ACE 2024
Submission of Supplemental Projects for Inclusion in the Local Plan

Need Number: ACE-2022-002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 2/23/2024

Previously Presented:
Need Meeting 9/15/22
Solution Meeting 9/14/23

Project Driver: Customer Service

Specific Assumption Reference:
New transmission customer interconnections or modification to an existing customer

Problem Statement:
New customer is installing 32.5 MVA load in the Salem County, NJ area. Distribution infrastructure in the area cannot adequately accommodate this load.

M-3 Process
ACE Transmission Zone
Quinton New Customer Line

Need Number: ACE-2022-002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 2/23/2024

Proposed Solution:

- Install a new 69 kV terminal position at Quinton substation
- Install new 11-mile 69kV line to provide service to the customer

Estimated cost: $4.6M

Alternatives Considered:

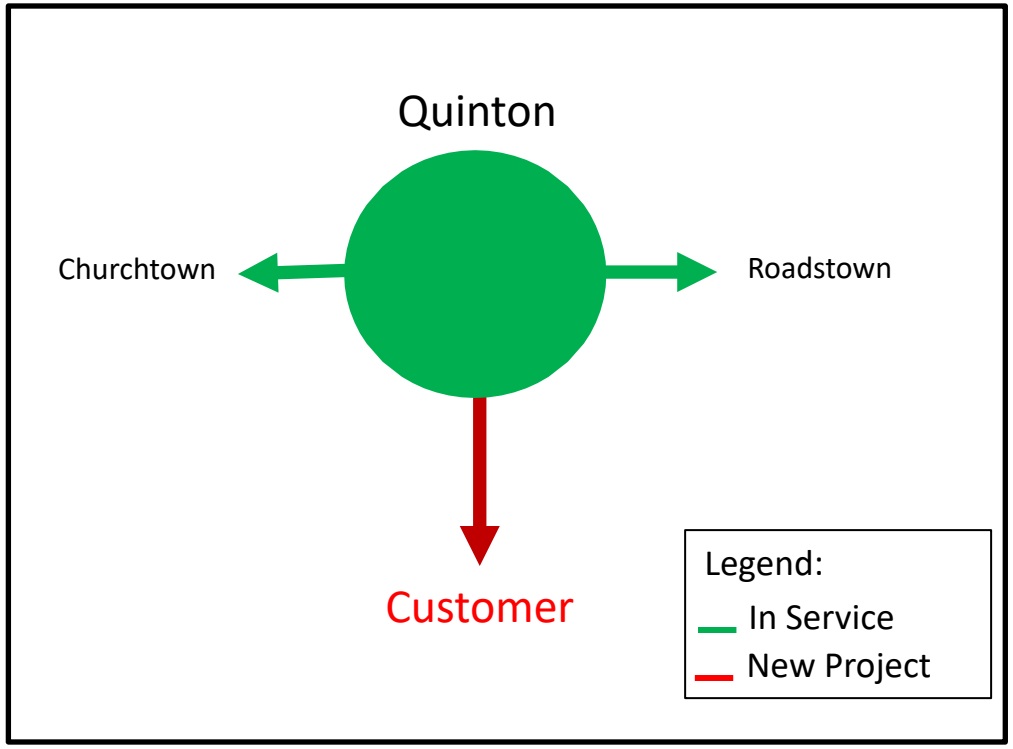
- Construct a new 12kV express feeder from the Quinton substation
    - Express feeder can supply only up to 9 MVA of load

Projected In-Service: 04/30/24

Supplemental Project ID: s3154.1

Project Status: Engineering

Model: 2027 RTEP



Need Number: ACE-2022-009

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 2/23/2024

Previously Presented: Need Meeting 8/18/2022

Solution Meeting 9/14/2023

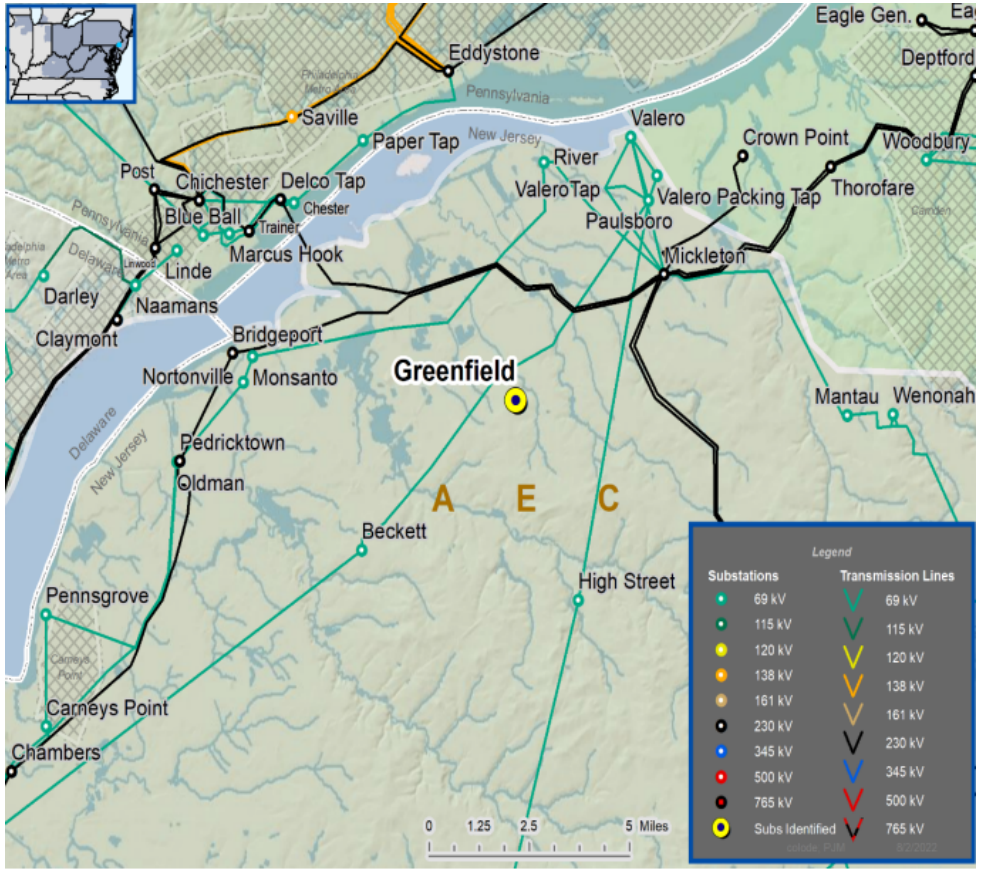
Project Driver: Customer Service

Specific Assumption Reference:

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

Problem Statement:

ACE's existing distribution system is unable to serve the growing distribution customer load of 35 MVA in the Logan area



Need Number: ACE-2022-009

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 2/23/2024

Proposed Solution:

- Construct new six (6) breaker 69 kV ring bus substation by cutting into Paulsboro – Beckett line
- Install a 30 MVAR Cap bank at Woolwich Substation
- Install 2 new 69/12 kV 40MVA transformers to address the growing distribution load in the area

Estimated cost: $18M

Alternatives Considered:

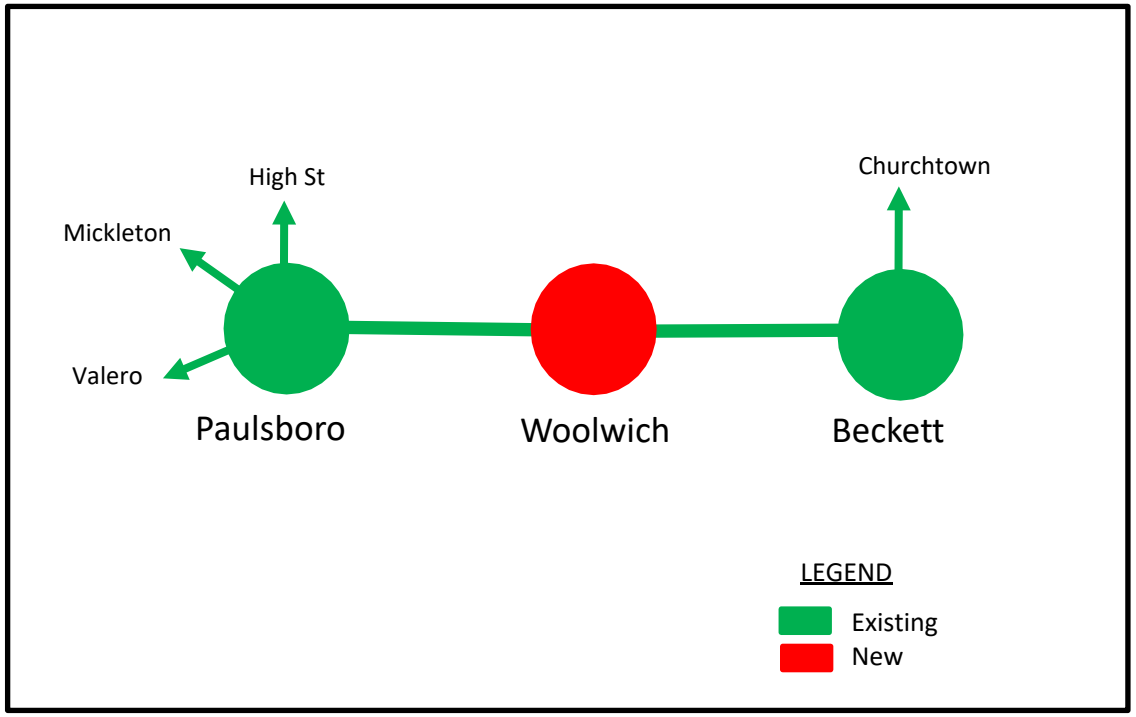
- Install second transformer at Nortonville substation
    - Second transformer doesn't physically fit within the available space in the substation

Projected In-Service: 1/31/2028

Supplemental Project ID: s3149.1

Project Status: Engineering

Model: 2027 RTEP



Need Number: ACE-2024-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/13/2024

Previously Presented:

Need Meeting 01/18/24

Solution Meeting 02/15/24

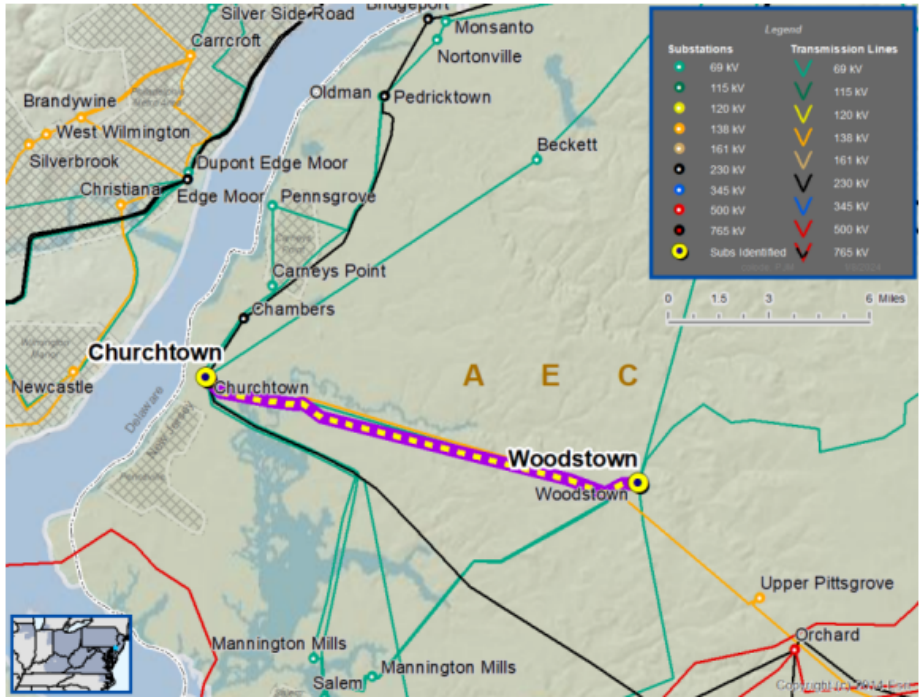
Project Driver: Equipment Material Condition, Performance and Risk

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.
- Internal and/or regulatory recommended design guidelines or standards

Problem Statement:

- Existing 69kV circuits 0725 and 0726 between Churchtown and Woodstown (approx. 10.6 miles), are 94 years old. There are 78 structures along this circuit of which, 59 are the original steel lattice towers erected in 1929 and are showing signs of deterioration. This line experienced 5 interruptions since 2019. Maintenance costs of the lines have increased.



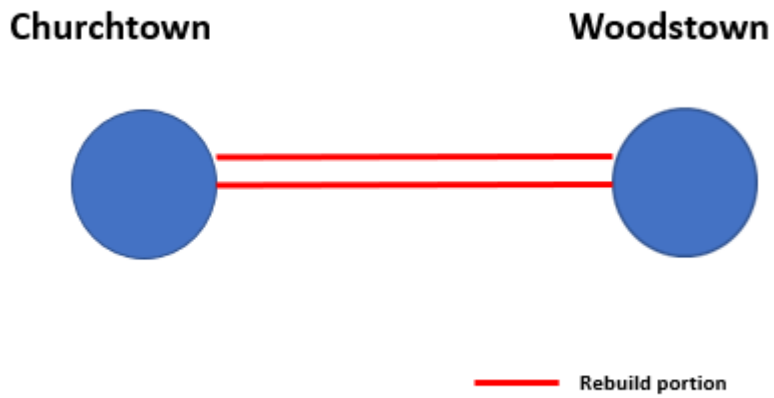
Need Number: ACE-2024-001

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 5/13/2024

Proposed Solution:

- Rebuild 0725 and 0726 Churchtown – Woodstown 69kV lines using 795 ACSR and replacing the existing shield wire with new OPGW

Facility	Summer Normal	Summer Emergency	Winter Normal	Winter Emergency
Churchtown to Woodstown Line 0725/0726	Existing (MVA)			
	63	72	76	92
	Proposed (MVA)			
	72	84	82	95



Estimated cost: $31 M

Projected In-Service: 12/31/2028

Supplemental Project ID: s3278.1

Project Status: Conceptual

Model: 2028 RTEP

Revision History

2/23/2024 – V1 – Posted Local plan for s3149.1, s3154.1

5/13/2024 – V2 – Added s3278.1