

PECO 2026
Submission of Supplemental Project for
Inclusion in the Local Plan

Need Number: PE-2024-008

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 1/16/2026

Previously Presented:

Needs Meeting 11/6/2024

Solutions Meeting 3/4/2025

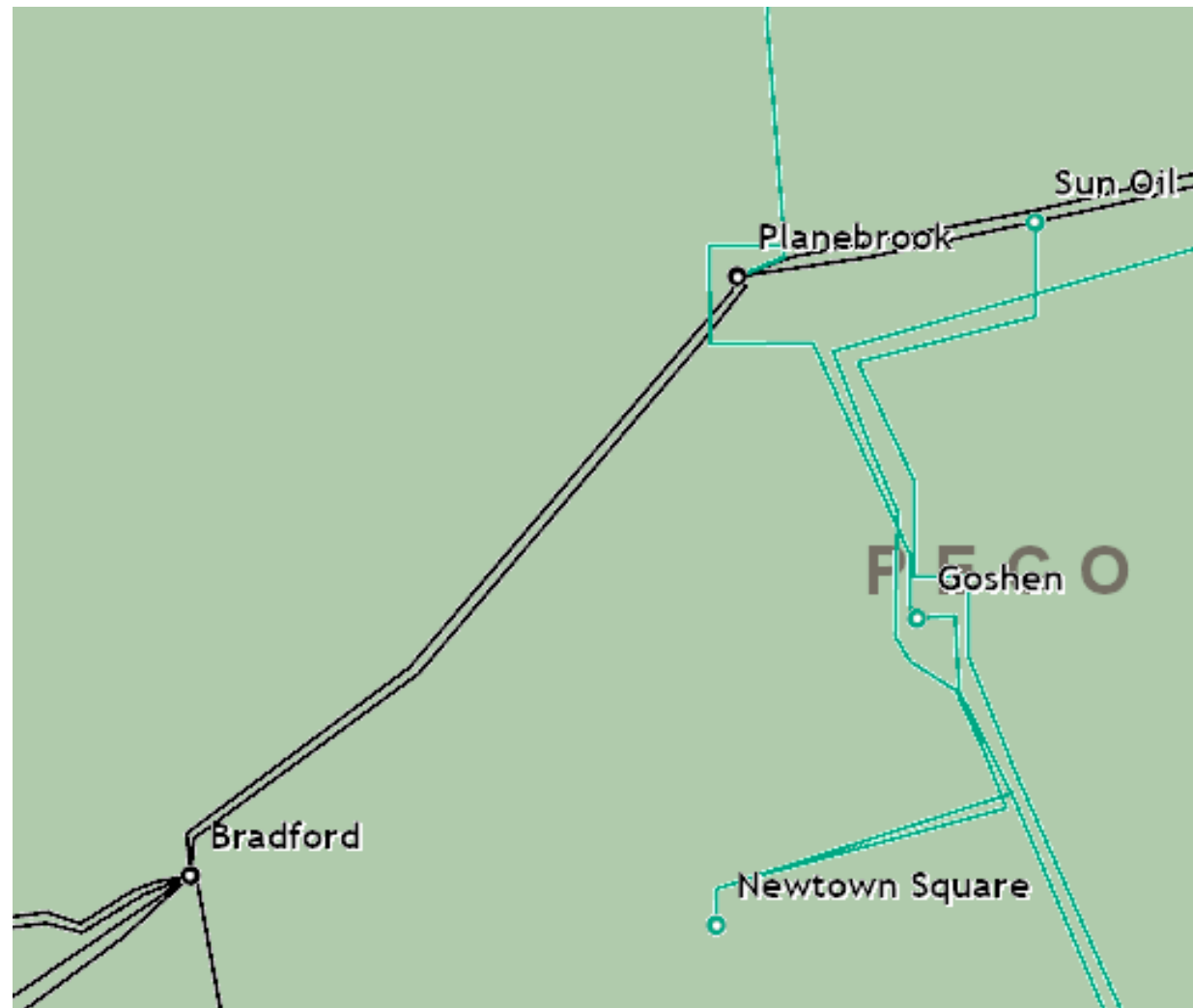
Project Driver: Customer Service

Specific Assumption Reference:

- New transmission customer interconnections or modification to an existing customer

Problem Statement:

- A new customer in the Exton PA area has requested service for an initial load of 150MW in 2026, and an ultimate load of 290MW in 2028. Distribution infrastructure in the area cannot adequately accommodate this load request



Need Number: PE-2024-008

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 1/16/2026

Selected Solution:

Phase 1:

- Install a temporary radial 230kV line from a tap off the Planebrook-Upper Merion-Tredyffrin line to the customers location.

Estimated Transmission Cost: \$0M

Phase 2:

- Install two new radial 230 kV feeds from the Planebrook #7 bus and #9 bus to the customers location.
- Reconductor approximately 1000ft of the 230-31 Bradford-Planebrook line.
- Install a breaker on the high side of transformer #9 at Planebrook substation.

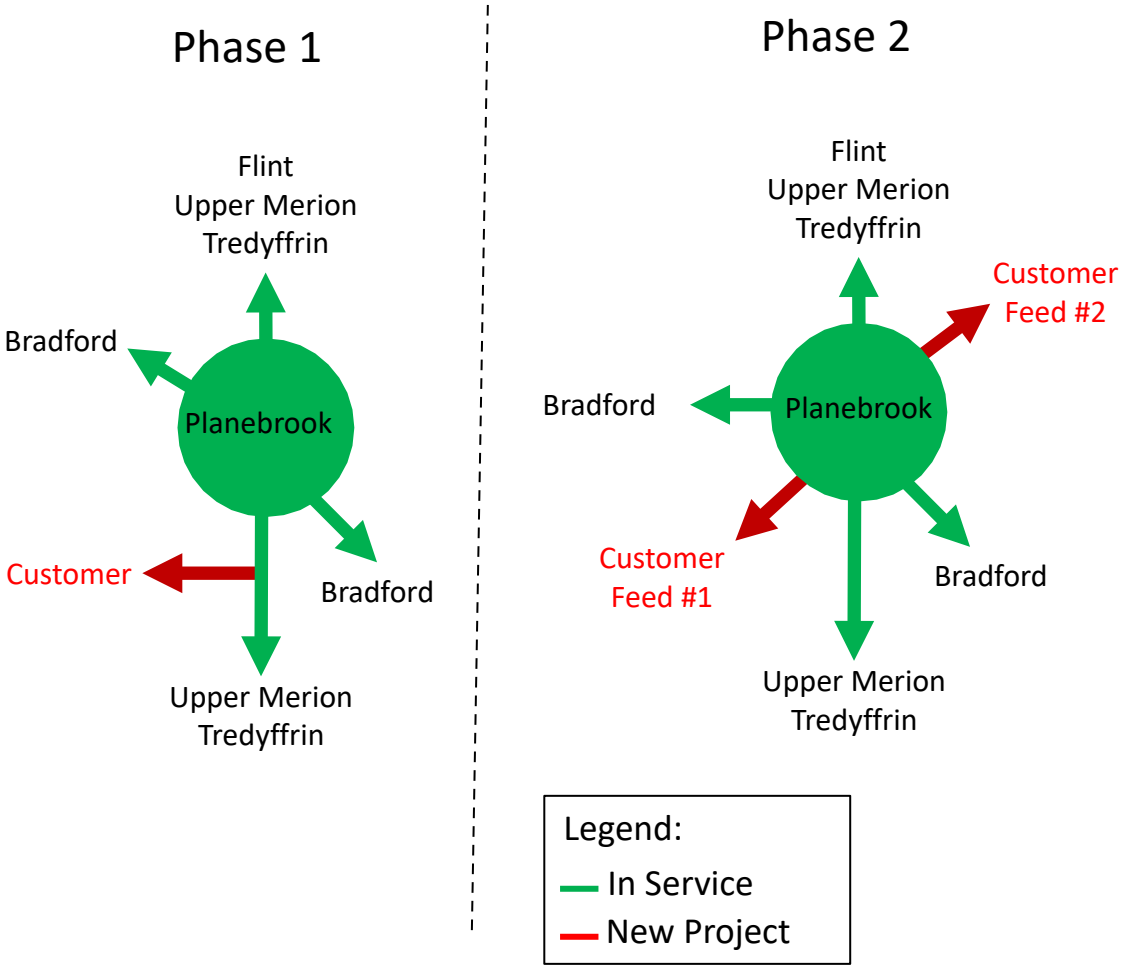
Estimated Transmission Cost: \$7M

Projected In-Service: 9/30/26 (Phase 1), 6/30/28 (Phase 2)

Supplemental Project ID: s3730.1 (Phase 1), s3730.2 (Phase 2)

Project Status: Conceptual

Model: 2028 RTEP



Need Number: PE-2025-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Previously Presented:

Needs Meeting 3/4/2025

Solutions Meeting 6/5/2025

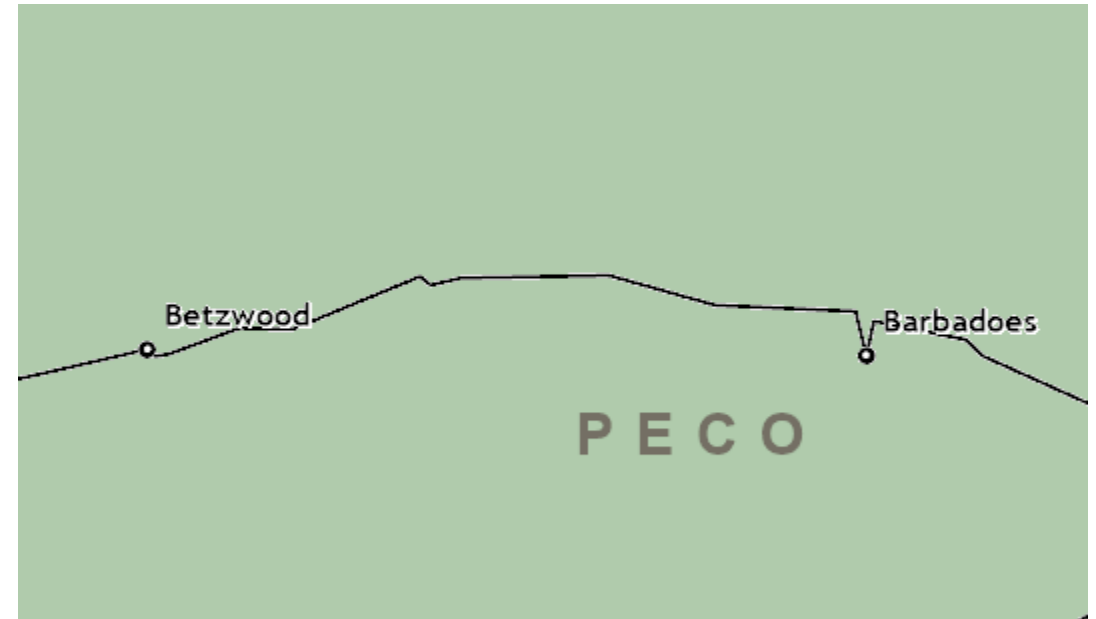
Project Driver: Customer Service

Specific Assumption Reference:

- Transmission System configuration changes due to new or expansion of existing distribution substations

Problem Statement:

- PECO Distribution Capacity Planning requested 50 MVA of capacity in the King of Prussia, PA region. Existing distribution facilities do not have enough capacity to accommodate this request.



Need Number: PE-2025-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Selected Solution:

- Install a new 8-position 230 kV breaker and a half substation by cutting into the existing Betzwood – Barbadoes 230 kV line.

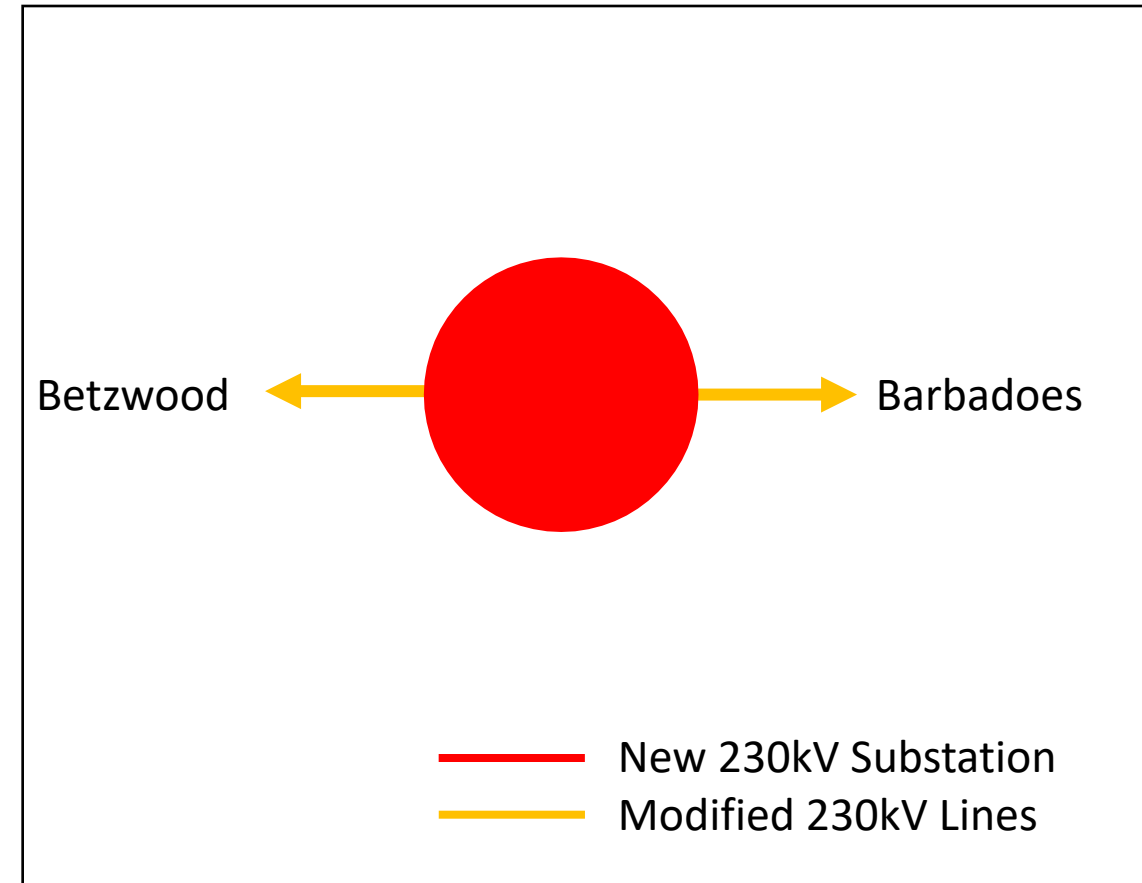
Estimated Transmission Cost: \$27M

Projected In-Service: 12/31/2029

Supplemental Project ID: s3784

Project Status: Conceptual

Model: 2029 RTEP



Need Number: PE-2025-002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Previously Presented:

Needs Meeting 7/8/2025

Solutions Meeting 9/9/2025

Project Driver: Equipment Material Condition, Performance, and Risk

Specific Assumption Reference:

- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions
- Programmatic review and/or replacement of breakers, relays, wood poles, cables, etc.

Problem Statement:

- The 220-17 Whippain-Whitemarsh-Jenkintown 230 kV line has obsolete electromechanical protective relays that are over 50 years old. These electromechanical relays are being phased out because the manufacturer no longer supports and parts are no longer available, making it increasingly difficult to service.



Need Number: PE-2025-002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Selected Solution:

- Replace obsolete electromechanical protective relays on the 220-17 Whitpain-Whitemarsh-Jenkintown 230 kV line with new microprocessor-based relays.
- New relays increase winter load dump ratings from 1036 MVA to 1092 MVA.

Transmission Cost: \$3.6M

In-Service: 3/10/2025

Supplemental Project ID: s3786

Project Status: Complete

Model: 2029 RTEP



Need Number: PE-2025-003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Previously Presented:

Needs Meeting 8/14/2025

Solutions Meeting 9/18/2025

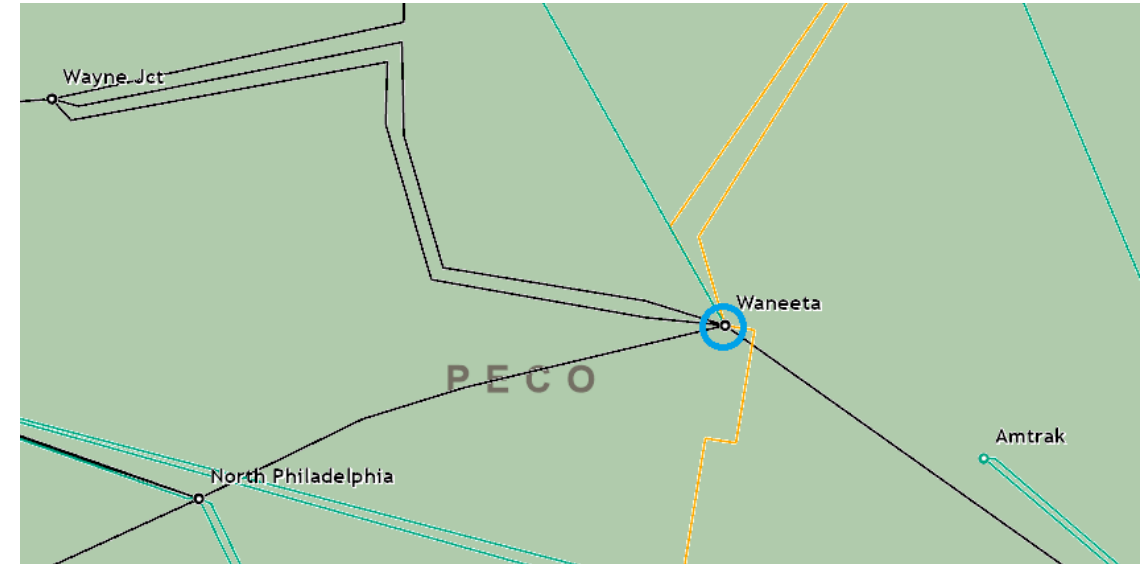
Project Driver: Equipment Material Condition, Performance, and Risk

Specific Assumption Reference:

- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions
- Programmatic review and/or replacement of breakers, relays, wood poles, cables, etc.

Problem Statement:

- Waneeta circuit breakers CB785 and CB875 are oil filled breakers installed in 1967 and are in deteriorating condition, have lack of replacement parts, and elevated maintenance cost.



Need Number: PE-2025-003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Selected Solution:

Replacement of CB785 and CB875 with SF6 circuit breakers, replacement of bus tie cable, and breaker disconnect switches. The breaker short circuit ratings have been increased from 42 kA to 63 kA.

	Existing Short Circuit Rating	New Short Circuit Rating
Waneeta 7-8 Bus Tie	42 kA	63 kA

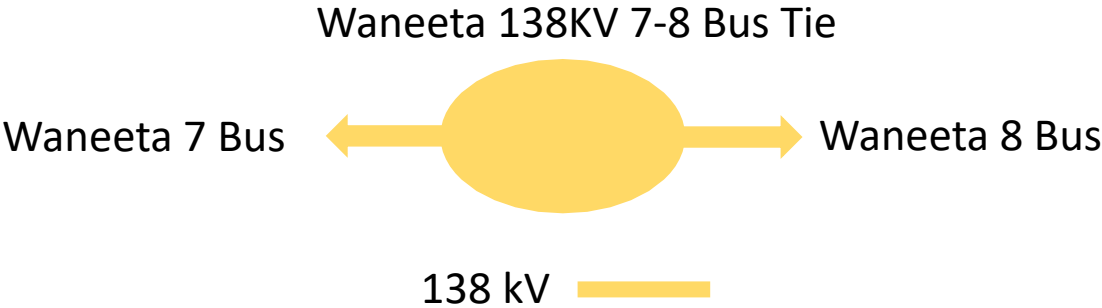
Estimated Transmission Cost: \$0.9 million

Projected In-Service: 11/20/2026

Supplemental Project ID: s3787

Project Status: Engineering

Model: 2029 RTEP



Need Number: PE-2025-005

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Previously Presented:

Needs Meeting 10/8/2025

Solutions Meeting 11/4/2025

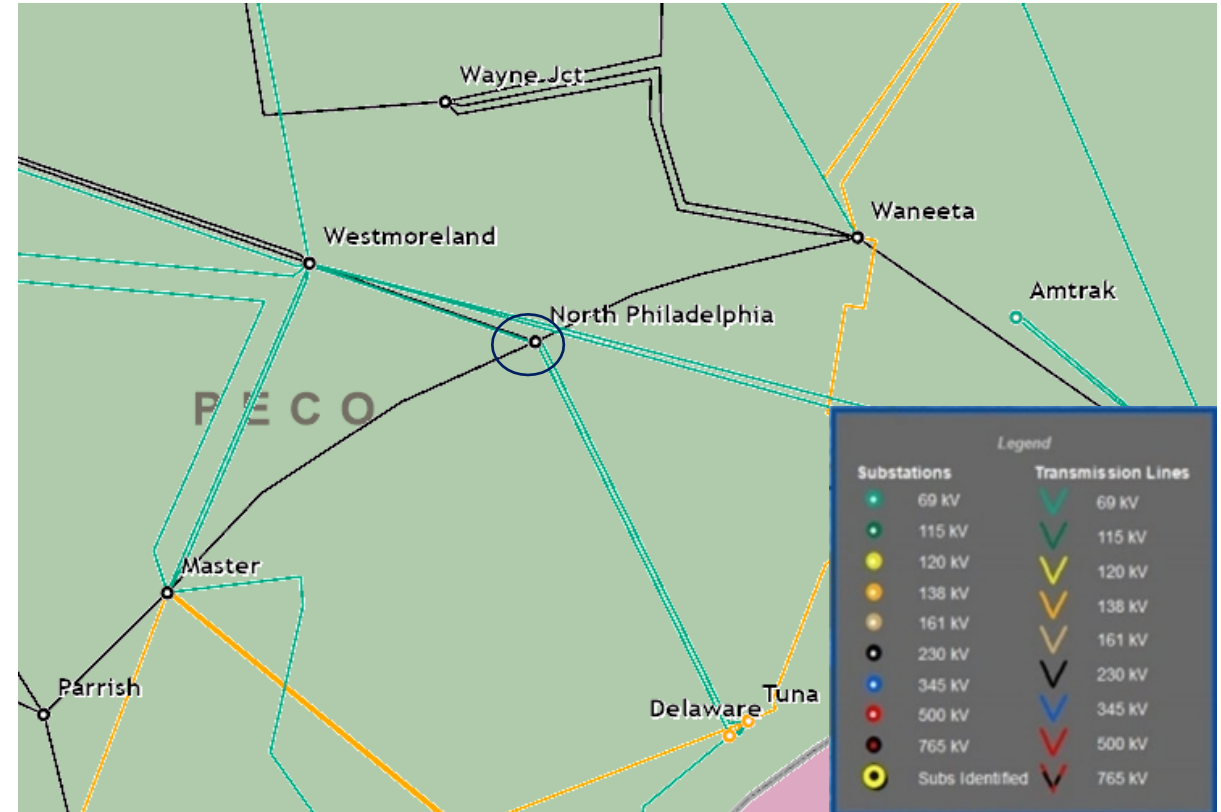
Project Driver: Equipment Material Condition, Performance, and Risk

Specific Assumption Reference:

- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions
- Programmatic review and/or replacement of breakers, relays, wood poles, cables, etc.

Problem Statement:

- North Philadelphia 230kV circuit breaker CB875 is an oil filled breaker installed in 1977 and is in deteriorating condition, has lack of replacement parts, and elevated maintenance cost.



Need Number: PE-2025-005

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 3/12/2026

Selected Solution:

Replacement of CB875 with SF6 circuit breaker, replacement of disconnect switches and associated CTs. The breaker short circuit ratings have been increased from 50 kA to 63 kA.

	Existing Short Circuit Rating	New Short Circuit Rating
N. Phila. CB 875	50 kA	63 kA

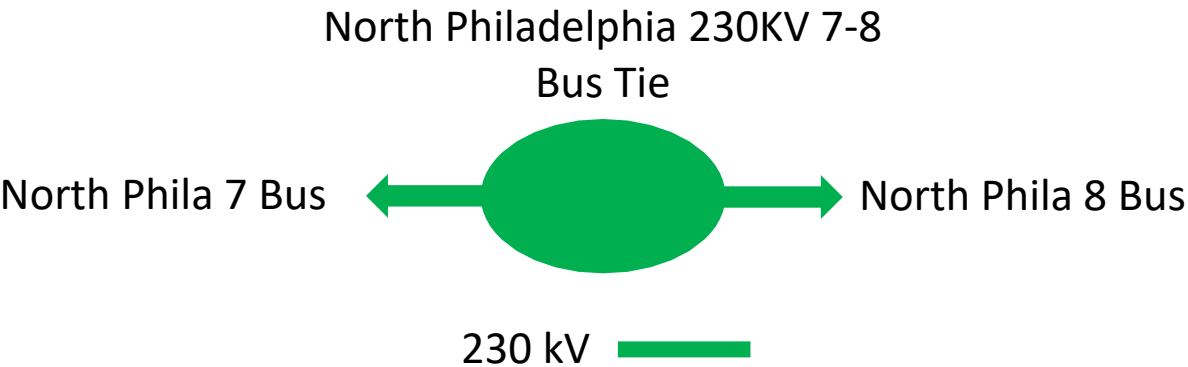
Estimated Transmission Cost: \$0.6M

Projected In-Service: 5/14/2027

Supplemental Project ID: s3791

Project Status: Engineering

Model: 2029 RTEP



Need Number: PE-2025-004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 6/25/2026

Previously Presented:

Needs Meeting 10/8/2025

Solutions Meeting 11/4/2025

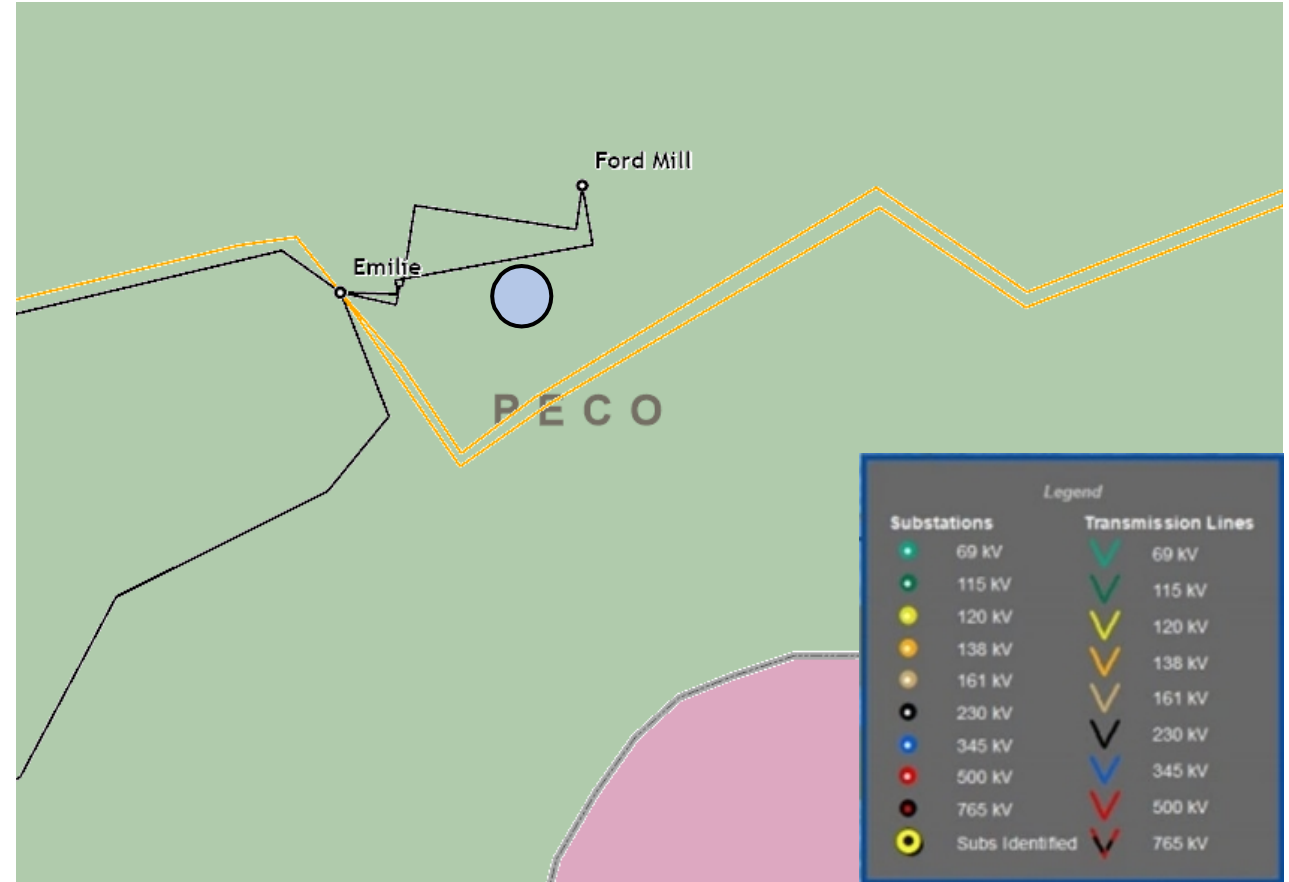
Project Driver: Customer Service

Specific Assumption Reference:

- New transmission customer interconnections or modification to an existing customer

Problem Statement:

- A new customer in the Fairless Hills, PA area has requested service for an initial loading of 240 MW in 2027 and an ultimate load of 600 MW in 2028. Distribution infrastructure in the area cannot adequately accommodate this load request.



Need Number: PE-2025-004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 6/25/2026

Selected Solution:

Phase 1:

- Install 2 temporary radial 230kV lines to the customer location by tapping into the existing 230kV 220-90 and 220-91 Emilie – Ford Mill lines to serve the initial 240 MW of customer load. Temporary feeds will be re-used in phase 2.
- Upgrade relays at Emilie substation.
- Install 7.5 miles of new OPGW static wire along length of existing structures.

Phase 1 Estimated Transmission Cost: \$3.9M

Phase 2:

- Build a new 230 kV 11-breaker BAAH substation, bisecting the existing Emilie – Ford Mill 230 kV lines, installing 2 new feeds to the customer site from the new substation to serve the ultimate 600 MW of customer load.
- Rebuild the 220-90 and 220-91 lines between Emilie and the new substation.
- Upgrade Emilie substation terminal devices, including breakers, bus conductor, and metering equipment

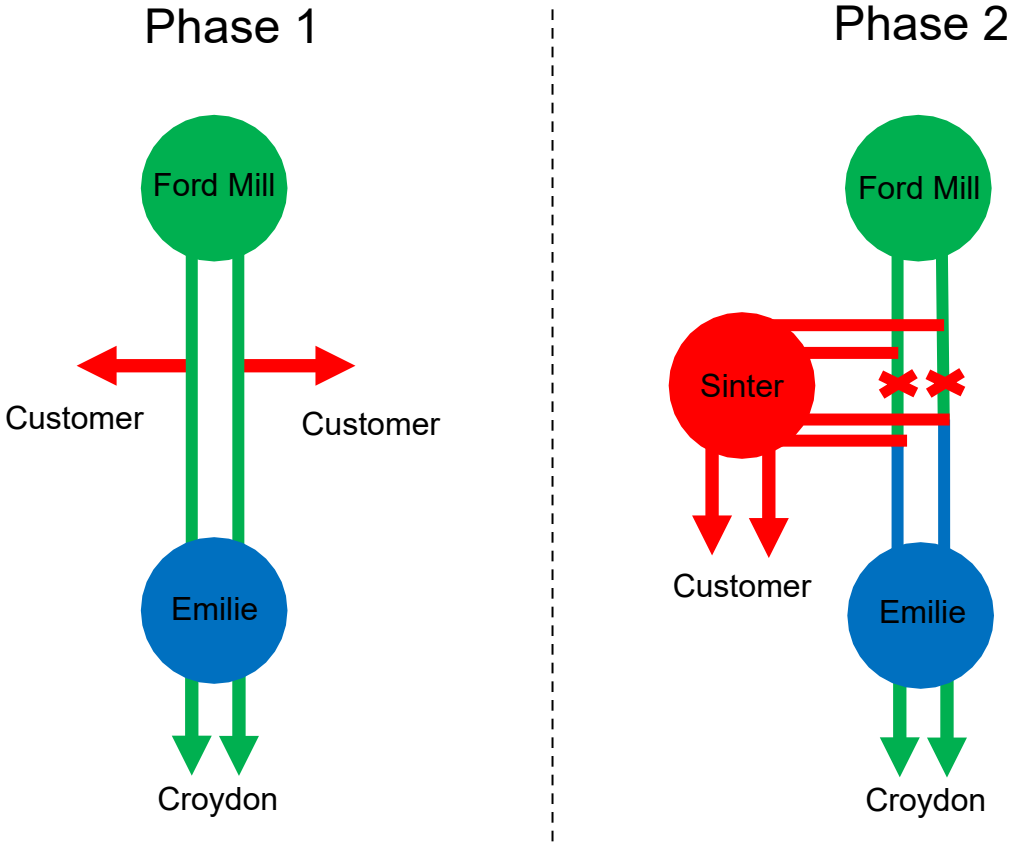
Phase 2 Estimated Transmission Cost: \$176.6M

Projected In-Service: Phase 1 – 1/2027, Phase 2 – 6/2030

Supplemental Project IDs: s3807.1 (Phase 1), s3807.2 (Phase 2)

Project Status: Engineering

Model: 2030 RTEP



Legend	
Existing 230 kV	
New 230 kV	
Upgraded 230 kV	

Version History

1/16/2026 – V1 – Slides #1-3, s3730.1-.2

3/12/2026 – V2 – Slides #4-11, s3784.1, s3786.1, s3787.1, s3791.1

6/25/2026 – V3 – Slides #12-13, s3807.1