

# Transmission Expansion Advisory Committee – PEPCO Supplemental Projects

July 11, 2023

# 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

# M-3 Process PEPCO Transmission Zone Quince Orchard 230kV Breaker 1A Replacement

**Need Number:** PEP-2023-001

**Process Stage:** Solutions Meeting 7/11/2023

**Previously Presented:** Need Meeting 5/9/2023

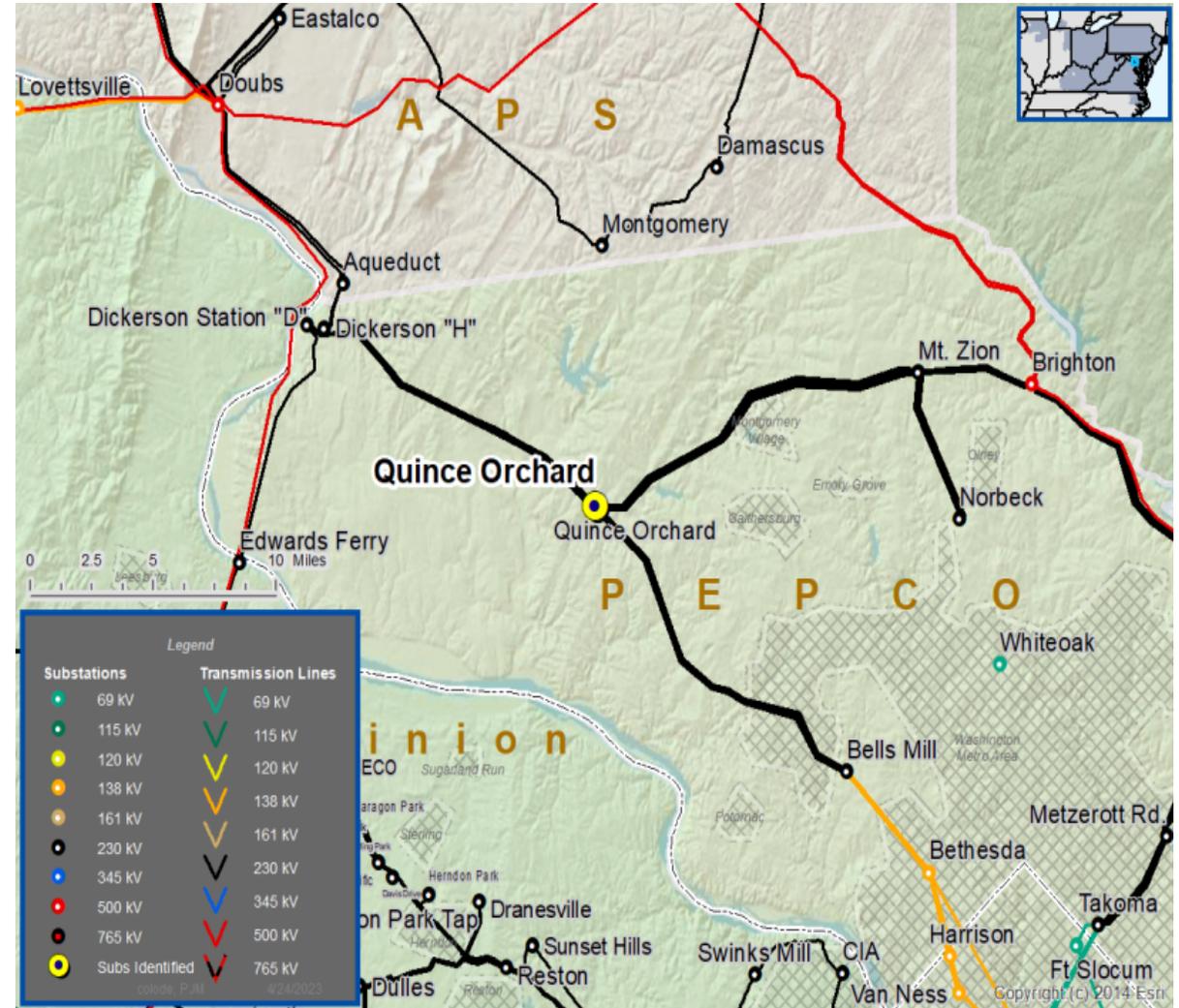
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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 1A at Quince Orchard substation was installed in 1963. It is in deteriorating condition, has a lack of replacement parts, and has elevated maintenance cost.



# M-3 Process PEPCO Transmission Zone Quince Orchard 230kV Breaker 1A Replacement

**Need Number:** PEP-2023-001

**Process Stage:** Solution Meeting – July 11, 2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breaker 1A at Quince Orchard

The estimated cost of the project is \$0.6M

Existing rating 2000A, 50.2kA

Proposed rating 3000A, 63kA

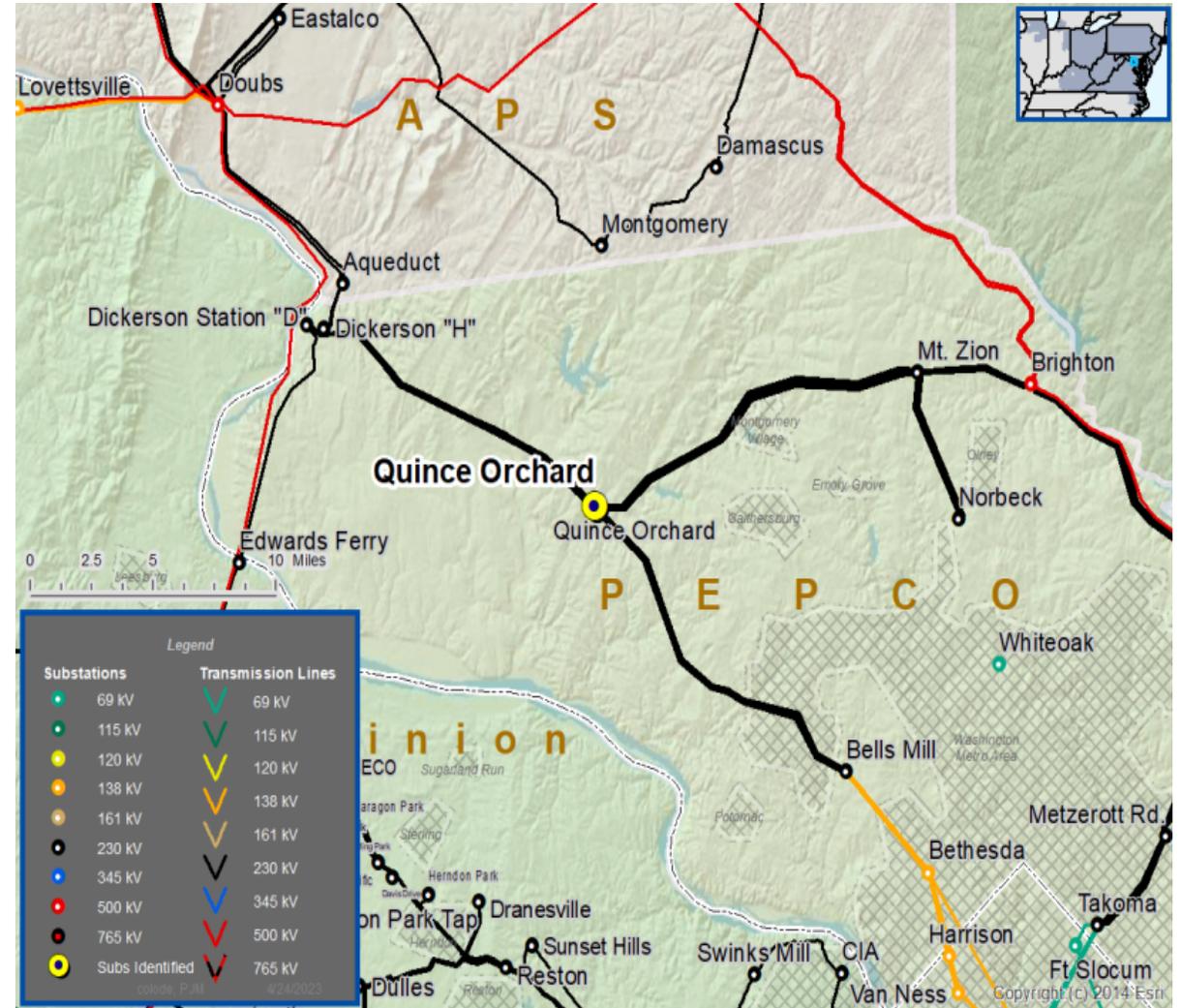
**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 10/1/2024

**Project Status:** Conceptual

**Model:** 2027 RTEP



# M-3 Process PEPCO Transmission Zone Quince Orchard 230kV Breaker 6A Replacement

**Need Number:** PEP-2023-002

**Process Stage:** Solutions Meeting 7/11/2023

**Previously Presented:** Need Meeting 5/9/2023

**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 6A at Quince Orchard substation was installed in 1963. It is in deteriorating condition, has a lack of replacement parts, and has elevated maintenance cost.



# M-3 Process PEPCO Transmission Zone Quince Orchard 230kV Breaker 6A Replacement

**Need Number:** PEP-2023-002

**Process Stage:** Solution Meeting – July 11, 2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breaker 6A at Quince Orchard

The estimated cost of the project is \$0.6M

Existing rating 2000A, 50.2kA

Proposed rating 3000A, 63kA

**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 10/1/2024

**Project Status:** Conceptual

**Model:** 2027 RTEP



# M-3 Process PEPCO Transmission Zone Burtonsville 230kV Breaker 4B Replacement

**Need Number:** PEP-2023-003

**Process Stage:** Solutions Meeting 7/11/2023

**Previously Presented:** Need Meeting 5/9/2023

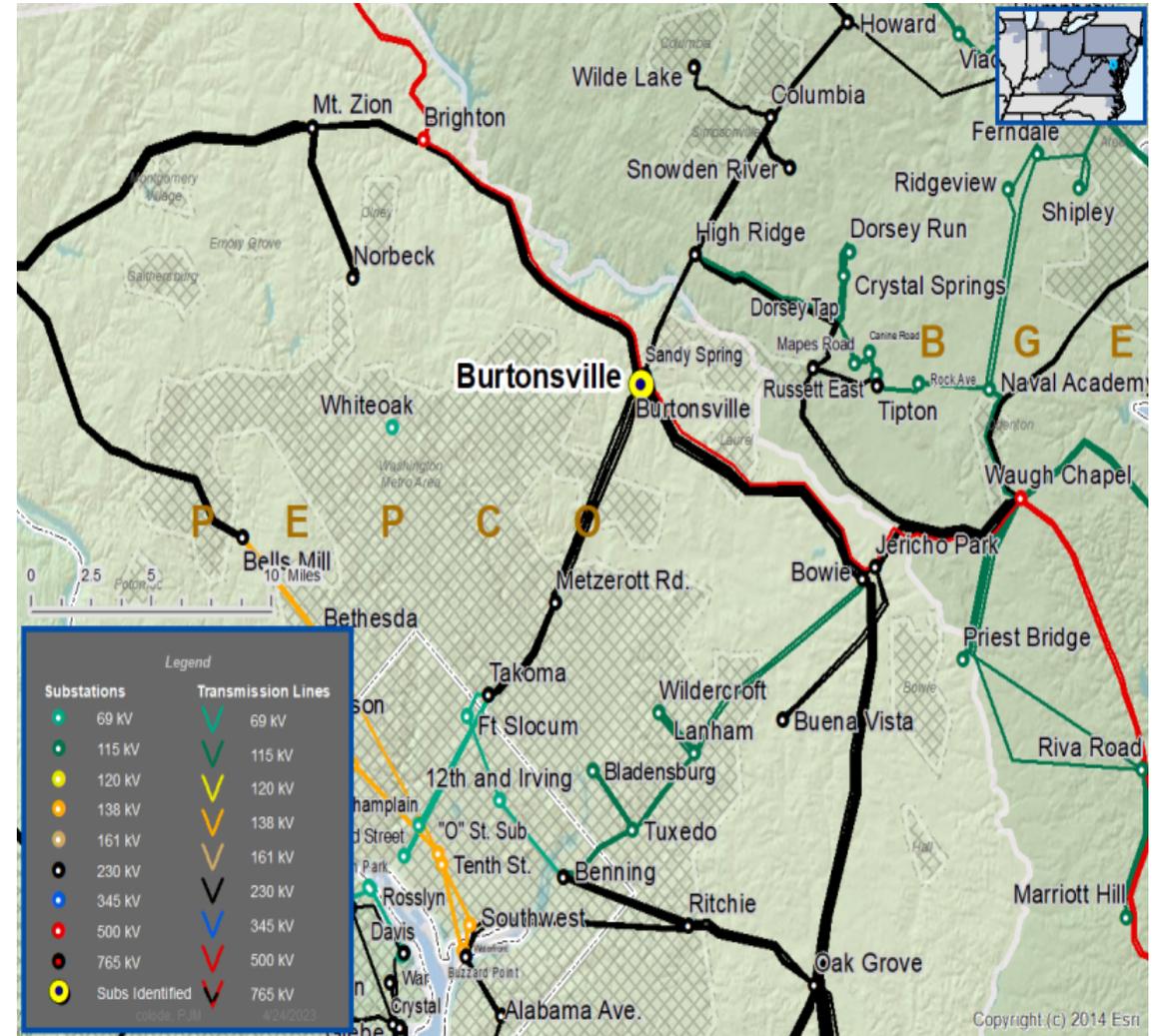
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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 4B at Burtonsville substation was installed in 1967. It is in deteriorating condition, has a lack of replacement parts, and has elevated maintenance cost.



# M-3 Process PEPCO Transmission Zone Burtonsville 230kV Breaker 4B Replacement

**Need Number:** PEP-2023-003

**Process Stage:** Solution Meeting – July 11, 2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breaker 4B at Burtonsville

The estimated cost of the project is \$0.6M

Existing rating 2000A, 50.2kA

Proposed rating 3000A, 63kA

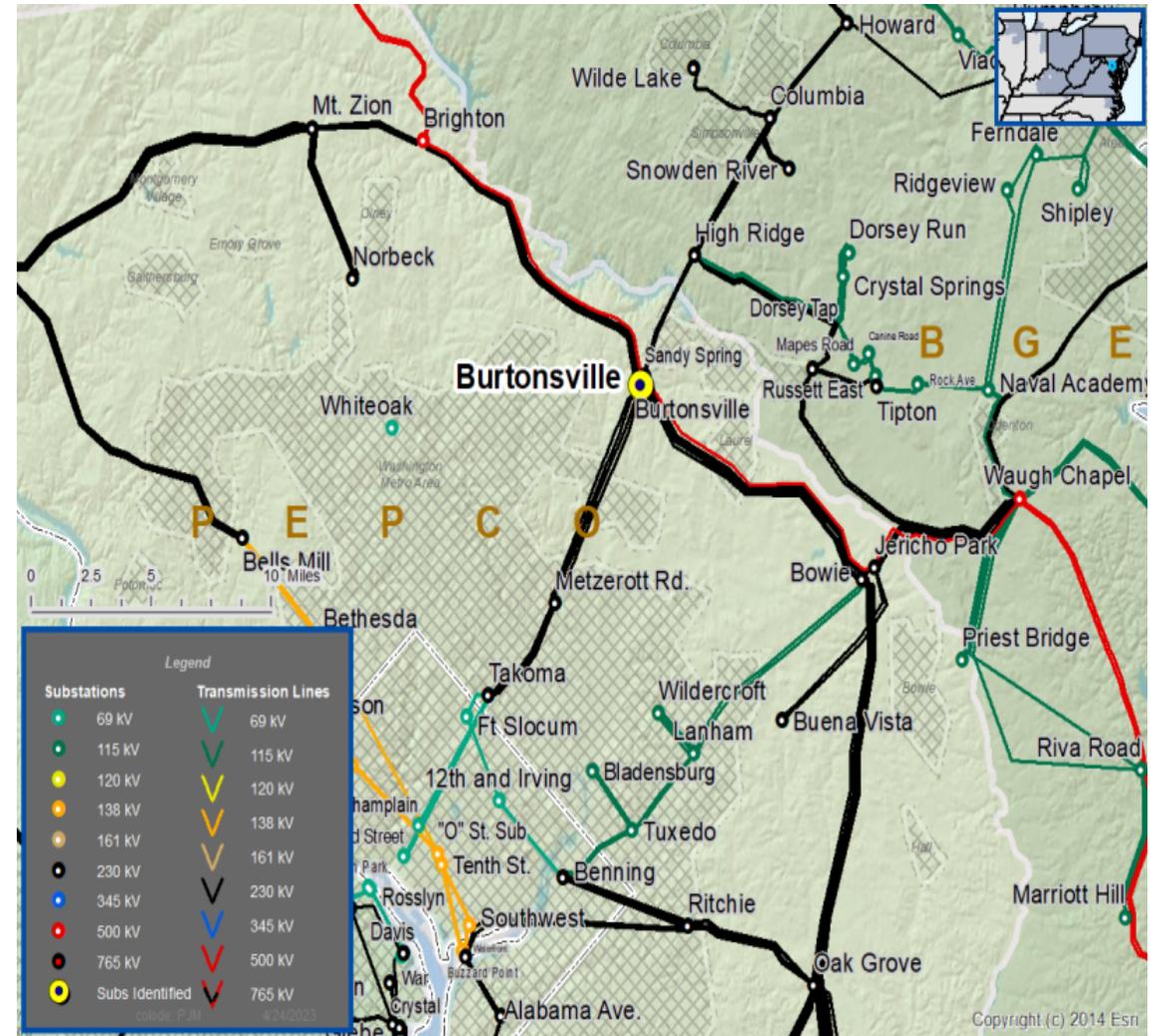
**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 9/1/2023

**Project Status:** Engineering

**Model:** 2027 RTEP



# M-3 Process PEPCO Transmission Zone Palmers Corner 230kV Breaker 3C Replacement

**Need Number:** PEP-2023-004

**Process Stage:** Solutions Meeting 7/11/2023

**Previously Presented:** Need Meeting 5/9/2023

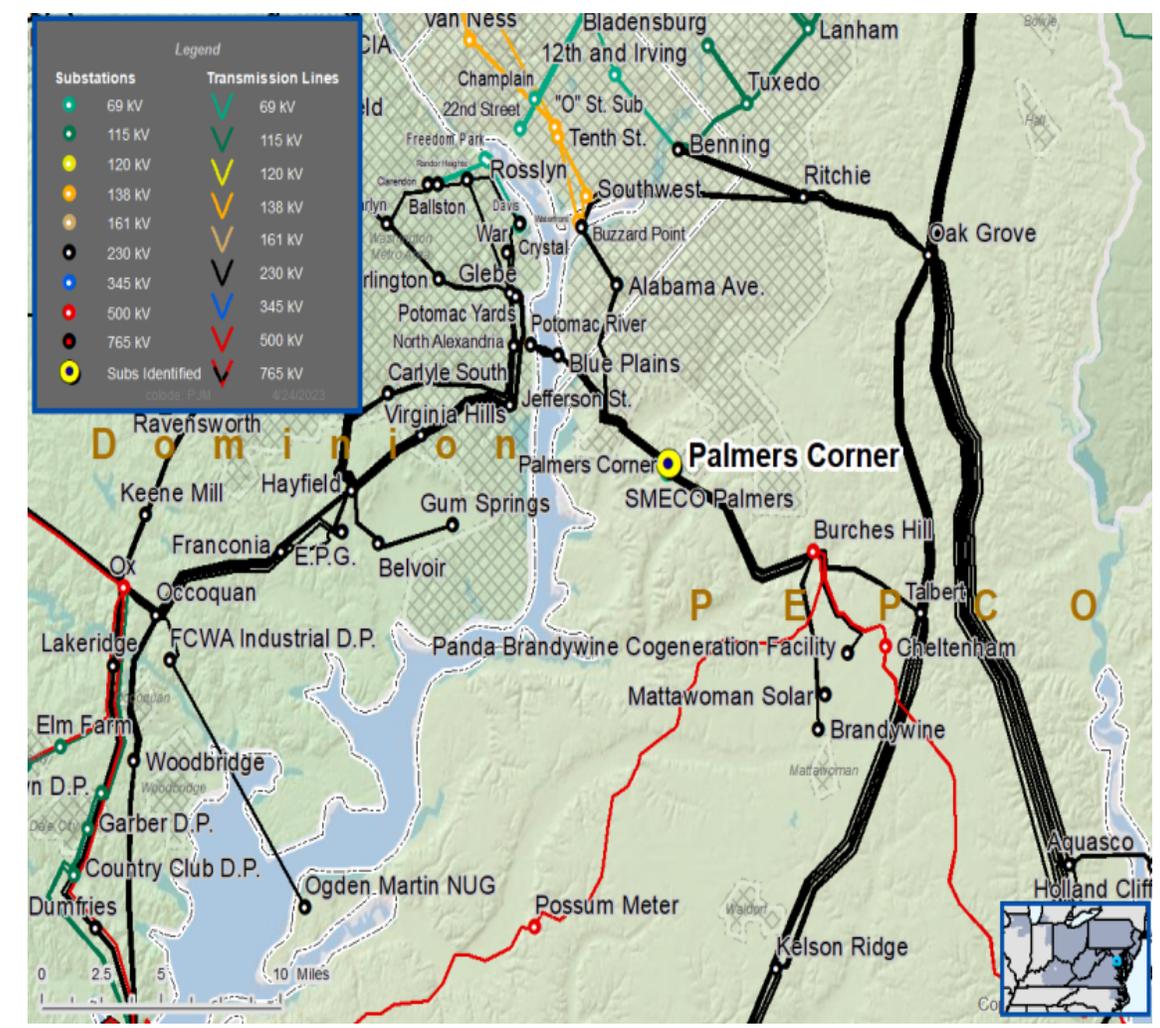
**Project Driver:** Equipment Material Condition, Performance, and Risk

**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 3C at Palmers Corner substation was installed in 1973. It is in deteriorating condition, has a lack of replacement parts, and has elevated maintenance cost.



# M-3 Process PEPCO Transmission Zone Palmers Corner 230kV Breaker 3C Replacement

**Need Number:** PEP-2023-004

**Process Stage:** Solution Meeting – July 11, 2023

**Proposed Solution:**

Replace the existing 230kV oil circuit breaker 3C at Palmers Corner

The estimated cost of the project is \$0.6M

Existing rating 2000A, 52.5kA

Proposed rating 3000A, 63kA

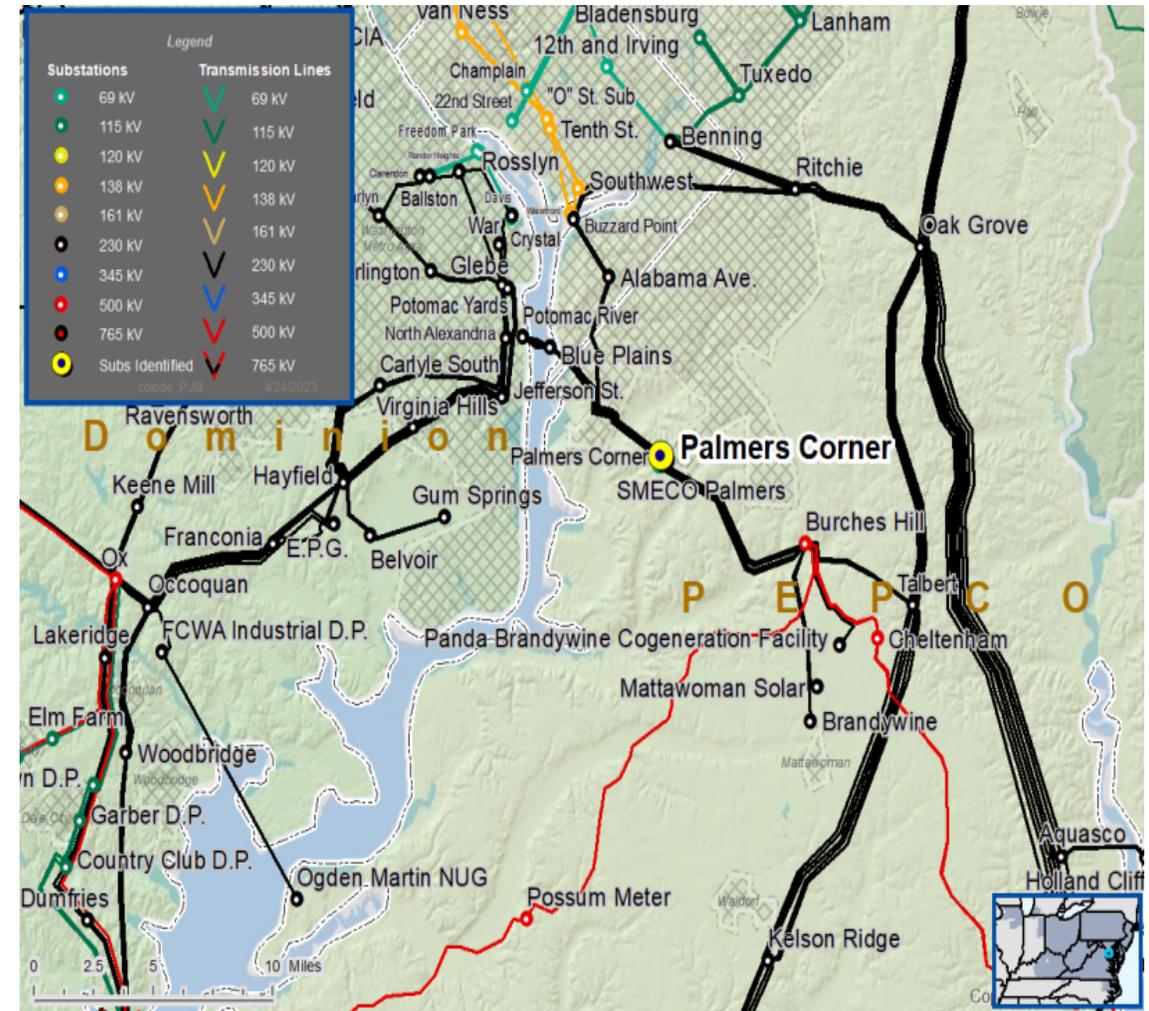
**Alternatives Considered:**

No feasible alternatives available

**Projected In-Service:** 1/30/2024

**Project Status:** Engineering

**Model:** 2027 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

6/30/2023 - V1 – Original version posted to pjm.com