Appendix: Previously Reviewed Baseline Upgrade Recommendations for the September 2021 PJM Board Review

Note: Items presented at the August 2021 TEAC & SRRTEP(s) will also be recommended for Board approval.

Changes for Existing Projects

Baseline Reliability Projects

Baseline upgrade Cancelation

- The upgrades listed below were initially identified during the Beaver Valley 1 & 2 deactivation study. Subsequently, Beaver Valley 1 & 2 withdrew the deactivation requests and it was determined that the upgrades which follow were no longer needed to address base line reliability concerns. However, the base case used to perform New Services Queue studies included those upgrades, and as a result the status of the upgrades were put on hold. Per the latest study, these upgrades are no longer needed for New Services Queue and will be canceled

Baseline upgrade Cancelation

Upgrade Id	Description
b3012.2	Construct two new ties from a new First Energy substation to a new Duquesne substation by using two separate structures - Duquesne portion.
b3012.4	Establish the new tie line in place of the existing Elarama - Mitchell 138 kV line
b3015.1	Construct new Elrama 138 kV substation and connect 7 138 kV lines to new substation
b3015.3	Reconductor Dravosburg to West Mifflin 138 kV line. 3 miles
b3015.4	Run new conductor on existing tower to establish the new Dravosburg-Elrama (Z-75) circuit. 10 miles
b3015.7	Reconductor Wilson to West Mifflin 138 kV line. 2 miles. 795ACSS/TW 20/7
b3061	Reconductor the West Mifflin - Dravosburg (Z-73) and Dravosburg - Elrama (Z-75) 138 kV lines
b3062	Install 138 kV tie breaker at West Mifflin
b3063	Reconductor the Wilson - Dravosburg (Z-72) 138 kV line (~5 miles)
b3064	Expand Elrama 138 kV substation to loop in the existing USS Steel Clariton - Piney Fork 138 kV line
b3065	Install 138 kV tie breaker at Wilson

Replace B3278.1 (Presented in 12/18/2020 and 2/17/2021 SRRTEP)
With B3278.3

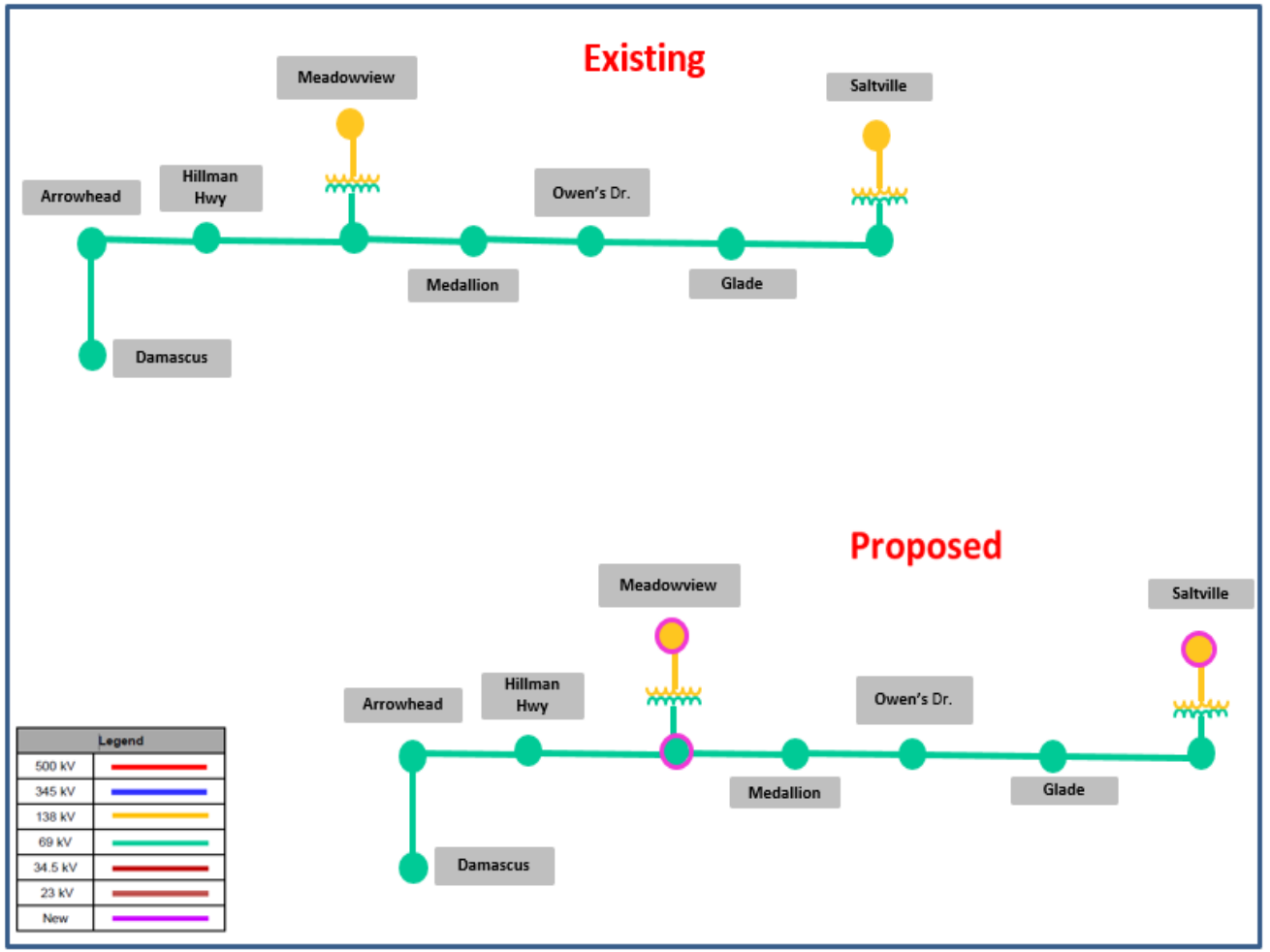
B3278.1: Saltville Station: Replace H.S. MOAB Switches on the high side of the 138/69-34.5 kV T1 with a H.S. Circuit Switcher.
Estimated Cost: $0.72M
New Project Status: On hold

B3278.3: Saltville Station: Install two breakers and bus diff protection.
Estimated Cost: $0.36M

Reason for the scope change: AEP-2020-AP037 and AEP-2021-AP004 solution, that requires reconfiguring Saltville station into a breaker-and-a half arrangement, would eliminate the need for the switcher. By replacing the switcher with just the cost of the breakers that now protect the transformer, the same result is achieved.

NOTE: If the supplemental project is cancelled, B3278.3 will be cancelled and B3278.1 will be re-activated.

Required IS date: 12/1/2025
Projected IS date: 12/1/2025



JCPL Transmission Zone
Baseline upgrade B2586 Cancelation

Original project presentation on 1/7/2015

FE Planning Criteria Violation (FG # JCPL-T1, JCPL-T2):

- The Allenhurst to Elberon (V74) 34.5 kV circuit is overloaded for the loss of the Bath Avenue – Long Branch (V74) 34.5 kV circuit.
- The Bath Avenue – Long Branch (V74) 34.5 kV circuit is overloaded for the loss of the Allenhurst to Elberon (V74) 34.5 kV circuit.

Alternatives Considered:

2014_2-4F ($14.76 M)

2014_2-4G ($1.3 M)

Recommended Solution:

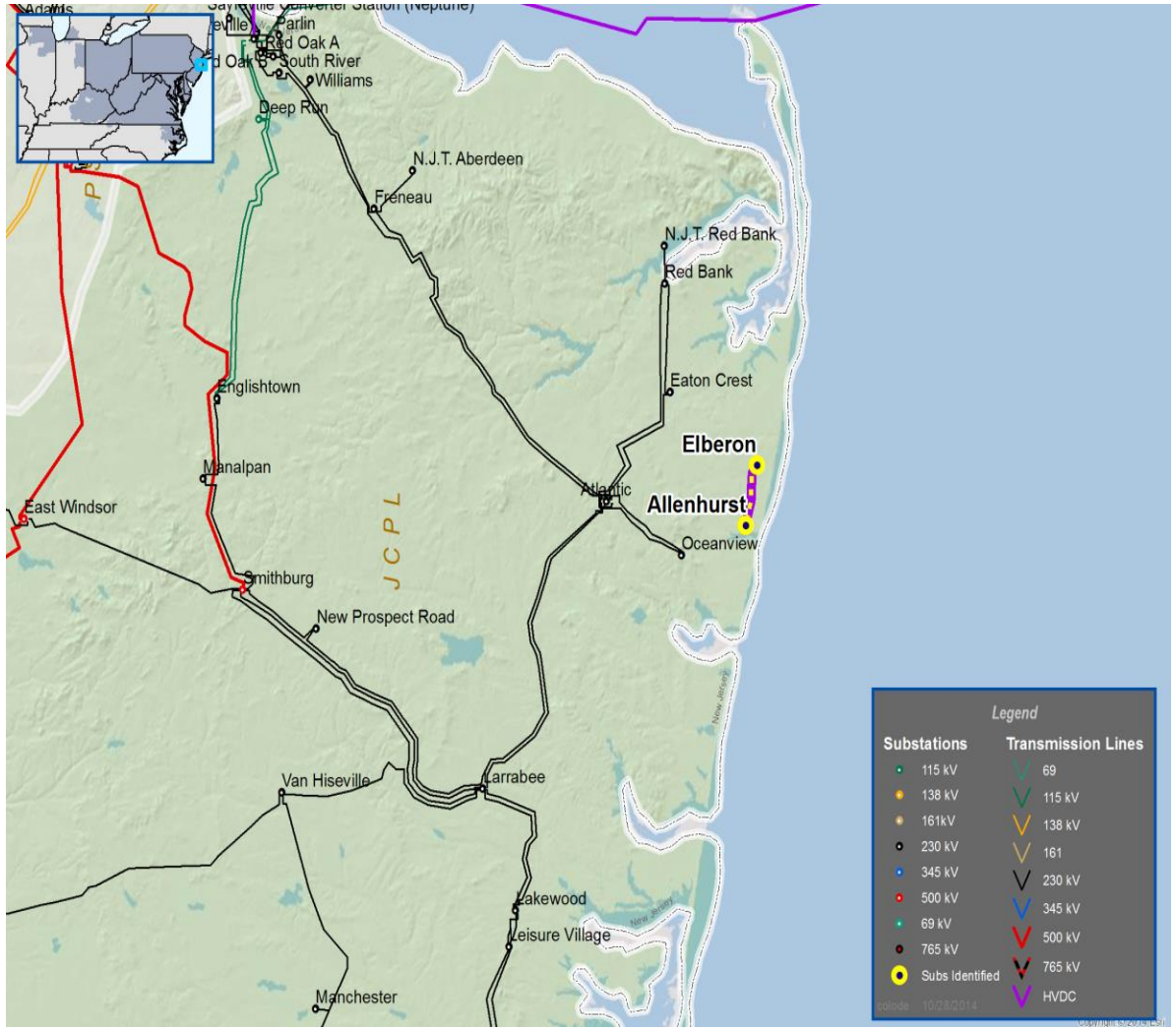
- Upgrade the V74 34.5 kV transmission line between Allenhurst and Elberon Substations. (2014_2-4F)

Estimated Project Cost:

$14.76 M

Required IS Date:

6/1/2018



Baseline upgrade B2586 Cancelation

The Allenhurst to Elberon 34.5 kV circuit will be upgraded as part of the MCRP project.

- B3130.9 Rebuild/Reconductor the Allenhurst to Elberon (2.0 Miles) 34.5 kV circuit

- The B2586 will be replaced with B3130.9 and will be canceled.