

Submission of WVPA Supplemental Projects for
Inclusion in the 2024 Local Plan

Need Number: WVPA-2022-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 6/4/2024

Previously Presented: Needs Meeting 9/16/2022
Solution Meeting 3/15/2024

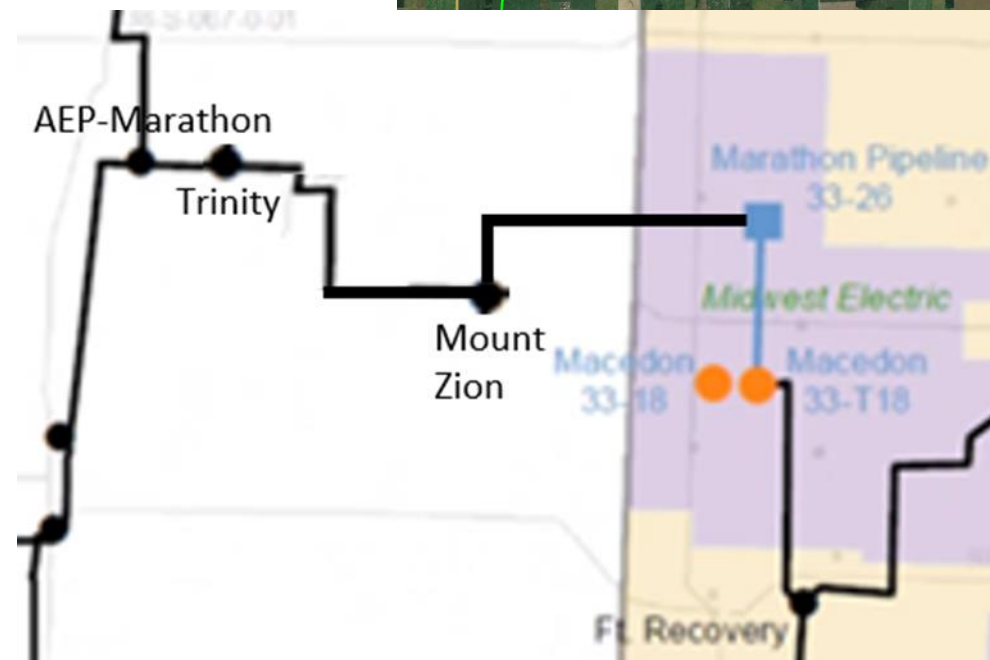
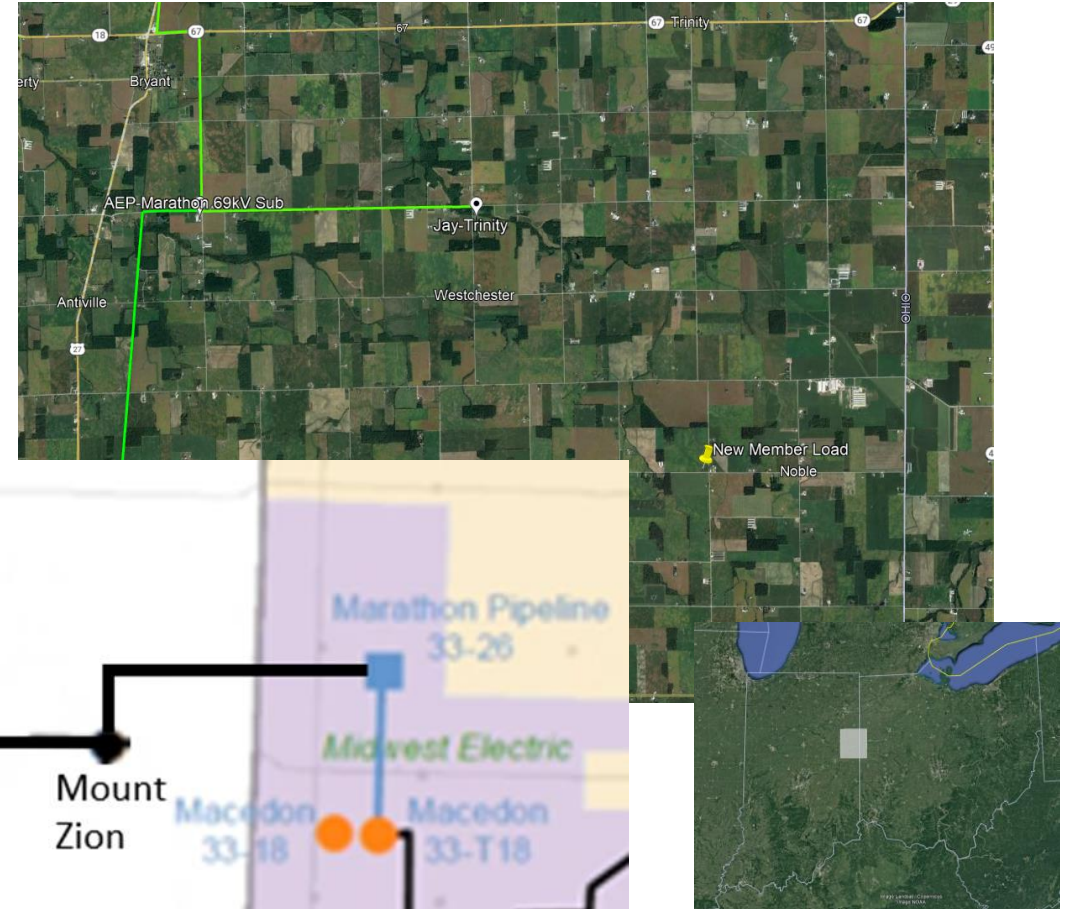
Supplemental Project Driver: Member Need

Specific Assumption Reference: WVPA Member Load Growth Identified Needs (WVPA Assumptions Slide 6)

Problem Statement:

WVPA's member has requested a new delivery point east of Portland, Indiana to serve 14MW of load, Of this 5.2MW of load transferred from the Salamonias metering point and 8.8MW of new load. The requested in-service date is 10/31/2024.

DPL has requested a potential new delivery point connecting into the east side of Indiana on the WVPA system which would create a tie between AEP-WVPA-DPL.



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Selected Solution:

1. Trinity-Mt Zion

Construct a new 69/12kV Mt Zion substation with a 3 position 69kV ring to serve new member load. Approximately 6.5 miles of new 69kV will be constructed from Trinity to Mt Zion using 954 ACSS/TW. Conductor rating: 196MVA/212MVA SN/SE

Line Estimate: \$14M, ISD 6/1/2025

Substation Estimate: \$8M, ISD 9/1/2025

Supplemental Project ID: s3309.1 & s3309.2

Project Status: Engineering & Planning

2. Mt Zion – Macedon (AES)

Construct approximately 2.5 miles of 69kV from Mt Zion to the IN-OH border where AES will assume ownership and construct the remaining 69kV to the AES-Marathon substation. Conductor rating: 196MVA/212MVA SN/SE

Total Estimate: \$5M, ISD 12/31/2026

Supplemental Project ID: s3309.3

Project Status: Engineering & Planning

3. AEP-Burr Oak to Trinity 69kV Rebuild

Rebuild 3.2 miles of 69kV from AEP-Marathon to Trinity with 954ACSS/TW, AEP to build Burr Oak 3 terminal 69kV ring. This tie will provide improved reliability for WVPA’s Trinity and Mt Zion stations as well as to AES-Marathon that is currently served on a long radial.

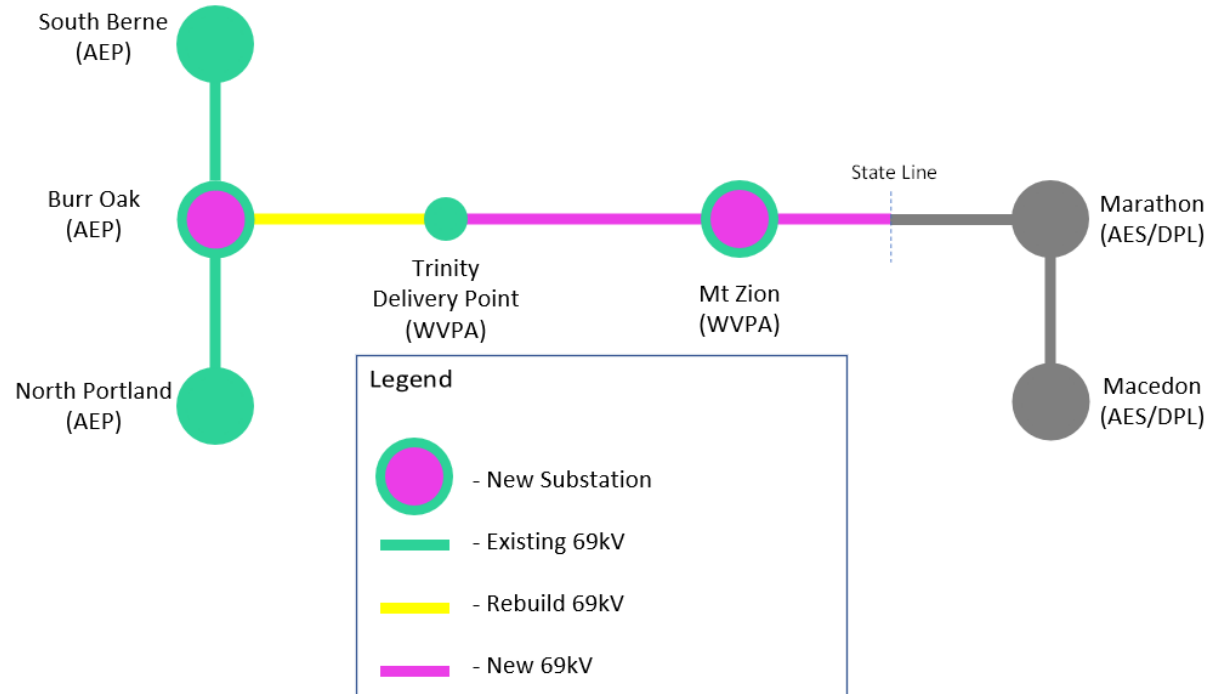
Conductor rating: 196MVA/212MVA SN/SE

WVPA Line Estimate: \$6.5M, ISD 12/31/2027

Supplemental Project ID: s3309.4

Project Status: Engineering & Planning

Alternatives Considered: None



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4. Burr Oak (AEP)

To help facilitate a new network connection from AEP to WVPA to Dayton, build a new 4-69 kV circuit breaker ring bus. The following cost includes the new station construction, property purchase, metering, remote end relay upgrades, the Portland – Marathon 69 kV line connection, Marathon – Berne 69 kV line connection and Trinity radial line AEP removal.

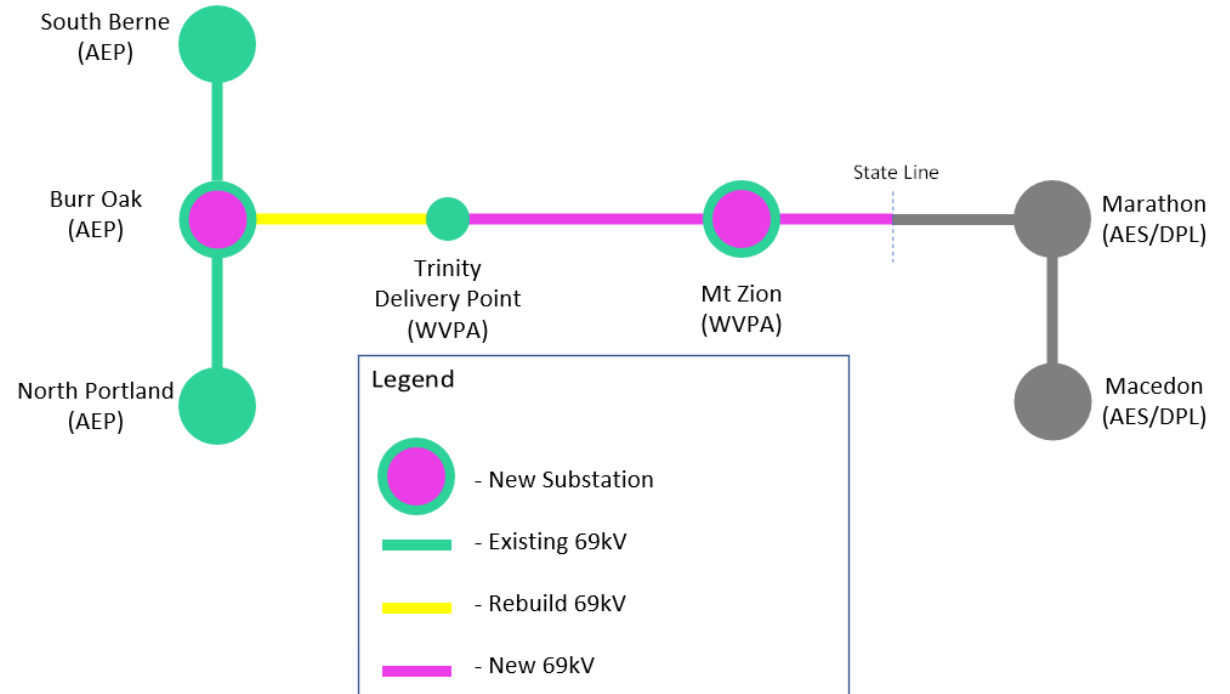
Total Estimated AEP Transmission Cost: \$ 8.7M, ISD 12/31/2027

Supplemental Project ID: s3309.5

Project Status: Engineering & Planning

Alternatives Considered: Keep the existing AEP switch in place on the 69 kV line.

Considering the location of the request from WVPA and the proposed tie to DPL that would create a three terminal line to AEP's existing Marathon switch, the ring bus was required to be constructed to replace the switch.



Revision History

6/4/2024 – V1 Added slides #1-4, s3309.1-.5