

ACE 2022
Submission of Supplemental Projects for
Inclusion in the Local Plan

Need Number: ACE-2022-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Previously Presented:

Needs Meeting 2/17/22

Solutions Meeting 6/13/22

Project Driver:

Customer Service

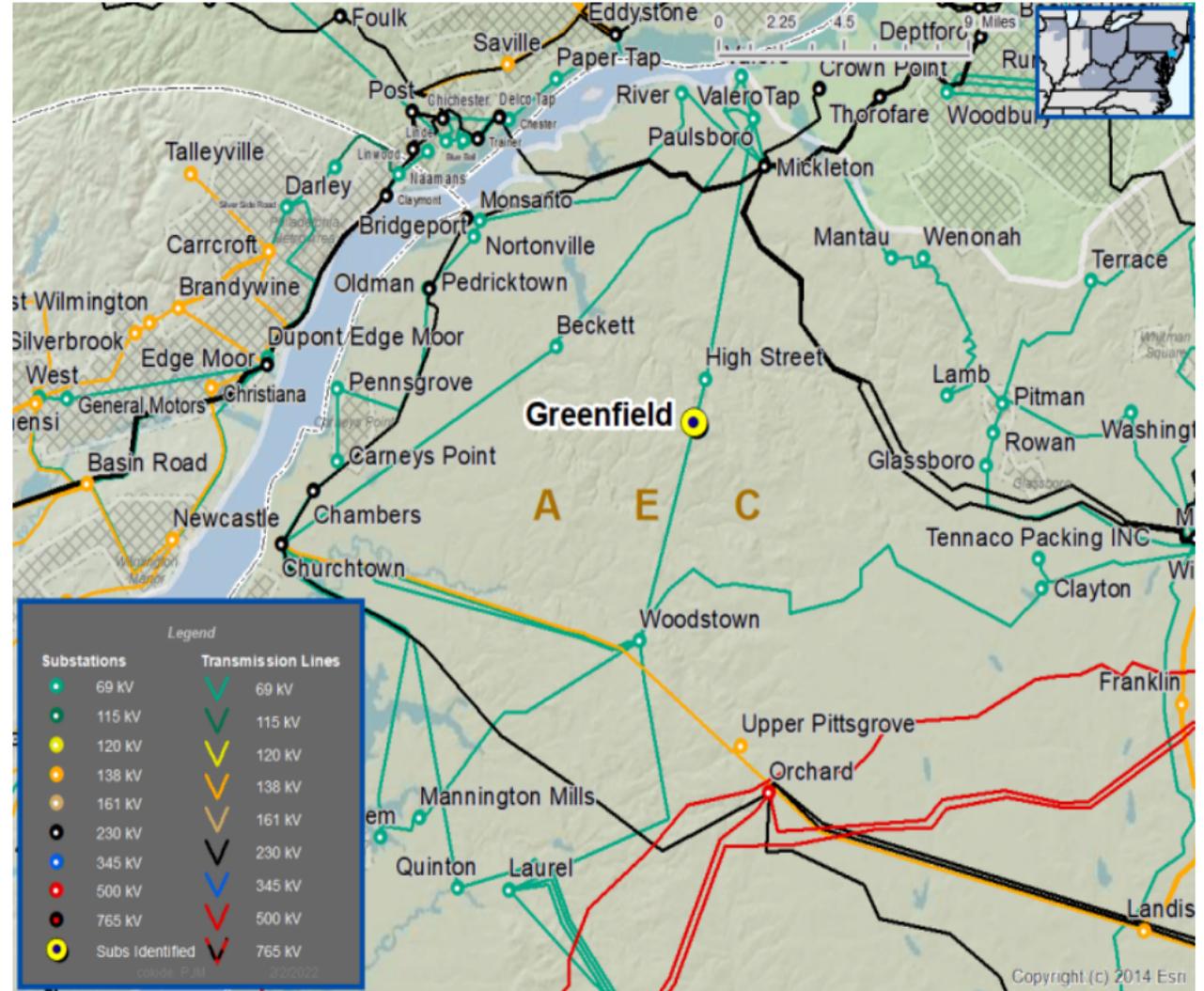
Specific Assumption Reference:

New transmission customer interconnections or modifications to an existing customer

Problem Statement:

Existing customer is installing an additional 9 MW of load in the Gloucester County, NJ area. Distribution infrastructure in the area cannot adequately accommodate this load.

- Existing Load: 9 MW
- Projected Load: 18 MW



Need Number: ACE-2022-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Selected Solution:

- Install new 69 kV terminal position at High Street Sub station
- Install new 1.7-mile 69 kV line to service the customer

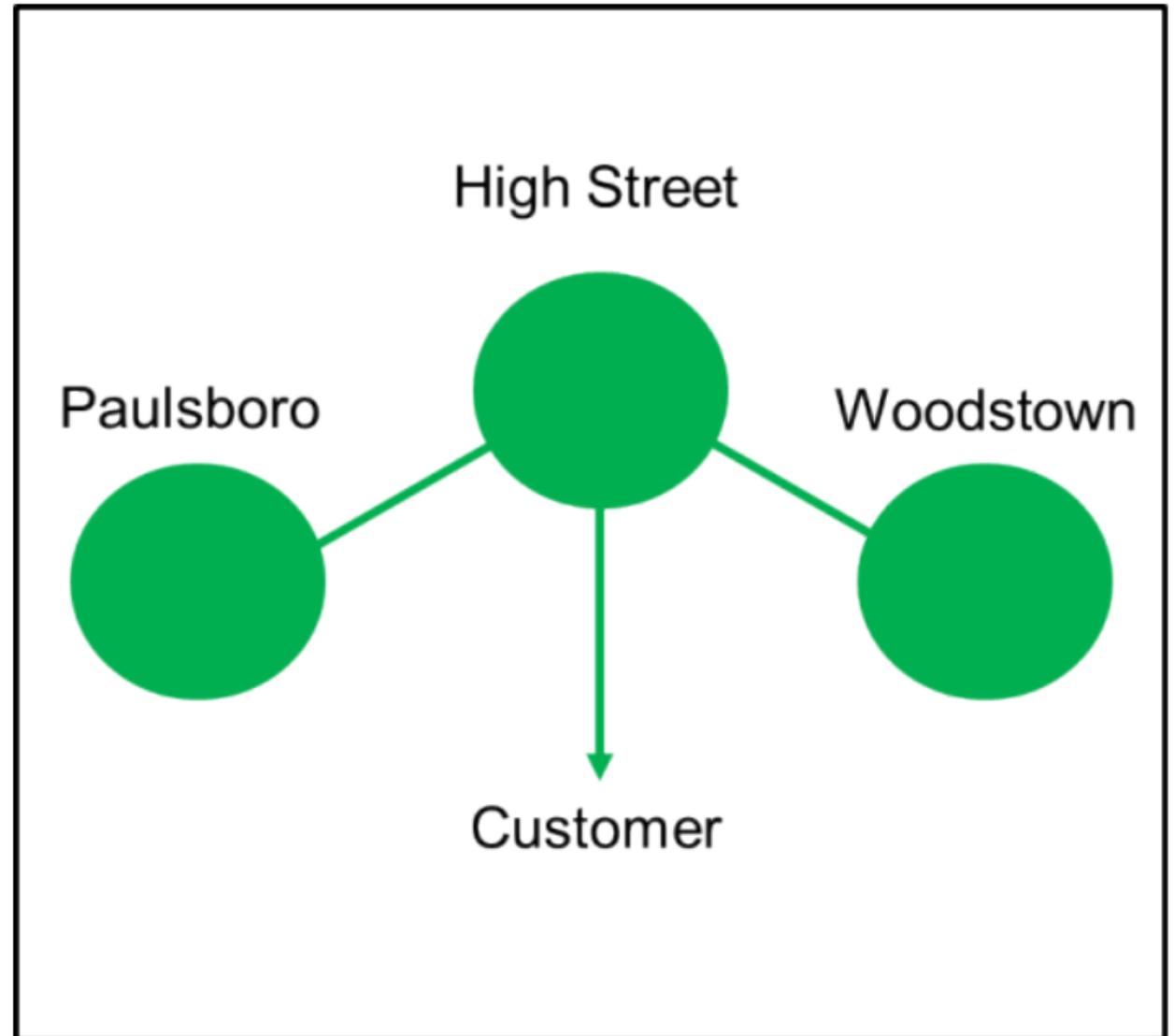
Estimated Cost: \$0

Projected In-Service: 1/31/23

Supplemental Project ID: s2754

Project Status: Engineering

Model: 2026 RTEP



Need Number: ACE-2022-003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Previously Presented:

Needs Meeting 2/17/22

Solutions Meeting 3/17/22

Project Driver:

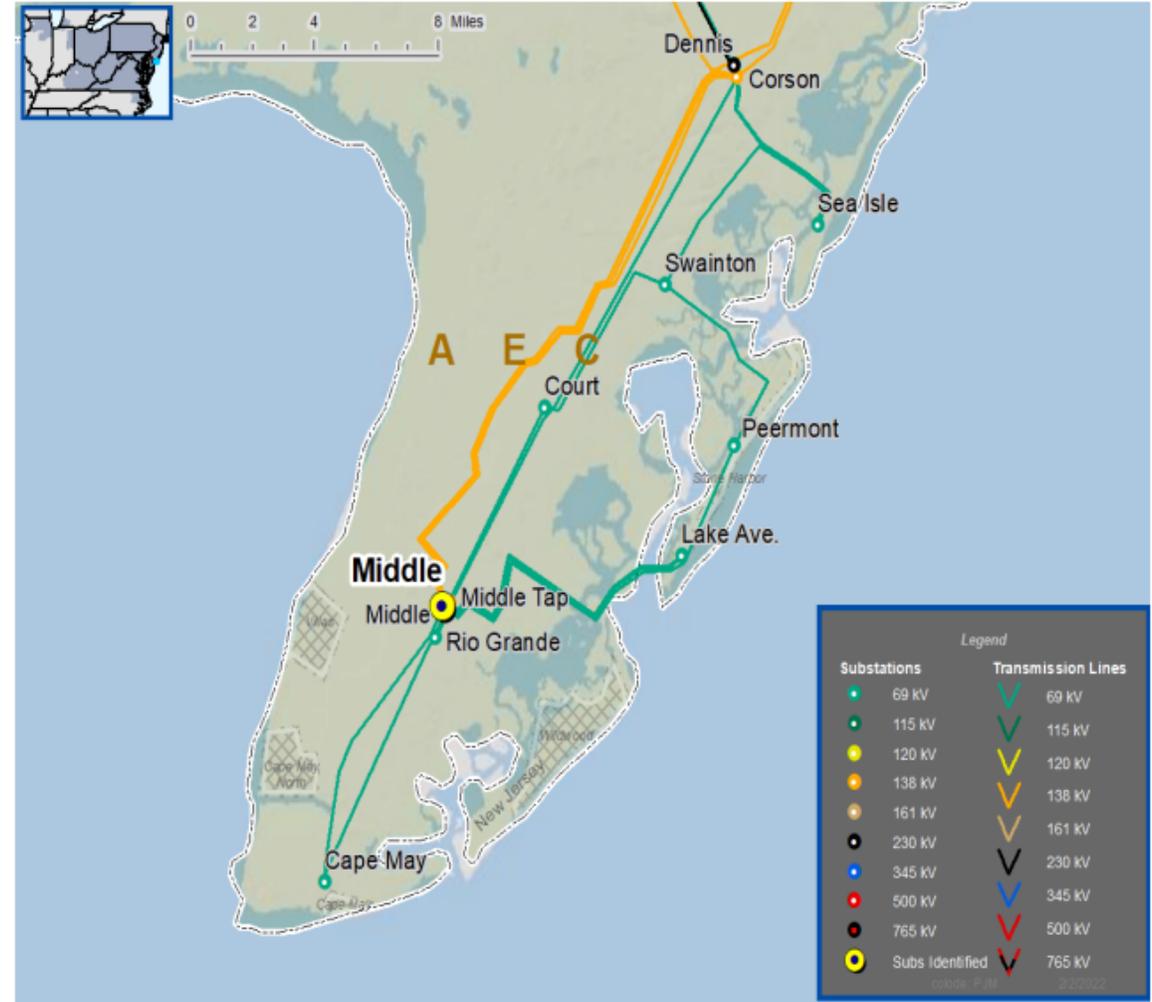
Equipment Material Condition, Performance and Risk

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:

Middle 138/69 kV T4 transformer is 41 years old, is in deteriorating condition, and has elevated maintenance costs.



Need Number: ACE-2022-003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Selected Solution:

At Middle Substation, replace the T4 transformer bank with a 138/69 kV, 225 MVA three-phase autotransformer with tap changer.

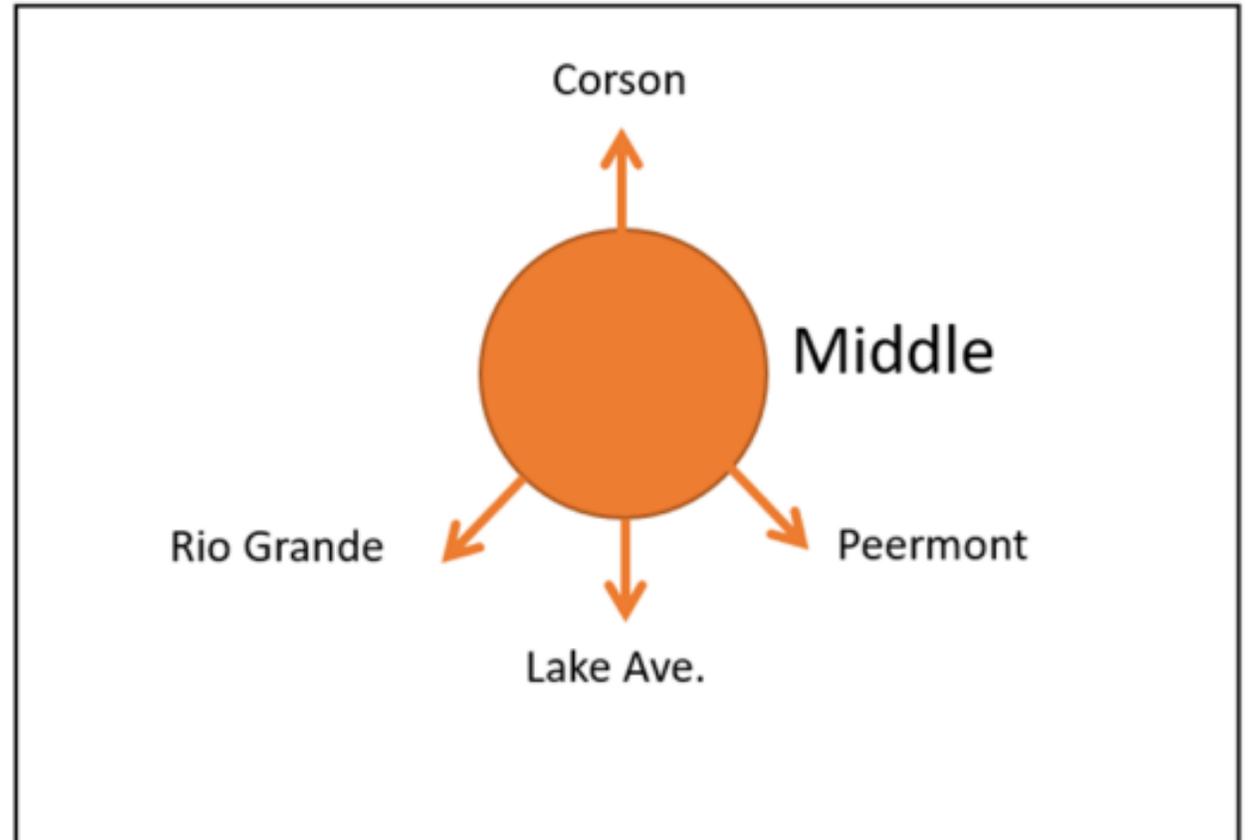
Estimated Cost: \$8.7 M

Projected In-Service: 12/31/25

Supplemental Project ID: s2712

Project Status: Conceptual

Model: 2026 RTEP



Need Number: ACE_2022_004

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Previously Presented:

Needs Meeting 2/17/2022

Solutions Meeting 5/16/2022

Project Driver:

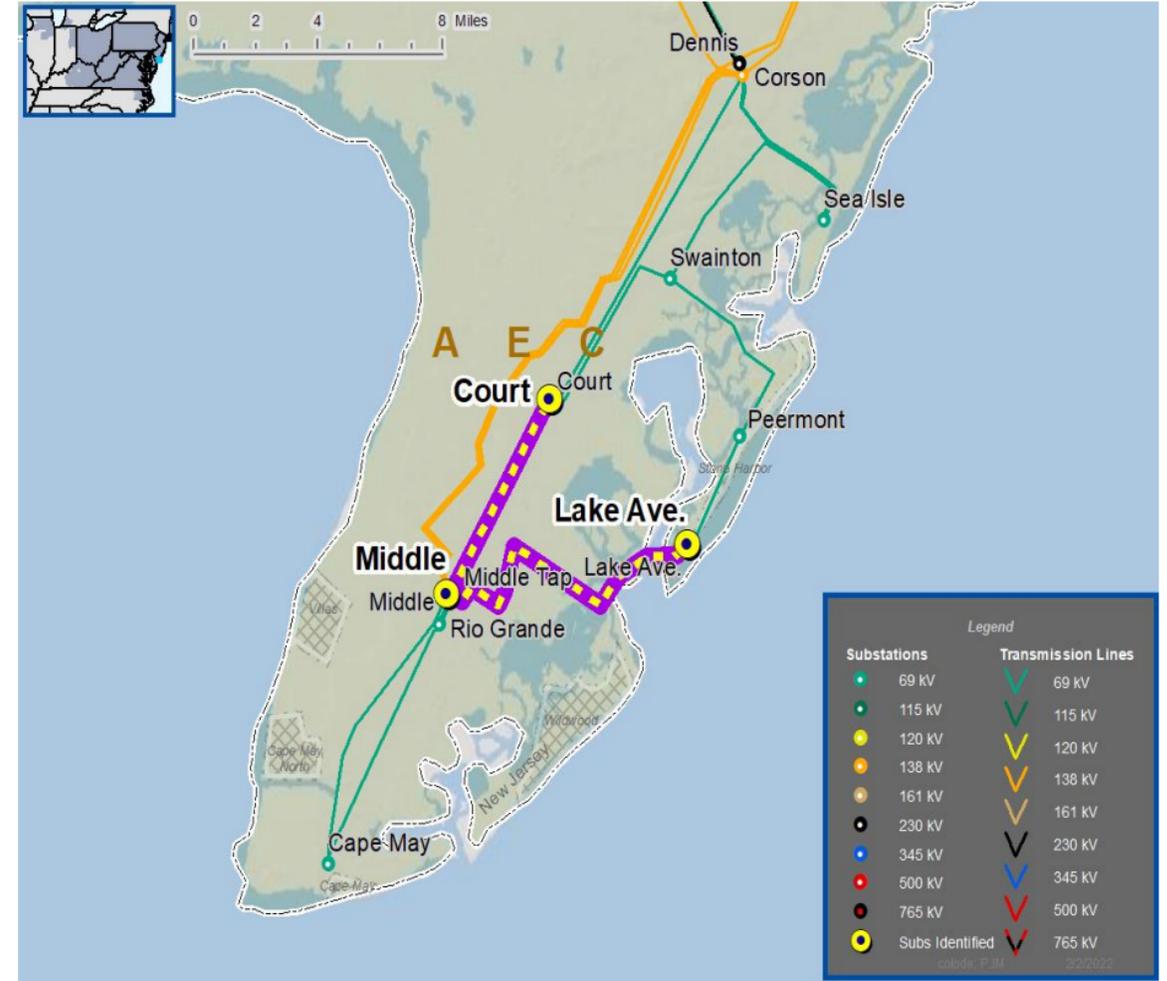
Equipment Material Condition, Performance and Risk, Operational Flexibility and Efficiency

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.
- Enhancing system functionality, flexibility, visibility, or operability.

Problem Statement:

The 69 kV Court – Middle – Lake 0798 line is 67 years old and in deteriorating condition. The three terminal line has had several interruptions over the last five years.



Need Number: ACE_2022_007

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Previously Presented:

Needs Meeting 3/17/2022

Solutions Meeting 5/16/2022

Project Driver:

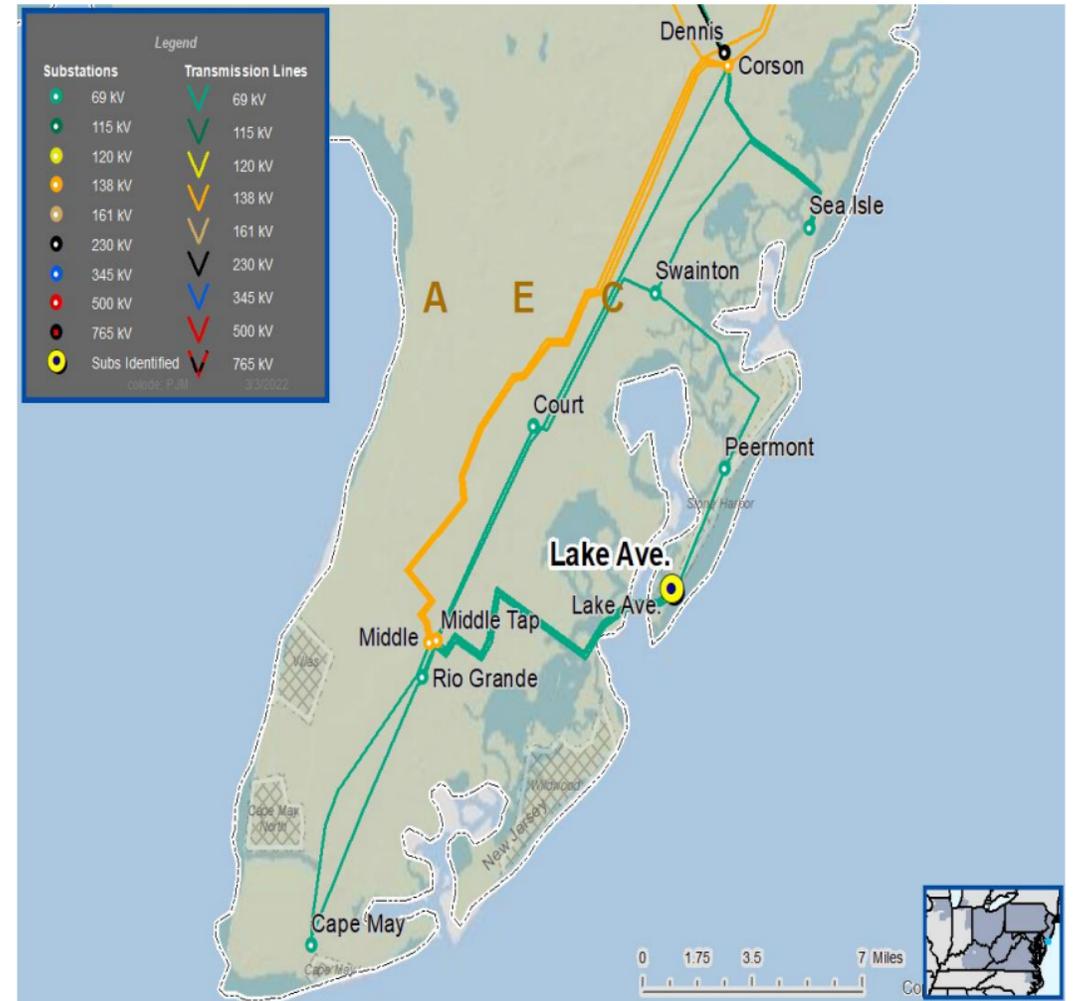
Operational Flexibility and Efficiency

Specific Assumption Reference:

- Enhancing system functionality, flexibility, visibility, or operability.
- Remedy recurring operational problems
- Provide Operations more options to deal with non-standard operating conditions

Problem Statement:

Lake Avenue Substation's present 69kV bus configuration is not operated as a closed ring. Transformers in the station are fed by two lines, a tap from 0798 Middle-Court line and 0736 line from Middle. There have been 17 interruptions on 0798 line and 6 interruptions on 0736 line during the past five years.



Need Number: ACE-2022-004 & ACE-2022_007

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Selected Solution:

- Install 2 new circuit breakers to reconfigure Lake Ave substation as a 7-breaker ring bus.
- Rebuild the existing 0798 Court- Middle- Lake 69 kV line as two circuits. After rebuild, 0798 line will be from Court to Middle and the new line will be from Middle-Lake Ave.
- For better reliability, a second tie breaker will be installed in Middle substation to prevent an event from deenergizing the entire 69kV bus.

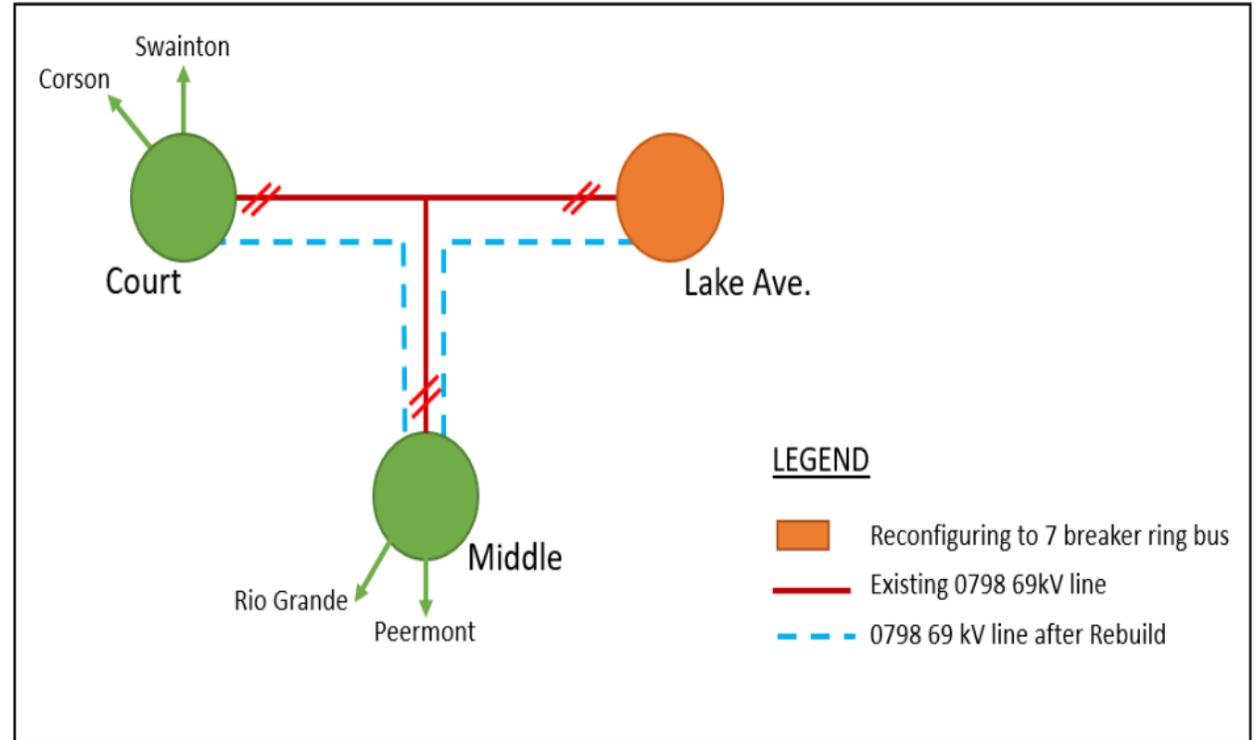
Estimated Cost: \$21 M

Projected In-Service: 12/31/24

Supplemental Project ID: s2752 (s2752.1, s2752.2, s2752.3)

Project Status: Engineering

Model: 2025 RTEP



Need Number: ACE-2022-008

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Previously Presented:

Needs Meeting 5/16/2022

Solutions Meeting 6/13/2022

Project Driver:

Operational Flexibility and Efficiency. Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

- Enhancing system functionality, flexibility, visibility, or operability
- Provide Operations more options to deal with non-standard operating conditions
- Transmission infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient asset management decisions

Problem Statement:

The Newport substation was originally built in 1939 and is in deteriorating condition. A fault anywhere on the 69 kV bus would result in the loss of both 69 kV sources: Newport-Fairton (0727 Line) & Newport-South Millville (0762 Line), as well as the loss of all 12 kV Load.



Need Number: ACE-2022-008

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/12/2022

Selected Solution:

Reconfigure 69 kV section of Newport substation to accommodate 3 new breakers, a new 69/12 kV 28 MVA transformer, and a Mobile Unit Transformer tie-in to operate as a four-breaker ring bus.

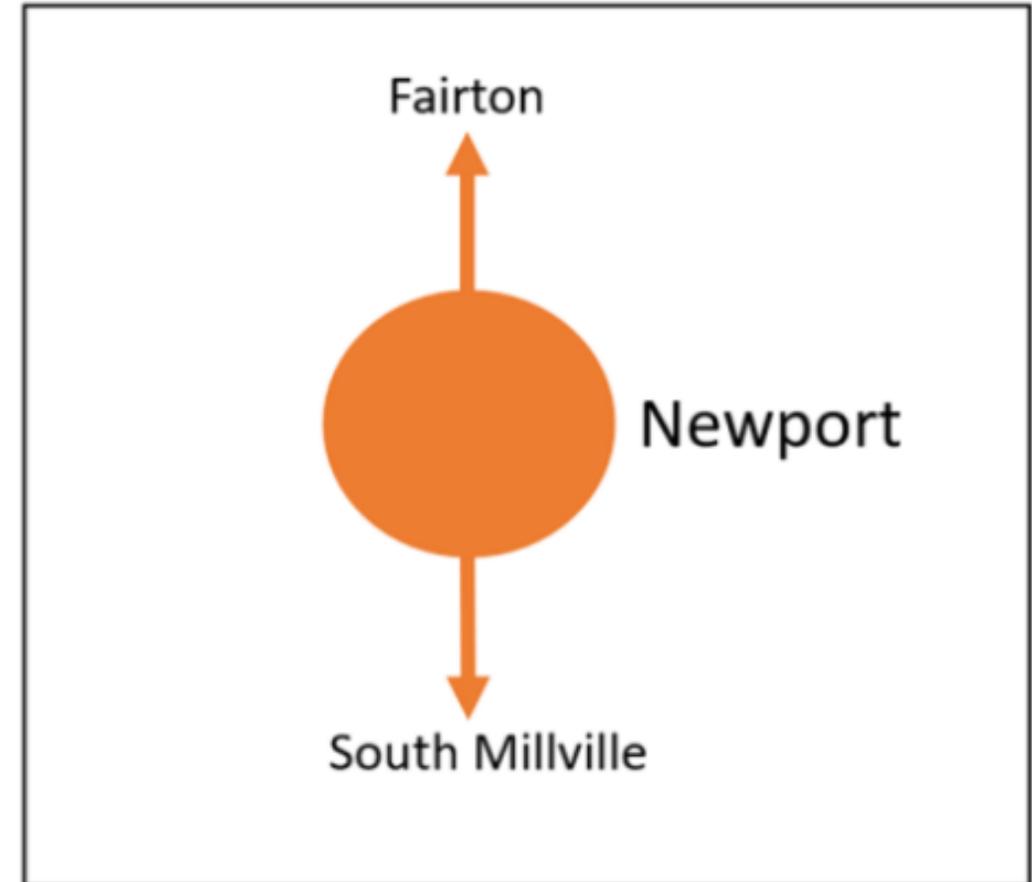
Estimated Cost: \$14 M

Projected In-Service: 05/31/23

Supplemental Project ID: s2755

Project Status: Engineering

Model: 2026 RTEP



Revision History

10/12/2022 – V1 – Posted Local plan for s2754, s2712, s2752 and s2755