

# Transmission Expansion Advisory Committee – PEPCO Supplemental Projects

December 5, 2023

# Needs

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:** PEP-2023-023

**Process Stage:** Need Meeting 12/5/2023

**Project Driver:**

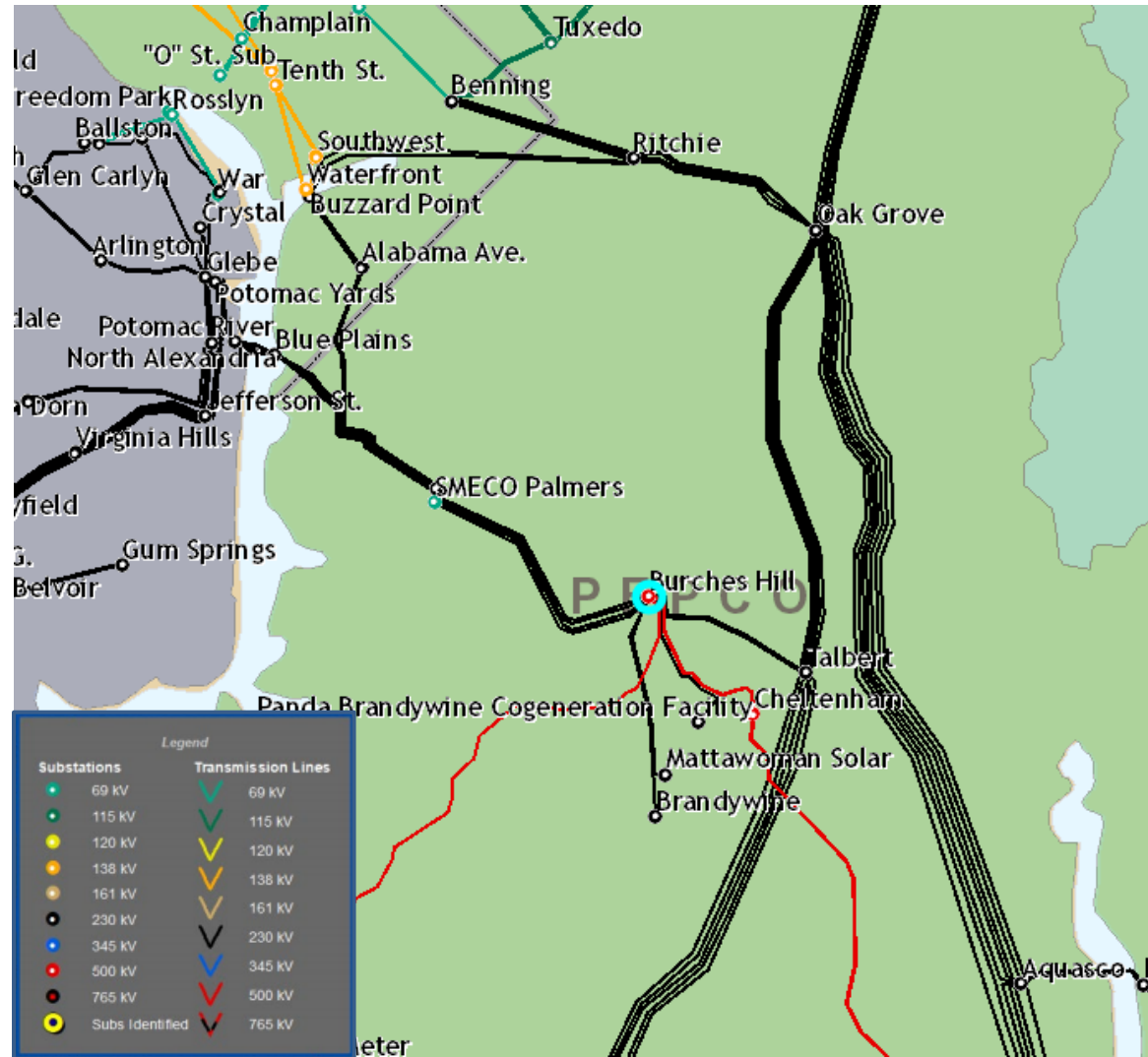
Equipment Material Condition, Performance and Risk.

**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, etc.

**Problem Statement:**

Station	Description	Installation Year	Problem Statement
Burches Hill	230kV breaker 2A	1979	The breakers are in deteriorating condition, have a lack of replacement parts, and have elevated maintenance cost.
	230kV breaker 2C	1979	
	230kV breaker 3C	1979	
	230kV breaker 4C	1997	



# 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:**

- PEP-2023-013
- PEP-2023-014
- PEP-2023-015

**Process Stage:** Solutions Meeting 12/5/2023

**Previously Presented:** Need Meeting 10/31/2023

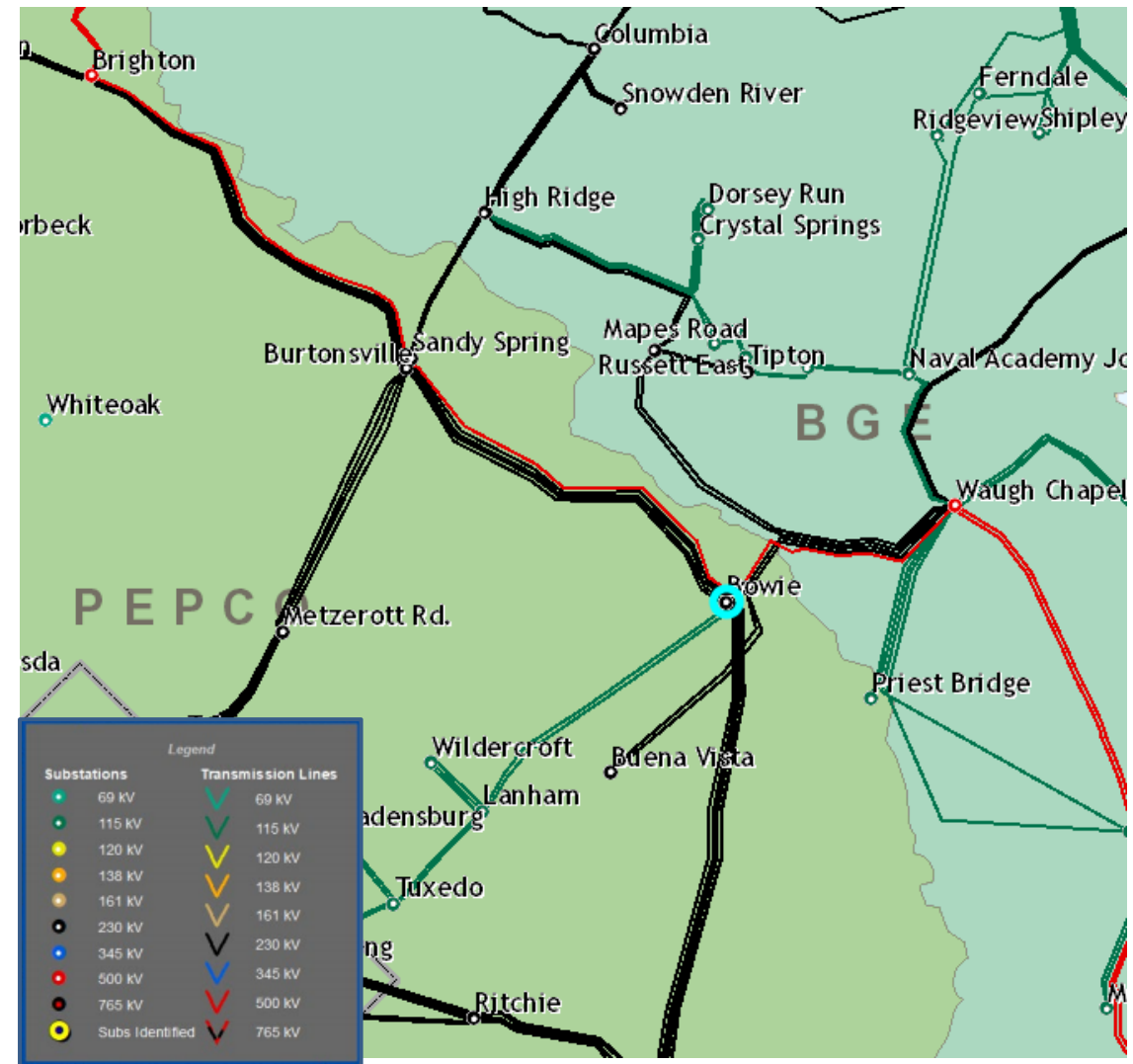
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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:**

Station	Description	Installation Year	Problem Statement
Bowie	230kV breaker 1A	1967	The breakers are in deteriorating condition, have a lack of replacement parts, and have elevated maintenance cost.
	230kV breaker 2A	1967	
	230kV breaker 3A	1967	



# PEPCO Transmission Zone M-3 Process

## Bowie 230kV Breaker 1A, 2A, and 3A Replacement

**Need Number:**

- PEP-2023-013
- PEP-2023-014
- PEP-2023-015

**Process Stage:** Solutions Meeting 12/5/2023

**Proposed Solution:**

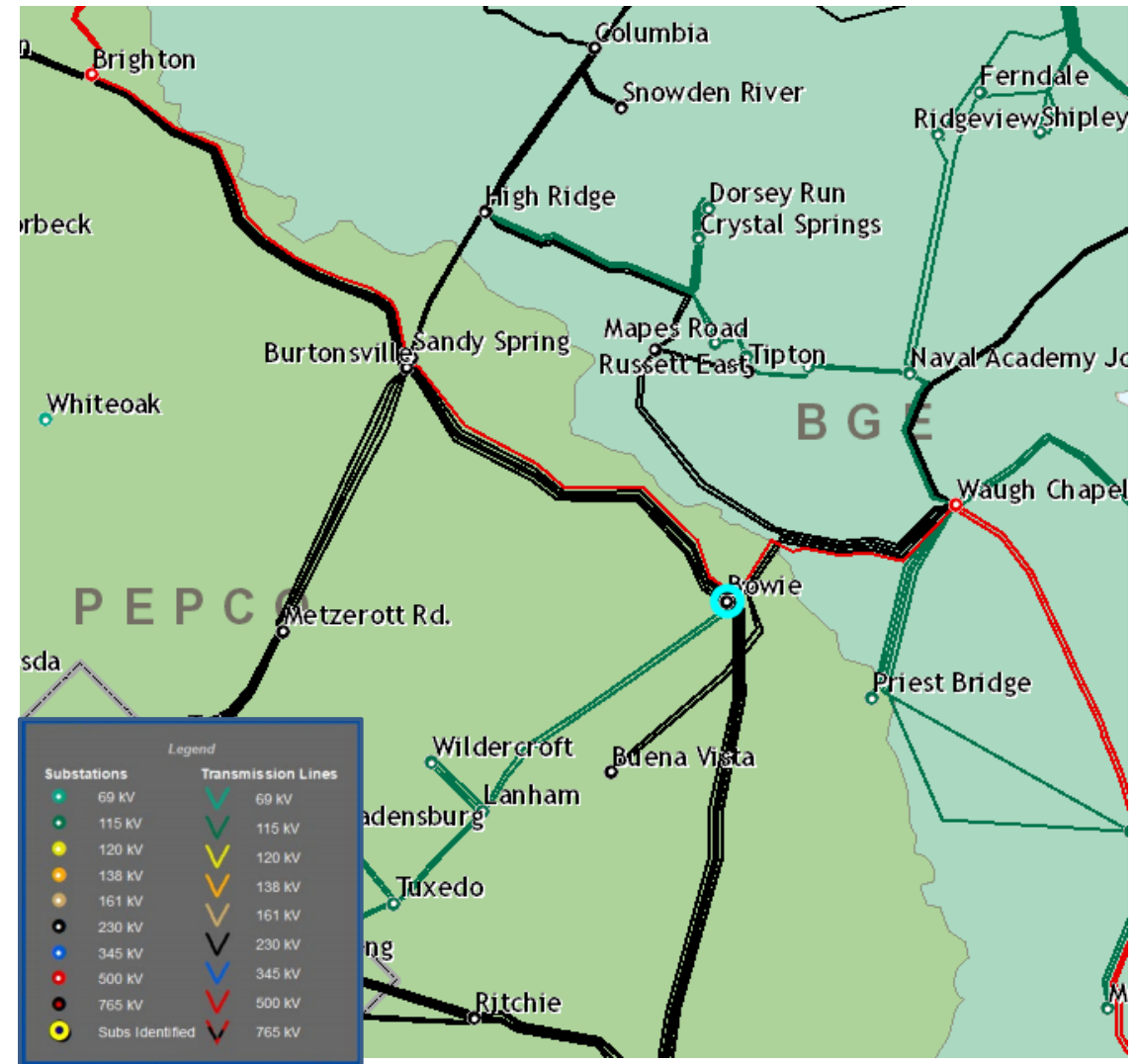
Replace the existing 230kV oil circuit breakers below:

Need No.	Description	Existing Rating	Proposed Rating	Estimate cost	Projected ISD	Status
PEP-2023-013	Bowie 230kV 1A Breaker	2000A, 50.2kA	3000A, 63kA	\$810K	12/13/24	Conceptual
PEP-2023-014	Bowie 230kV 2A Breaker	2000A, 50.2kA	3000A, 63kA	\$810K	5/3/25	Conceptual
PEP-2023-015	Bowie 230kV 3A Breaker	2000A, 50.2kA	3000A, 63kA	\$810K	5/3/24	Engineering

**Alternatives Considered:**

No feasible alternatives available

**Model:** 2028 RTEP



**Need Number:** PEP-2023-016 and PEP-2023-017

**Process Stage:** Solutions Meeting 12/5/2023

**Previously Presented:** Need Meeting 10/31/2023

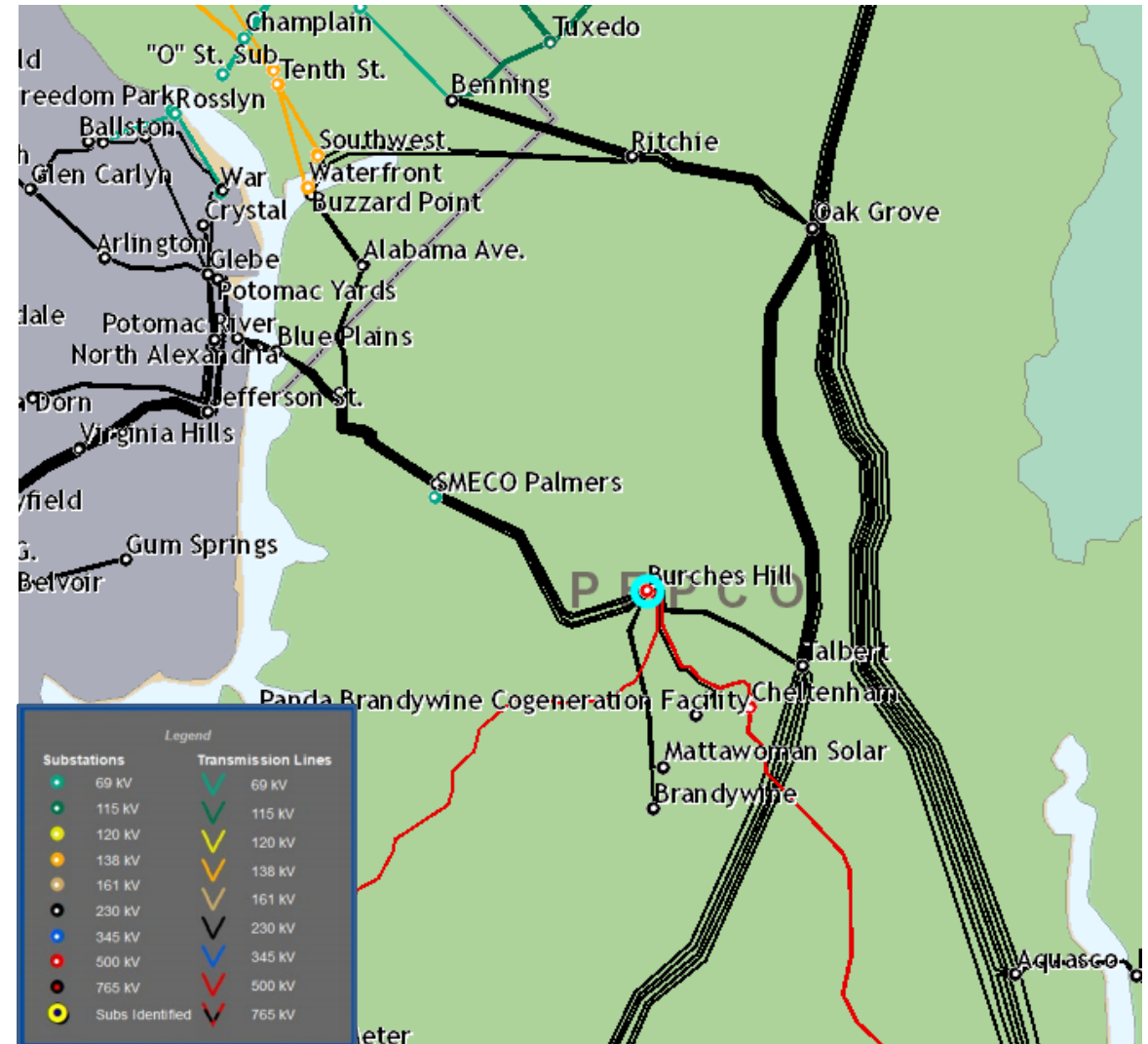
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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:**

230kV circuit breaker **3A** and **3B** at Burches Hill substation were installed in 1979. They are in deteriorating condition, have a lack of replacement parts, and have elevated maintenance cost.







# PEPCO Transmission Zone M-3 Process Burches Hill 230kV Breaker 3A and 3B Replacement

**Need Number:** PEP-2023-016 and PEP-2023-017

**Process Stage:** Solutions Meeting 12/5/2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breakers **3A** and **3B** at Burches Hill

The estimated cost of each project is \$810K

Existing rating 3000A, 63kA

Proposed rating 3000A, 80kA

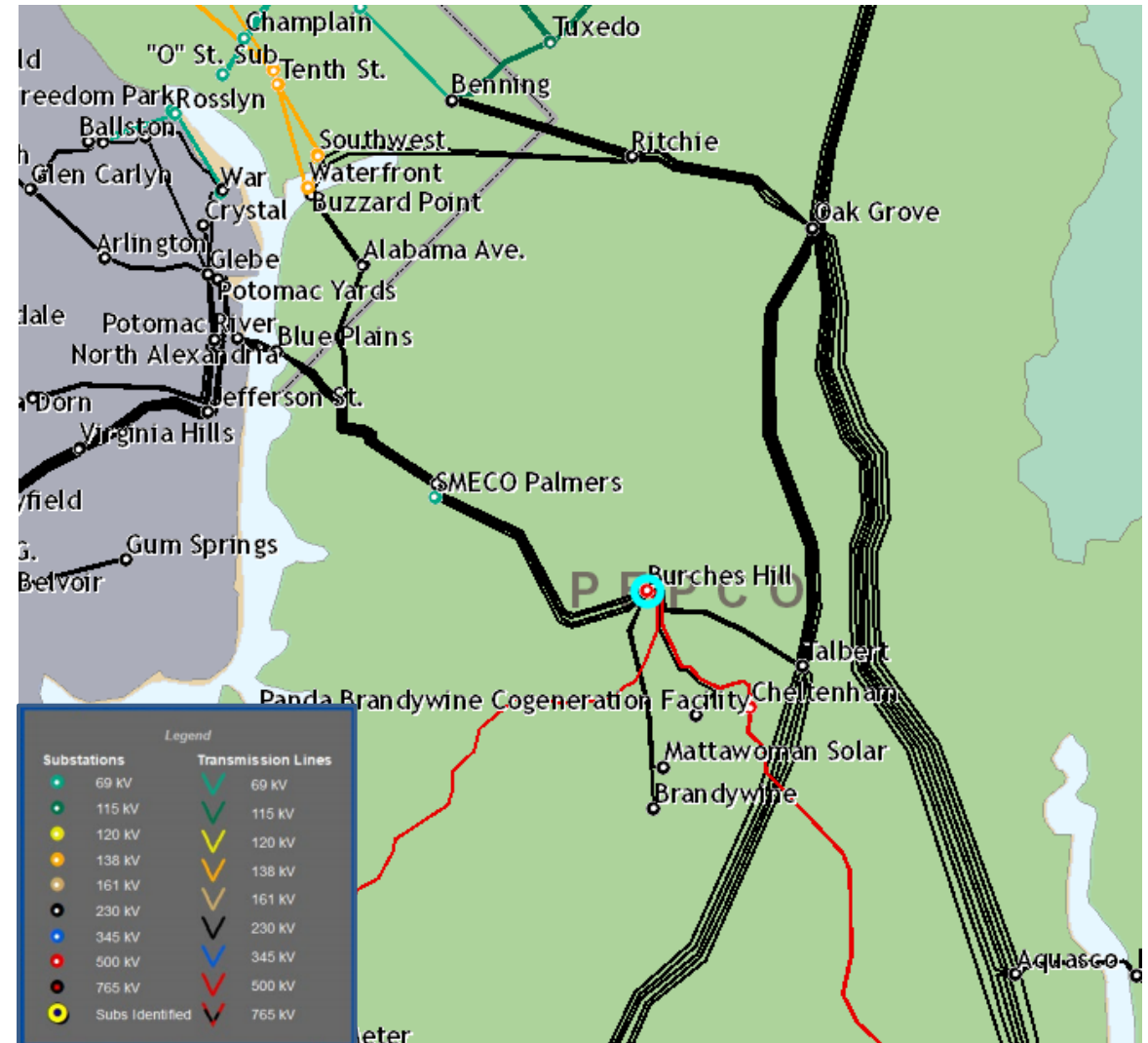
**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 5/3/2024

**Project Status:** Engineering

**Model:** 2028 RTEP





# PEPCO Transmission Zone M-3 Process Morgantown 230kV Breaker 6B and 6C Replacement

**Need Number:** PEP-2023-018 and PEP-2023-19

**Process Stage:** Solutions Meeting 12/5/2023

**Previously Presented:** Need Meeting 10/31/2023

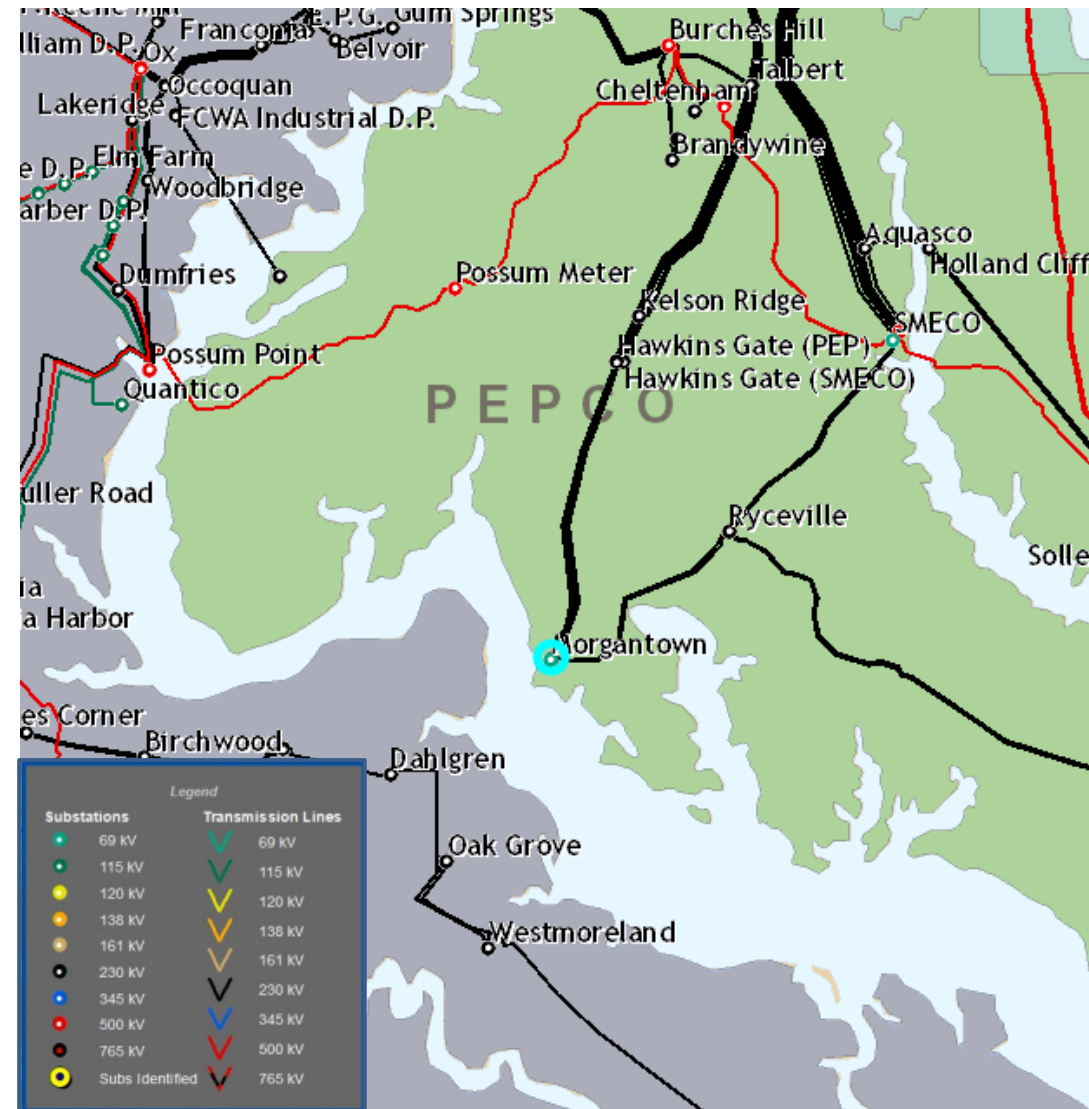
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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:**

230kV circuit breaker **6B** and **6C** at Morgantown substation were installed in 1967. They are in deteriorating condition, have a lack of replacement parts, and have elevated maintenance cost.



# PEPCO Transmission Zone M-3 Process Morgantown 230kV Breaker 6B and 6C Replacement

**Need Number:** PEP-2023-018 and PEP-2023-019

**Process Stage:** Solutions Meeting 12/5/2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breakers **6B** and **6C** at Morgantown

The estimated cost of each project is \$810K

Existing rating 2000A, 50.2kA

Proposed rating 3000A, 63kA

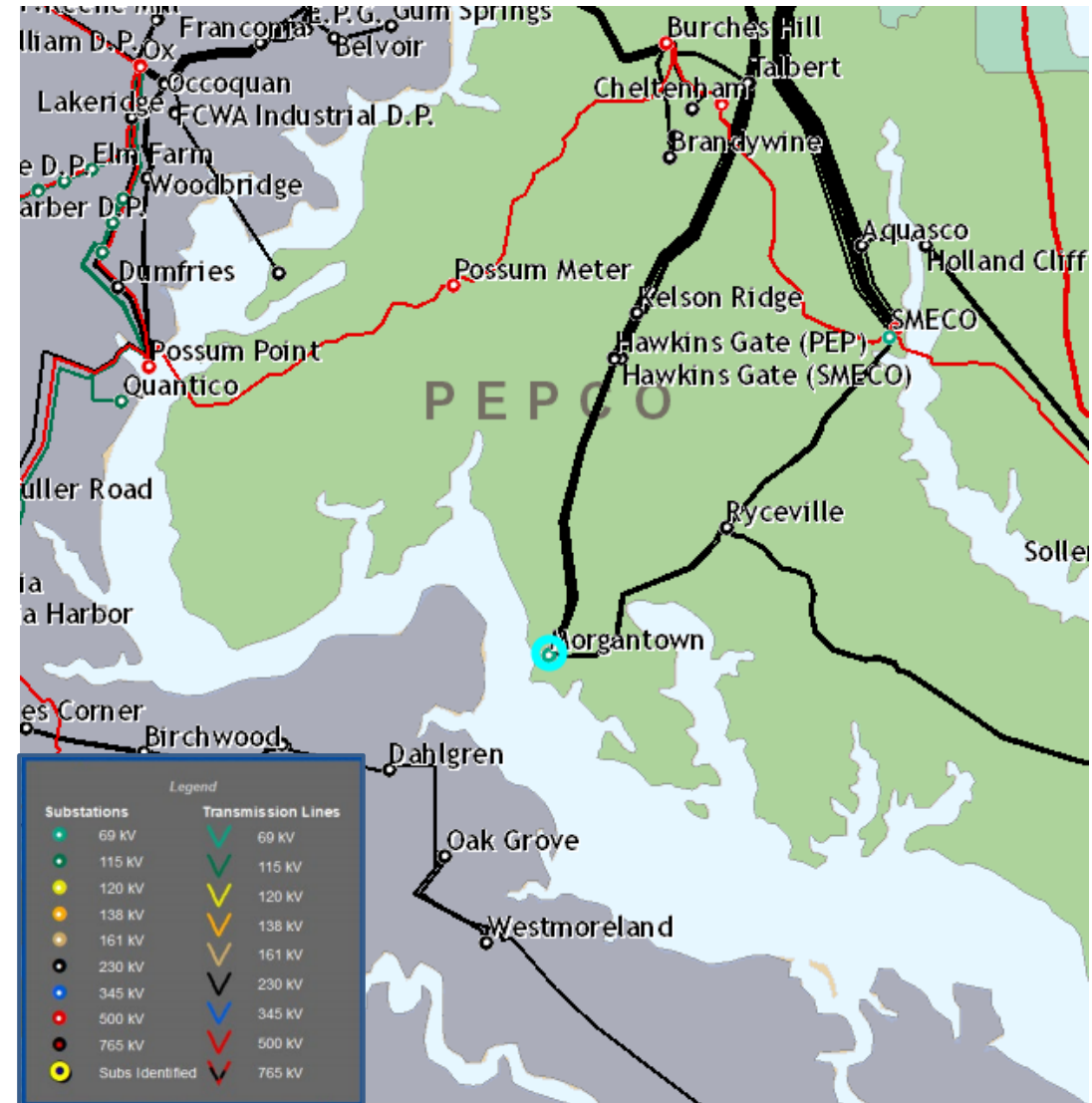
**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 5/3/2025

**Project Status:** Conceptual

**Model:** 2028 RTEP



# 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

11/22/2023 - V1 – Original version posted to pjm.com