

Transmission Expansion Advisory Committee – PPL Supplemental Projects

October 08, 2024

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



PPL Transmission Zone: Supplemental Donnelley, PA

Need Number: PPL-2024-0011

Process Stage: Need Meeting TEAC - 10/08/2024

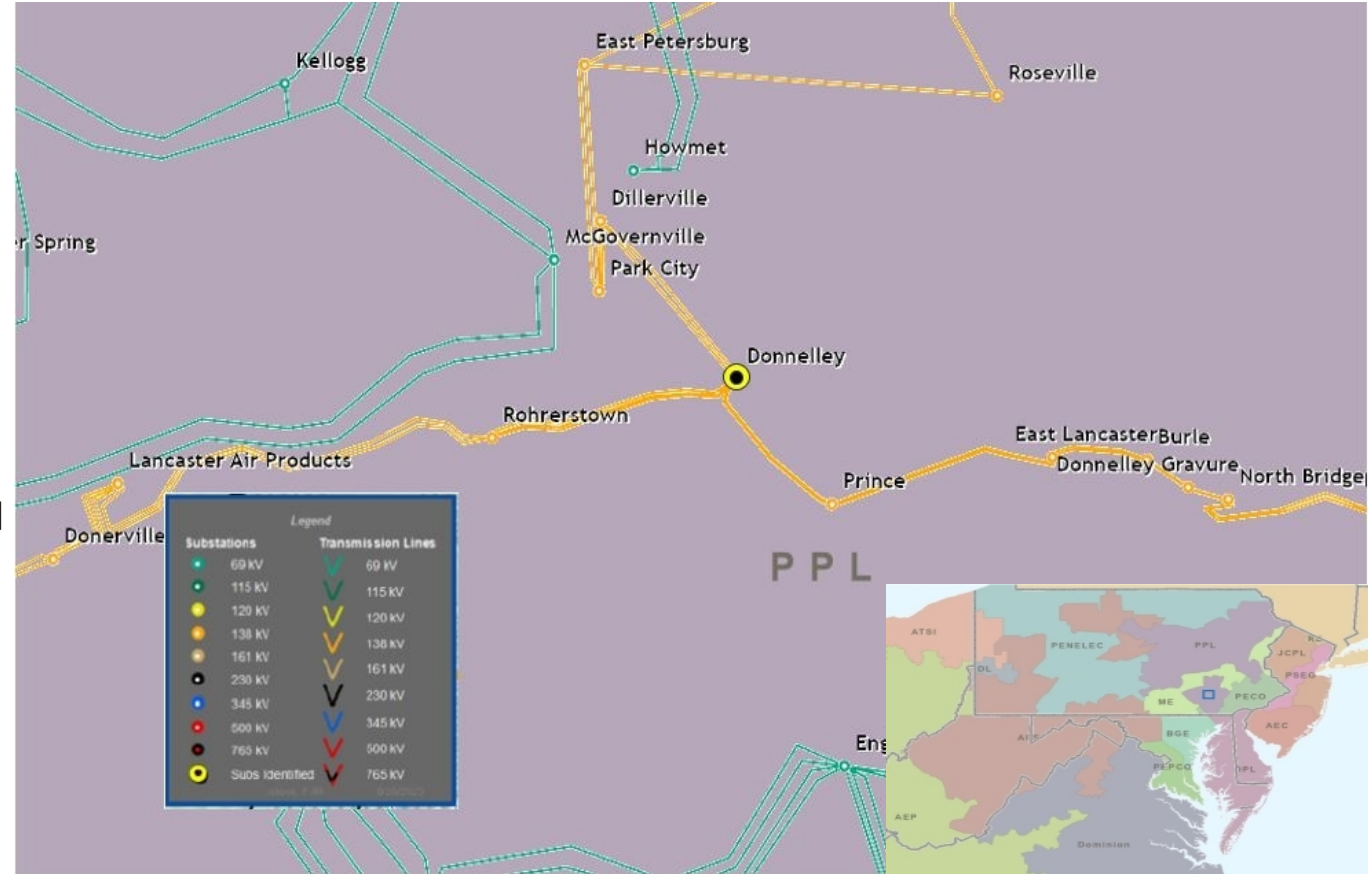
Project Driver: Customer Service

Specific Assumption References:

PPL 2024 Annual Assumptions

Problem Statement:

An existing 138kV customer in Lancaster, PA has submitted a request to increase their facility load. The total facility load will be approximately 350 MW (2029).



Specific Assumption References:

[PPL 2024 Annual Assumptions](#)



PPL Transmission Zone: Supplemental Harwood, PA

Need Number: PPL-2024-0012

Process Stage: Need Meeting TEAC - 10/08/2024

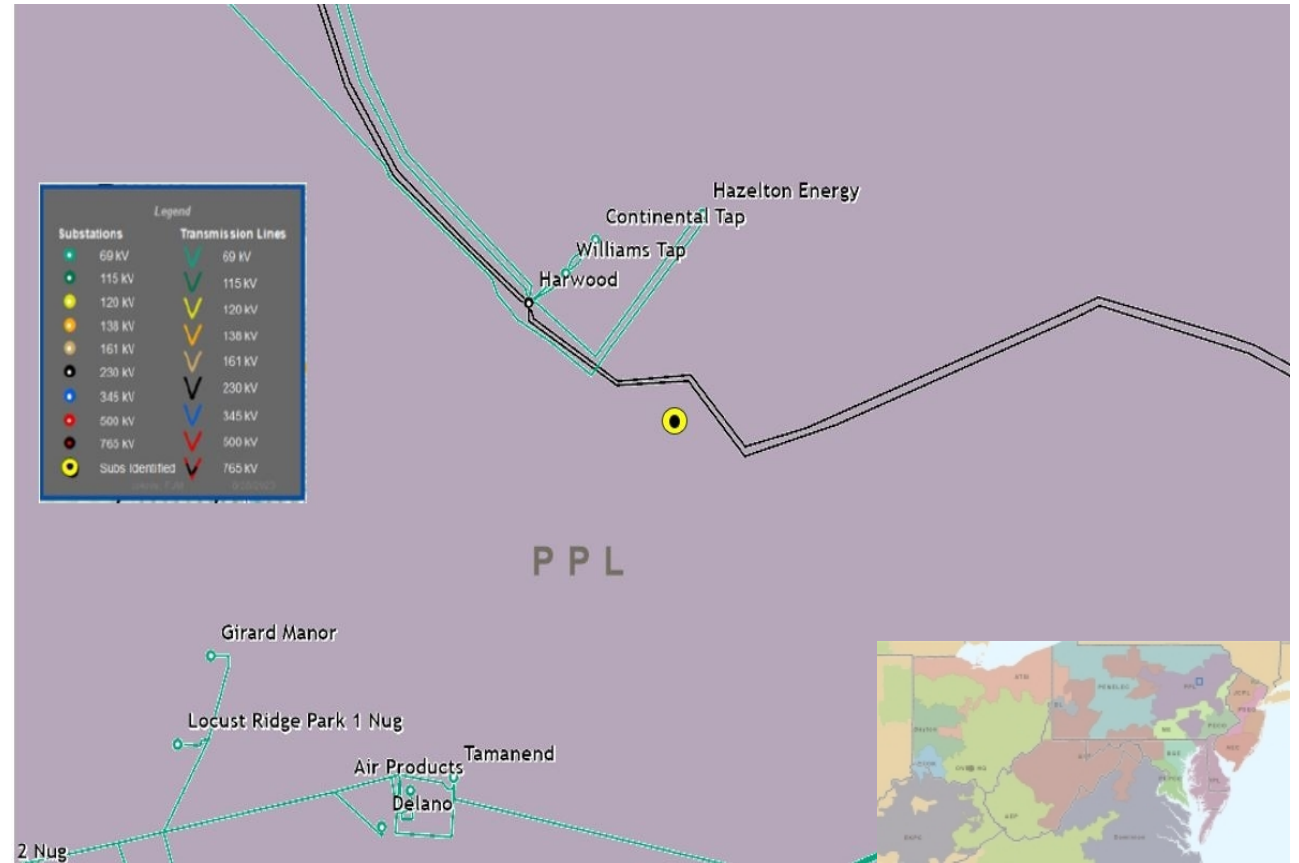
Project Driver: Customer Service

Specific Assumption References:

PPL 2024 Annual Assumptions

Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source in Hazleton, PA. The total facility load is approximately 1,000 MW (2030). The requested in service date is 05/2027. Projected 2027 load: 250MW Projected 2028 load: 500MW Projected 2030 load: 1000MW



Specific Assumption References:

[PPL 2024 Annual Assumptions](#)



PPL Transmission Zone: Supplemental Alburdis, PA

Need Number: PPL-2024-0013

Process Stage: Need Meeting TEAC - 10/08/2024

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

PPL 2024 Annual Assumptions

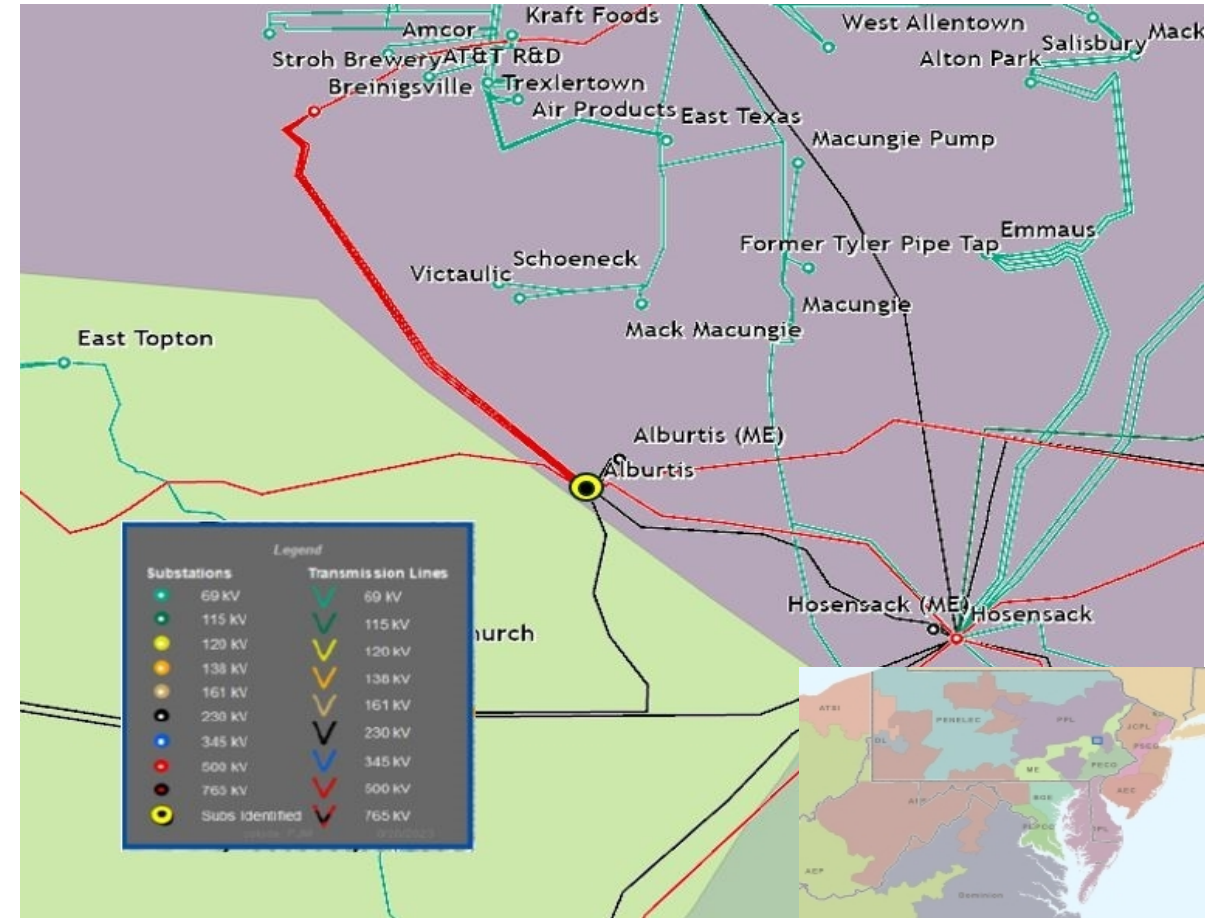
Problem Statement:

The Alburdis substation 500/230kV Transformer 1 is about 54 years old and reaching the end of its useful service life. It has experienced significant maintenance over its operation, including:

- Replacing failed fans, and flow gauges
- Replacing pressure relief devices
- Replacing C-Phase winding temp gauge
- Investigate and repair C-Phase Bank 1 pumps
- Replacing a failed pump contactor

Specific Assumption References:

[PPL 2024 Annual Assumptions](#)





PPL Transmission Zone: Supplemental Wescosville, PA

Need Number: PPL-2024-0014

Process Stage: Need Meeting TEAC - 10/08/2024

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

PPL 2024 Annual Assumptions

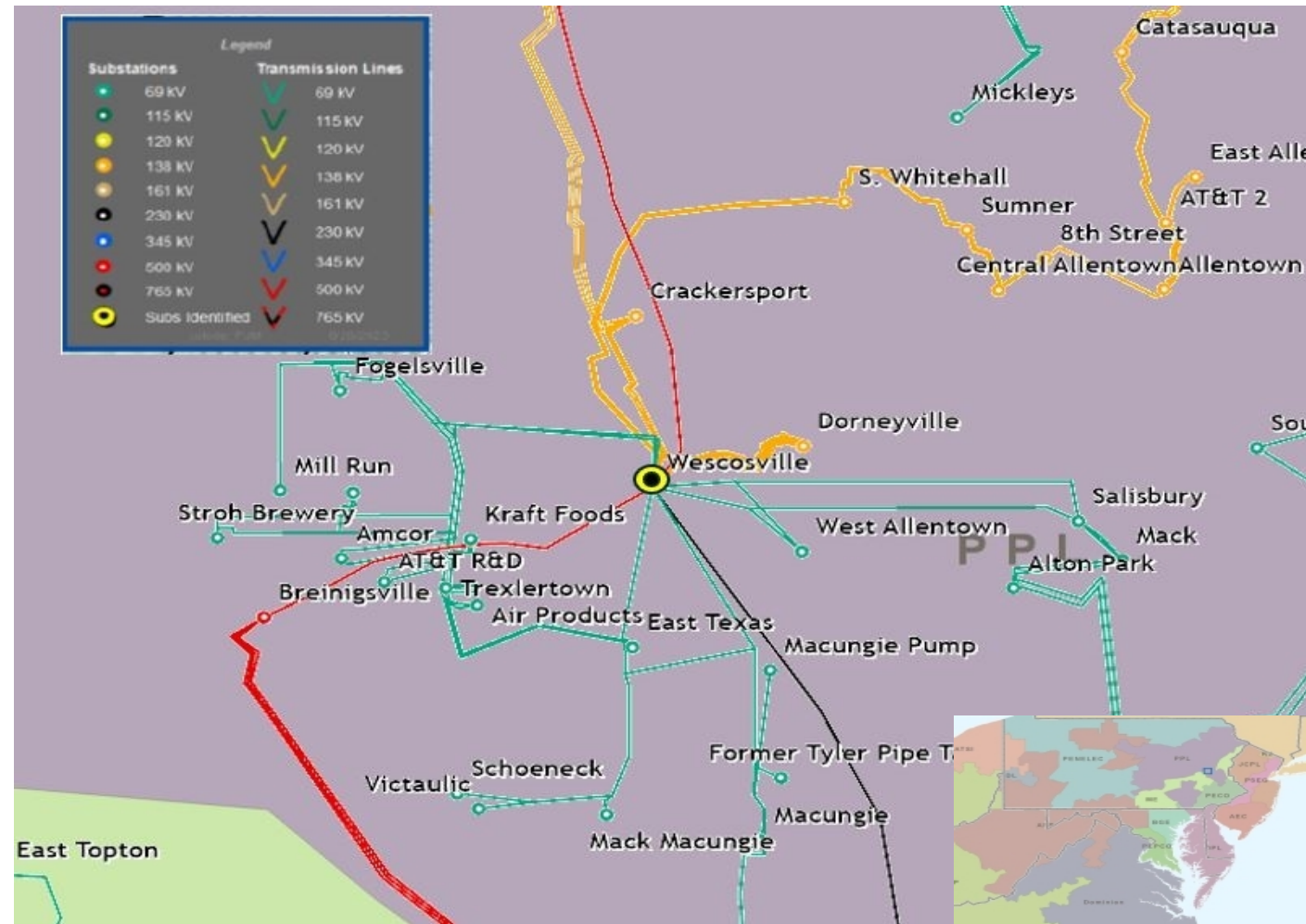
Problem Statement:

The Wescosville substation 500/138kV Transformer 3 is about 45 years old and reaching the end of its useful service life. It has experienced significant maintenance over its operation, including:

- Replacing fans and fan motors
- Investigating TCUL trouble reports
- Repairing a hotspot on the C-Phase
- Investigating and repairing the LTC lowering operation
- Repairing a leaking high-side bushing

Specific Assumption References:

[PPL 2024 Annual Assumptions](#)





PPL Transmission Zone: Supplemental Lackawanna, PA

Need Number: PPL-2024-0015

Process Stage: Need Meeting TEAC - 10/08/2024

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

PPL 2024 Annual Assumptions

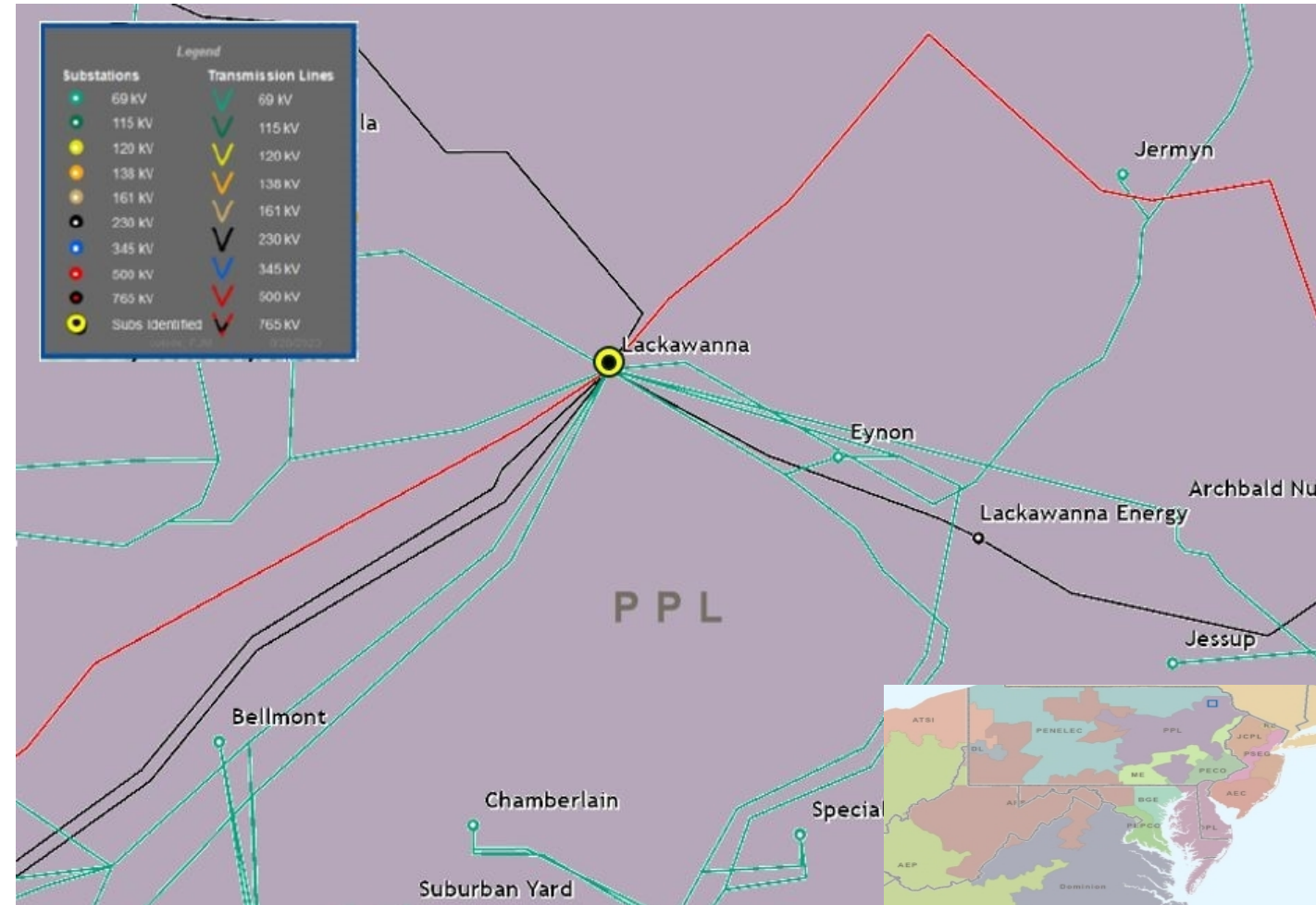
Problem Statement:

The Lackawanna substation 230/69kV Transformer 2 is about 32 years old and is considered high risk due to its material condition and maintenance history. It has experienced significant maintenance over its operation, including:

- Corrective maintenance to investigate the cause of a trip
- Repairing oil leaks and refilling
- Repairing piping on the conservator
- Investigating and repairing leaking pressure release devices
- Investigating and replacing a failure of the tertiary cable

Specific Assumption References:

[PPL 2024 Annual Assumptions](#)





PPL Transmission Zone: Supplemental Blooming Grove, PA

Need Number: PPL-2024-0016

Process Stage: Need Meeting TEAC - 10/08/2024

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption References:

PPL 2024 Annual Assumptions

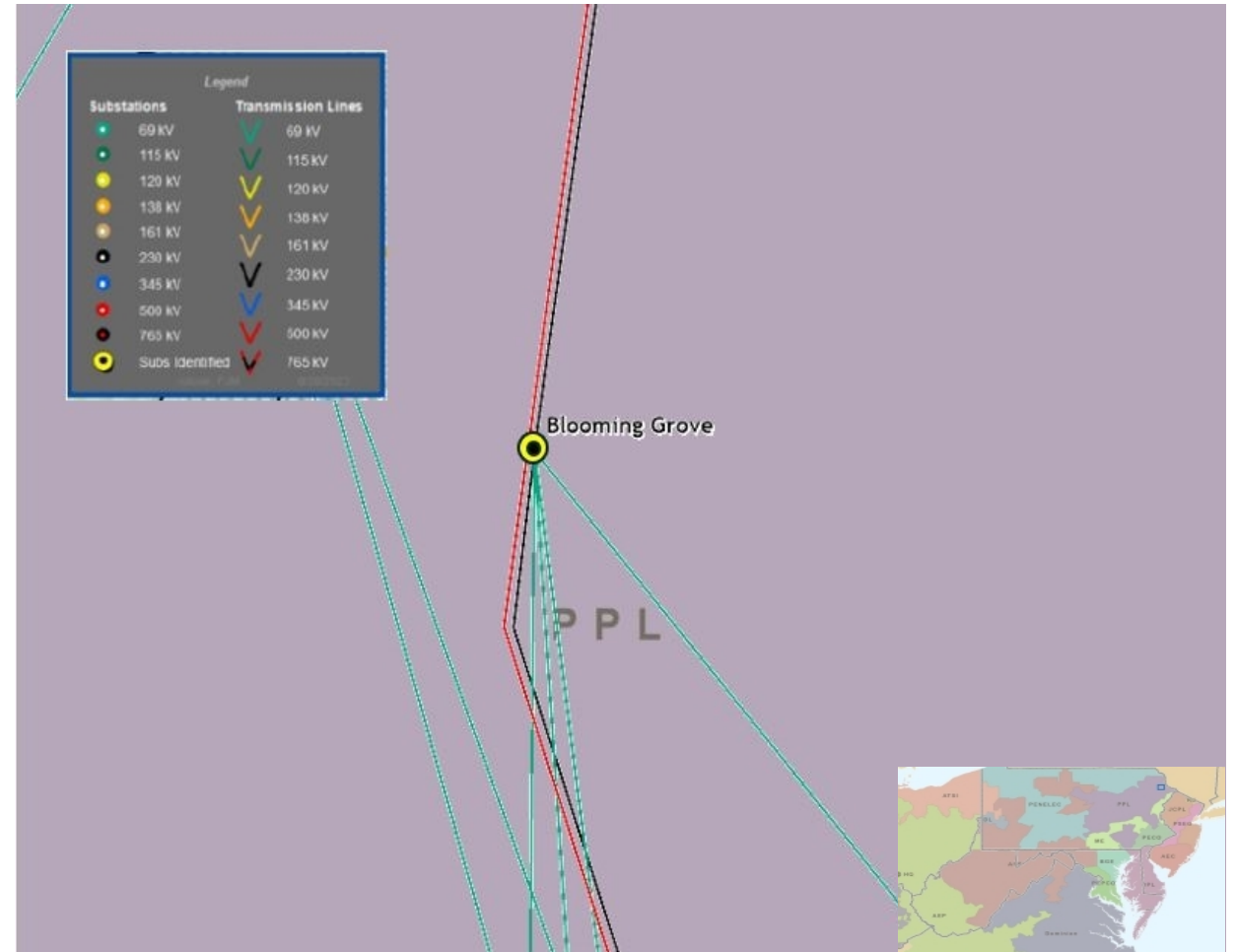
Problem Statement:

The Blooming Grove substation 230/69kV Transformer 1 is about 42 years old and is considered one of the lowest health units in the transformer fleet. It has experienced significant maintenance over its operation, including:

- Replacing a failed winding temperature gauge
- Replacing diverter switches in the LTC
- Inspecting oil level gauges, connections, and cables for water intrusion
- Repairing/replacing the compressor and motor

Specific Assumption References:

[PPL 2024 Annual Assumptions](#)



Solution

Stakeholders must submit any comments within 10 days of this meeting in order to provide the time necessary to consider these comments prior to the next phase of the M-3 process.



PPL Transmission Zone: Supplemental Tresckow, PA

Need Number: PPL-2024-0004

Process Stage: Solution Meeting TEAC - 10/08/2024

Previously Presented: Need Meeting TEAC - 08/06/2024

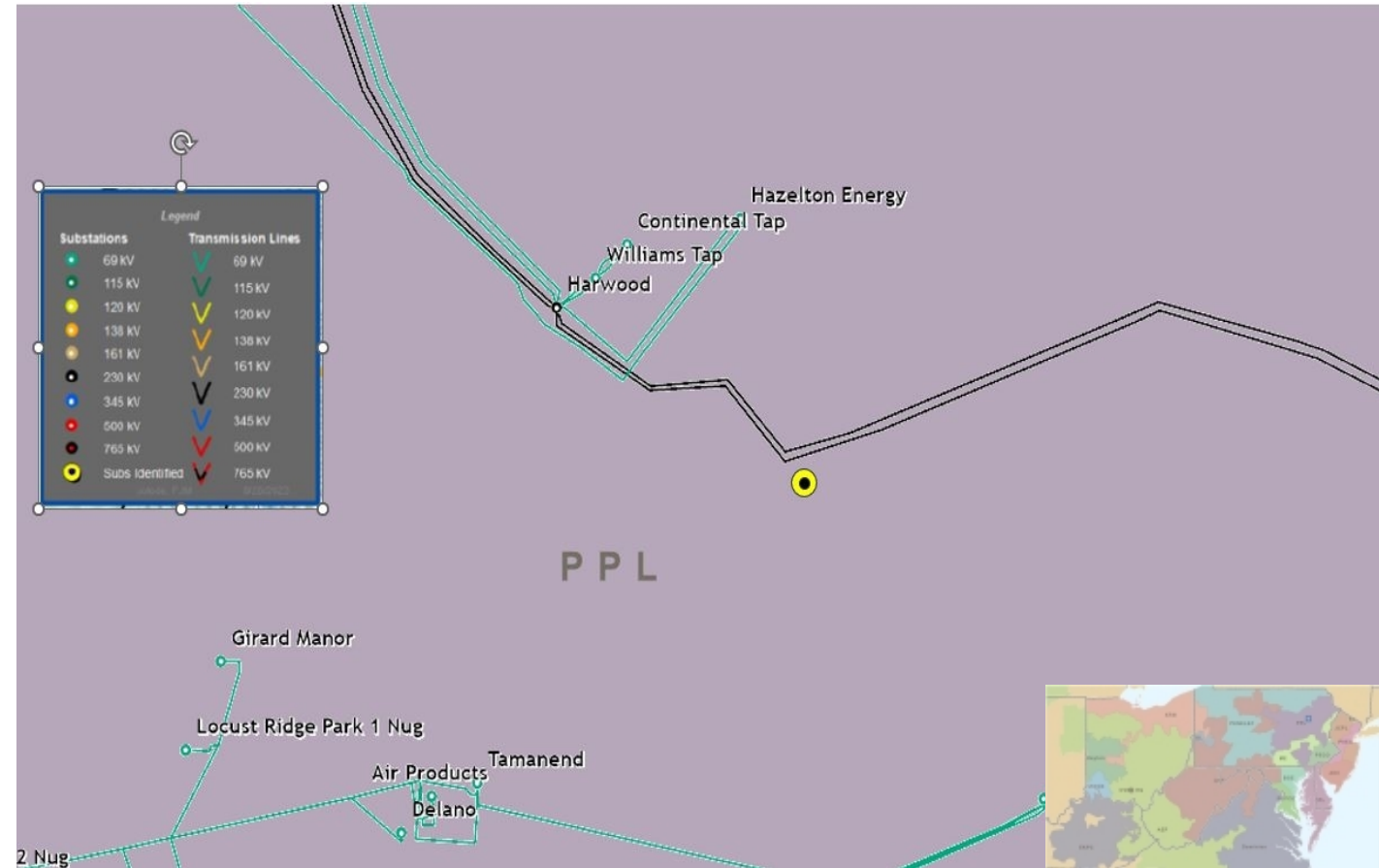
Project Driver: Customer Service

Specific Assumption References:

PPL 2024 Annual Assumptions

Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source in Hazleton, PA. The total facility load is approximately 1,000 MW (2030). The requested in service date is 05/2027.



Specific Assumption References:

[PPL 2024 Annual Assumptions](#)



PPL Transmission Zone: Supplemental Tresckow, PA

Need number(s): PPL-2024-0004

Process Stage: Solution Meeting TEAC - 10/08/2024

Proposed Solution:

HARW-SIEG & HARW-EPAL 230kV Lines: Bifurcate the Harwood - Siegfried 230kV and the Harwood - East Palmerton 230kV lines and terminate at the new Tresckow 230kV switchyard. Extend lines approximately 1 mile into the new Tresckow 230kV switchyard.. Estimated Cost: \$8 M

Tresckow 230kV Switchyard: Install a four bay BAAH 230kV switchyard with a 125MVAR Capacitor bank.. Estimated Cost: \$45 M

Tresckow Customer Taps 230kV Lines: Install three 230kV lead lines for approximately 4 miles from Tresckow 230kV switchyard to the customer facility.. Estimated Cost: \$28 M

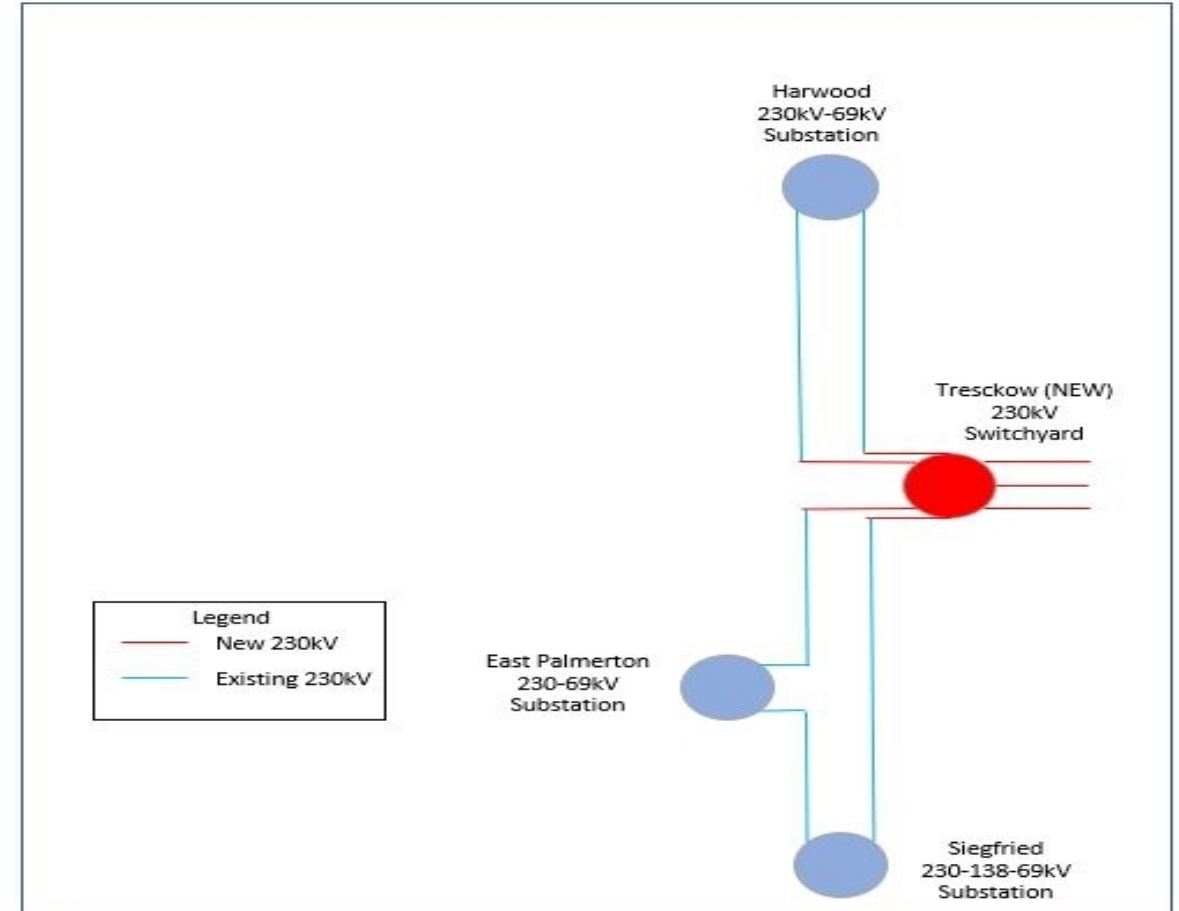
Transmission Cost Estimate: \$81 M

Alternatives Considered:

No Feasible Alternatives

Projected In-Service: 05/31/2027

Project Status: Conceptual



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

09/27/2024 - V1 – Original version posted to pjm.com