# Transmission Expansion Advisory Committee – PPL Supplemental Projects

January 7th , 2025

# Solution

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

# PPL Transmission Zone: Supplemental

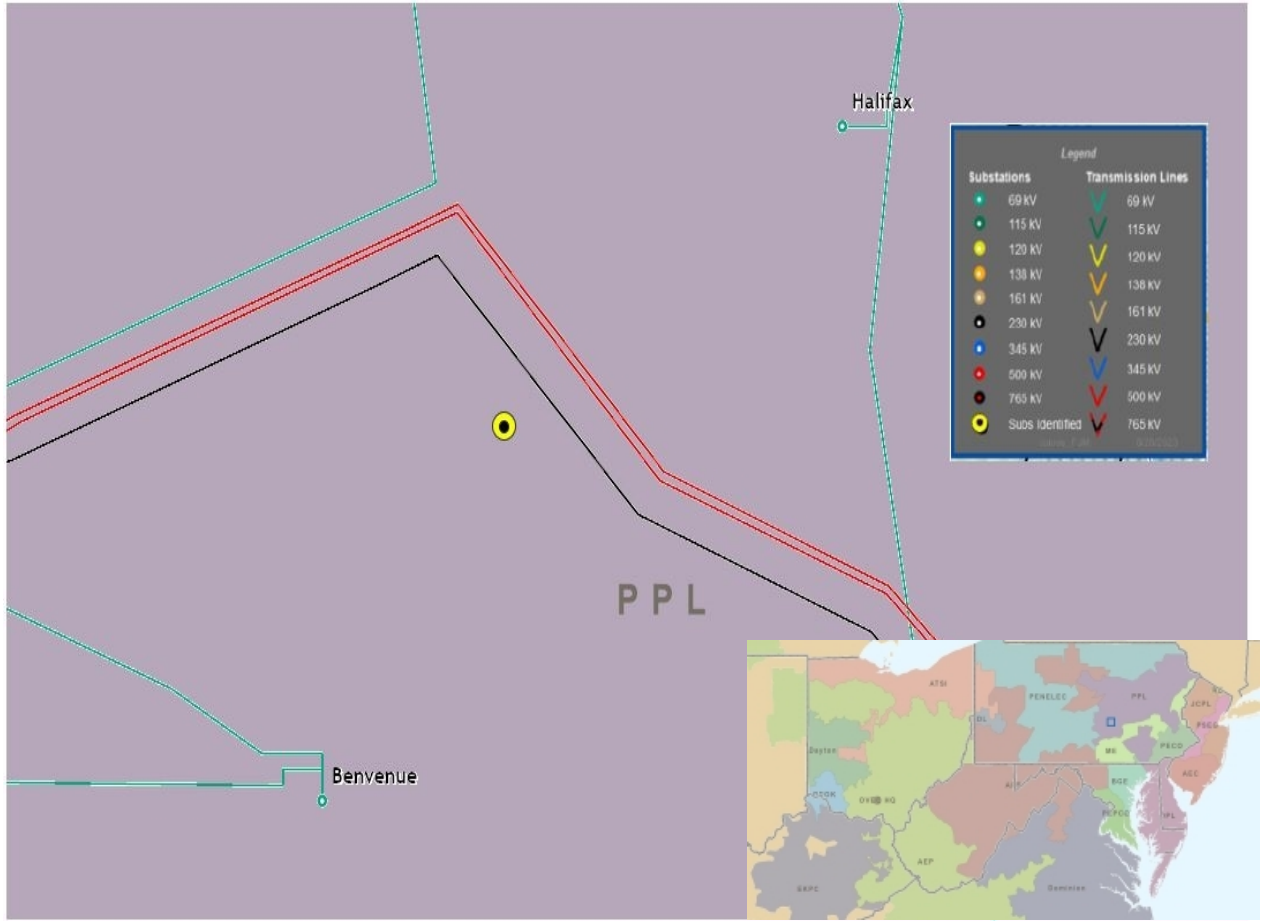
**Need Number:** PPL-2024-0017
**Process Stage:** Solution Meeting TEAC - 01/07/2025
**Previously Presented:** Need Meeting 11/06/2024
**Project Driver:** Customer Service
**Specific Assumption References:**
PPL 2024 Annual Assumptions

**Problem Statement:**

A customer has submitted a request to have their facility served from a 138kV source in New Buffalo, PA. The total facility load is approximately 1,000 MW (2031). The requested in service date is 05/2027.

Initial In-Service 2027 Load: 200MW

Projected 2028 Load: 400 MW




**Specific Assumption References:**
[PPL 2024 Annual Assumptions]

# PPL Transmission Zone: Supplemental

**Need number(s):** PPL-2024-0017

**Process Stage:** Solution Meeting TEAC - 01/07/2025

**Proposed Solution:**

**New Buffalo 500-138kV Substation:** Install a new 500-138kV substation with a four bay BAAH 500kV yard, four 500-138kV XFMRs, six bay BAAH 138kV yard, and one 138kV capacitor bank.. Estimated Cost: $148 M

**Juniata - Alburtis 500kV Bifurcation:** Bifurcate the Juniata - Alburtis 500kV line and terminate into the New Buffalo substation. Extend lines approximately 0.6 miles.. Estimated Cost: $8 M

**Rebuild JUNI-NEBU 500kV line:** Rebuild the existing JUNI-ALBU 500kV line to double circuit for 9.6 miles from Juniata substation to New Buffalo substation.. Estimated Cost: $83 M

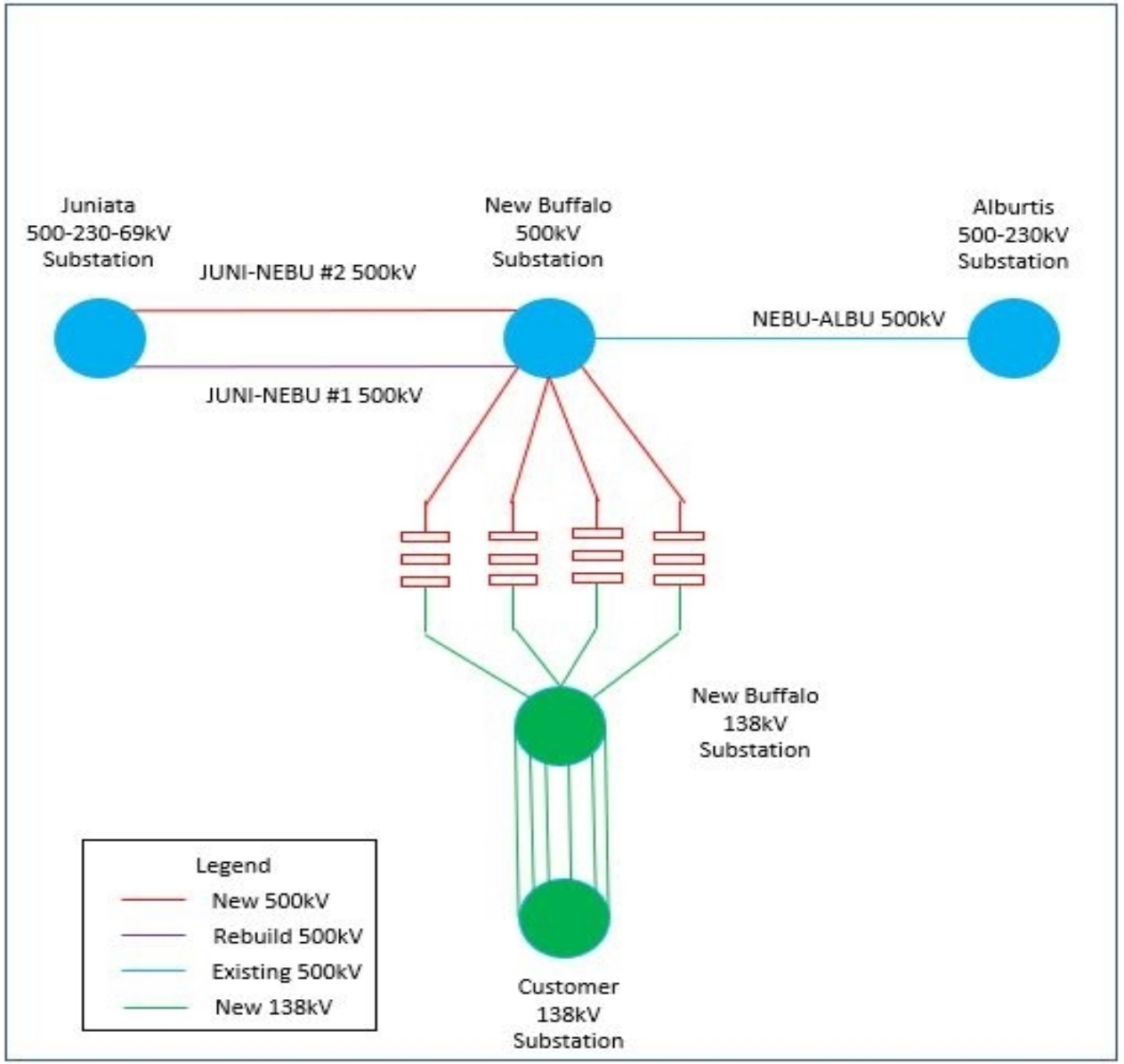
**Customer 138kV Taps:** Extend six 138kV lines to the customer facility.. Estimated Cost: $3 M

**Transmission Cost Estimate:** $242 M

**Alternatives Considered:** 1.500kV & 230kV Option: Install five bay 230kV BAAH yard (NEBU) with four 230-138kV XFMRs, six bay 138kV BAAH yard, and one 138kV capacitors. Install a three bay 500kV BAAH yard with two 500-230kV XFMRs. Break JUNI-DAUP 230kV line and rebuild the JUNI-NEBU 230kV section to double circuit and install new terminal at JUNI 230kV yard. Estimated cost: $274M.

**Projected In-Service:** 05/30/2028

**Project Status:** Conceptual




## Specific Assumption References:

[PPL 2024 Annual Assumptions]

# Questions?

# 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

12/27/2024 - V1 – Original version posted to pjm.com