# Transmission Expansion Advisory Committee – PECO Supplemental Projects

December 1, 2020

## 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



## M-3 Process PECO Transmission Zone Grays Ferry 230kV circuit breaker

### Need Number: PE-2020-009

Process Stage: Need Meeting 12/1/2020

#### 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 replacement of breakers, relays, wood poles, cables, etc.

#### **Problem Statement:**

Grays Ferry 230kV circuit breaker #375 installed in 1970 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost





## M-3 Process PECO Transmission Zone Whitpain 500kV circuit breaker #575

#### Need Number: PE-2020-010

Process Stage: Need Meeting 12/1/2020

#### **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 replacement of breakers, relays, wood poles, cables, etc.

#### **Problem Statement:**

Whitpain 500kV circuit breaker #575 installed in 1968 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.





## M-3 Process PECO Transmission Zone Whitpain 500kV circuit breaker #385

#### Need Number: PE-2020-011

Process Stage: Need Meeting 12/1/2020

#### **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 replacement of breakers, relays, wood poles, cables, etc.

#### **Problem Statement:**

Whitpain 500kV circuit breaker #385 installed in 1968 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.





## M-3 Process PECO Transmission Zone Eddystone substation

#### Need Number: PE-2020-012

Process Stage: Need Meeting 12/1/2020

#### **Supplemental Project Driver:**

#### **Project Driver:**

**Operational Flexibility and Efficiency** 

#### **Specific Assumption Reference:**

- Provide Operations more options to deal with nonstandard 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.



# Solution

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 PECO Transmission Zone Waneeta 230kV circuit breaker

## Need Number: PE-2020-007 Process Stage: Solution Meeting 12/1/2020 Previously Presented: Need Meeting 11/4/2020

#### **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 replacement of breakers, relays, wood poles, cables, etc.

#### **Problem Statement:**

Waneeta 230kV circuit breaker #285 installed in 1968 is in deteriorating condition due to SF6 gas leaks, replacement part availability, and elevated maintenance cost.





## M-3 Process PECO Transmission Zone Waneeta 230kV circuit breaker

## Need Number: PE-2020-007 Process Stage: Solution Meeting 12/1/2020

#### **Proposed Solution:**

Replace Waneeta 230kV circuit breaker #285. 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: 6/1/2021

**Project Status:** Engineering **Model:** 2025 RTEP





### M-3 Process PECO Transmission Zone Tabor 230kV circuit breaker

#### Need Number: PE-2020-008

Process Stage: Solution Meeting 12/1/2020
Previously Presented: Need Meeting 11/4/2020

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 replacement of breakers, relays, wood poles, cables, etc.

#### **Problem Statement:**

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





### M-3 Process PECO Transmission Zone Tabor 230kV circuit breaker

## Need Number: PE-2020-008 Process Stage: Solution Meeting 12/1/2020

#### **Proposed Solution:**

Replace Tabor 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:** 6/1/2021 **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

#### Solutions

### Submission of Supplemental Projects & Local Plan

| Activity                                       | Timing                       |
|--|------------------------------|
| TOs and Stakeholders Post Needs Meeting slides | 10 days before Needs Meeting |
| Stakeholder comments                           | 10 days after Needs Meeting  |
|  |                              |

| Activity   | Timing                           |
|--|----------------------------------|
| TOs and Stakeholders Post Solutions Meeting slides | 10 days before Solutions Meeting |
| Stakeholder comments                               | 10 days after Solutions Meeting  |

| 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<br>posting of selected solutions |

# **Revision History**

11/20/2020 - V1 – Original version posted to pjm.com