

Sub Region RTEP Mid-Atlantic Committee AEC Supplemental Projects

May 20, 2021

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

Need Number: ACE-2021-0002

Process Stage: Solutions Meeting 5/20/2021

Previously Presented: Needs Meeting 2/16/2021

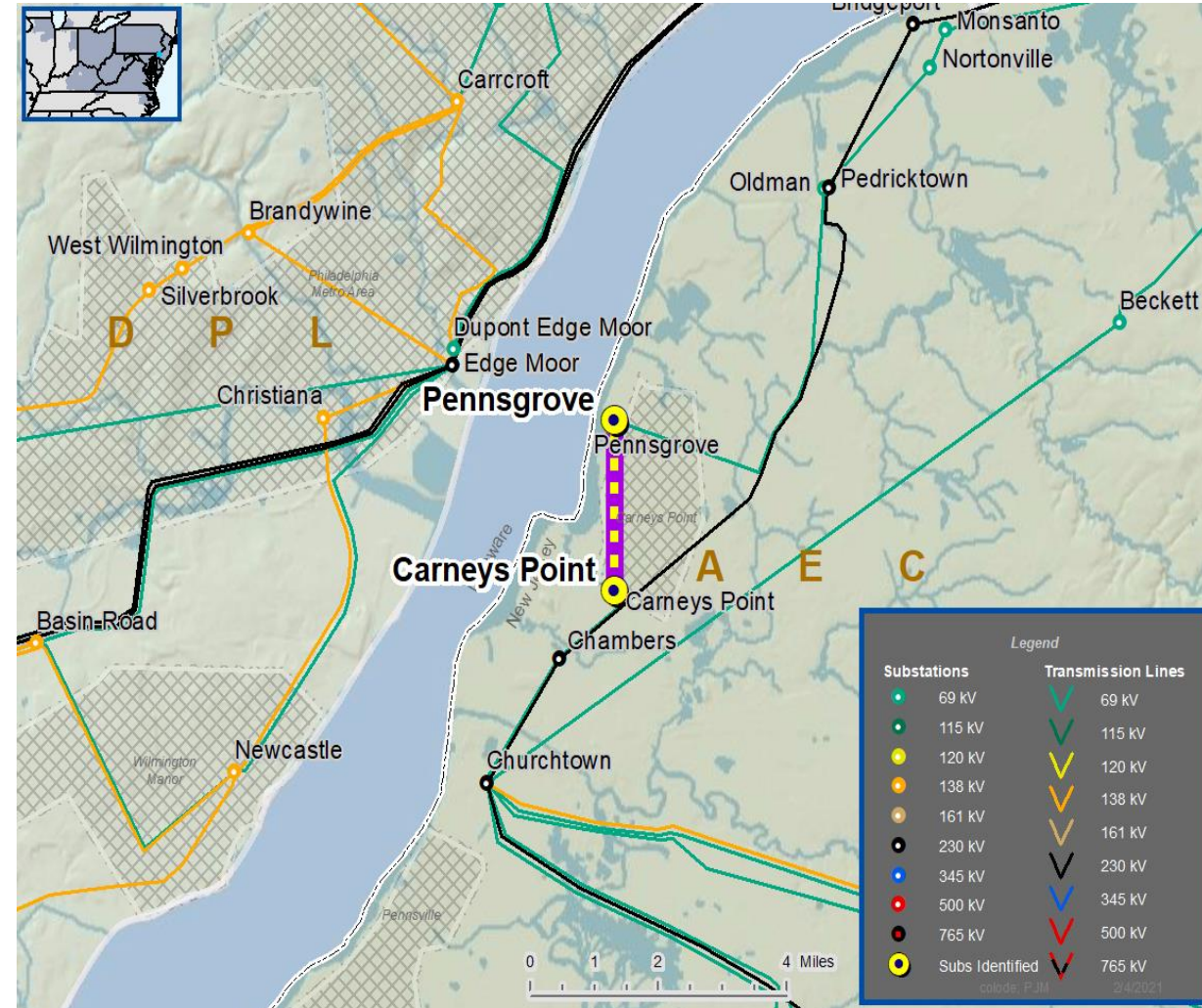
Project Driver: Equipment Material Condition, Performance and Risk, Customer Service, Operational Flexibility and Efficiency

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: Solutions Meeting 5/20/2021

Previously Presented: Needs Meeting 4/14/2021

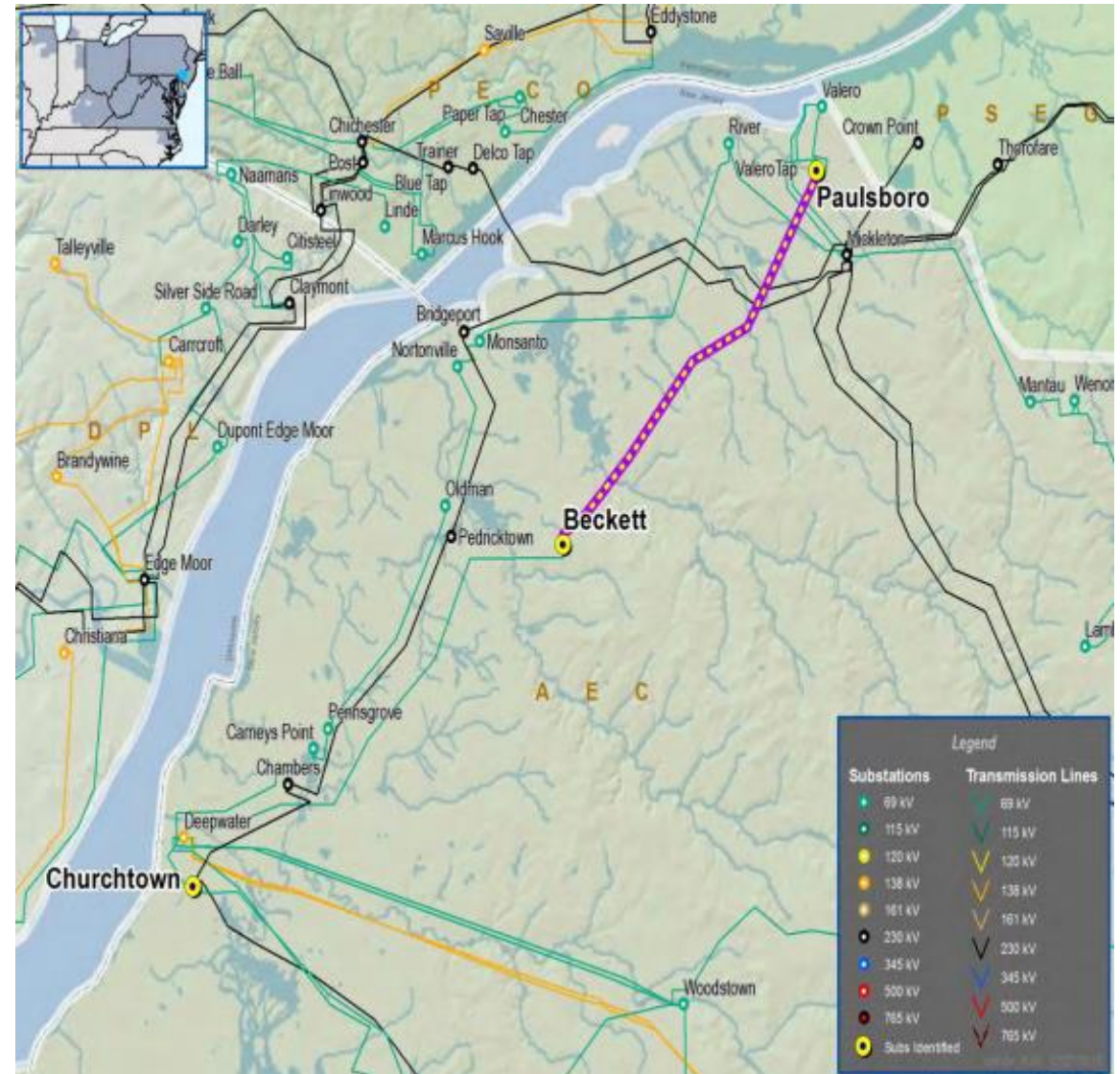
Project Driver: Operational Flexibility and Efficiency

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



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

Process Stage: Solutions Meeting 5/20/2021

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

Proposed Solution:

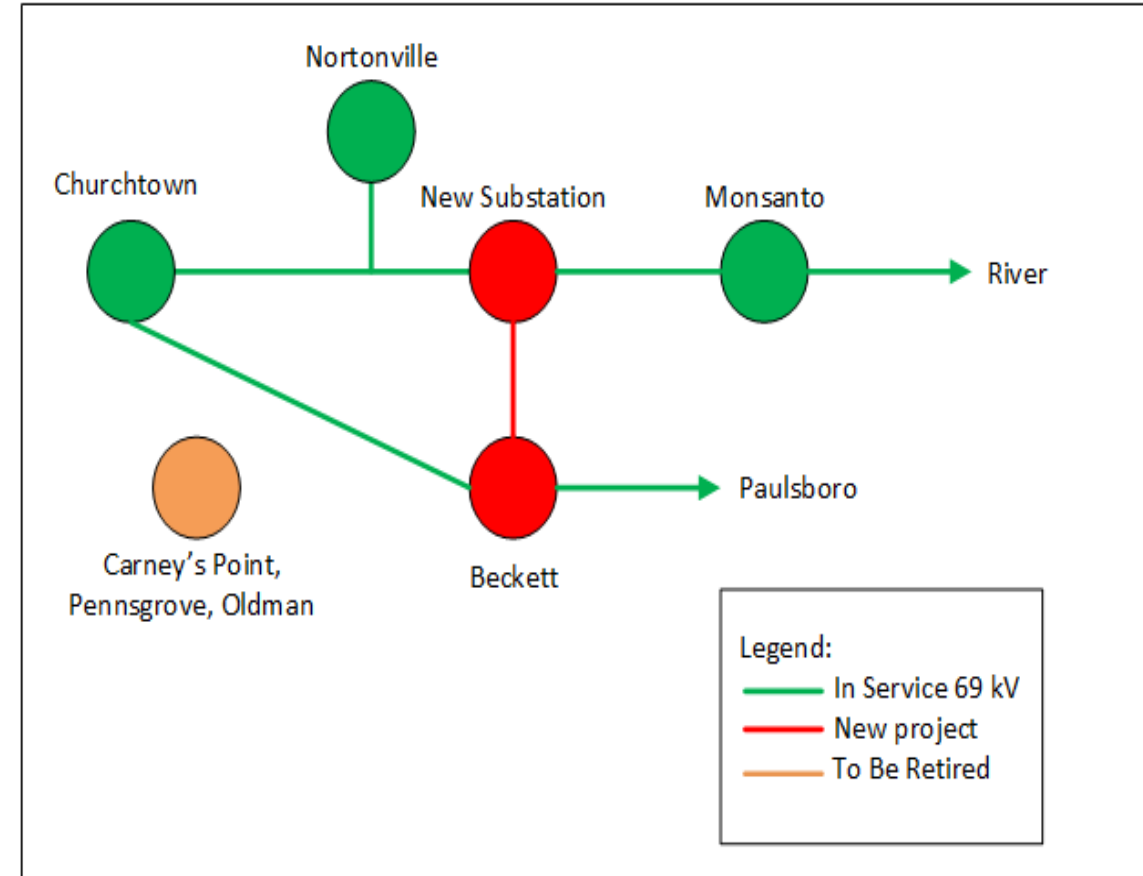
- Upgrade Beckett Substation to Line Bus configuration by installing four (4) 69kV CBs
- Construct new seven (7) breaker 69kV Ring Bus Substation on Churchtown-Monsanto line
- Construct new 5.6 mile 69kV line from Beckett to new substation
- Retire Carney’s Point, Pennsgrove, Oldman Substations

Estimated Cost: \$34M

Anticipated In Service Date: 12/31/2024

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



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

5/10/2021 – V1 – Original version posted to pjm.com