

ACE 2021
Submission of Supplemental Projects for
Inclusion in the Local Plan

Need Number: ACE-2021-0002

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/30/2021

Previously Presented: Needs Meeting 2/16/2021

Solutions Meeting 5/20/2021

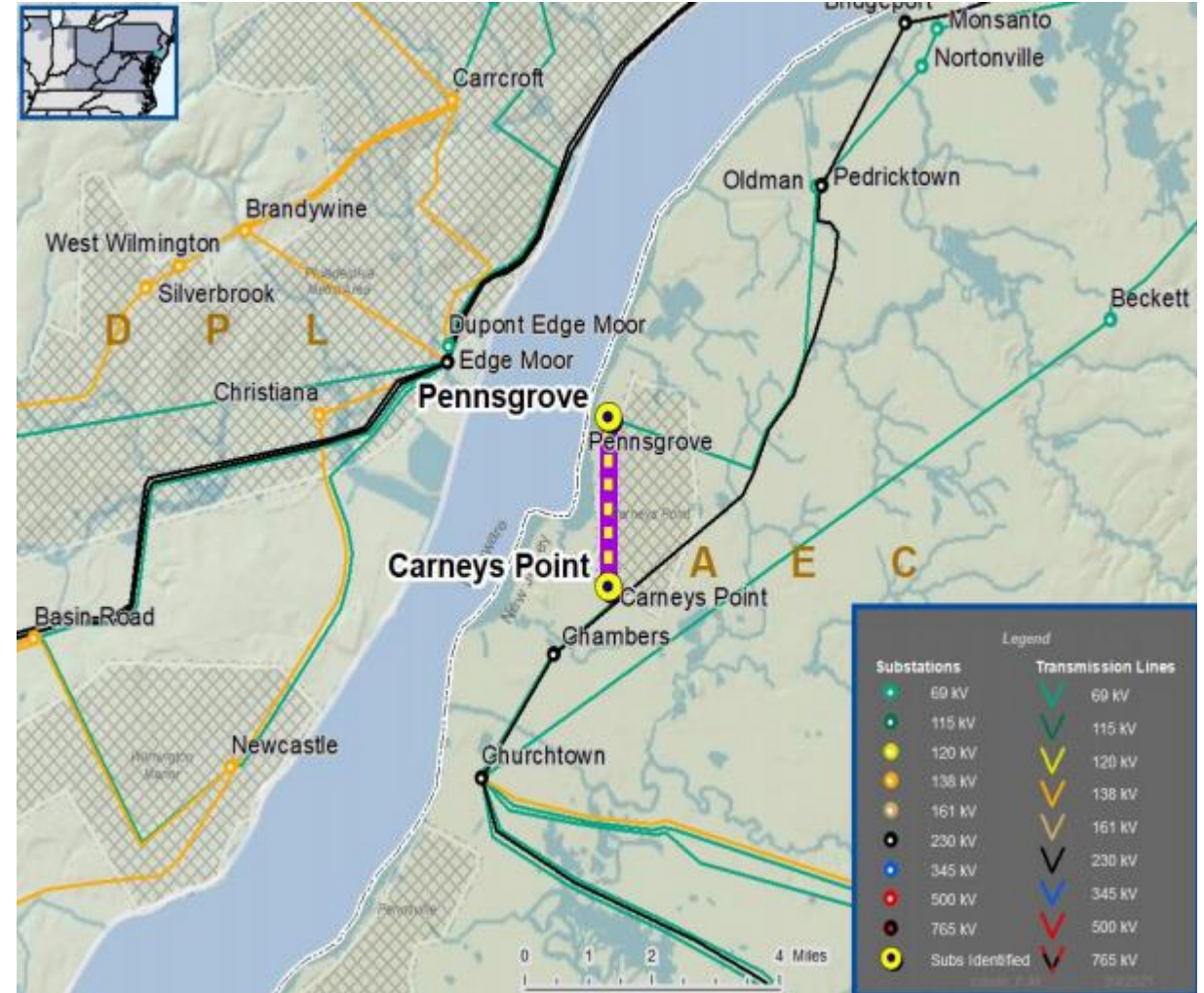
Project Driver: Equipment Material Condition, Performance and Risk, Customer Service, Operational Flexibility and Efficiency

Specific Assumption Reference:

Transmission Infrastructure replacements (EOL/condition/obsolescence) that are consistent with efficient Asset Management decisions, Transmission System configuration changes due to new or expansion of existing distribution substations, Enhancing system functionality, flexibility, or operability

Problem Statement:

Carney's Point and Pennsgrove Substations are both tapped 69/4kV transformer stations with obsolete and deteriorating 4kV equipment. The Oldmans Substation breaker is experiencing gas leaks and is in need of replacement.. In addition, projected load growth in this region is expected to overload existing distribution infrastructure.



Need Number: ACE-2021-0003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/30/2021

Previously Presented: Needs Meeting 4/14/2021

Solutions Meeting 5/20/2021

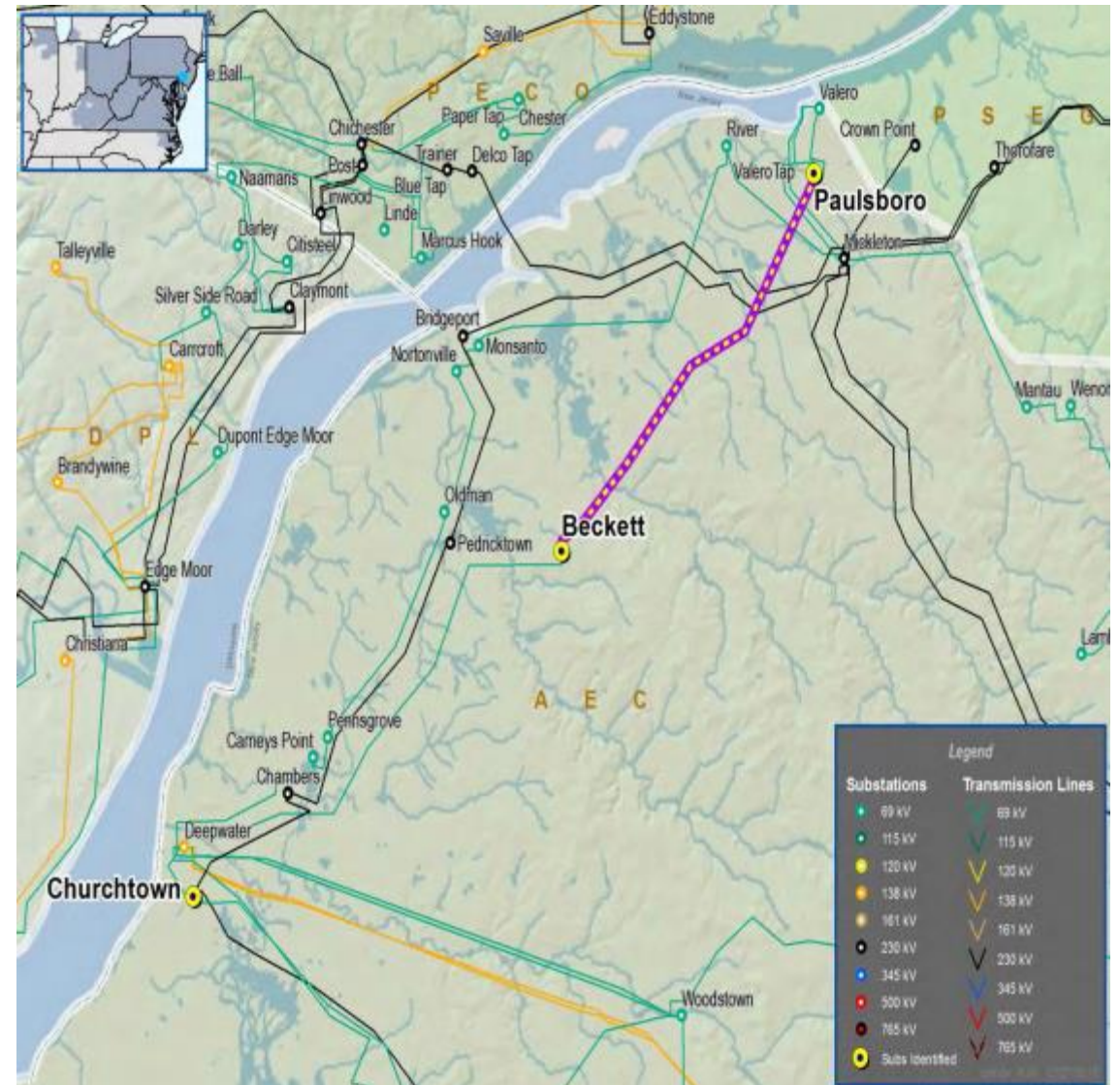
Project Driver: Operational Flexibility and Efficiency

Specific Assumption Reference:

Enhancing system functionality, flexibility, visibility or operability; Remedy recurring operational problems

Problem Statement:

Beckett Substation is currently configured as two (2) tapped 69/12kV transformers off the 69kV Churchtown-Paulsboro line with no high side breakers. Beckett Substation has experienced six (6) bus interruptions since 2018





ACE Transmission Zone M-3 Process

Need Number: ACE-2021-0002/ACE-2021-0003

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 10/30/2021

Previously Presented: Needs Meeting 2/16/2021 & 4/14/2021
Solutions Meeting 5/20/2021

Proposed Solution:

- Upgrade Beckett Substation to Line Bus configuration by installing four (4) 69kV CBs
- Construct new seven (7) breaker 69kV Ring Bus Substation on Churchtown-Monsanto line
- Construct new 5.6 mile 69kV line from Beckett to new substation
- Retire Carney’s Point, Pennsgrove, Oldman Substations

Estimated Cost: \$34M

Alternatives Considered:

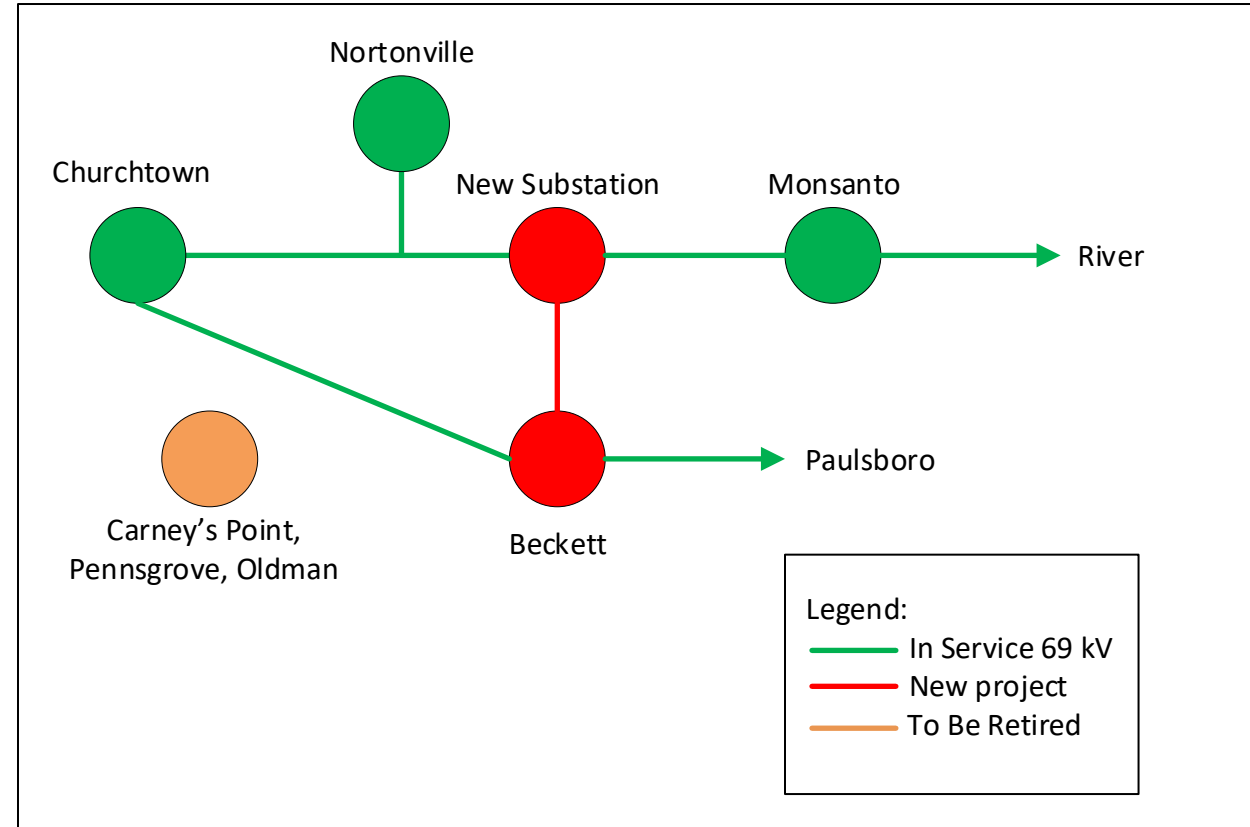
- Demo and rebuild Oldman Substation, upgrade equipment at Carney’s Point and Pennsgrove (\$32M)
 - Existing property not large enough for expanded station, limited reliability impact due to configuration and reliance on 4kV equipment
- Add 2nd Transformer at Nortonville, upgrade equipment at Carney’s Point, Pennsgrove and Oldman (\$37M)
 - Additional space needed to fit 2nd transformer, limited reliability impact due to configuration

Anticipated In Service Date: 12/31/2024

Supplemental Project ID: s2567 (s2567.1, s2567.2, s2567.3)

Project Status: Engineering

PJM Model: 2026 RTEP Model



Revision History

10/30/2021 – V1 – Posted Local plan for s2567