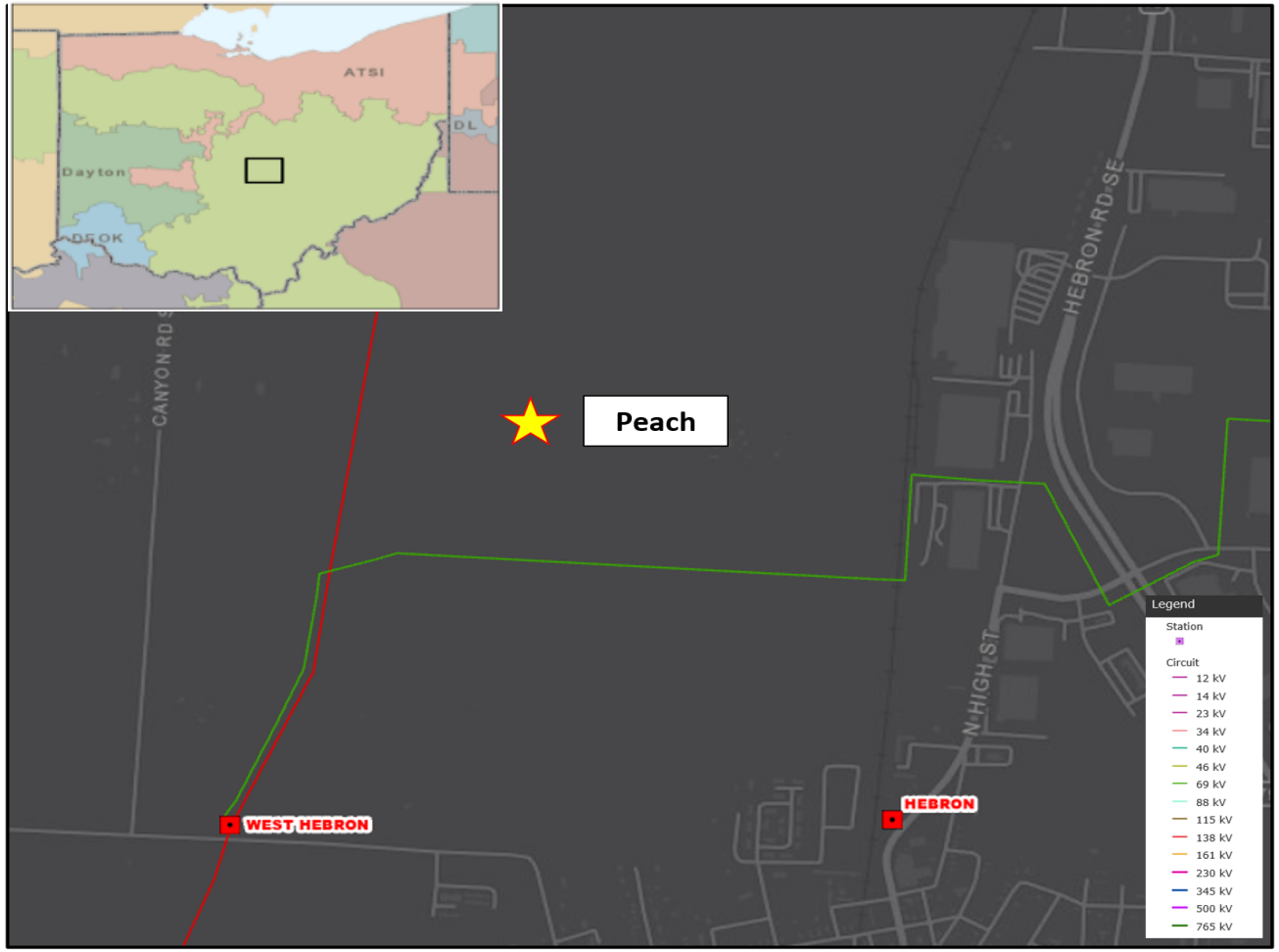
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested a 50 MW load increase from their proposed delivery point at the Peach 138kV station (submitted under AEP-2024-OH038) located in Hebron, OH.



AEP Transmission Zone M-3 Process
Sifford, OH

Need Number: AEP-2026-OH016

Process Stage: Need Meeting 04/15/2026

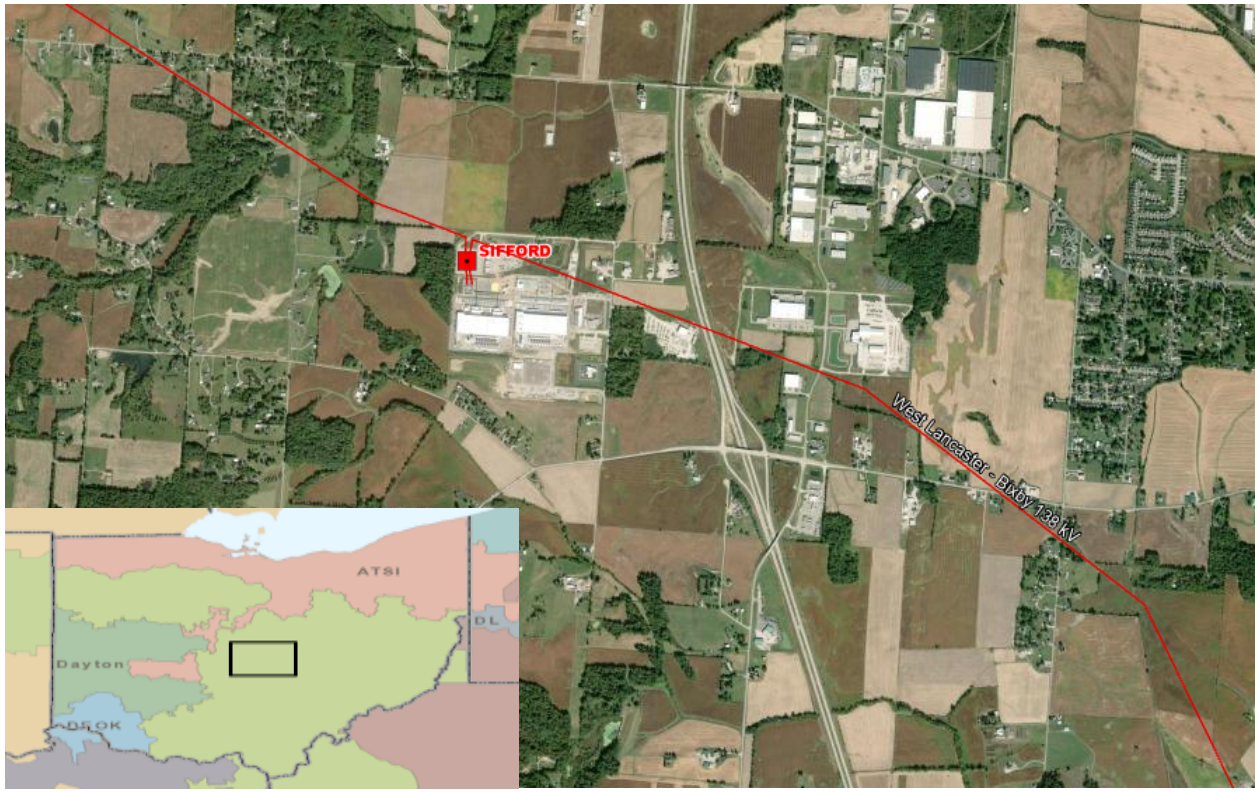
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested 50 MW of additional load at their existing delivery point served from Sifford station in Fairfield County, OH. The requested in-service date for this load increase is January 2031. The ultimate peak demand at this delivery point is expected to be around 280 MW.



AEP Transmission Zone M-3 Process
Beatty, OH

Need Number: AEP-2026-OH017

Process Stage: Need Meeting 04/15/2026

Project Driver: Customer Service

Specific Assumption References:

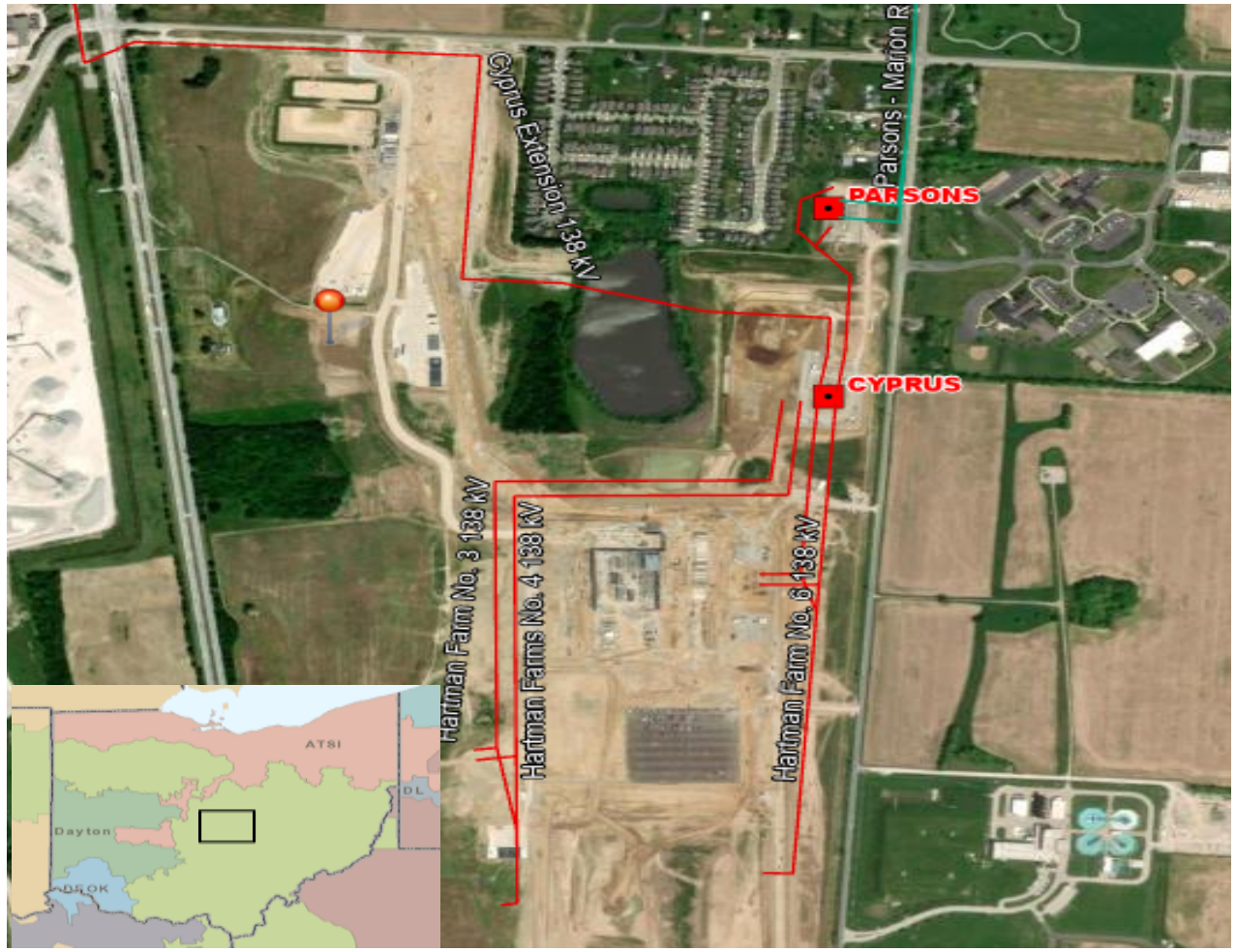
AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

Problem Statement:

A customer has requested additional 138 kV delivery points to their site in Columbus Ohio, just south of AEP's Cyprus station to serve the next phase of their construction.

The customer has requested 300 MW of additional load, bringing the ultimate peak demand at the site to approximately 675 MW.

Customer requested in-service date of Q1 2031.



AEP Transmission Zone M-3 Process
Jug Street, OH

Need Number: AEP-2026-OH018

Process Stage: Need Meeting 04/15/2026

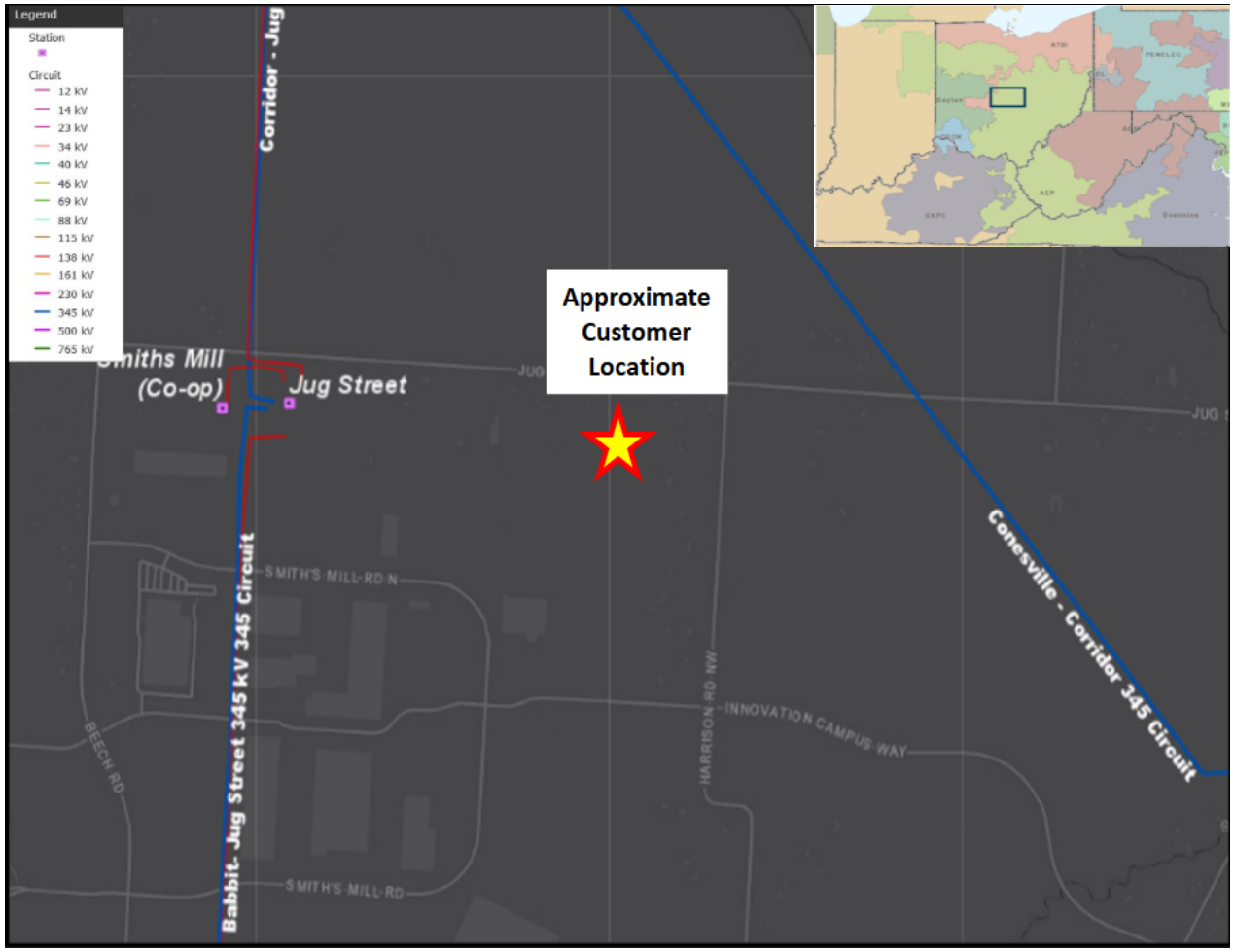
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested a 216 MW load increase from their proposed delivery point at Tasjan 138kV station (S3442.13) located in New Albany, OH.



AEP Transmission Zone M-3 Process
Tiffin Center, OH/Melmore, OH

Need Number: AEP-2026-OH020

Process Stage: Need Meeting 04/15/2026

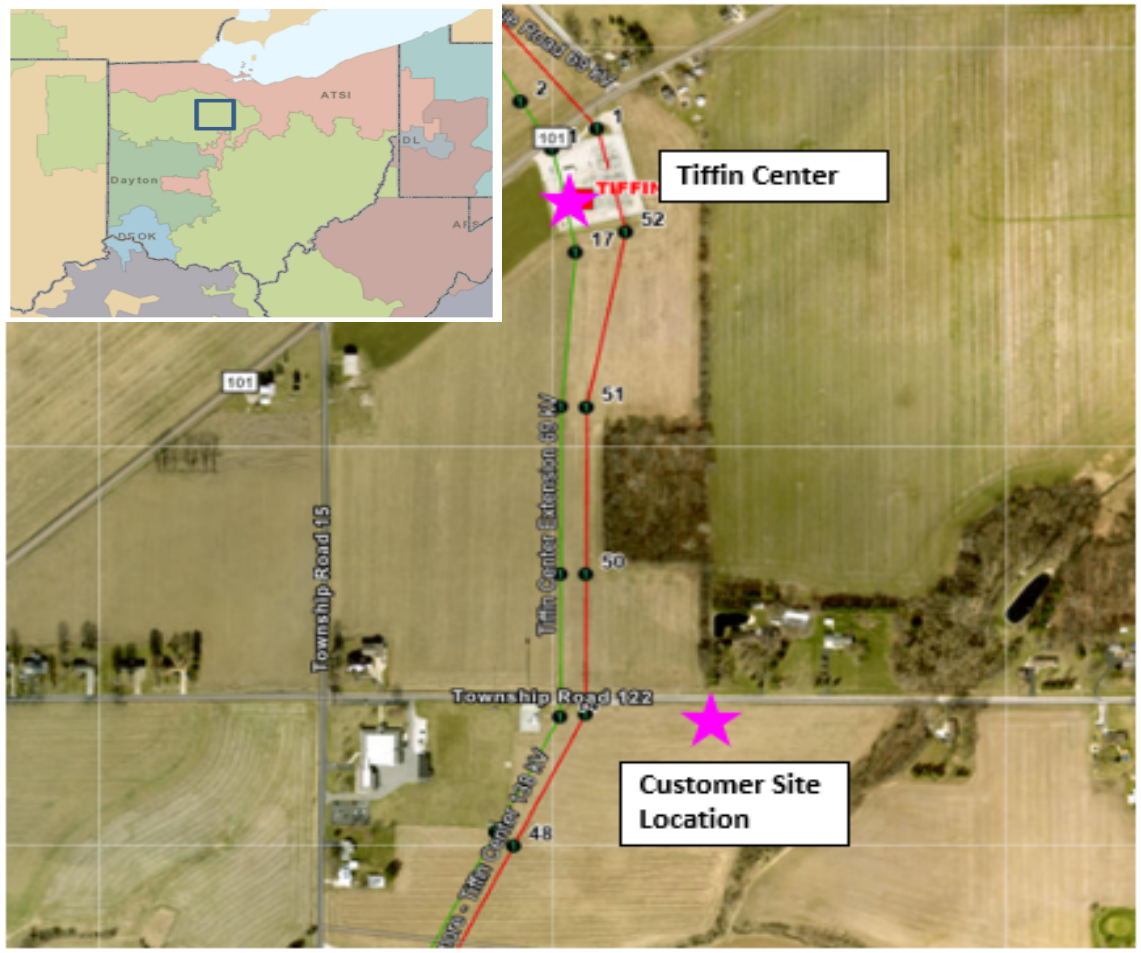
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested a 138kV delivery point connection for ~1.5 MW of load along the Melmore -Tiffin Center 138 kV circuit in Tiffin, Ohio. The requested in-service date is October 2027.



AEP Transmission Zone M-3 Process
Stone, KY/Tom Watkins, KY/Coleman, KY

Need Number: AEP-2026-AP003

Process Stage: Need Meeting 04/15/2026

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

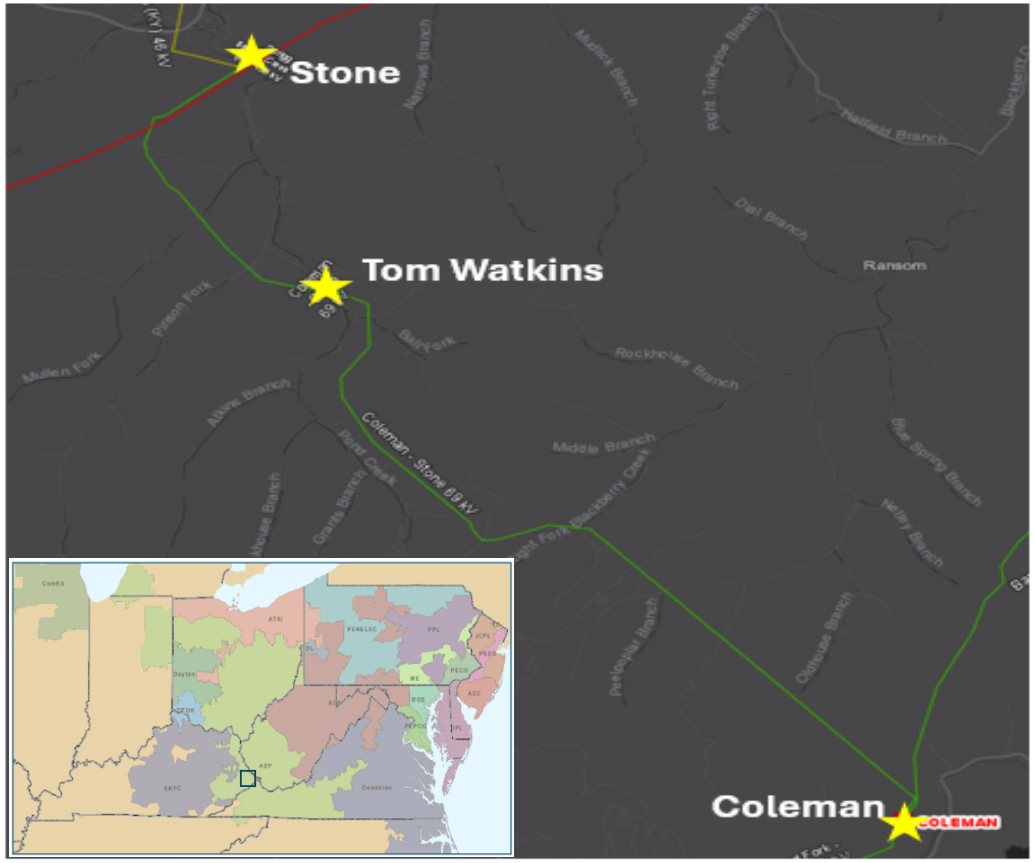
AEP Connection Requirements for the AEP Transmission System

(AEP Assumptions Slide 12)

Problem Statement:

The Coleman - Stone 69kV Line is 10.1 miles long and was original constructed in 1966. The line primarily (~70%) consists of original vintage wood structures and original vintage 336,400 CM ACSR 30/7 (Oriole), 2/0 Copper, and 3/0 ACSR conductors.

From 2019 to 2025, there have been 6 momentary and 5 permanent outages on the Coleman - Stone 69kV Circuit. The permanent outages were attributed to crossarm failure, lightning, guy/anchor failure, and vegetation fall-in from outside of the AEP ROW causes. These permanent outages caused 136k minutes of interruption for customers served from Tom Watkins Substation. The lightning caused outages can be indicative of insufficient shielding, insufficient grounding, or a combination of these. The structures on the Coleman - Stone 69kV Line fail to meet 2017 NESC Grade B loading criteria, fail to meet current AEP structural strength requirements, and fail to meet the current ASCE structural strength requirements, which reduce the structure's ability to withstand storm or high wind damage, potentially resulting in prolonged outages. The ceramic insulators on the line do not meet current AEP standards for CIFO and minimum leakage distance requirements. The butt wrap style grounding is inadequate for current AEP Standards and can contribute to poor lightning performance. Currently, there are 31 structures with at least one open structural condition, which relates to 57% of the structures on the line. There are currently 71 open structural conditions impacting poles, crossarms, and braces including rot, woodpecker damage, broken, bowed, split, and burnt 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
South East Canton, OH

Need Number: AEP-2025-OH020

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Previously Presented: Need Meeting 09/19/2025

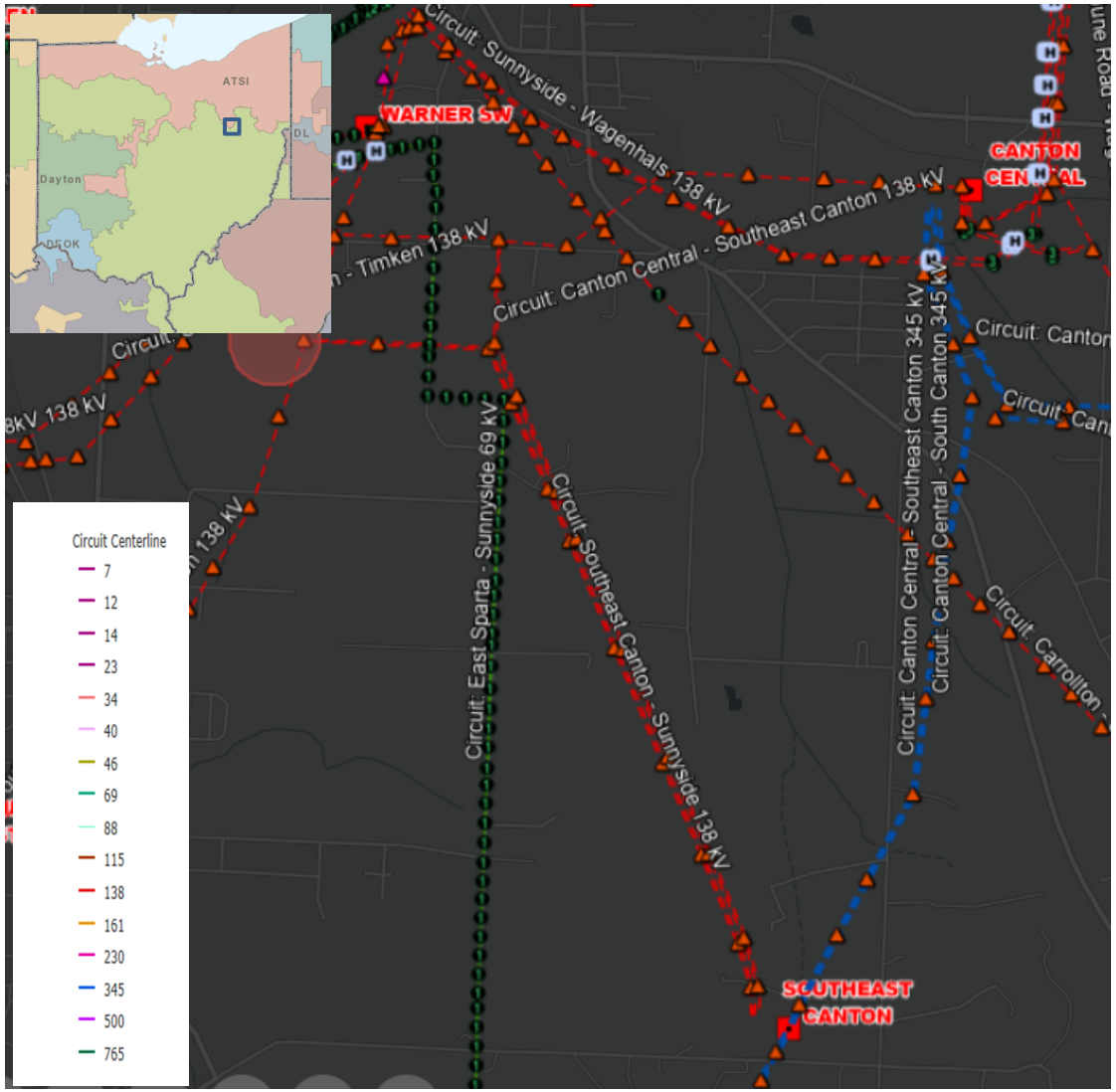
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A Customer has requested 138 kV transmission service at a site near AEP's existing Southeast Canton station in Canton, OH. Total demand to be served at the delivery point will be 312MW. Customer requested in-service date of 01/08/2028.



AEP Transmission Zone M-3 Process
Vettel, OH/Sunnyside, OH/Southeast Canton, OH/ South Canton, OH/Vettel Customer, OH/Torrey, OH

Need number(s): AEP-2025-OH020

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Proposed Solution:

Vettel 138 kV: Construct a greenfield breaker and a half station operated as a ring bus with (6) 138 kV 3000A 63 kA circuit breakers. To accommodate the new station remote end work at South Canton, Southeast Canton, & Sunnyside will be required. Estimated Cost: $16.491 M

Vettel 138 kV Extensions: Cut into the Southeast Canton - South Canton and Southeast Canton - Sunnyside 138 kV lines with (2) ~0.36 mile double circuit lines utilizing 1033.3 KCM ACSR 54/7 Curlew (SE 822 MVA), to accommodate the greenfield Vettel Station.. Estimated Cost: $9.202 M

Vettel - Vettel Customer 138 kV: Install (2) ~0.1 mile customer feeds from Vettel station utilizing 1272 ACSR 54/19 Pheasant (SE 963).. Estimated Cost: $1.712 M

Torrey 138 kV: Expand Torrey with the installation of (2) 138 kV 3000A 40 kA circuit breakers to allow the elimination of the Torrey Bypass; re-termination and remote end settings updates at Timken Richville & Timken Stations will be required to account for the new circuit breakers. Sub-conductor on the Torrey 138 kV Bus Tie Branch will be replaced with 2000 KCM AAC, 91-Str. (SE 449) to accommodate the additional load flow.. Estimated Cost: $4.362 M

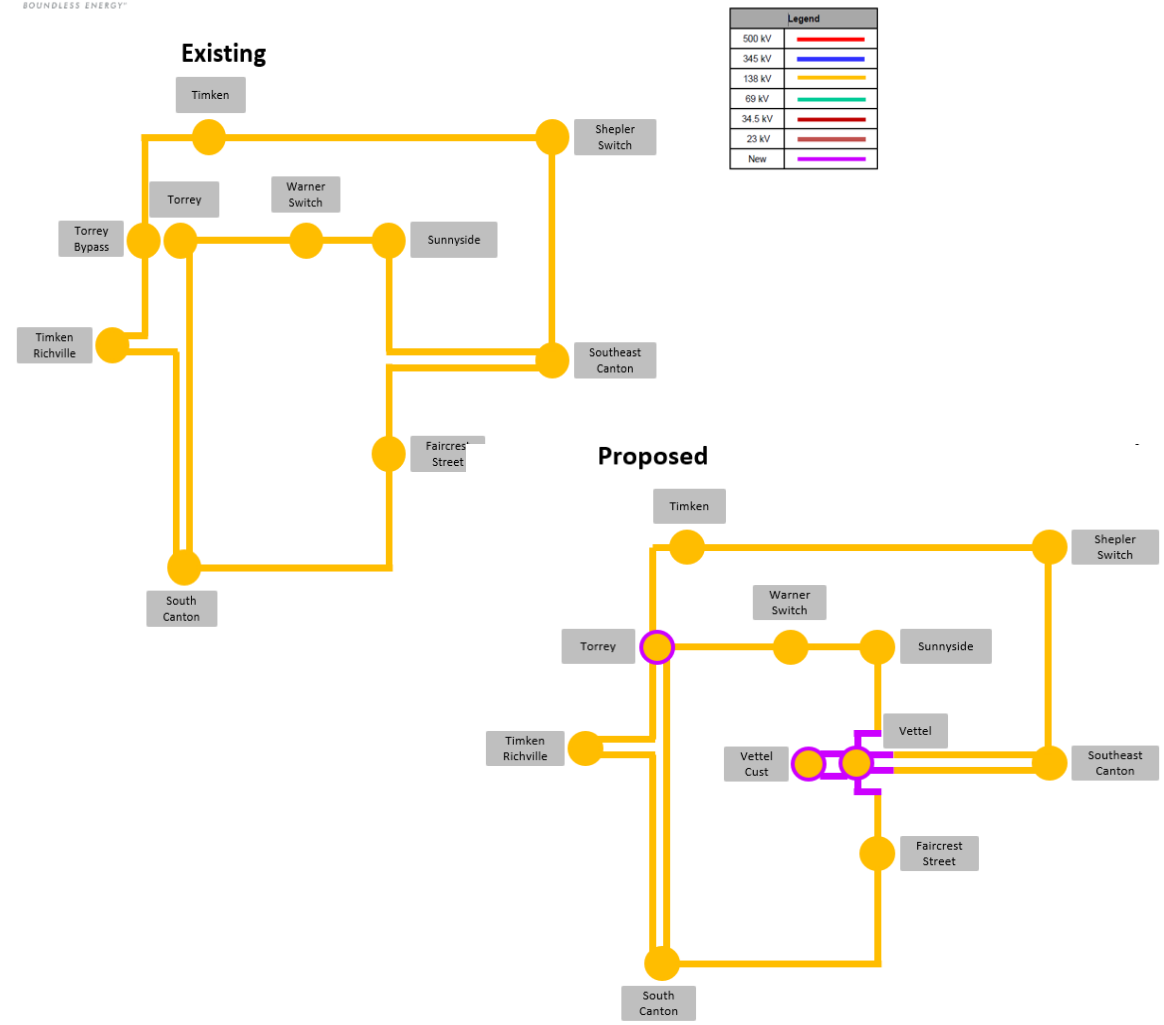
Transmission Cost Estimate: $31.766 M

Alternatives Considered:

Considering the location of the customer facilities and timing of the request, no other viable transmission alternatives were identified.

Projected In-Service: 01/07/2028

Project Status: Engineering



AEP Transmission Zone M-3 Process
Canton Central, OH

Need Number: AEP-2025-OH021

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Previously Presented: Need Meeting 09/19/2025

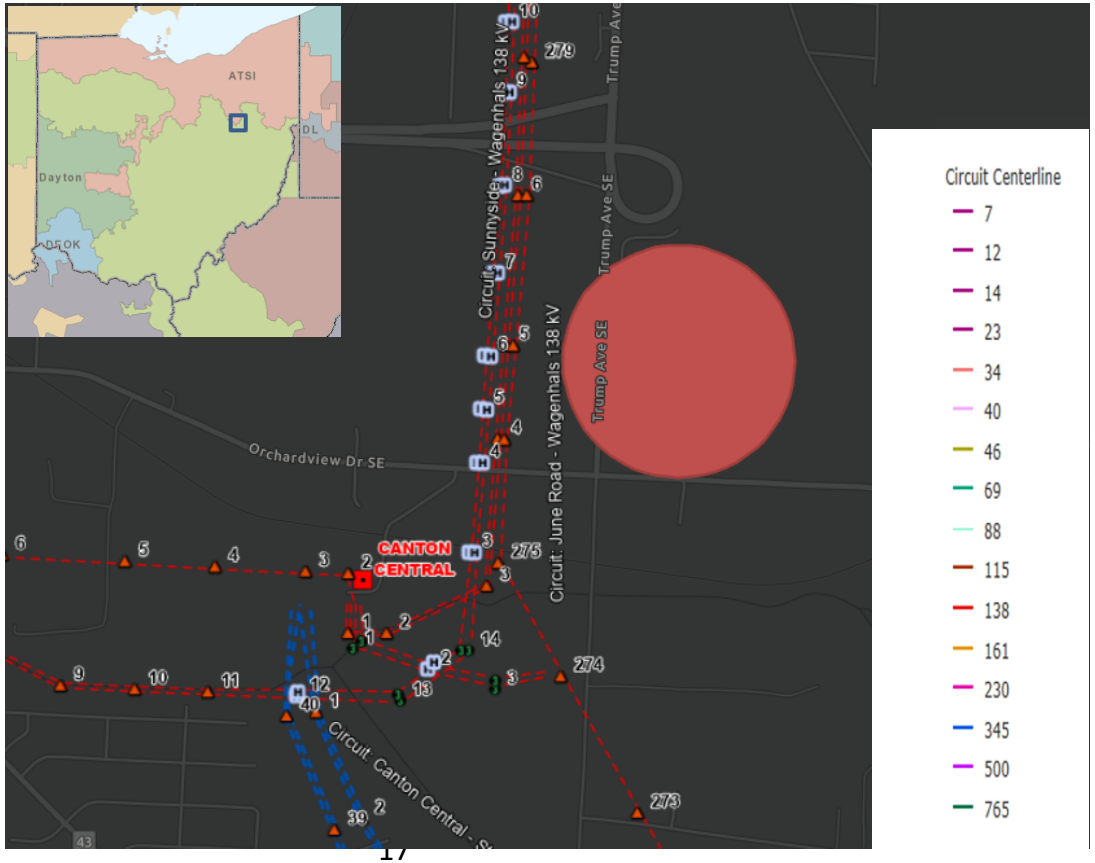
Project Driver: Customer Service

Specific Assumption References:

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

Problem Statement:

A customer has requested 138 kV transmission service at a site near AEP's existing Canton Central station in Canton, OH. Total demand to be served at the delivery point will be 300MW. Customer requested in-service date of 01/08/2028.



AEP Transmission Zone M-3 Process
Canton Central, OH/Triton, OH/Triton Customer, OH

Need number(s): AEP-2025-OH021

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Proposed Solution:

Canton Central 138 kV: Expand Canton Central with the installation of (3) 138 kV 4000A 63kA circuit breakers.. Estimated Cost: $3.032 M

Triton 138 kV: Construct a greenfield breaker and a half station operated as a ring bus with (4) 138 kV 4000A 63 kA circuit breakers.. Estimated Cost: $11.067 M

Canton Central - Triton 138 kV: Construct a greenfield ~0.81-mile double circuit 138 kV line between Canton Central and the greenfield Triton station utilizing 1272 ACSR 54/19 Pheasant (SE 481 MVA). To accommodate this greenfield line the Canton Central - Wagenhals and Tidd - Wagenhals 138 kV lines will be raised.. Estimated Cost: $7.715 M

Triton - Triton Customer 138 kV #1: Install (1) ~0.02-mile customer feed from Triton station utilizing 1272 ACSR 54/19 Pheasant (SE 481 MVA). Estimated Cost: $0.074 M

Triton-Triton Customer 138kV #2: Install (1) ~0.02-mile customer feed from Triton station utilizing 1272 ACSR 54/19 Pheasant (SE 481 MVA). Estimated Cost: $0.074 M

Transmission Cost Estimate: $21.961 M

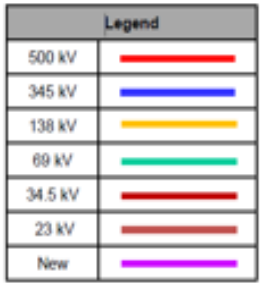
Alternatives Considered:

Considering the location of the customer facilities and timing of the request, no other viable transmission alternatives were identified.

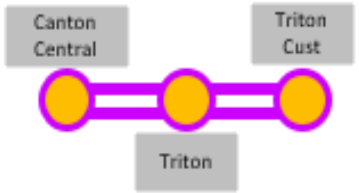
Projected In-Service: 01/08/2028

Project Status: Engineering

Existing:



Proposed:



AEP Transmission Zone M-3 Process
Auglaize County, OH

Need Number: AEP-2022-OH022

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Previously Presented: Need Meeting 06/15/2022

Project Driver: Equipment Condition/Performance/Risk

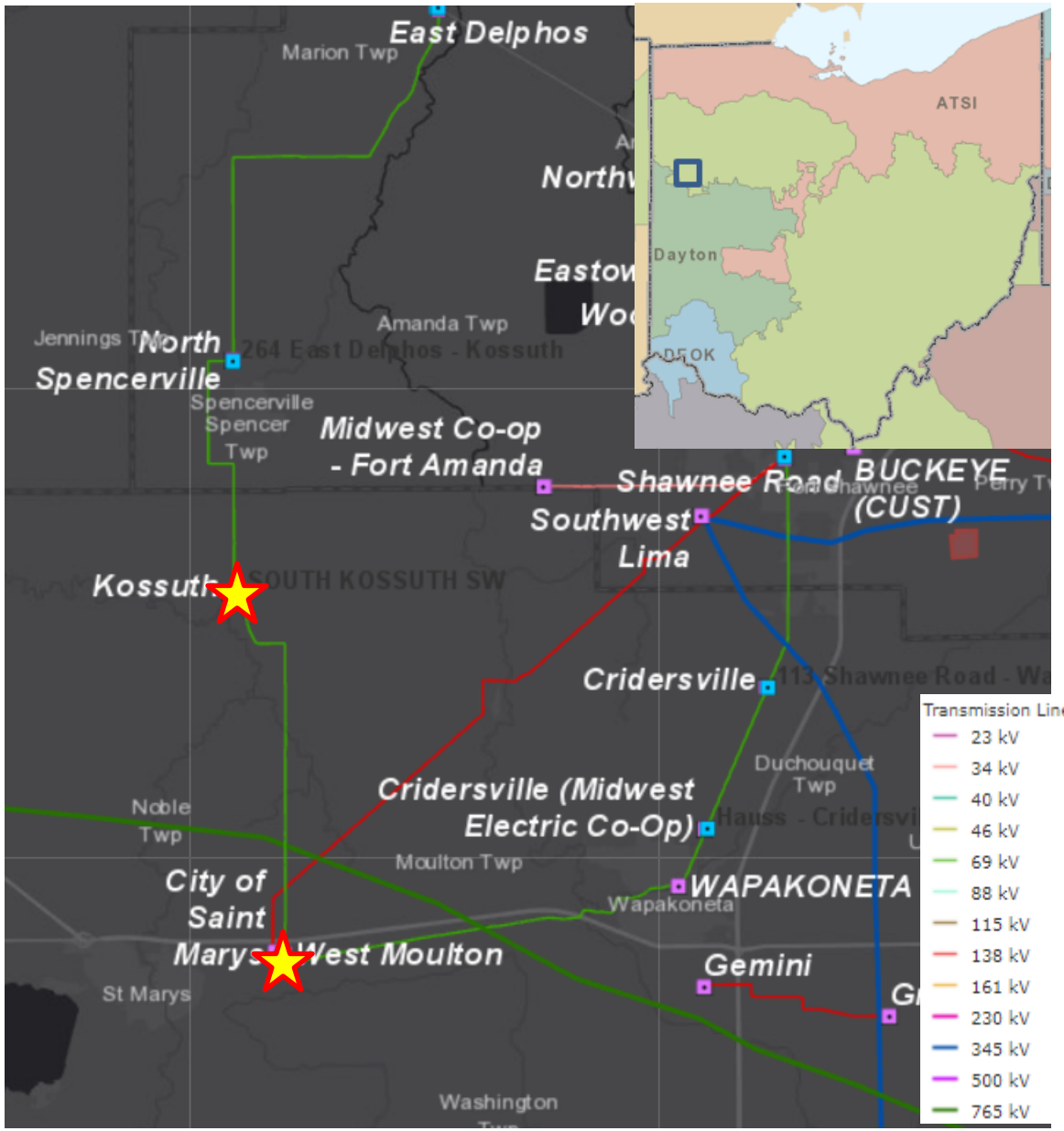
Specific Assumption Reference:

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

Problem Statement:

<u>Kossuth – West Moulton 69kV Line(1963):</u>

- Length of Line: 8.07 Miles
- Total Structure Count: 133
    - Wooden monopole, Steel monopole
    - Horizontal post insulators
- Conductor Types: 4/0 ACSR 6/1 (Penguin)
- Outage History: 25 Momentary and 2 Permanent outages – average duration of 3.25 hours, CMI 221,572 over the last five years
- Open Conditions: 32 Open Conditions, including poles with rot heart and rot pocket, chipped/broken insulators, cracked guy strain insulator, and loose hardware.
- The South Kossuth – West Moulton line fails to meet 2017 NESC Grade B loading criteria. The horizontal post ceramic insulators on the line do not meet current AEP standards for CIFO and minimum leakage distance requirements. The line shielding angle on the typical tangent structure is measured at 13.36 degrees, which is inadequate for AEP current shield angle requirements and can lead to poor lightening performance.
- 10 structures were future assessed by a ground crew. 100% of those structures had reported conditions including rusty shield wires and ground line structure decay.



AEP Transmission Zone M-3 Process
West Moulton, OH/South Kossuth, OH

Need number(s): AEP-2022-OH022

Process Stage: Solution Meeting SRRTEP-W - 04/15/2026

Proposed Solution:

Kossuth - West Moulton: Rebuild 7.99 miles of the Kossuth - West Moulton 69kV line with 556 ACSR conductor. Estimated Cost: $23.396 M

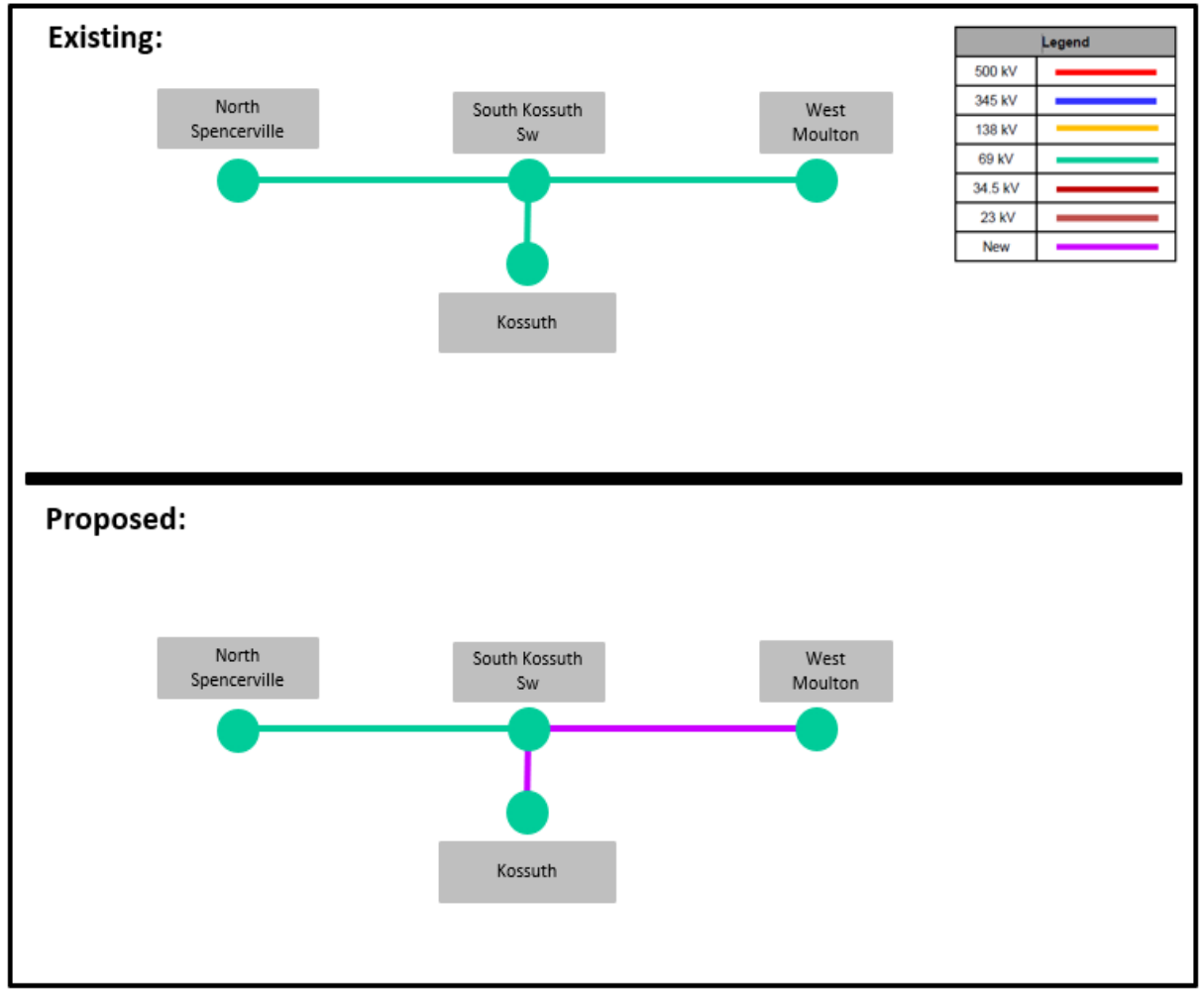
Transmission Cost Estimate: $23.396 M

Alternatives Considered:

The Kossuth - West Moulton circuit provides looped service to several stations on the West Moulton - North Delphos line, so retirement of this line is not viable as it would leave multiple customers served off a long radial line.

Projected In-Service: 08/15/2029

Project Status: Engineering



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

04/03/2026– V1 – Original version posted to pjm.com