

# Transmission Expansion Advisory Committee – PECO Supplemental Projects

March 9, 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: PE-2021-001**

**Process Stage:** Solution Meeting 3/9/2021

**Previously Presented:** Need Meeting 2/9/2021

**Supplemental Project Driver:**

**Project Driver:**

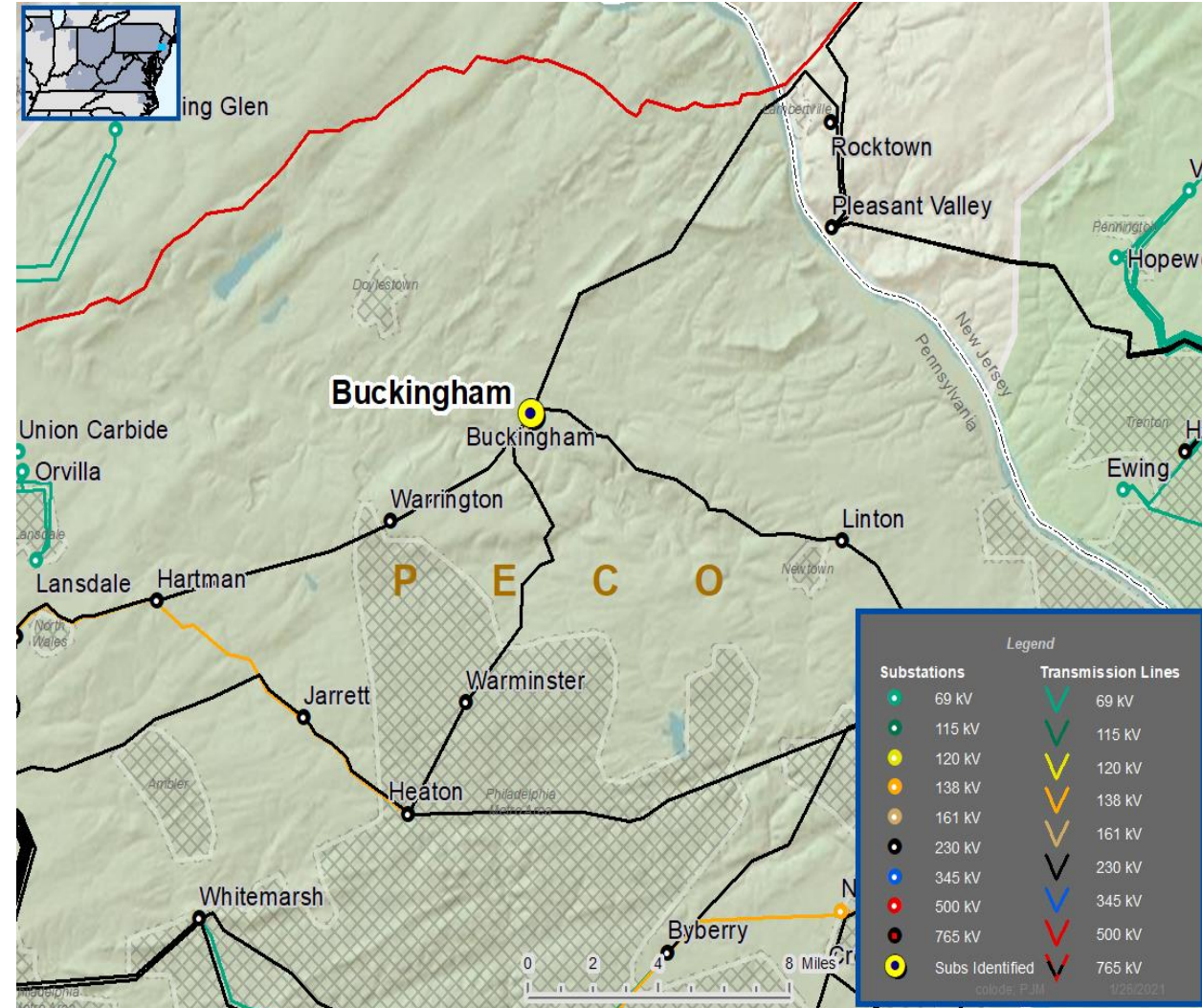
Equipment Material Condition, Performance, and Risk

**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:**

Buckingham 230kV circuit breaker #220 installed in 1969 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.



**Need Number: PE-2021-001**

**Process Stage: Solution Meeting 3/9/2021**

**Proposed Solution:**

Replace Buckingham 230kV circuit breaker #220.

The estimated cost of the project is \$0.8M

Existing rating 2500 A, 42kA

New rating 3000 A, 63kA

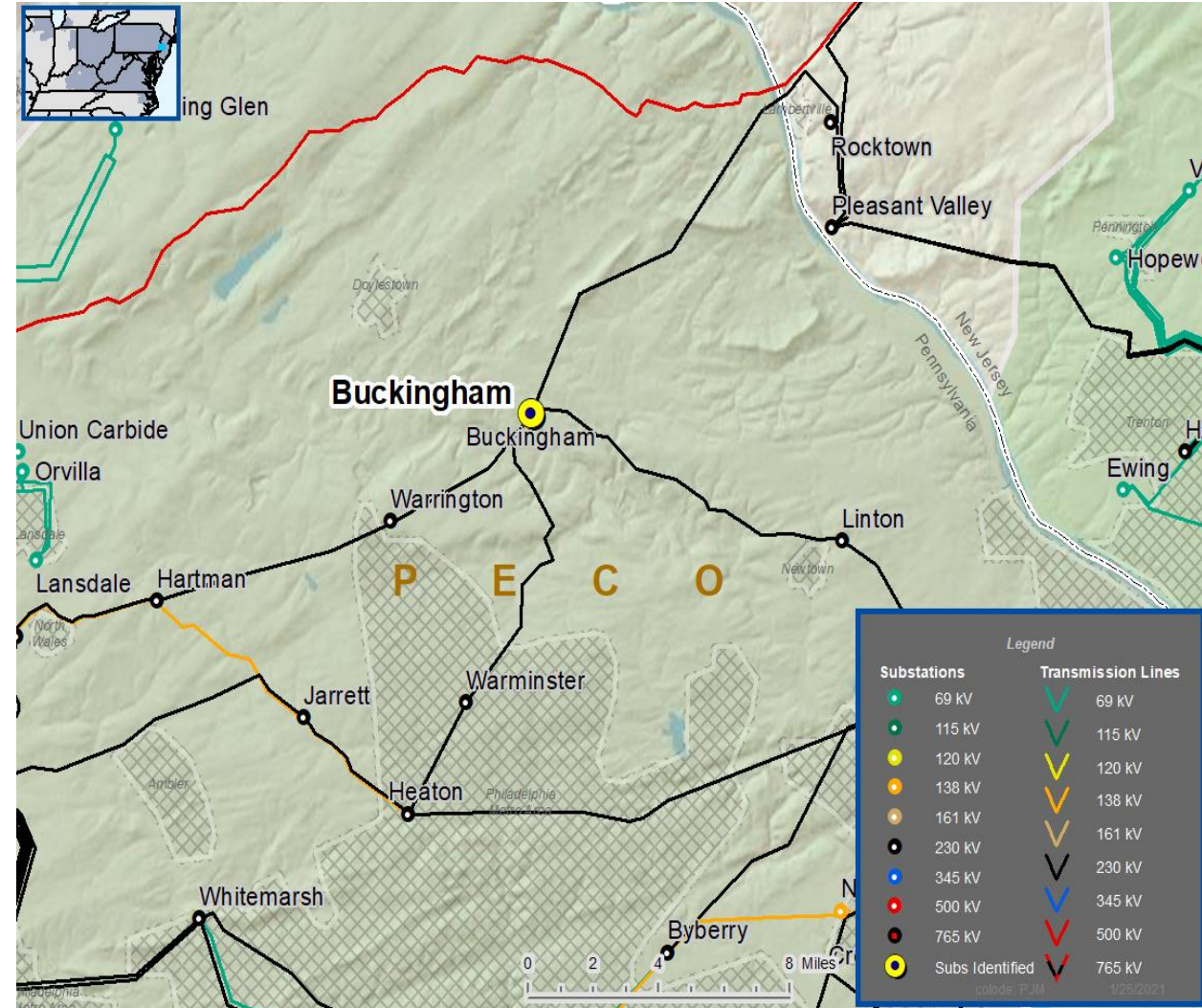
**Alternatives Considered:**

None

**Projected In-Service: 12/1//2021**

**Project Status: Engineering**

**Model: 2025 RTEP**



**Need Number: PE-2021-002**

**Process Stage:** Solution Meeting 3/9/2021

**Previously Presented:** Need Meeting 2/9/2021

**Supplemental Project Driver:**

**Project Driver:**

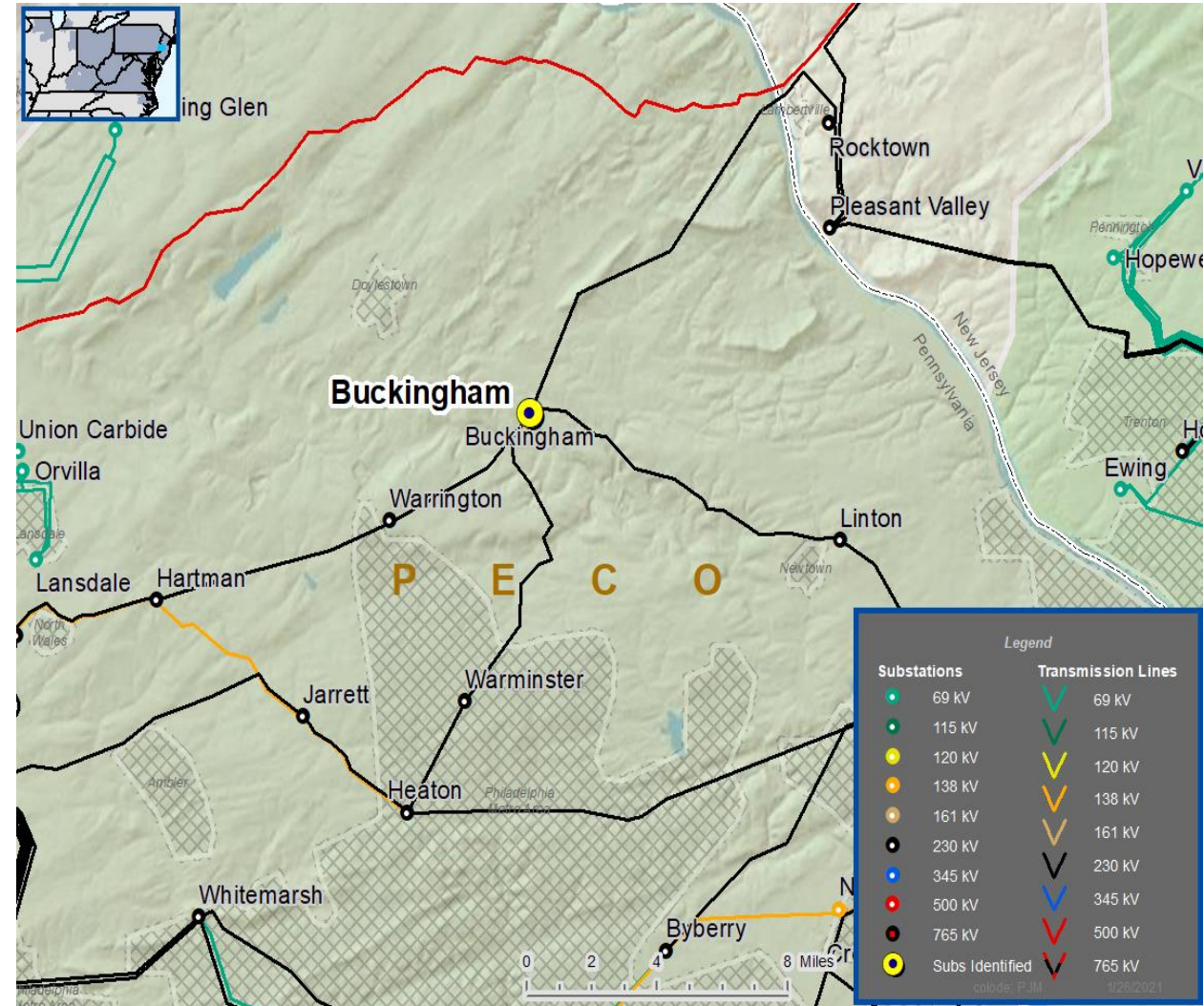
Equipment Material Condition, Performance, and Risk

**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:**

Buckingham 230kV circuit breaker #230 installed in 1969 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.



**Need Number: PE-2021-002**

**Process Stage:** Solution Meeting 3/9/2021

**Proposed Solution:**

Replace Buckingham 230kV circuit breaker #230.

The estimated cost of the project is \$0.8M

Existing rating 2500 A, 42kA

New rating 3000 A, 63kA

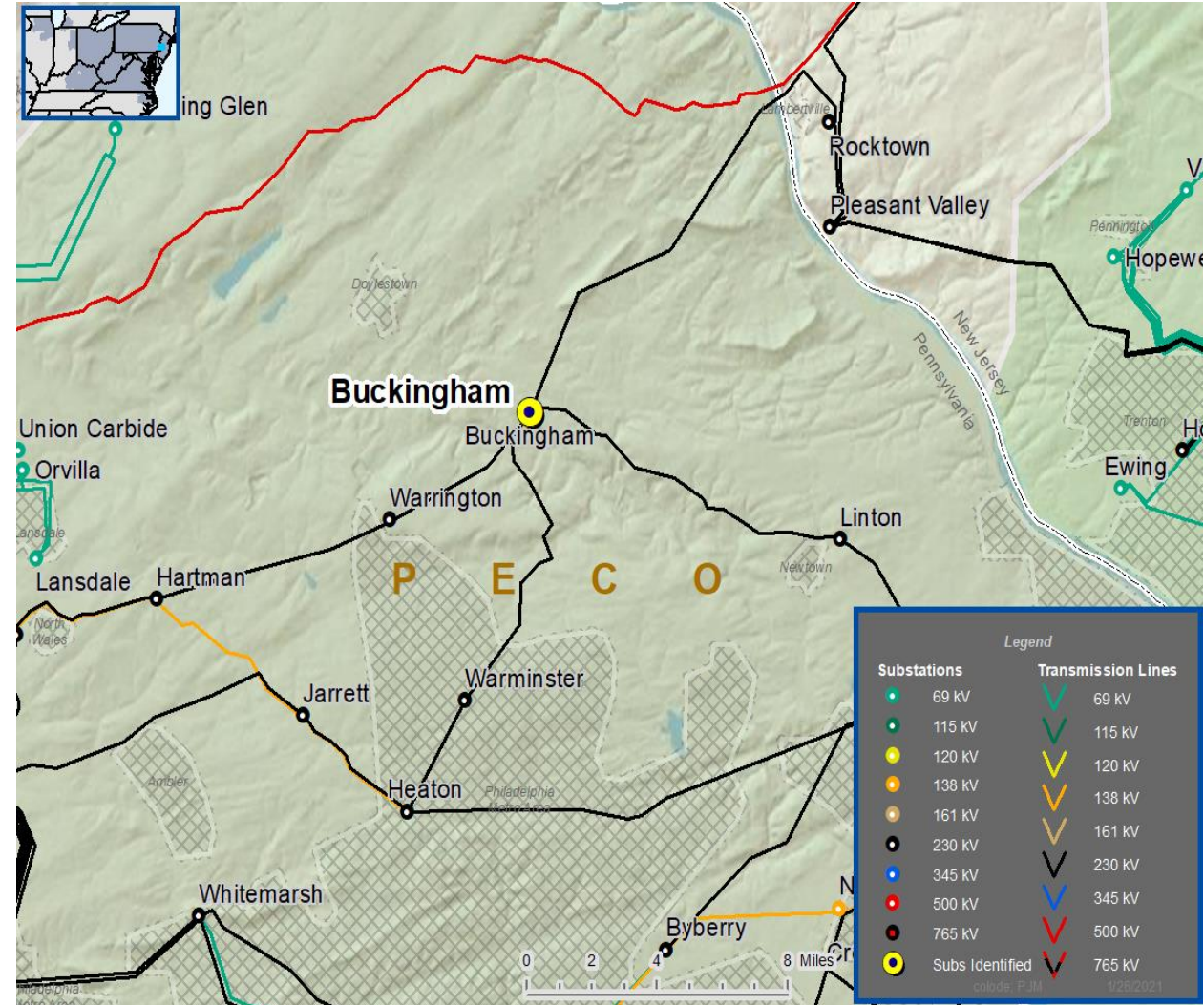
**Alternatives Considered:**

None

**Projected In-Service:** 12/1//2021

**Project Status:** Engineering

**Model:** 2025 RTEP



**Need Number: PE-2021-003**

**Process Stage:** Solution Meeting 3/9/2021

**Previously Presented:** Need Meeting 2/9/2021

**Supplemental Project Driver:**

**Project Driver:**

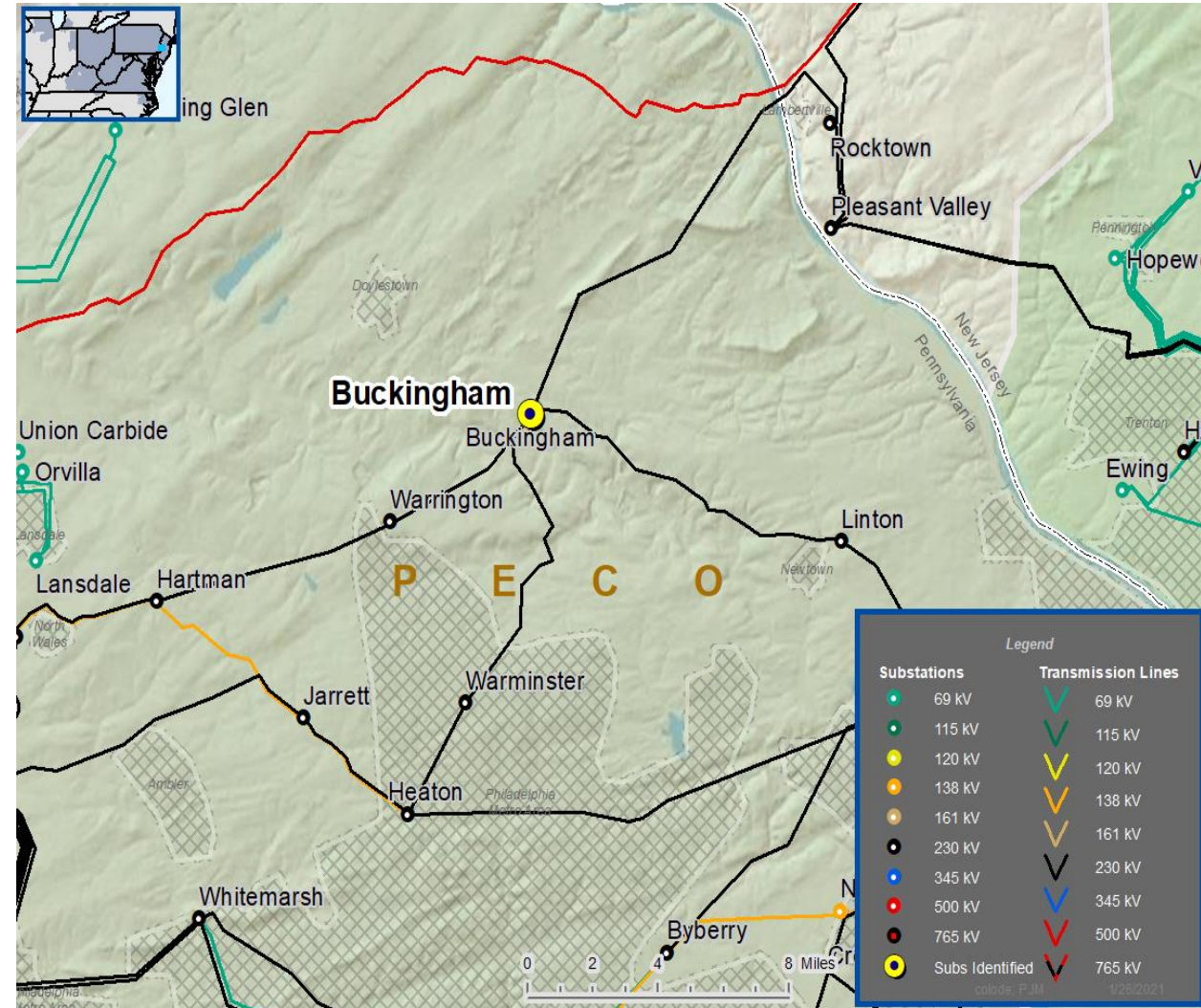
Equipment Material Condition, Performance, and Risk

**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:**

Buckingham 230kV circuit breaker #240 installed in 1969 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.



**Need Number: PE-2021-003**

**Process Stage:** Solution Meeting 3/9/2021

**Proposed Solution:**

Replace Buckingham 230kV circuit breaker #240.

The estimated cost of the project is \$0.8M

Existing rating 2500 A, 42kA

New rating 3000 A, 63kA

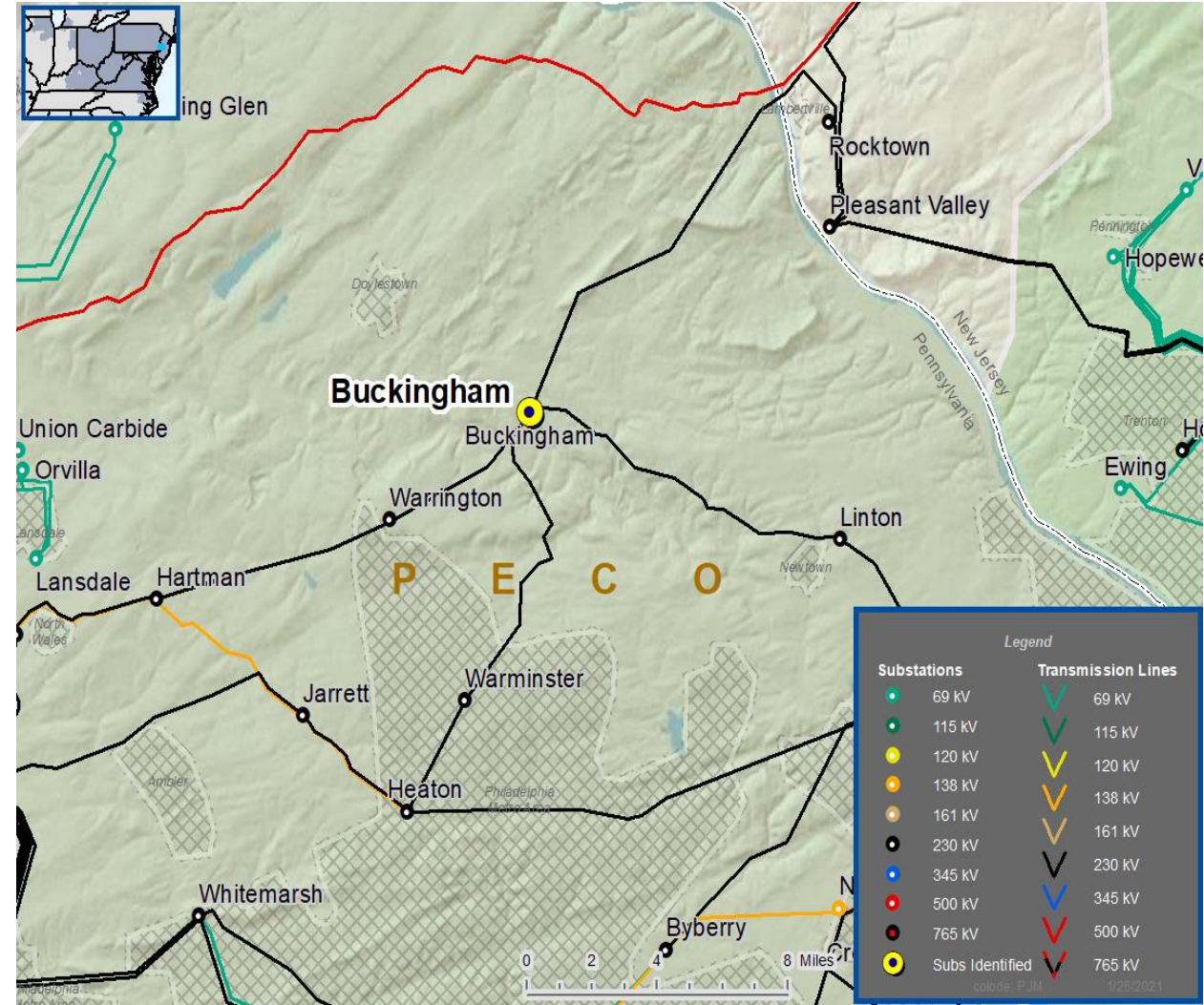
**Alternatives Considered:**

None

**Projected In-Service:** 12/1//2021

**Project Status:** Engineering

**Model:** 2025 RTEP





**Need Number: PE-2021-004**

**Process Stage: Solution Meeting 3/9/2021**

**Previously Presented: Need Meeting 2/9/2021**

**Supplemental Project Driver:**

**Project Driver:**

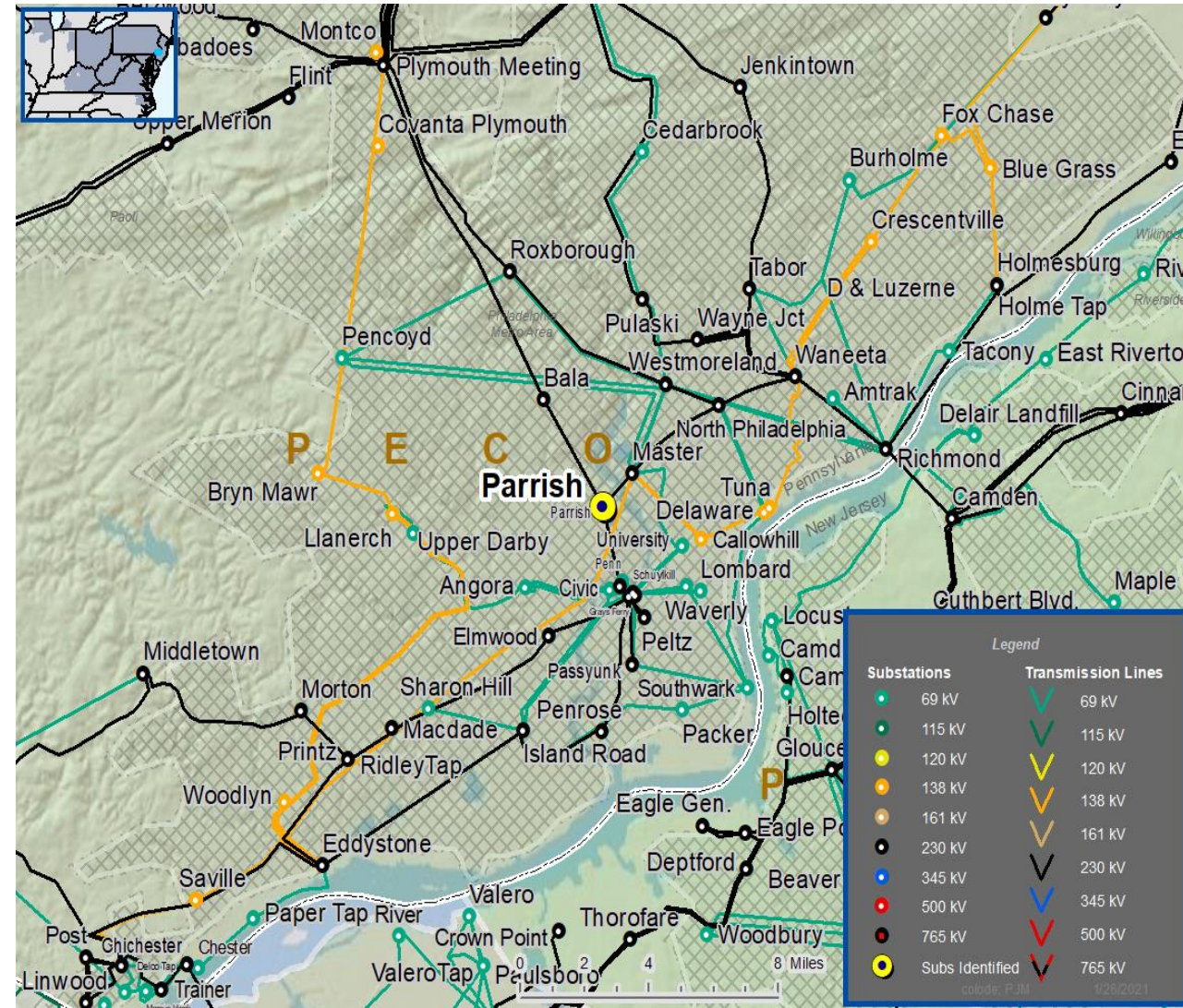
Equipment Material Condition, Performance, and Risk

**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:**

Parrish 230kV circuit breaker #905 installed in 1968 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.



**Need Number: PE-2021-004**

**Process Stage:** Solution Meeting 3/9/2021

**Proposed Solution:**

Replace Parrish 230kV circuit breaker #905.

The estimated cost of the project is \$0.8M

Existing rating 2500 A, 42kA

New rating 3000 A, 63kA

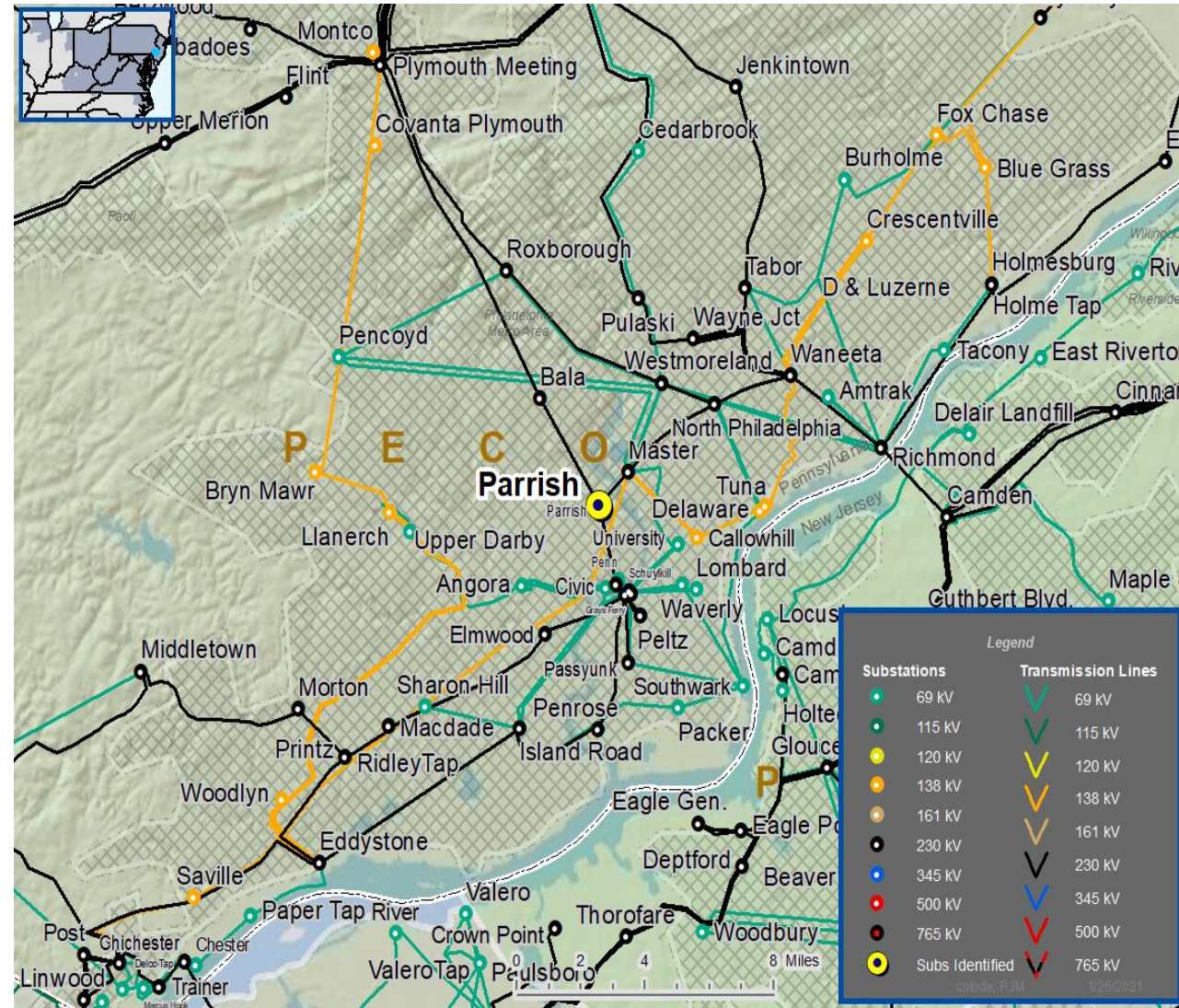
**Alternatives Considered:**

None

**Projected In-Service:** 12/1//2021

**Project Status:** Engineering

**Model:** 2025 RTEP



**Need Number: PE-2020-012**

**Process Stage:** Solution Meeting 03/09/2020

**Previously Presented:** Need Meeting 12/1/2020

**Supplemental Project Driver:**

**Project Driver:**

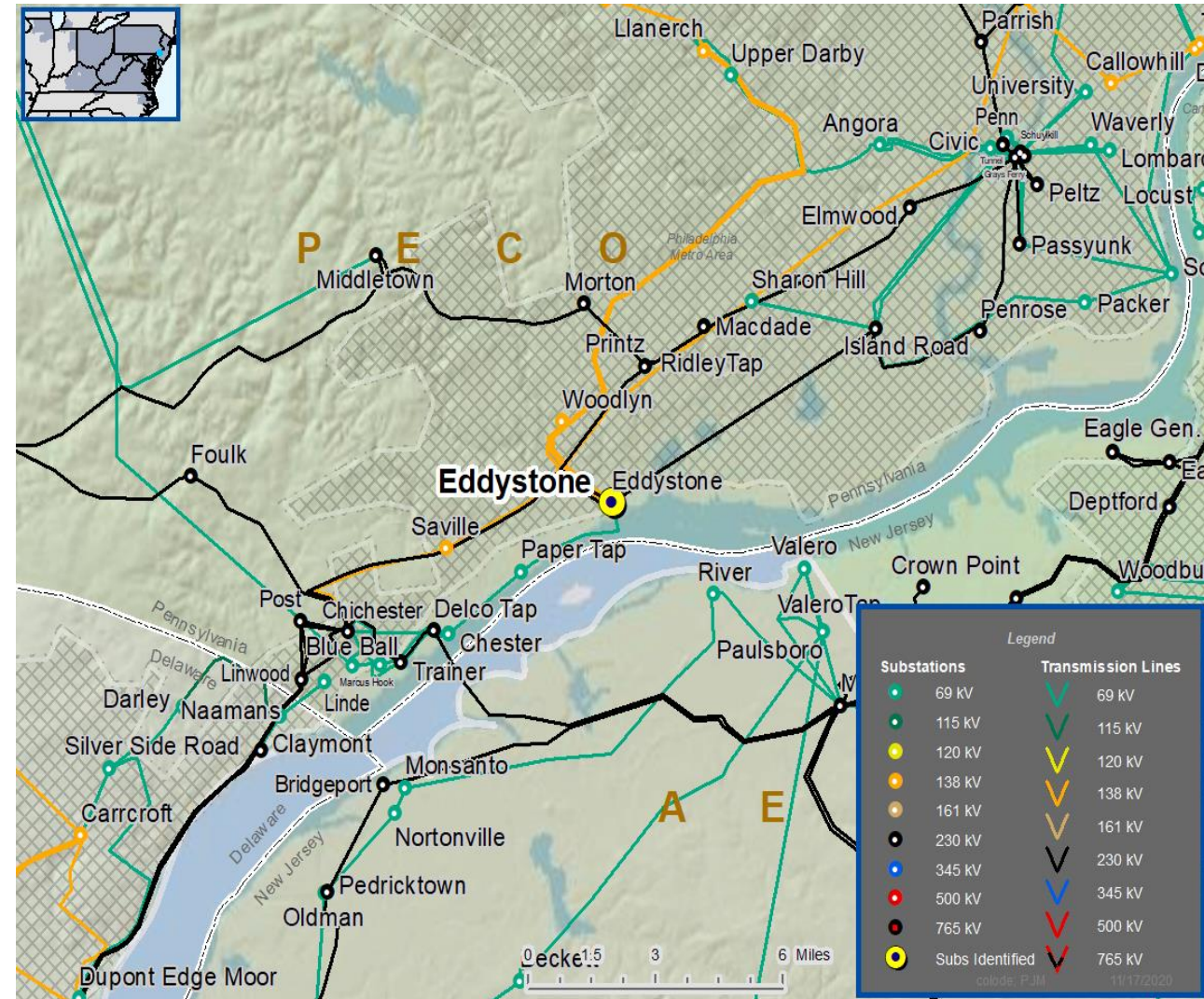
Operational Flexibility and Efficiency

**Specific Assumption Reference:**

- Provide Operations more options to deal with non-standard operating conditions
- Follow internal Transmission & Substation recommended designs
- Increasing system capacity

**Problem Statement:**

PECO substation control house equipment for its Eddystone substation is located inside a legacy generation owned facility.



**Need Number: PE-2020-012**

**Process Stage: Solution Meeting 03/09/2020**

**Proposed Solution:**

Facility	Change	Summer Normal		Summer Emergency	
		Current rating	New Rating	Current rating	New Rating
Eddystone - Island Road 230kV Line					
	Replace relays & remove wavetrap	2824	3126	3482	3482
Eddystone - Chichester 230kV Line					
	Relace CTt and relays	2089	3126	2412	3482
Eddystone - Printz 230kV Line					
	Replace meters and relays	2708	3126	3162	3482
Eddystone #8 230/138kV Transformer					
	Replace relays	1702	1702	2401	2488

The estimated cost of the project is \$1.6M

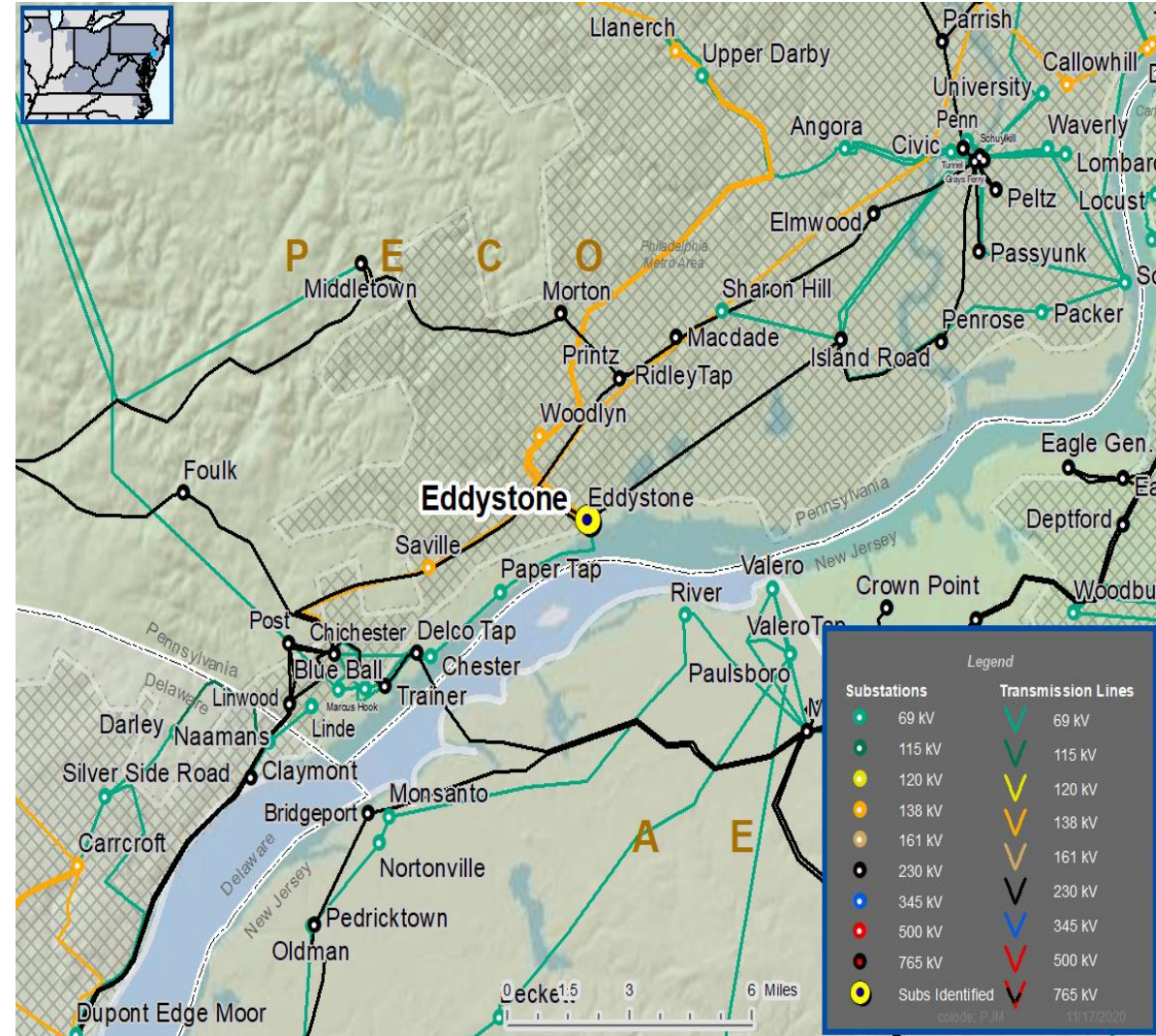
**Alternatives Considered:**

None

**Projected In-Service: 12/1//2021**

**Project Status: Engineering**

**Model: 2025 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

2/26/2021 - V1 – Original version posted to pjm.com