Transmission Expansion Advisory Committee – PPL Supplemental Projects

May 6th , 2025

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
Riegelsville, PA

Need Number: PPL-2025-0004

Process Stage: Need Meeting 05/06/2025

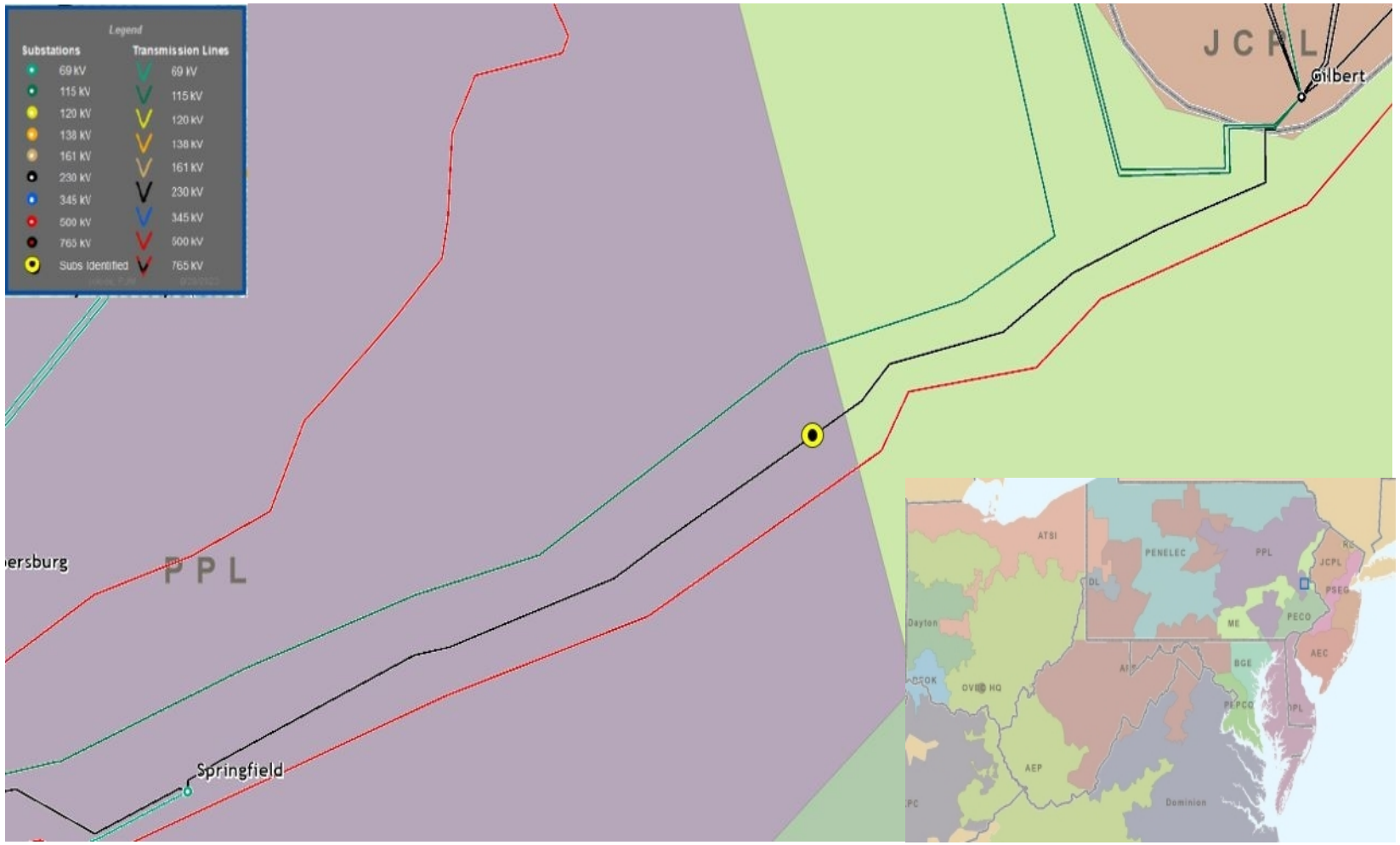
Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

Problem Statement:

PPL Distribution has submitted a request for a source to a new 12kV substation near Riegelsville, PA. The new substation will serve approximately 10 MW and is needed to improve reliability to multiple distribution circuits in the area. The requested in-service date is 6/30/2029.



PPL Transmission Zone: Supplemental
Callender Gap, PA

Need Number: PPL-2025-0005

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

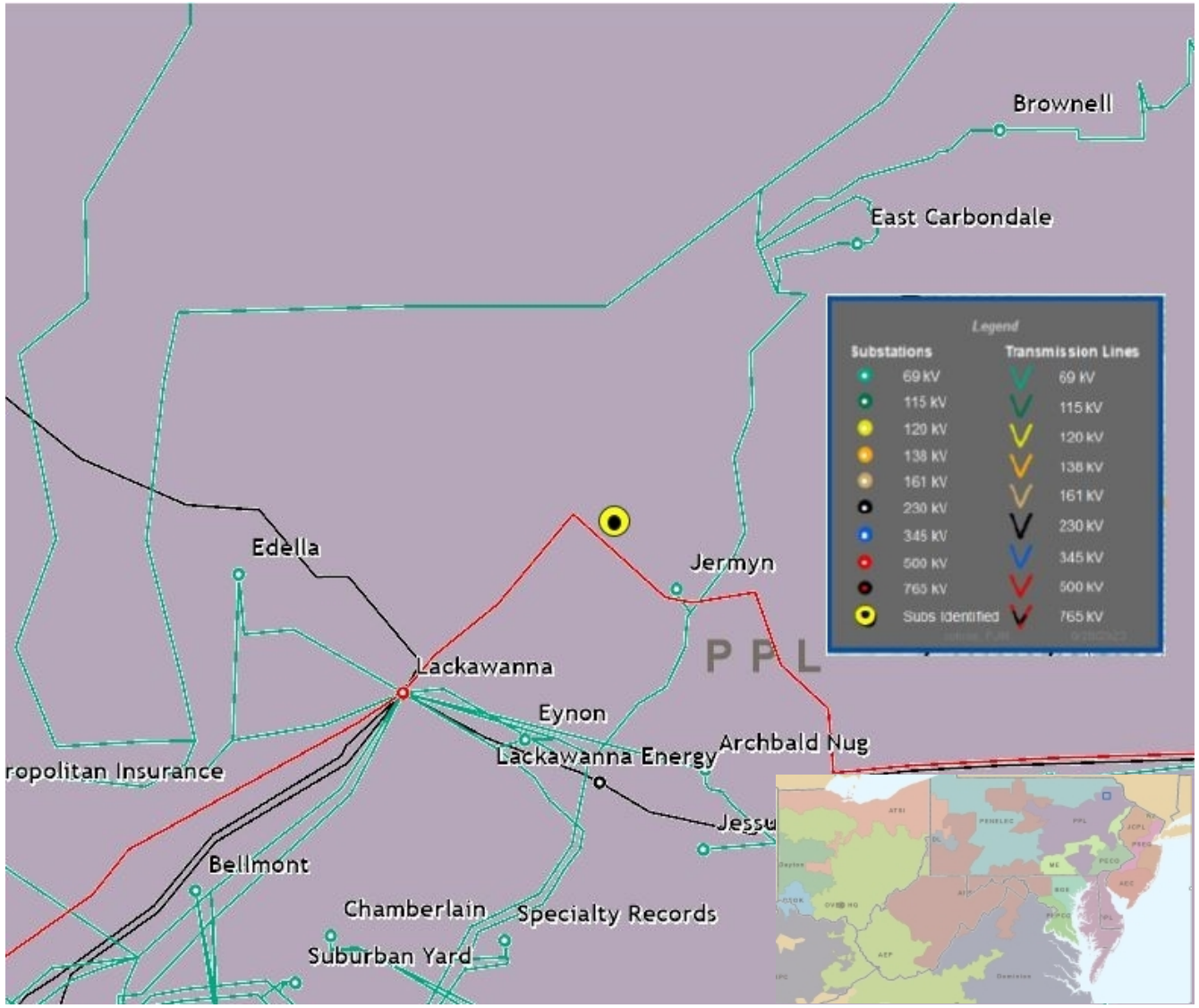
Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source in Jermyn, PA. The total facility load is approximately 500 MW (2029). The requested in-service date is 05/2027.

Initial In-Service 2027 Load: 145MW

Projected 2028 Load: 430MW

Projected 2029 Load: 500MW



PPL Transmission Zone: Supplemental
Orefield, PA

Need Number: PPL-2025-0006

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

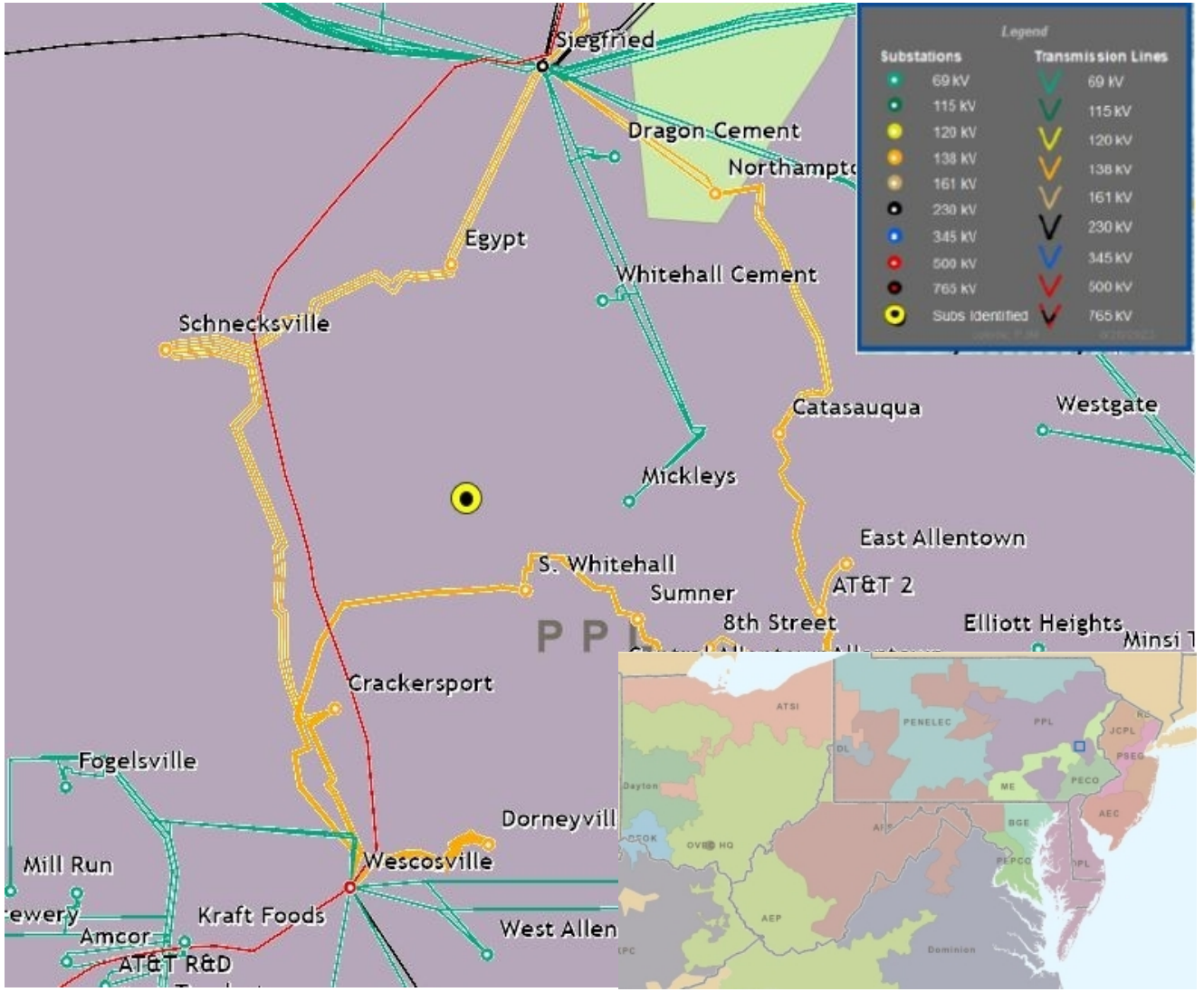
Problem Statement:

A customer has submitted a request to have their facility served from a 138kV source in Allentown, PA. The total facility load is approximately 1000 MW (2031). The requested in-service date is 10/2026.

Initial In-Service 2026 Load: 75 MW

Projected 2028 Load: 450 MW

Projected 2030 Load: 920 MW



PPL Transmission Zone: Supplemental
Highspire, PA

Need Number: PPL-2025-0007

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

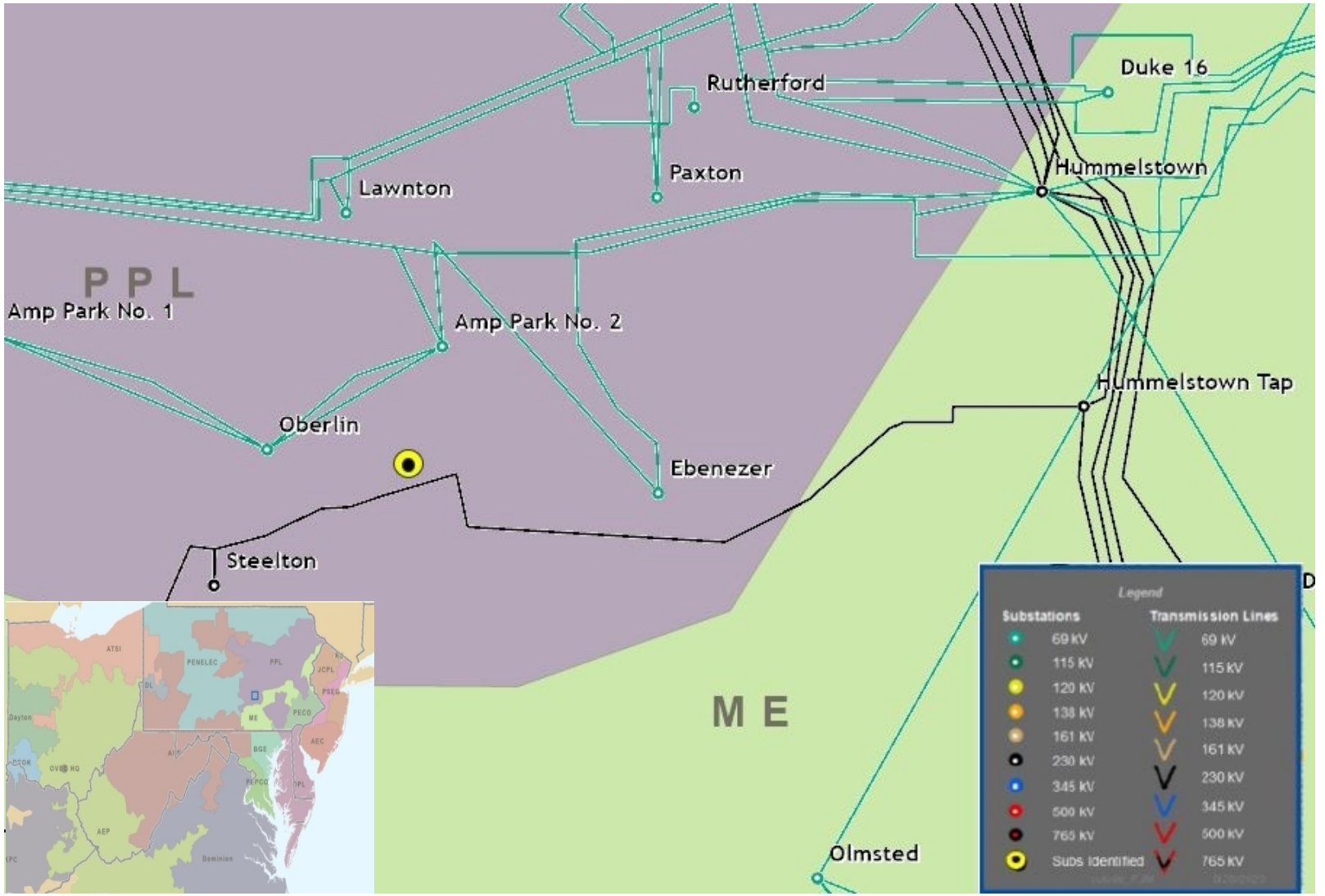
Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source in Harrisburg, PA. The total facility load is approximately 450 MW (2030). The requested in-service date is 09/2027.

Initial In-Service 2027 Load: 40 MW

Projected 2028 Load: 155 MW

Projected 2030 Load: 450 MW



PPL Transmission Zone: Supplemental
Gordon, PA

Need Number: PPL-2025-0008

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

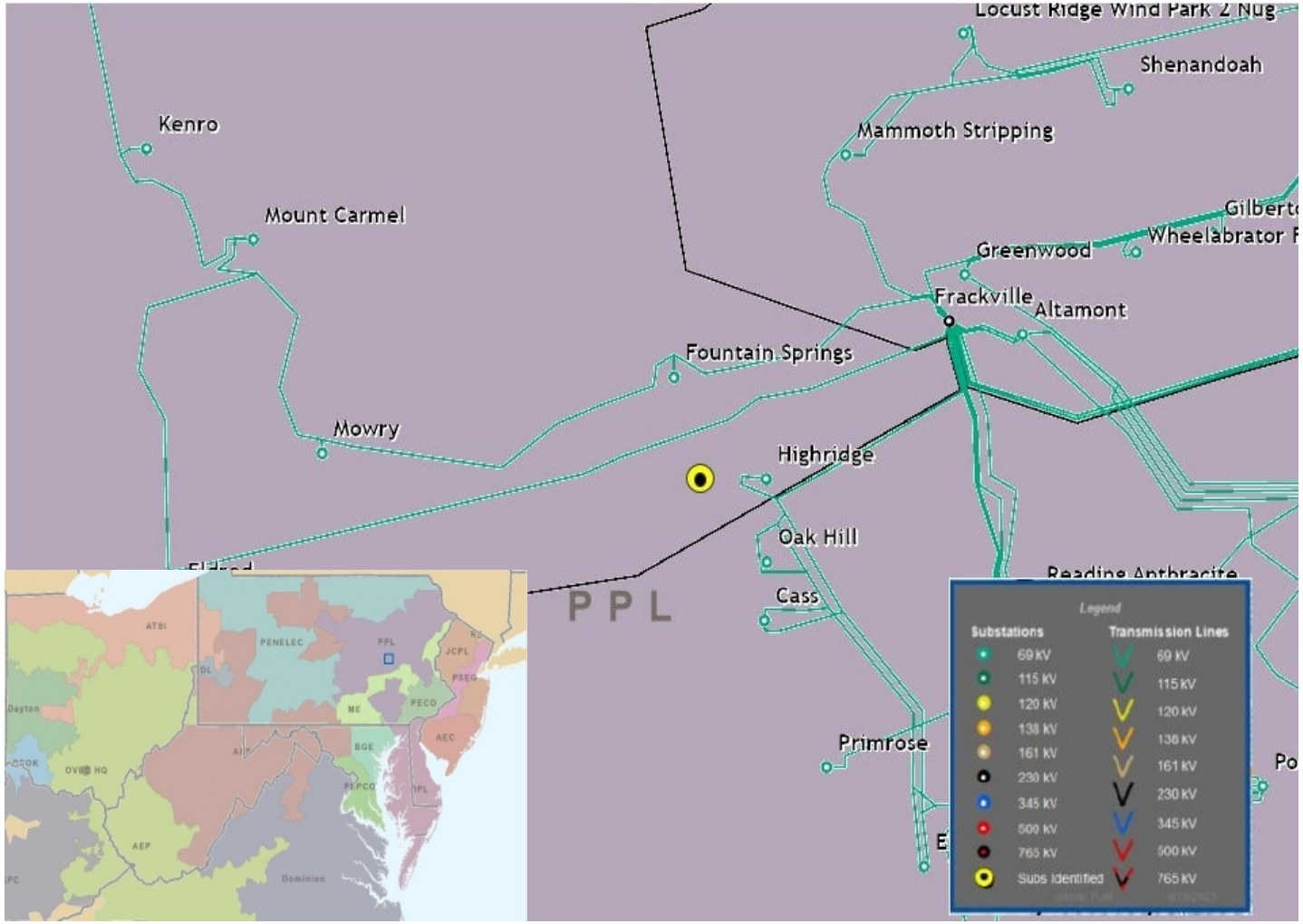
Problem Statement:

A customer has submitted a request to have their facility served from a 230kV source near Frackville, PA. The total facility load is approximately 600MW (2029). The requested in-service date is 05/2027.

Initial In-Service 2027 Load: 290MW

Projected 2028 Load: 300 MW

Projected 2029 Load: 600 MW



PPL Transmission Zone: Supplemental
Black Creek, PA

Need Number: PPL-2025-0009

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 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 500 MW (2029). The requested in-service date is 05/2027.

Initial In-Service 2027 Load: 250 MW

Projected 2028 Load: 375 MW

Projected 2029 Load: 500 MW

PPL Transmission Zone: Supplemental
Tresckow, PA

Need Number: PPL-2025-0010

Process Stage: Need Meeting 05/06/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

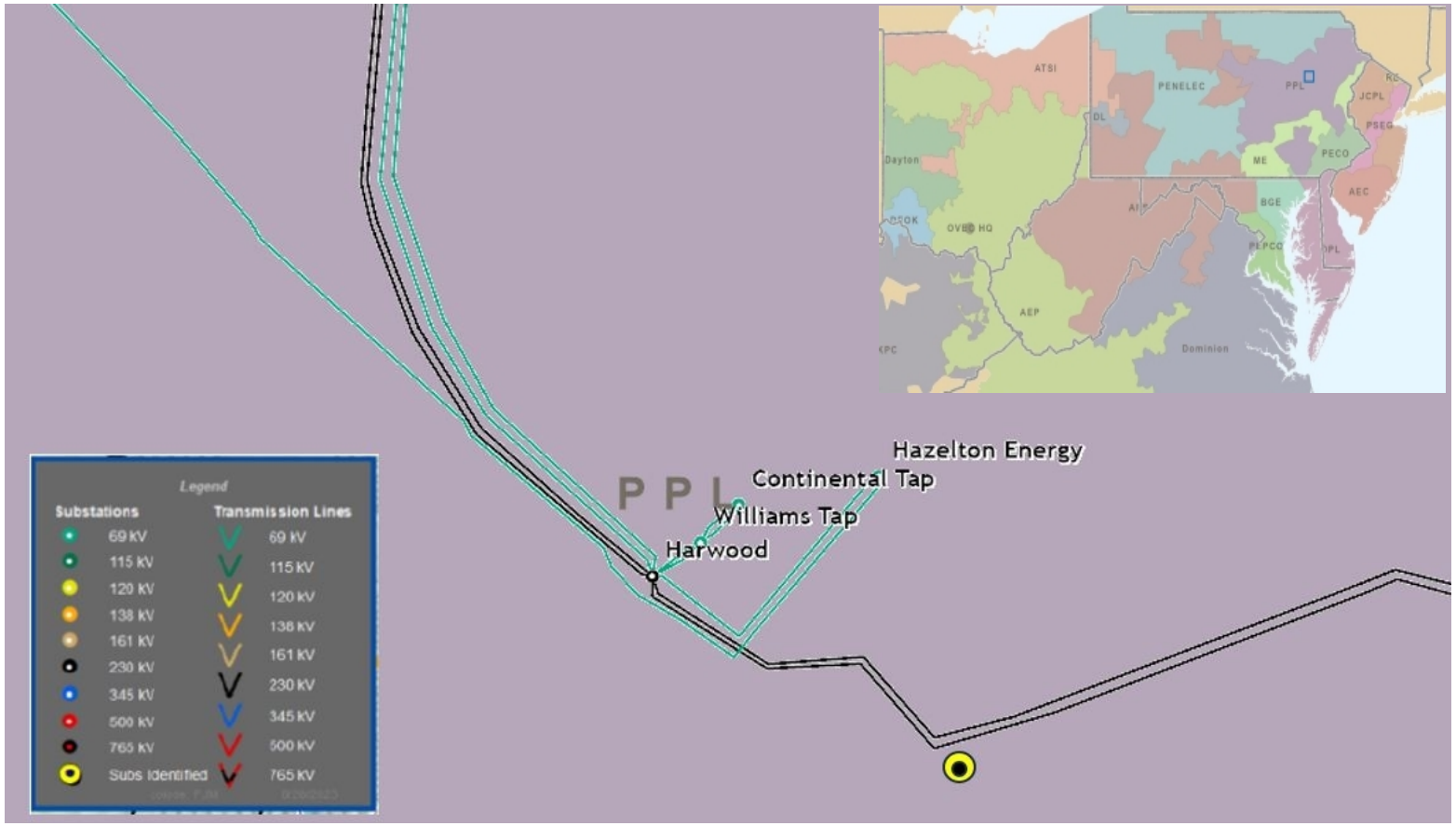
Problem Statement:

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

Initial In-Service 2027 Load: 350 MW

Projected 2028 Load: 700 MW

Projected 2030 Load: 1,000 MW



Re-Present 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

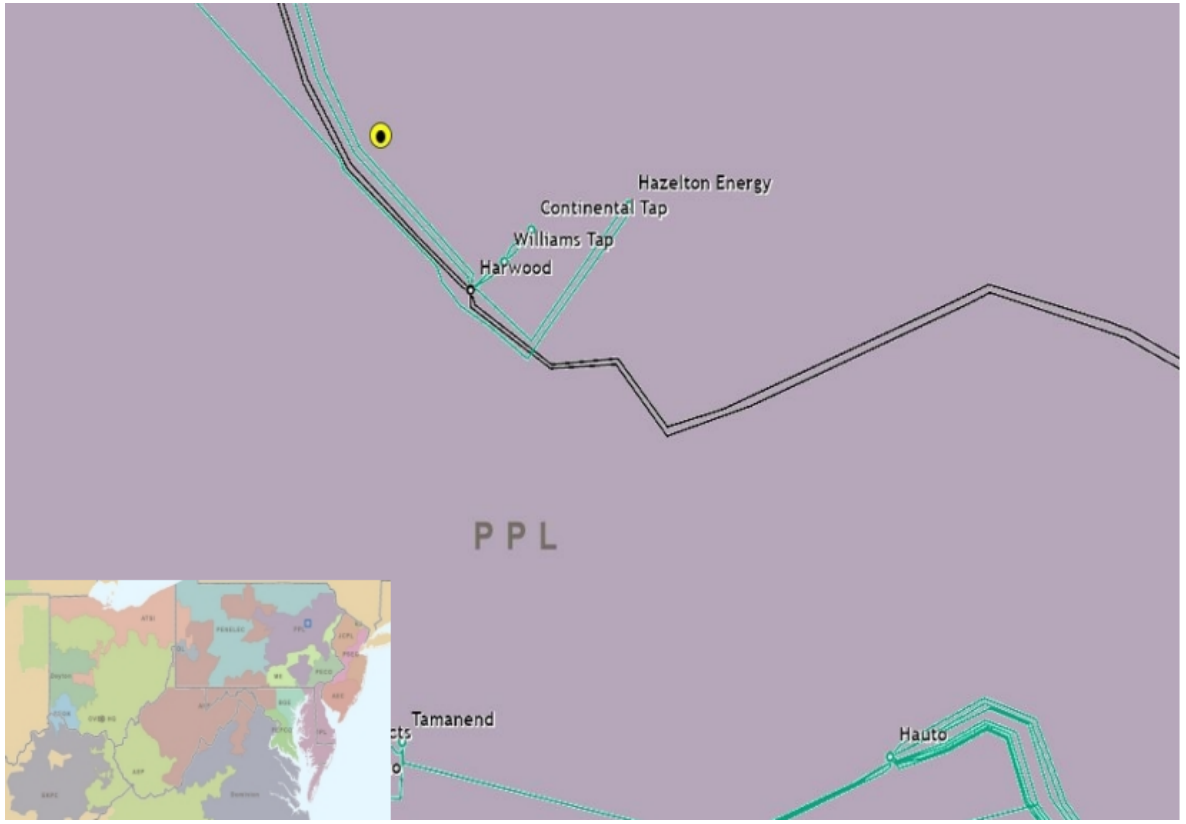
PPL Transmission Zone: Supplemental

Need Number: PPL-2024-0003
Meeting Date: 08/06/2024– Updated TEAC 5/6/2025
Process Stage: Solution
Need Slide Presented: 06/04/2024
Supplemental Project Driver: Customer Service

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 1,980 MW (2033). The requested in service date is 05/2026.

Initial In-Service 2026 Load	Projected 2028 Load	Projected 2031 Load
240MW	720 MW	1,440 MW



Specific Assumption References:
PPL 2024 Annual Assumptions

Need Number: PPL-2024-0003

Process Stage: Solution Meeting TEAC - 08/06/2024 – Updated TEAC 5/6/2025

Proposed Solution:

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

Nescopeck 230kV Switchyard: Install a new three bay BAAH 230kV switchyard.. Estimated Cost: $29.5 M

Susquehanna 230kV Switchyard: Expand yard, extend busses and install two new bays at Susquehanna 230kV yard. Install two dead-ends, four 230kV breakers, and associated equipment. Rebuild existing East and West bus to higher capacity. Estimated Cost: $10 M

Susquehanna T10 230kV Switchyard: ~~Install a new BAAH bay at the Susquehanna T10 230kV yard. Install two dead-ends, three 230kV breakers and associated equipment. Estimated Cost: $6M~~ Replaced by B3910.1

Harwood 230kV Substation: Install new line terminal in the Harwood 230kV switchyard, install one dead-end, two breakers, and associated equipment. New bay to be DBDB initial and future BAAH. estimated Cost: $4 M

SUSQ-HARW #1 & #2 230kV Lines: Bifurcate the Susquehanna – Harwood #1 & #2 230kV and terminate at the new Tomhicken 230kV switchyard. Extend lines approximately 0.25 into the new Tomhicken 230kV switchyard. Estimated Cost: $3.7 M

Sunbury - Susquehanna # 1 230kV Line: Bifurcate the Sunbury – Susquehanna #1 230kV into the new Nescopeck 230kV switchyard. Extend lines approximately 0.2 into the new Nescopeck 230kV switchyard. Estimated Cost: $1.85 M

Sunbury - Susquehanna # 1 230kV Line Partial Rebuild: Rebuild the Sunbury - Susquehanna # 1 230kV Line to double circuit 230kV for 3.9 miles from the Susquehanna 230kV yard to the new Nescopeck 230kV switchyard. Estimated Cost: $17.2 M

Glen Brook - Susquehanna 230kV Line: ~~Bifurcate the Glen Brook – Susquehanna 230kV line into the Susquehanna T10 yard. Extend lines approximately 0.25 into the existing Susquehanna T10 230kV switchyard. Estimated Cost: $3 M~~ Replaced by B3910.1

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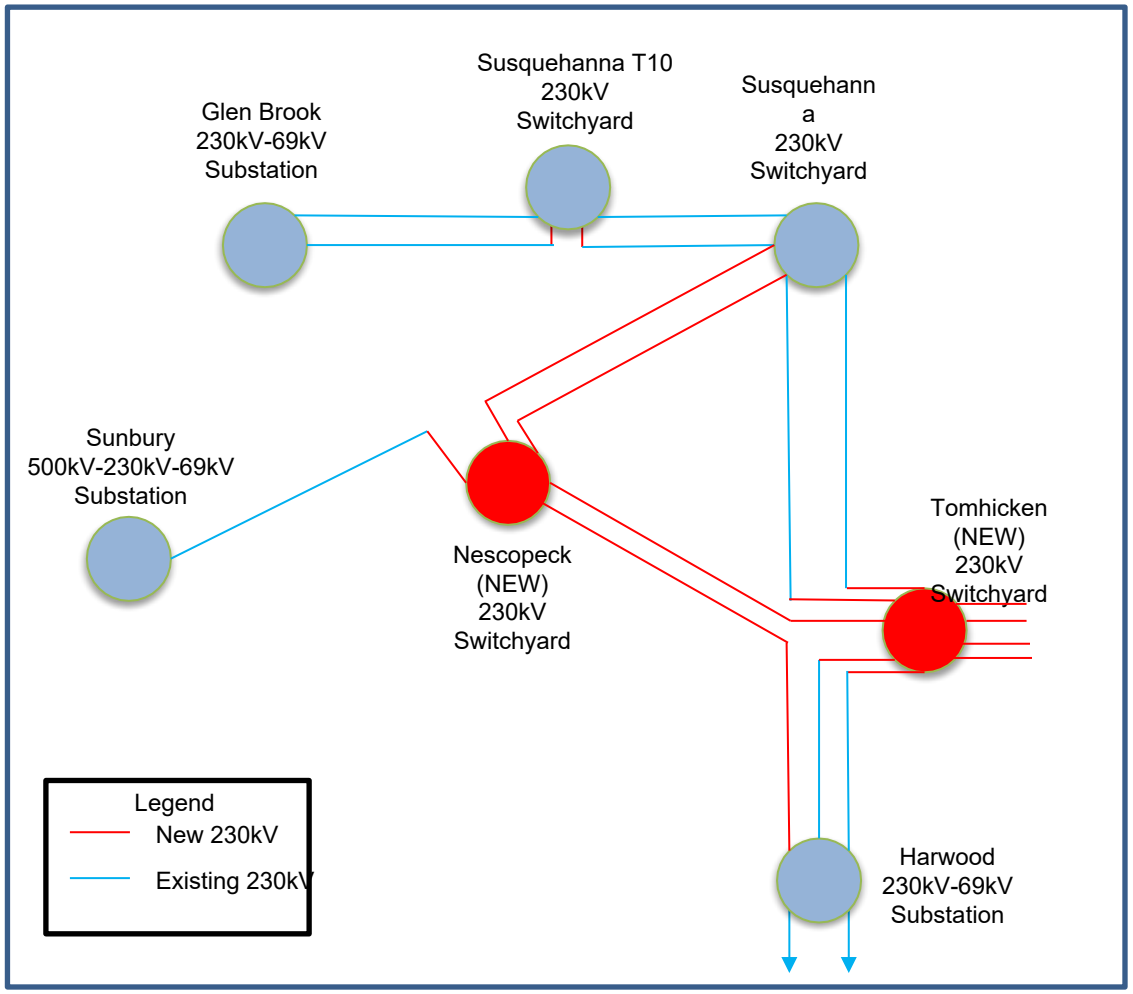


Need number(s): PPL-2024-0003

Process Stage: Solution Meeting TEAC - 08/06/2024: Updated TEAC 5/6/2025

Proposed Solution (Continued):

Nescopeck - Tomhicken 230kV Line: Extend a double circuit 230kV (built for 500kV) for ~9 miles from Nescopeck to Tomhicken on existing PPL ROW. Extend single circuit 230kV (built for 500kV DblCir) for 2.7 miles from Tomhicken to Harwood and terminate at Harwood. This will create the Nescopeck - Tomhicken 230kV and Nescopeck – Harwood 230kV lines.. Estimated Cost: $80.5 M

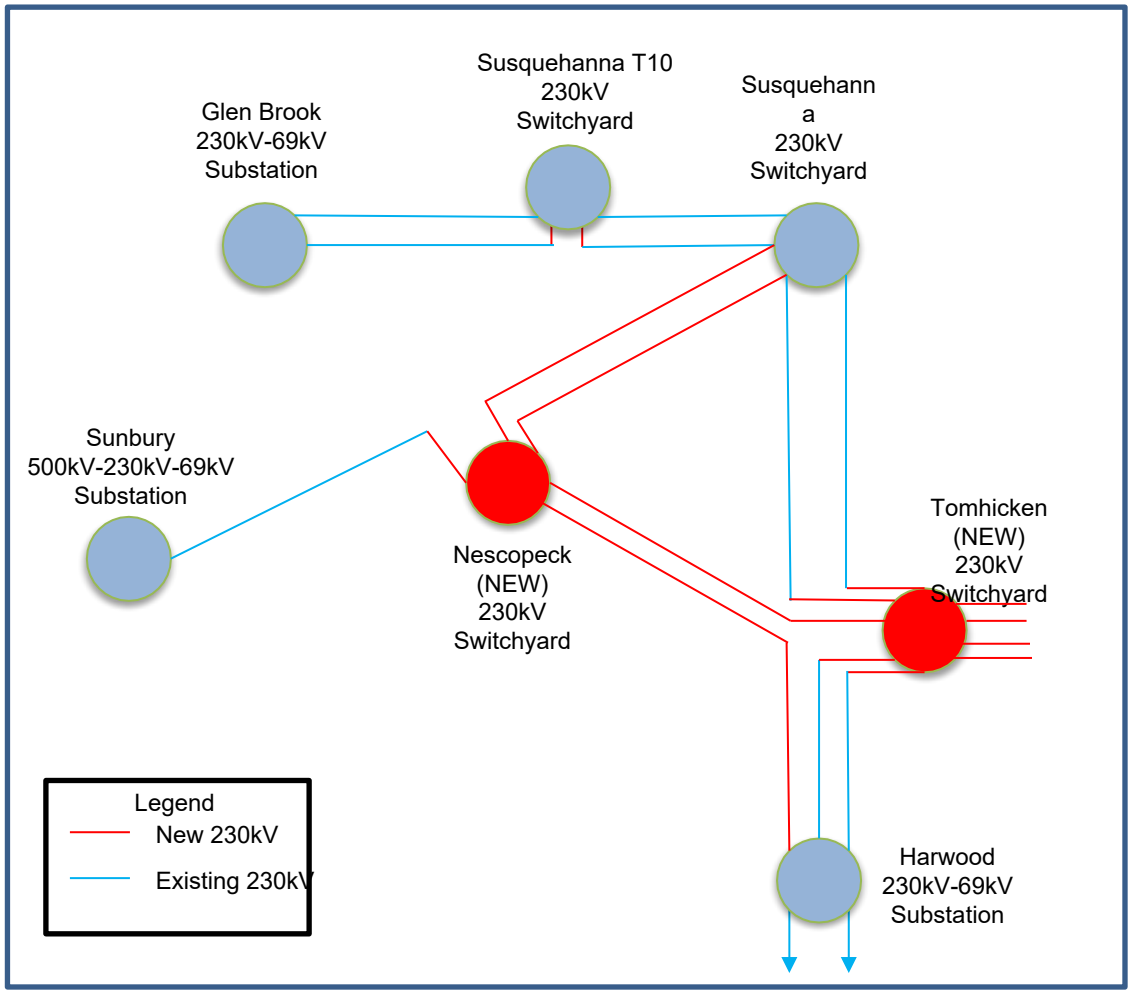
Tomhicken Customer Taps 230kV lines: Install four 230kV lead lines for approximately 0.1 miles from Tomhicken 230kV switchyard to the customer facility.. Estimated Cost: $3.8 M

Transmission Cost Estimate: $197.55 M

Alternatives Considered: Rebuild the Susquehanna – Harwood #1 & #2, install a third line 230kV circuit from Susquehanna to Harwood, and break GLBR-SUSQ into SU10 yard. Rebuild of the Susquehanna – Harwood #1 & #2 infeasible due to outage conflicts with HARWSIEG/EPAL 230kV rebuild under S2374 as well as the lack of operational flexibility. Estimated cost $199 million.

Projected In-Service: 06/01/2027

Project Status: Development



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

PPL Transmission Zone: Supplemental
Susquehanna, PA

Need Number: PPL-2025-0003

Process Stage: Solution Meeting TEAC - 05/06/2025

Previously Presented: Need Meeting 04/01/2025

Project Driver: Customer Service

Specific Assumption References:

PPL 2025 Annual Assumptions

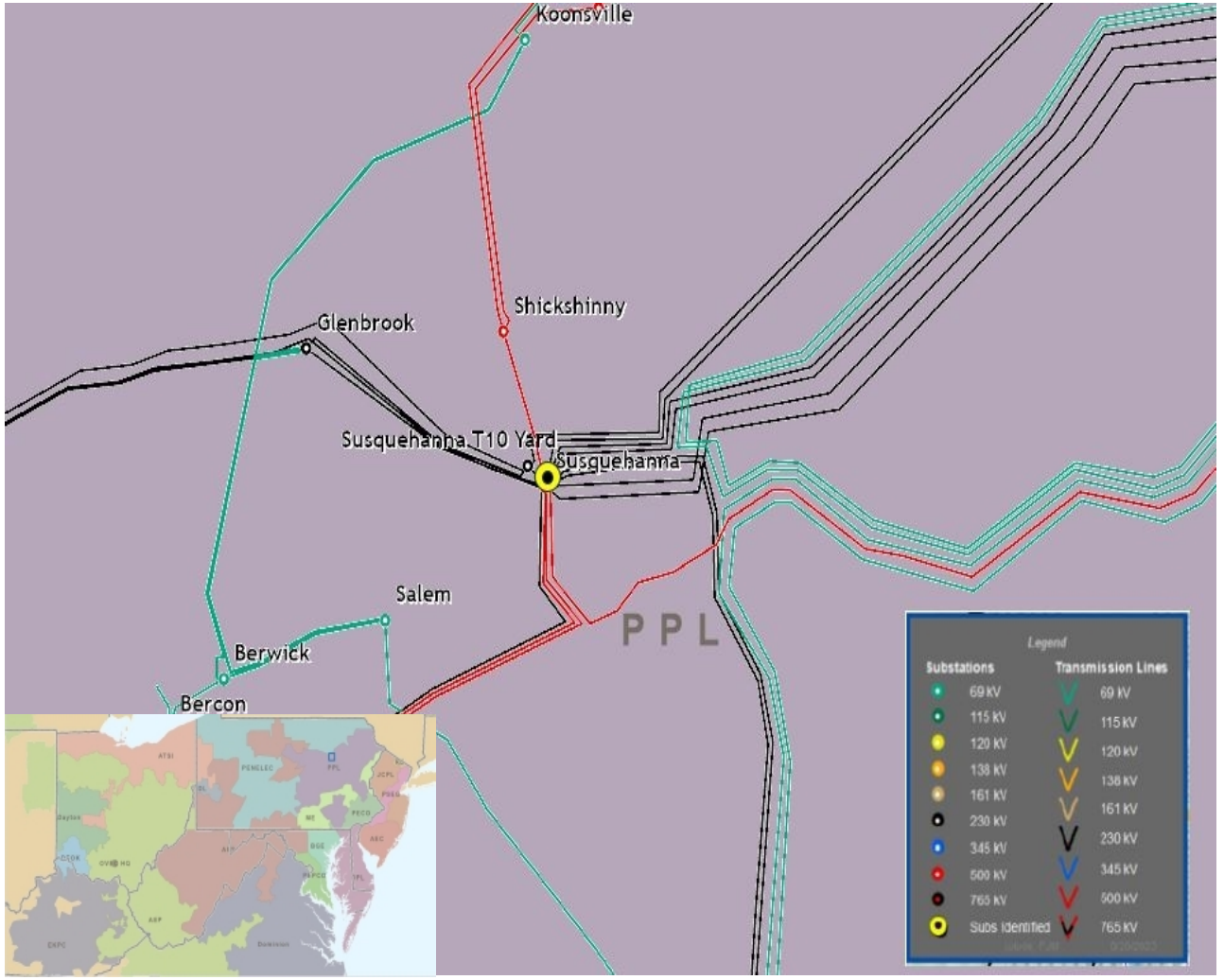
Problem Statement:

A customer has submitted a request to have their facility served from 500kV & 230kV sources in Berwick, PA. The total facility load is approximately 1,440 MW (2030). The requested in-service date is 04/2026.

Initial In-Service 2026 Load: 120 MW

Projected 2027 Load: 430 MW

Projected 2028 Load: 960 MW



PPL Transmission Zone: Supplemental
Susquehanna, PA

Need number(s): PPL-2025-0003

Process Stage: Solution Meeting TEAC - 05/06/2025

Proposed Solution:

Susquehanna 230kV Yard: Install one new 230kV breaker, 230kV dead-end, and ancillary equipment in Bay 0 at Susquehanna 230kV.. Estimated Cost: $1.5 M

Sunbury - Susquehanna #1 230kV Re-termination: Re-terminate the Sunbury – Susquehanna #1 230kV line from Bay #1 to Bay #0 at Susquehanna 230kV.. Estimated Cost: $0.4 M

Susquehanna - SS01 230kV Line: Extend a new 230kV line (1590 ACSS) from Bay #1 at Susquehanna 230kV yard to the customer substation dead-end (Customer Yard 1).. Estimated Cost: $6.05 M

Susquehanna 500kV Yard: Install one new 500kV breaker, 500kV dead-end, and ancillary equipment in Bay 2 at Susquehanna 500kV.. Estimated Cost: $3.5 M

Susquehanna - SS02 500kV Line: Extend a new 500kV line from Bay #2 at Susquehanna 500kV yard to the customer substation dead-end (Customer Yard 2).. Estimated Cost: $1.8 M

Susquehanna T10 230kV Yard: Install one new 230kV breaker, 230kV dead-end, and ancillary equipment in both Bay #1 and #3 at Susquehanna T10 230kV Yard.. Estimated Cost: $3 M

Susquehanna T10 - SS0X #1 & #2 230kV Lines: Extend two new 230kV lines (1590 ACSS) from Bay #1 and Bay #3 at Susquehanna T10 230kV yard to the customer substation dead-end (Customer Yard 3).. Estimated Cost: $3.15 M

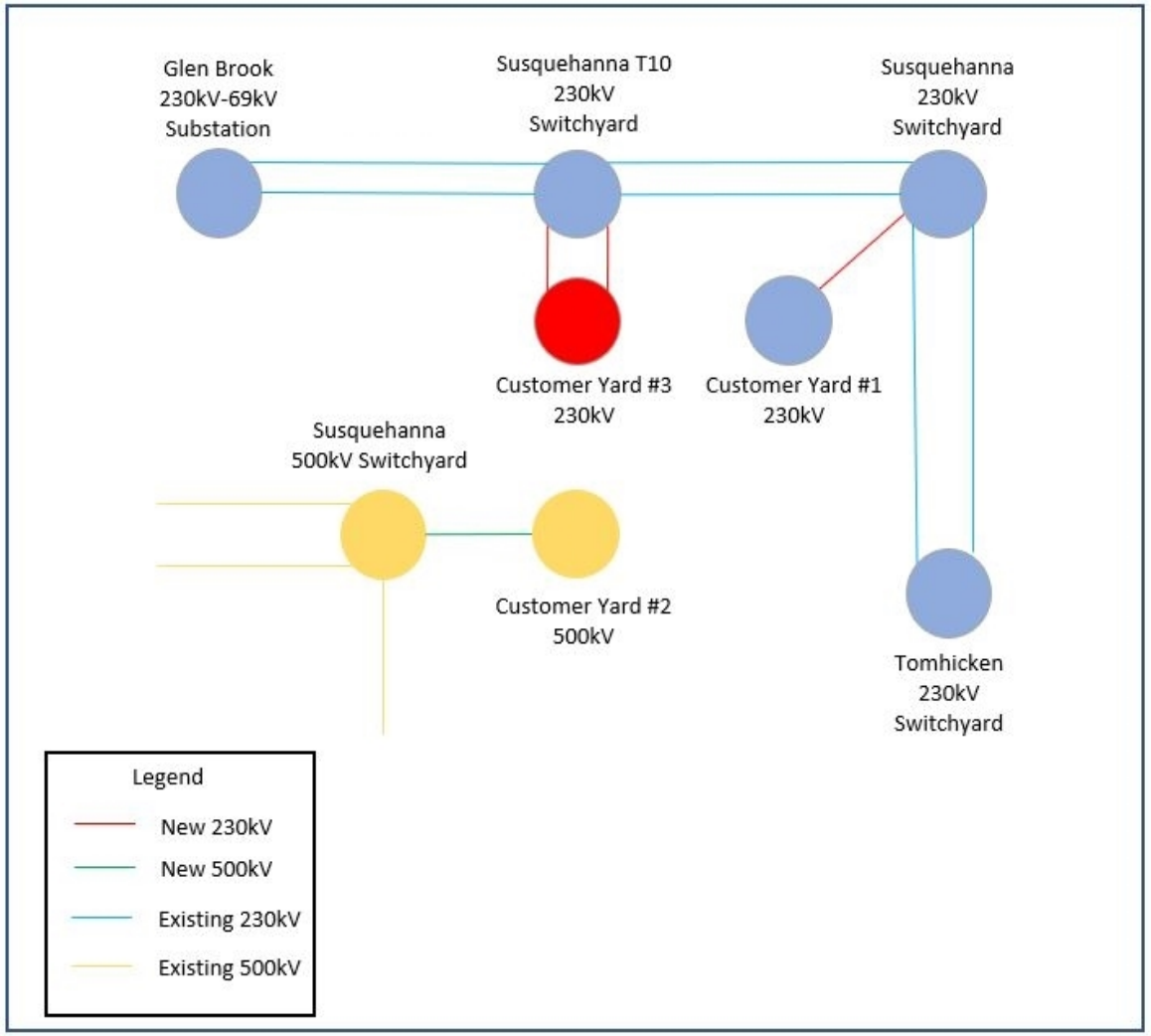
Transmission Cost Estimate: $19.4 M

Alternatives Considered:

No functional alternatives

Projected In-Service: 05/30/2028

Project Status: Project Devleopment



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

04/25/2025 - V1 – Original version posted to pjm.com