



# Transmission Expansion Advisory Committee (TEAC) Recommendations to the PJM Board

PJM Staff White Paper

PJM Interconnection  
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For Public Use

## Contents

<b>Transmission Expansion Advisory Committee (TEAC) Recommendations to the PJM Board .....</b>	<b>1</b>
<b>I. Executive Summary .....</b>	<b>1</b>
<b>II. Baseline Project Recommendations .....</b>	<b>1</b>
<b>III. Baseline Reliability Projects Summary .....</b>	<b>1</b>
A. AEP/ComEd/NEET/NIPSCO Transmission Zones .....	1
B. APS/Dayton Transmission Zones .....	1
C. AEP Transmission Zones .....	2
D. APS Transmission Zone .....	2
E. BGE Transmission Zone .....	2
F. Dominion Transmission Zone .....	2
G. DPL Transmission Zone .....	2
H. ME Transmission Zone .....	2
I. PENELEC Transmission Zone .....	2
J. PSEG Transmission Zone .....	2
K. Multi – Driver Project (Including Reliability- and Economic-based Enhancements) .....	3
<i>Baseline Project b3775.1-.10: Crete-St. John Area Improvement .....</i>	<i>3</i>
L. PJM-MISO Interregional Targeted Market Efficiency Project (TMEP) Study Baseline Project b3760 Details .....	5
M. Baseline Reliability Project Details .....	7
<i>Baseline Project b3766.1-.6: College Corner-Collinsville 138 kV Construction .....</i>	<i>7</i>
<i>Baseline Project b3736.1-.18: Breaks-Dorton 69 kV Rebuild .....</i>	<i>8</i>
<i>Baseline Project b3763: Jug Street 138 kV Breaker Replacement .....</i>	<i>9</i>
<i>Baseline Project b3772: Messick Road-Morgan 138 kV .....</i>	<i>10</i>
<i>Baseline Project b3771: Conastone-North West 230 kV Reconductor .....</i>	<i>11</i>
<i>Baseline Project b3759: Line No. 23 Bell Ave-Suffolk 115 kV Reconductor .....</i>	<i>12</i>
<i>Baseline Project b3749: New Church-Piney 138 kV Rebuild .....</i>	<i>13</i>
<i>Baseline Project b3768: Lincoln-Germantown 115 kV Rebuild .....</i>	<i>14</i>
<i>Baseline Project b3769: TMI 500/230 kV Transformer Install .....</i>	<i>15</i>
<i>Baseline Project b3751: Roxbury-AE1-071 115 kV Rebuild .....</i>	<i>16</i>
<i>Baseline Project b3752: Shade Gap-AE-071 115 kV Rebuild .....</i>	<i>17</i>
<i>Baseline Project b3754: Belleville Breaker Ring Bus Construction .....</i>	<i>18</i>
<i>Baseline Project b3755: Locust Street Conversion .....</i>	<i>19</i>
<i>Baseline Project b3756: Maple Shade 69 kV Conversion .....</i>	<i>20</i>
<i>Baseline Project b3758: Harts Lane 69 kV Construction .....</i>	<i>21</i>
<b>IV. Transmission Owner Criteria Projects .....</b>	<b>21</b>



**V. Changes to Previously Approved Projects .....22**  
    Scope/Cost Changes.....22  
    APS Transmission Zone .....22

**VI. Cost Allocation.....22**

**VII. Board Approval .....22**

**Attachment A – Reliability Project Single-Zone Allocations .....23**

**Attachment B – Reliability Project Multi-Zone Allocations.....28**

**Attachment C – TMEP Project Cost Allocation .....28**

**Attachment D – Multi – Driver Project Cost Allocation .....29**

## I. Executive Summary

On December 5, 2022, the PJM Board of Managers approved changes to the Regional Transmission Expansion Plan (RTEP), totaling a net increase of \$1,376.02 million for baseline projects and network project updates, to resolve baseline reliability criteria violations and address changes to existing projects.

Since then, PJM has identified new baseline reliability criteria violations, and the transmission system enhancements needed to solve them, at an estimated cost of \$634.14 million. PJM is also recommending the approval of one new PJM-MISO Interregional Targeted Market Efficiency Project (TMEP) at a cost of \$0.20 million. Scope changes to an existing project will result in a net increase of \$10.64 million. This yields an overall RTEP net increase of \$644.34 million, for which PJM is recommending Board approval. Additionally, PJM is recommending the cancellation of \$0.26 million in previously identified baseline upgrades as a result of updates to analysis performed. Altogether, the changes result in an overall RTEP net increase of approximately \$644.72 million. With these changes, RTEP projects will total approximately \$42,194.5 million since the first Board approvals in 2000.

PJM sought Reliability and Security Committee consideration and full Board approval of the RTEP baseline projects summarized in this white paper. On February 15, 2023, the Board approved the addition of RTEP baseline projects as well as other changes to the RTEP as summarized in this paper.

## II. Baseline Project Recommendations

A key dimension of PJM's RTEP process is baseline reliability evaluation, which is necessary before subsequent interconnection requests can be analyzed. Baseline analysis identifies system violations to reliability criteria and standards, determines the potential to improve the market efficiency and operational performance of the system, and incorporates any public policy requirements. PJM then develops transmission system enhancements to solve identified violations and reviews them with stakeholders through the Transmission Expansion Advisory Committee (TEAC) and Subregional RTEP Committees prior to submitting its recommendation to the Board. Baseline transmission enhancement costs are allocated to PJM responsible customers.

## III. Baseline Reliability Projects Summary

A summary of baseline projects with estimated costs equal to or greater than \$10 million is provided below. A complete listing of all recommended projects and their associated cost allocations is included in Attachment A (allocations to a single zone) and Attachment B (allocations to multiple zones). Projects with estimated costs less than \$10 million typically include, by way of example, transformer replacements, line reconductoring, breaker replacements and upgrades to terminal equipment, including relay and wave trap replacements. Also included is the first Multi-Driver Project PJM determined to address reliability and market efficiency needs.

### A. AEP/ComEd/NEET/NIPSCO Transmission Zones

- Baseline project b3775.1-10 – Multi Driver Crete-St. John improvement: \$73.88 million

### B. APS/Dayton Transmission Zones

- Baseline project b3766.1-6 – College Corner-Collinsville 138 kV construction: \$38.64 million

### **C. AEP Transmission Zones**

- Baseline project b3736.1-.18 – Breaks Dorton 69 kV rebuild: \$83.1 million
- Baseline project b3763 – Jug Street 138 kV breaker replacement: \$14 million

### **D. APS Transmission Zone**

- Baseline project b3710 – Scope Change – AA2:161 Circuit 1 & 2 138 kV: \$10.64 million
- Baseline project b3772 – Messick Road-Morgan 138 kV reconductor/replacement: \$49.2 million

### **E. BGE Transmission Zone**

- Baseline project b3771 – Conastone-North West 230 kV reconductor: \$37.8 million

### **F. Dominion Transmission Zone**

- Baseline project b3759 – Line#23 Bell Ave-Suffolk 115 kV reconductor: \$23.5 million

### **G. DPL Transmission Zone**

- Baseline project b3749 – New Church-Piney 138 kV rebuild: \$63 million

### **H. ME Transmission Zone**

- Baseline project b3768 – Lincoln-Germantown 115kv rebuild/reconductor: \$17.4 million
- Baseline project b3769 – TMI 500/230 kV transformer install: \$30.19 million

### **I. PENELEC Transmission Zone**

- Baseline project b3751 – Roxbury-AE1-071 115 kV rebuild: \$15 million
- Baseline project b3752 – Shade Gap-AE1-071 115 kV rebuild : \$17.4 million
- Baseline project b3754 – Belleville Mclane Tap construction: \$10.1 million

### **J. PSEG Transmission Zone**

- Baseline project b3755 – Locust Street Ring Bus conversion: \$30 million
- Baseline project b3756 – Maple Share 69kv Ring Bus conversion: \$33.9 million
- Baseline project b3758 – Harts Lane 69kv construction: \$34.4 million

PJM is also recommending regional baseline projects totaling \$63.16 million, whose individual cost estimates are less than \$10 million. The projects include, but are not limited to, a 40kV breaker replacement, installation of cap banks, replacing terminal limiting equipment, conductor replacements, and relay upgrades.

A more detailed description of the larger-scope projects that PJM is recommending to the Board is provided below.

### ***K. Multi – Driver Project (Including Reliability- and Economic-based Enhancements)***

In the 2027 RTEP, PJM determined a need to address reliability and market efficiency needs for the following facilities: Crete – St. John 345kV, Crete – E.Frankford 345kV, University Park N-Olive 345kV, and Stillwell – Dumont 345kV. Due to the nature of the reliability and market efficiency concerns being investigated and the location of impacted facilities, PJM coordinated with MISO throughout this proposal window.

There was also an overlap in flowgates from 2021 Proposal Window 2 and the 2022 Multi – Driver Window, therefore some projects submitted in the 2021 Proposal Window 2 were eligible for evaluation in 2022 Multi – Driver Window. A listing of the recommended multi-driver project and associated cost allocations is included in Attachment D (for Multi-Driver Project) below.

#### **Baseline Project b3775.1-.10: Crete-St. John Area Improvement AEP/ComEd Transmission Zones**

In 2027 RTEP summer case, the Stillwell-Dumont 345 kV line is overloaded for an N-2 outage. In the 2027 RTEP winter case, the Crete-St. John 345 kV line is overloaded for N-1 and N-2 outages, and the Crete-E. Frankfort and University Park N-Olive 345 kV lines are overloaded for N-1 outages.

Additionally, in the 2027 RTEP cases, there was congestion identified on the Dumont-Stillwell 345 kV line, the E. Frankfort-Crete-St. John 345 kV line and University Park N-Olive 345 kV line. With both reliability and congestion issues, this became a Multi-Driver Project.

Map 1. b3775.1-10 – Crete-St. John Area Improvement



The recommended solution is outside of the Green Acres substation. Swap the NIPSCO Green Acre Tap towers from the St. John-Green Acres-Olive 345 kV line to the University Park N-Olive 345 kV line to create a University Park N-Green Acres-Olive and St. John-Olive 345 kV lines. Reconductor NEET’s section of Crete (IN/IL border)-St. John 345 kV line (6.95 miles) (conversion of part of S2631). Rebuild ComEd’s section of 345 kV double circuit in IL from St. John to Crete (5 miles) with twin bundled 1277 ACAR conductor. Rebuild 12.7 miles of 345 kV double circuit extending from Crete to E. Frankfort with twin bundled 1277 ACAR conductor. Replace E. Frankfort 345 kV circuit breaker “9-14” with 3150A SF6 circuit breaker. Perform sag study mitigation work on the Dumont-Stillwell 345 kV line (remove a center-pivot irrigation system from under the line, allowing for the normal and emergency ratings of the line to increase). Upgrade the limiting element at Stillwell or Dumont substation to increase the rating of the Stillwell-Dumont 345 kV line to match conductor rating. Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing. Upgrade the existing terminal equipment (substation conductor) at Green Acres on the existing St. John to Green Acres 345 kV line with bundled 2x1590 ACSR Lapwing. Perform a sag study on the Olive-University Park 345 kV line to increase the operating temperature to 225 F. Remediation work includes two tower replacements on the line. The project will also replace three disconnect switches (A17, D15 and D16), replace line drops and revise relay settings at Abbe substation; replace one disconnect switch (A159), replace line drops and revise relay settings at Johnson substation; and replace two motor-operated airbreak disconnect switches (A4 & A5), one disconnect switch (D9) and line drops at Redman substation. The estimated cost for this project is \$73.88 million.

This Multi-Driver project combines separate solutions that address reliability and market efficiency into a single transmission enhancement or expansion categorized as a Proportional Multi-Driver Project.

This project has a required in-service date of December 2026 and a projected in-service date of December 2026. The designated entities to complete this work will be AEP, NEET, and ComEd.

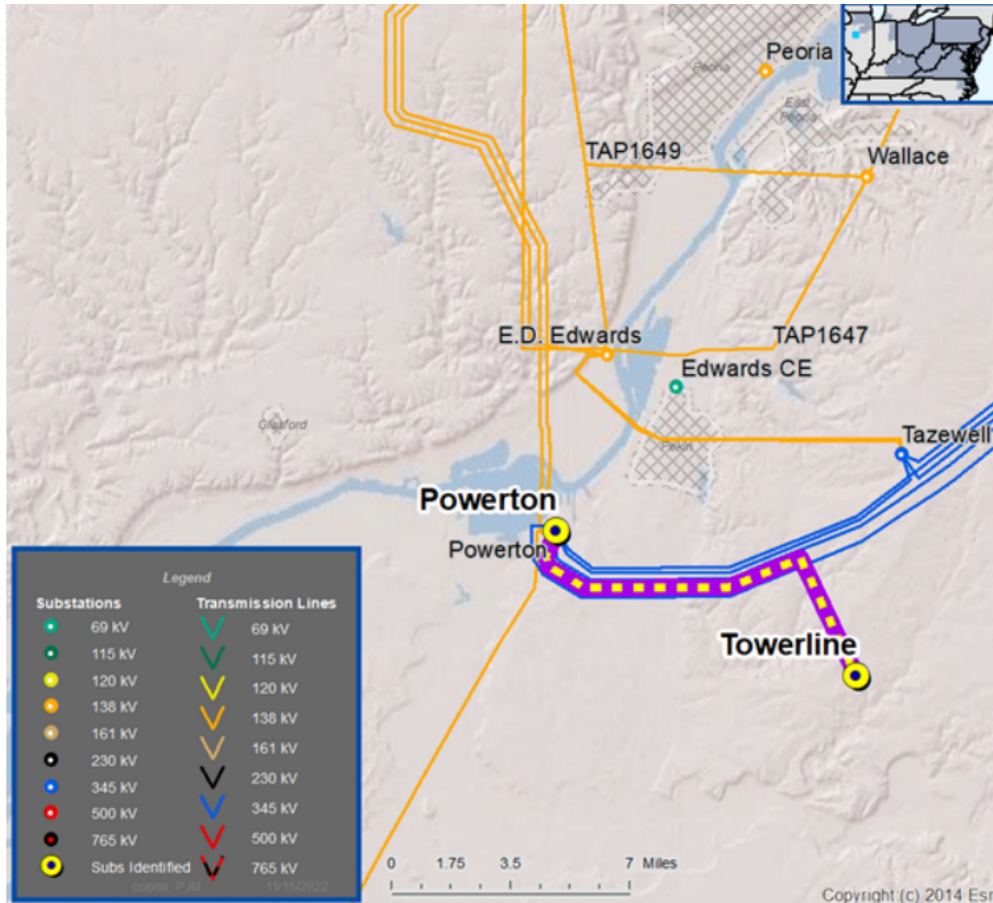
#### ***L. PJM-MISO Interregional Targeted Market Efficiency Project (TMEP) Study Baseline Project b3760 Details***

At the April 25, 2022 PJM-MISO Interregional Planning Stakeholder Advisory Committee (IPSAC) meeting, there was an initial list of TMEP study candidates brought forward.

PJM staff is recommending one interregional TMEP with MISO – with a total estimated cost of \$.20 million and an estimated market efficiency benefit of \$7.31 million. The selected baseline project b3760 was found to meet all criteria set forth in the MISO-PJM Joint Operating Agreement for inclusion in the interregional market efficiency process. Specifically, baseline project b3760, is at Powerton Substation in the ComEd zone. The TMEP replaces the most limiting facility, 800A wave trap with 2000A wave trap, on the Powerton – Towerline 138kV line terminal. PJM and MISO agree that the TMEP has no adverse reliability impacts. The impact to load flow is that the line rating increases without a change to the line impedance. A listing of the recommended TMEP and associated cost allocations is included in Attachment C (for TMEP) below.



Map 2. b3760 – Powerton Substation 138kv Wave Trap



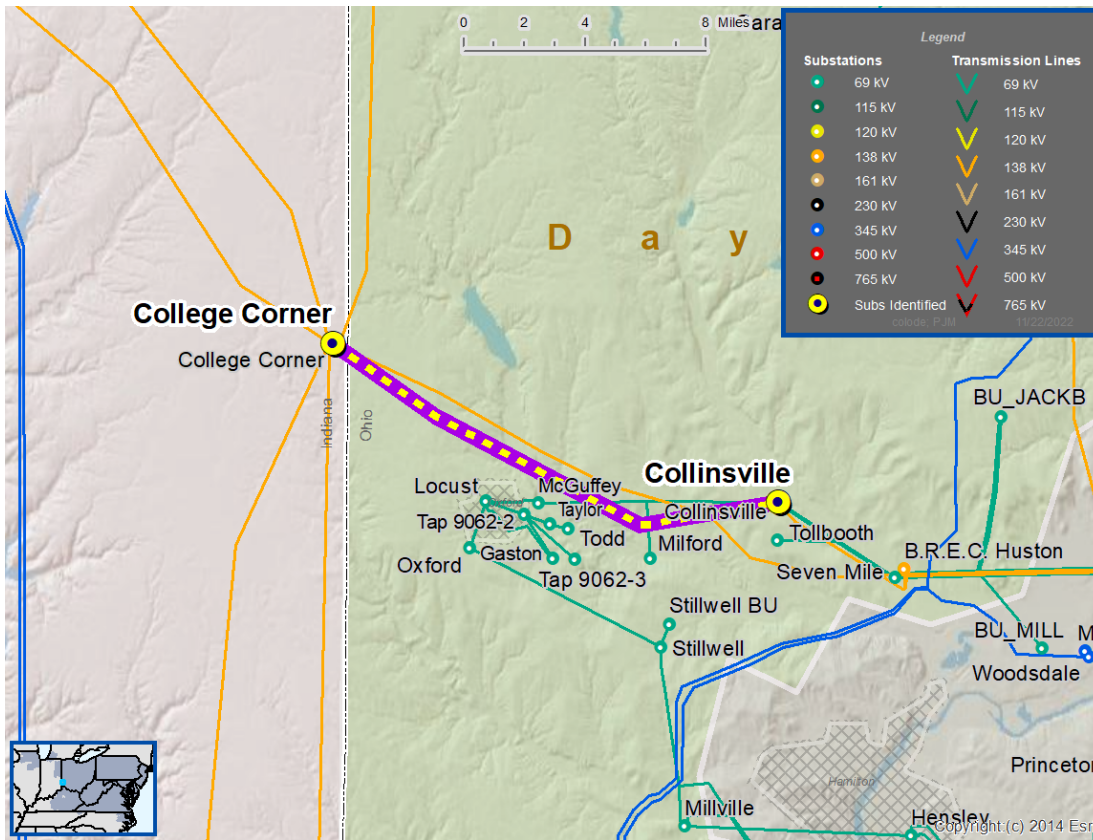
**M. Baseline Reliability Project Details**

**Baseline Project b3766.1-6: College Corner-Collinsville 138 kV Construction**

**APS Transmission Zone**

In 2027 RTEP summer/winter cases, the College Corner-Collinsville 138 kV line is overload for an N-2 contingency in generator deliverability tests.

**Map 3.** b3766.1-6 – College Corner-Collinsville 138 kV Construction



The recommended solution is to construct a 138 kV 1.86-mile single circuit transmission line from New Westville-AEP Hayes station. Construct a new 11-mile single circuit 138 kV line from New Westville to the Lewisburg tap off 6656. Convert a portion of 6656 West Manchester-Garage Rd 69 kV line between West Manchester-Lewisburg to 138 kV operation (circuit is built to 138 kV). This will utilize part of the line already built to 138 kV and will take place of the 3302 that currently feeds New Westville. The 3302 138 kV line will be retired as part of this project. The West Manchester substation will be expanded to a double bus double breaker design where AES Ohio will install one 138 kV circuit breaker, a 138/69 kV transformer, and eight new 69 kV circuit breakers. Hayes-New Westville 138 kV line: Build ~0.19 miles of 138 kV line to the Indiana/ Ohio State line to connect to AES’s line portion of the Hayes-New Westville 138 kV line with the conductor size 795 ACSR26/7 Drake. Hayes-Hodgin 138 kV line: Build ~0.05 miles of 138 kV line with the conductor size 795 ACSR26/7 Drake. Hayes 138 kV: Build a new 4-138 kV circuit breaker ring

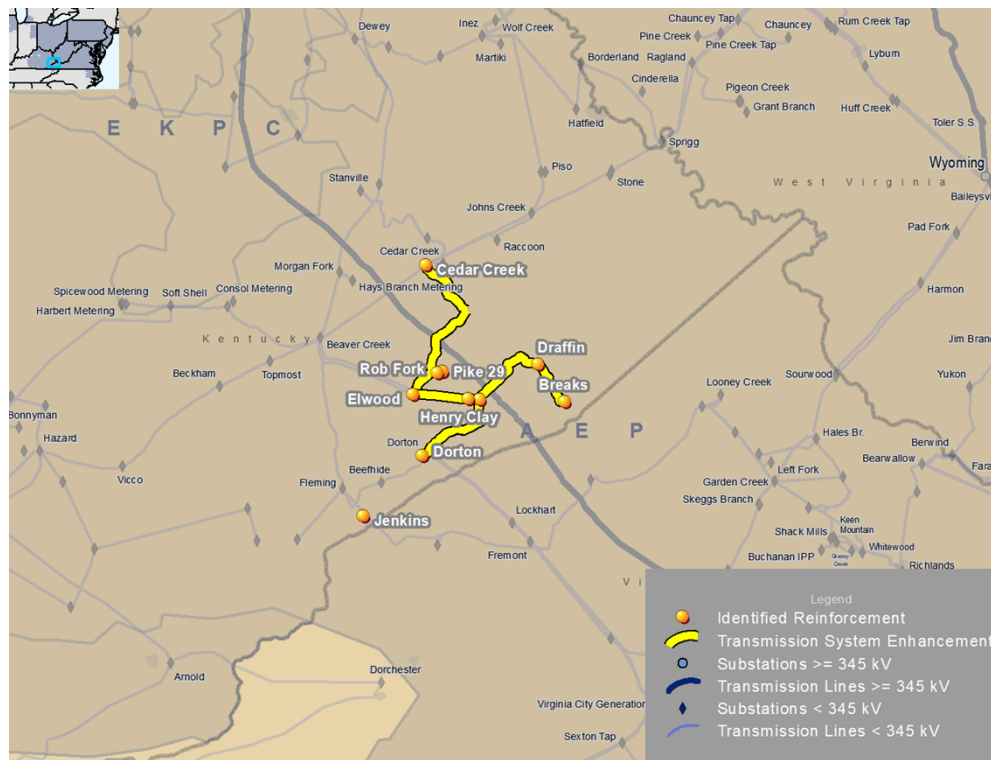
bus. The estimated cost for this project is \$38.64 million. This project has a required in-service date of June 2027 and a projected in-service date of December 2025. The designated entities to complete this work will be AEP and Dayton.

**Baseline Project b3736.1-18: Breaks-Dorton 69 kV Rebuild**

**AEP Transmission Zone**

In 2027 winter RTEP case, Dorton, Pike 29, Rob Fork, Burdine, Henry Clay, Draffin 46 kV buses (along the Cedar Creek-Elwood and Breaks-Dorton-Elwood 46 kV circuits) experience voltage magnitude and drop violations under multiple N-1-1 contingency scenarios.

**Map 4.** b3736.1-18 – Breaks-Dorton 69 kV Rebuild



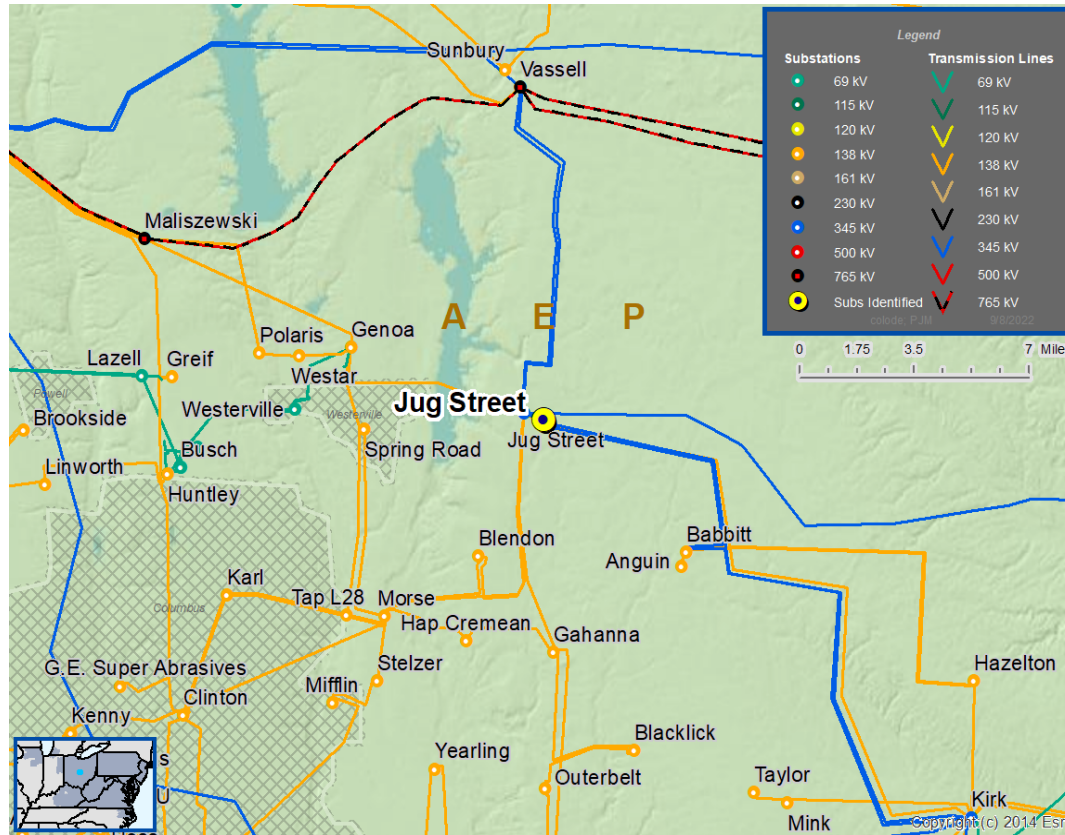
The recommended solution is to establish 69 kV bus and new 69 kV line CB at Dorton substation. At Breaks substation, reuse 72 kV breaker A as the new 69 kV line breaker. Rebuild ~16.7-mile Dorton-Breaks 46 kV line to 69 kV. Retire ~17.2-mi Cedar Creek-Elwood 46 kV circuit. Retire ~ 6.2-mi Henry Clay-Elwood 46 kV line section. Retire Henry Clay 46 kV substation and replace with Poor Bottom 69 kV station. Install a new 0.7-mile double circuit extension to Poor Bottom 69 kV. Retire Draffin substation and replace with a new substation. Install a new 0.25-mile double circuit extension to New Draffin substation. Perform remote end work at Jenkins substation. Provide transition fiber to Dorton, Breaks, Poor Bottom, Jenkins and New Draffin substations. Retirement of Henry Clay S.S. Cedar Creek substation work. Retire Breaks substation 46 kV equipment. Retire Pike 29 SS and Rob Fork SS. Serve Pike 29 and Rob Fork customers from nearby 34 kV distribution sources. Install Poor Bottom Substation. Retirement of Henry Clay 46 kV substation. Installation of substation New Draffin 69 kV substation. Retirement of Draffin 46 kV substation.

The estimated cost for this project is \$101.9 million. This project has a required in-service date of December 2027 and a projected in-service date of July 2027. The local transmission owner, AEP, will be designated to complete this work.

**Baseline Project b3763: Jug Street 138 kV Breaker Replacement**  
**AEP Transmission Zone**

In 2027 RTEP, Jug Street 138 kV breakers M, N, BC, BF, BD, BE, D, H, J, L, BG, BH, BJ, and BK are overdutied.

**Map 5. b3763 – Jug Street 138 kV Breaker Replacement**



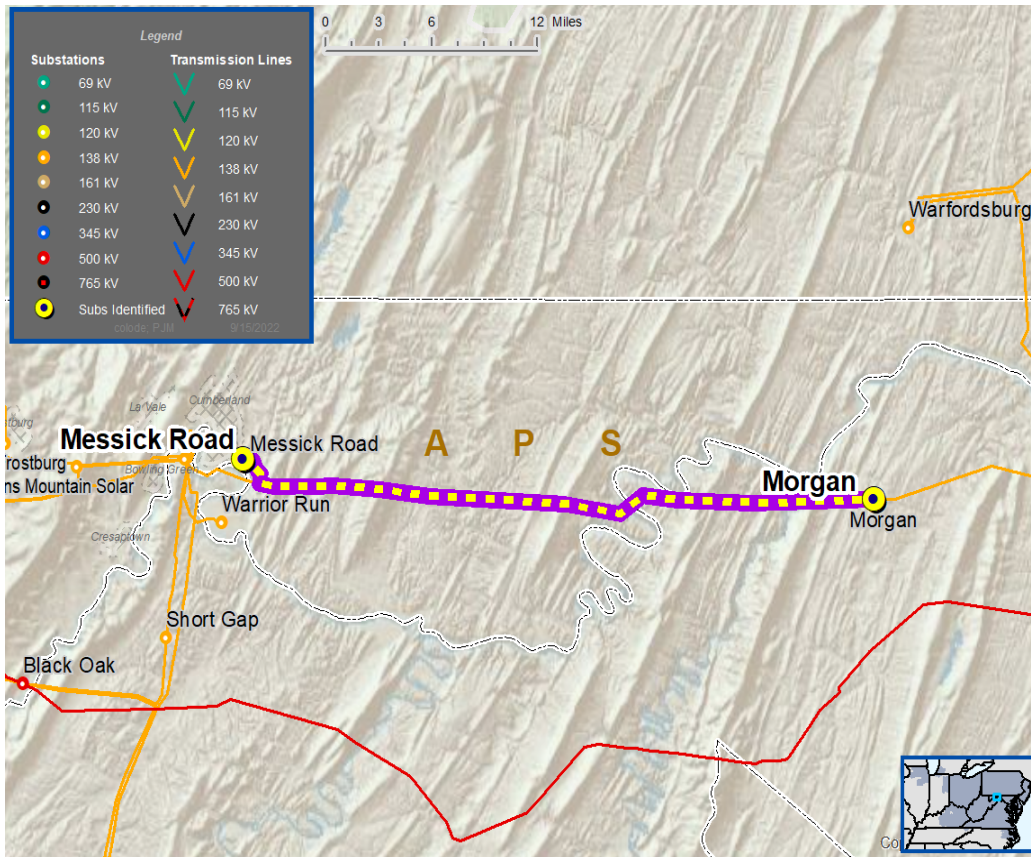
The recommended solution is to replace the Jug Street 138 kV breakers M, N, BC, BF, BD, BE, D, H, J, L, BG, BH, BJ, and BK with 80KA breakers. The estimated cost for this project is \$14 million, with a required and projected in-service date of June 2027. The local transmission owner, AEP, will be designated to complete this work.

## Baseline Project b3772: Messick Road-Morgan 138 kV

### APS Transmission Zone

In 2027 RTEP summer and winter cases, Messick road to Morgan 138 kV line is overloaded due to two breaker contingencies.

Map 6. b3772 – Messick Road-Morgan 138 kV

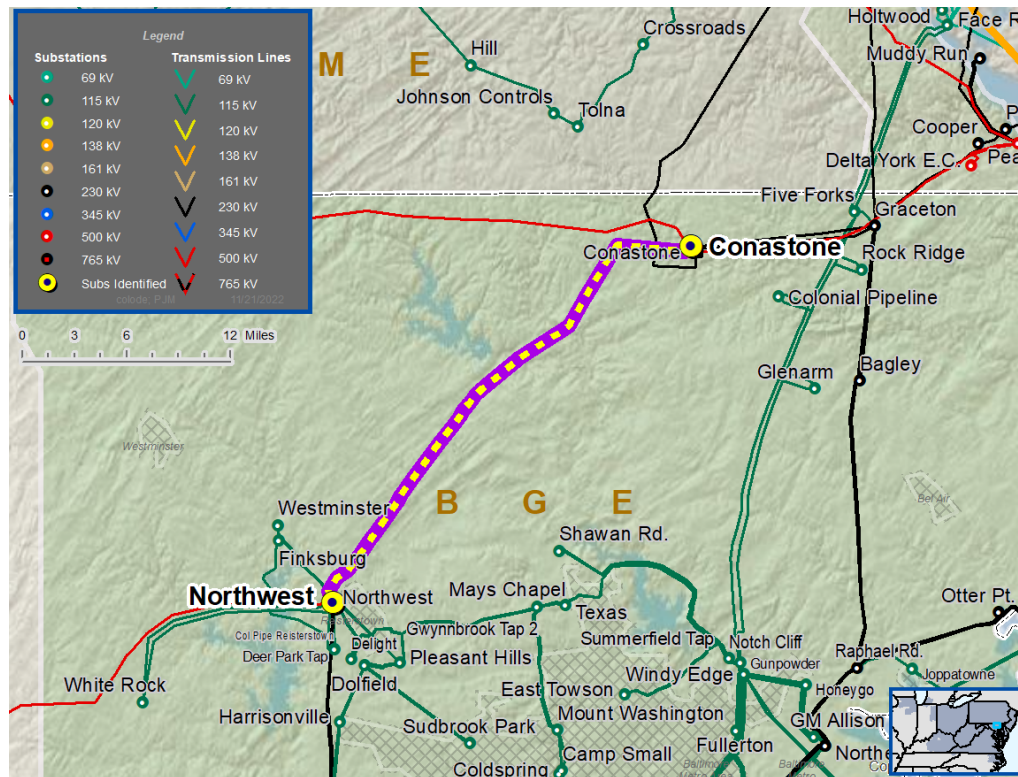


The recommended solution is to reconductor 27.3 miles of the Messick Road-Morgan 138 kV line from 556 ACSR to 954 ACSR. At Messick Road substation: Replace 138 kV wave trap, circuit breaker, CTs, disconnect switch, and substation conductor and upgrade relaying. At Morgan substation: Upgrade relaying. The estimated cost for this project is \$49.2 million. This project has a required and projected in-service date of June 2027. The local transmission owner, APS, will be designated to complete this work.

**Baseline Project b3771: Conastone-North West 230 kV Reconductor  
BGE Transmission Zone**

In 2027 RTEP summer and winter cases, Messick road to Morgan 138 kV line is overloaded due to two breaker contingencies.

**Map 7.** b3771 – Conastone-North West 230 kV Reconductor

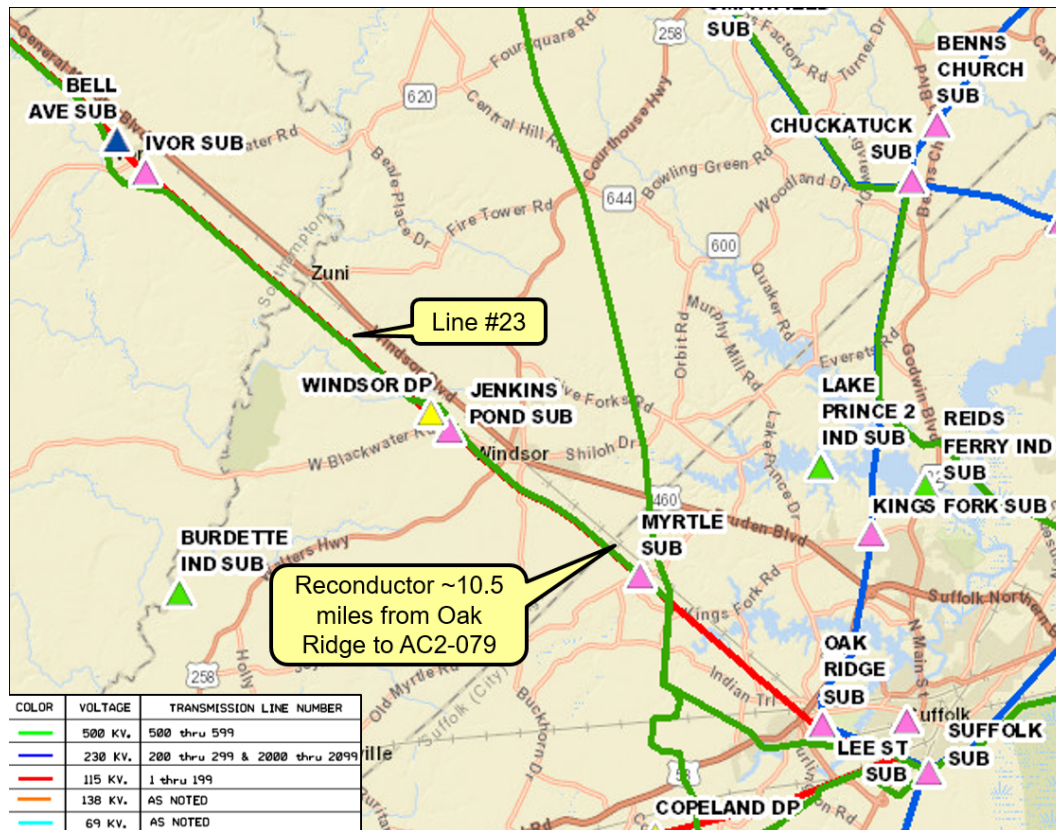


The recommended solution is to reconductor two 230 kV circuits from Conastone to Northwest No. 2. The existing conductor is 1272 ACSR and 1590 ACSR. The new conductor will be 1927-T13 42/29 ACCR/TW. The estimated cost for this project is \$49.2 million. This project has a required in-service date of June 2027 and projected in-service date of June 2026. The local transmission owner, BGE, will be designated to complete this work.

**Baseline Project b3759: Line No. 23 Bell Ave-Suffolk 115 kV Reconductor**  
**Dominion Transmission Zone**

In the 2027 RTEP case, failed breaker contingencies that isolate Poe 115 kV Bus No. 1 overload the Oak Ridge to AC2-079 segment of 115 kV Line No. 23 Bell Ave-Suffolk.

**Map 8.** b3759 – Line No. 23 Bell Ave-Suffolk 115 kV Reconductor

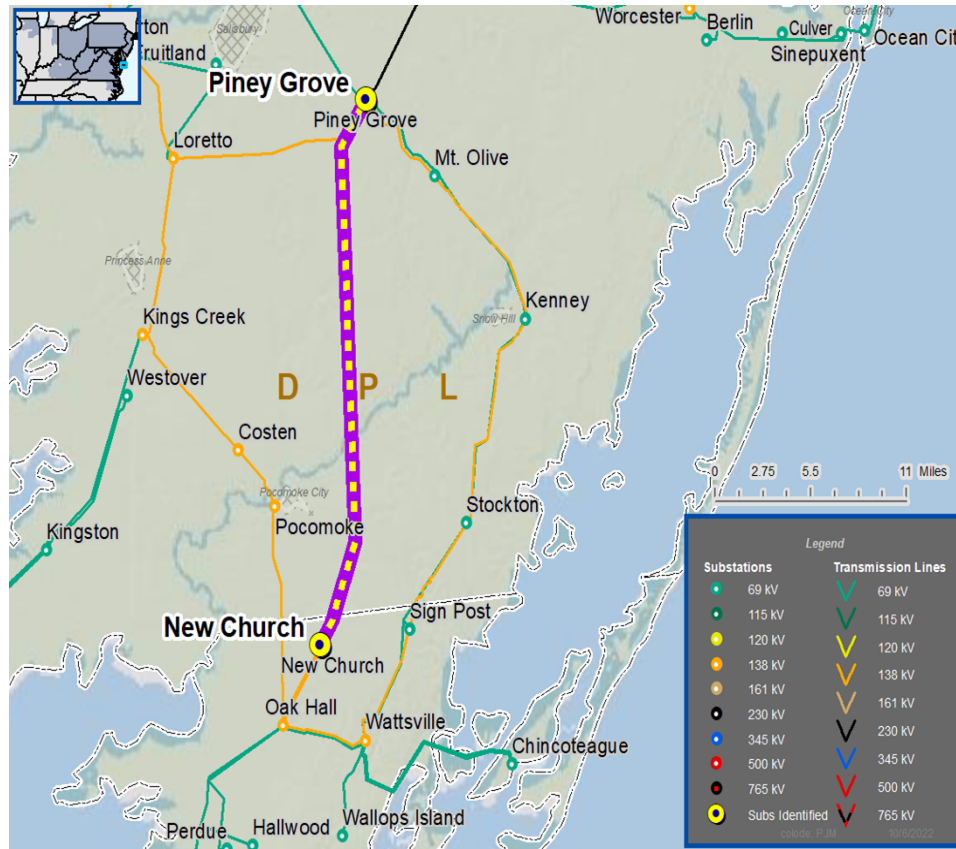


The recommended solution is to reconductor approximately 10.5 miles of 115 kV line No. 23 segment from Oak Ridge to AC2-079 from its existing 336 ACSR Tap to a minimum emergency ratings of 393 MVA Summer/412 MVA Winter. The estimated cost for this project is \$23.5 million. This project has a required and projected in-service date of June 2027. The local transmission owner, Dominion, will be designated to complete this work.

**Baseline Project b3749: New Church-Piney 138 kV Rebuild**  
**DPL Transmission Zone**

In the 2027 RTEP case, the New Church-Piney 138 kV circuit is overloaded for line fault stuck breaker contingency.

**Map 9. b3749 – New Church-Piney 138 kV Rebuild**



The recommended solution is to rebuild the New Church-Piney Grove 138 kV line. The existing conductor is 477 ACSR and the proposed conductor is 1590 ACSR. The estimated cost for this project is \$63 million. This project has a required in-service and projected in-service date of June 2027. The local transmission owner, DPL, will be designated to complete this work.

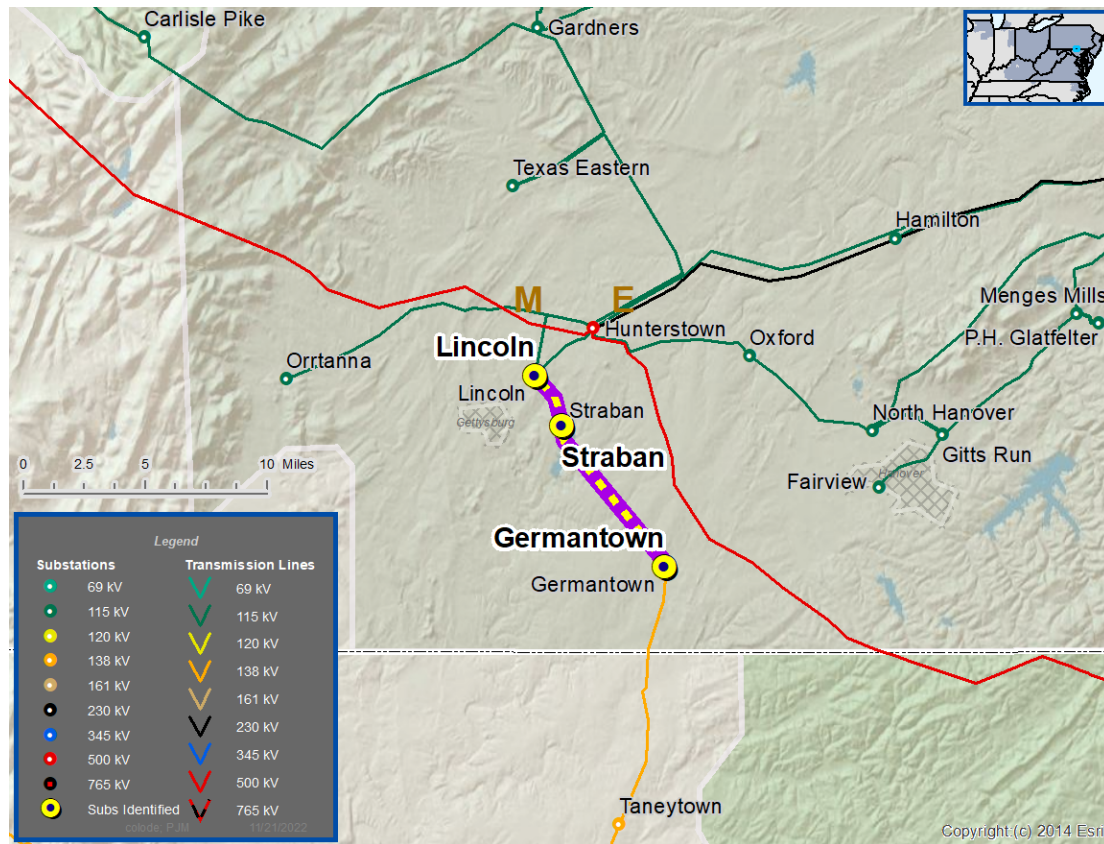


## Baseline Project b3768: Lincoln-Germantown 115 kV Rebuild

### MetEd Transmission Zone

In 2027 RTEP summer case, the Lincoln-Straban-Germantown 115 kV circuit is overloaded for multiple N-1 contingencies.

**Map 10.** b3768 – Lincoln-Germantown 115 kV Rebuild

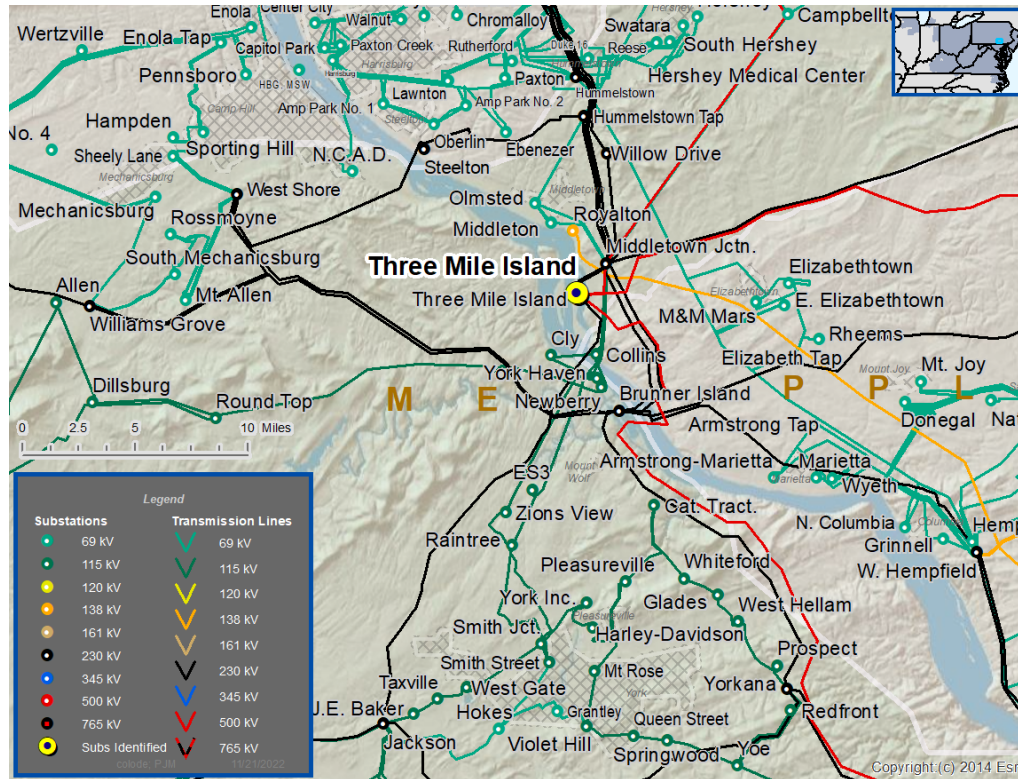


The recommended solution is to rebuild/reconductor 7.6 miles of the Germantown-Lincoln 115 kV line. Additionally, upgrade to limiting terminal equipment is required at Lincoln, Germantown and Straban. The existing conductor is 556 ACSR and the proposed upgrade is 954 ACSR. The estimated cost for this project is \$17.4 million. This project has a required in-service and projected in-service date of June 2027. The local transmission owner, MetEd, will be designated to complete this work.

**Baseline Project b3769: TMI 500/230 kV Transformer Install**  
**MetEd Transmission Zone**

In 2027 RTEP summer case, the TMI 500/230 kV transformer is overloaded for multiple N-1 contingencies.

**Map 11. b3769 – TMI 500/230 kV Transformer Install**

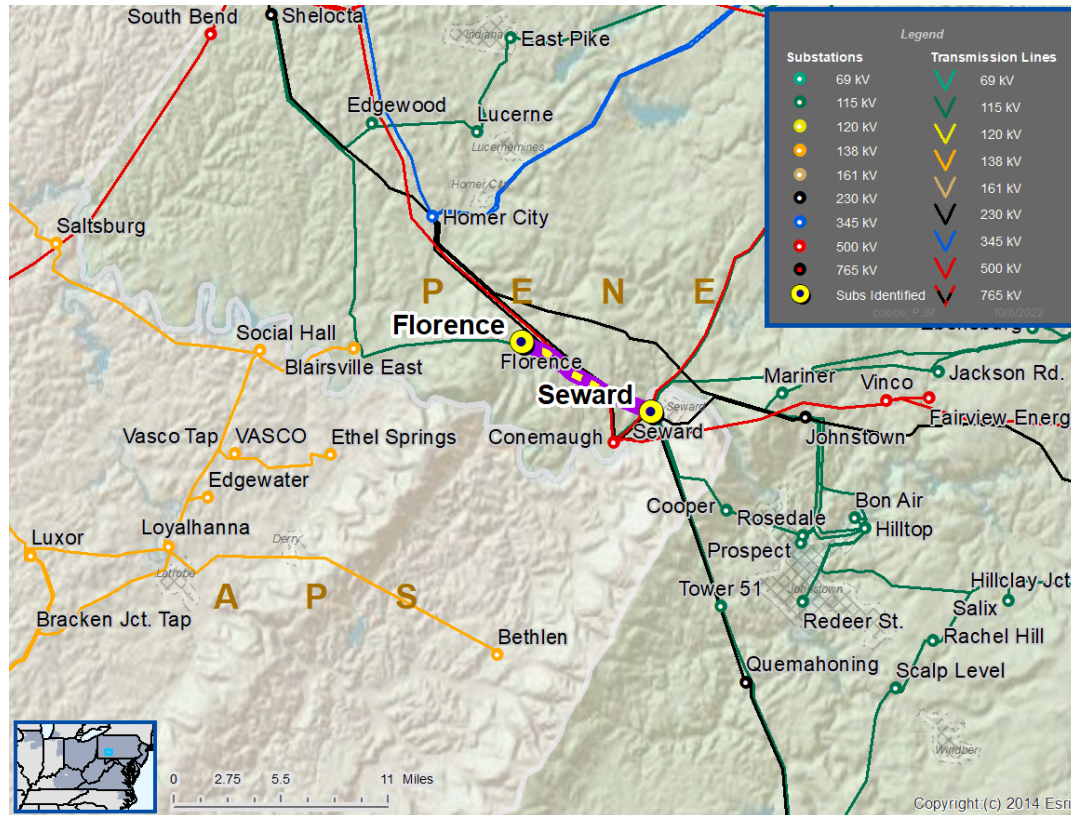


The recommended solution is to install a second TMI 500/230 kV transformer with additional 500 and 230 bus expansions. The estimated cost for this project is \$30.2 million. This project has a required and projected in-service date of June 2027. The local transmission owner, MetEd, will be designated to complete this work.

**Baseline Project b3751: Roxbury-AE1-071 115 kV Rebuild**  
**PENELEC Transmission Zone**

In the 2027 RTEP case, the Roxbury-AE1-071 115 kV line is overloaded for multiple N-1 contingencies.

**Map 12. b3751 – Roxbury-AE1-071 115 kV Rebuild**

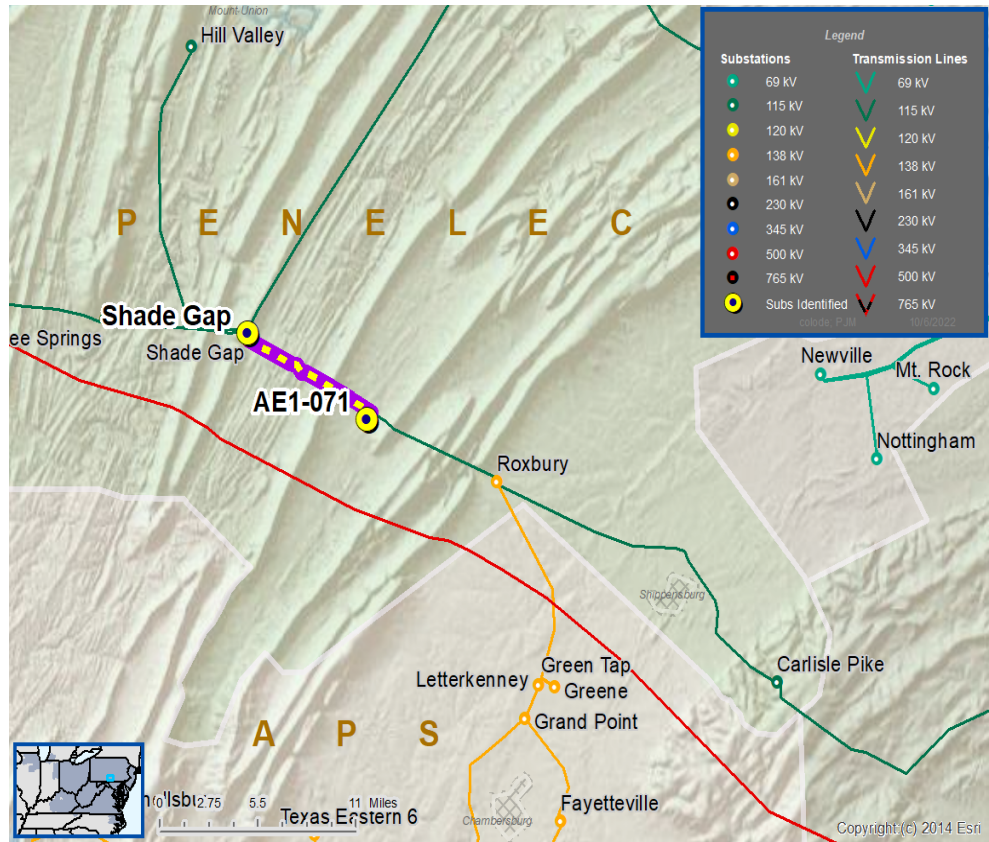


The recommended solution is to rebuild 6.4 miles of the Roxbury-Shade Gap 115 kV line from Roxbury to the AE1-071 115 kV ring bus with single circuit 115 kV construction. The existing conductor is 336 ACSR and the proposed upgrade is 1033 ACSR. The estimated cost for this project is \$15 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PENELEC, will be designated to complete this work.

**Baseline Project b3752: Shade Gap-AE-071 115 kV Rebuild**  
**PENELEC Transmission Zone**

In the 2027 RTEP case, the AE1-071-Shade Gap 115 kV line is overloaded multiple N-1 contingencies.

**Map 13. b3752 – Shade Gap-AE-071 115 kV Rebuild**

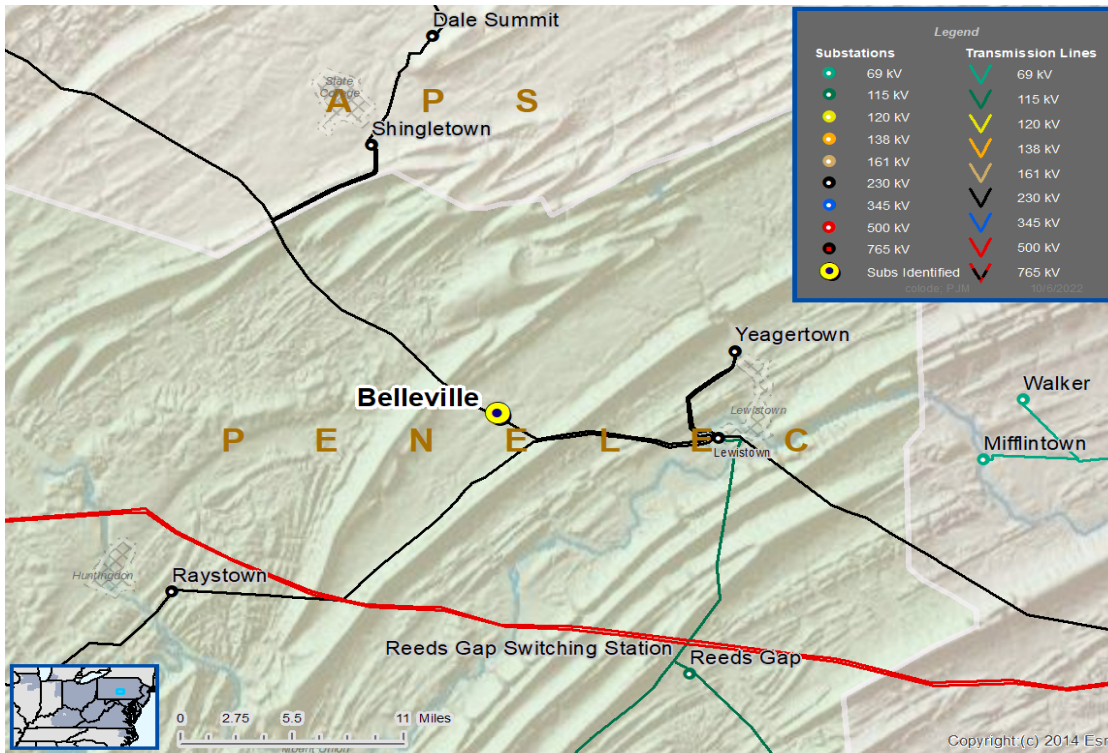


The recommended solution is to rebuild 7.2 miles of the Shade Gap-AE1-071 115 kV line section of the Roxbury-Shade Gap 115 kV line. The existing conductor is 336 ACSR and the proposed upgrade is 1033 ACSR. The estimated cost for this project is \$17.4 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PENELEC, will be designated to complete this work.

**Baseline Project b3754: Belleville Breaker Ring Bus Construction**  
**PENELEC Transmission Zone**

In the 2027 RTEP case, there is a low voltage violation in the Belleville 46 kV vicinity for multiple N-1 contingencies.

**Map 14. b3754 – Belleville Breaker Ring Bus Construction**

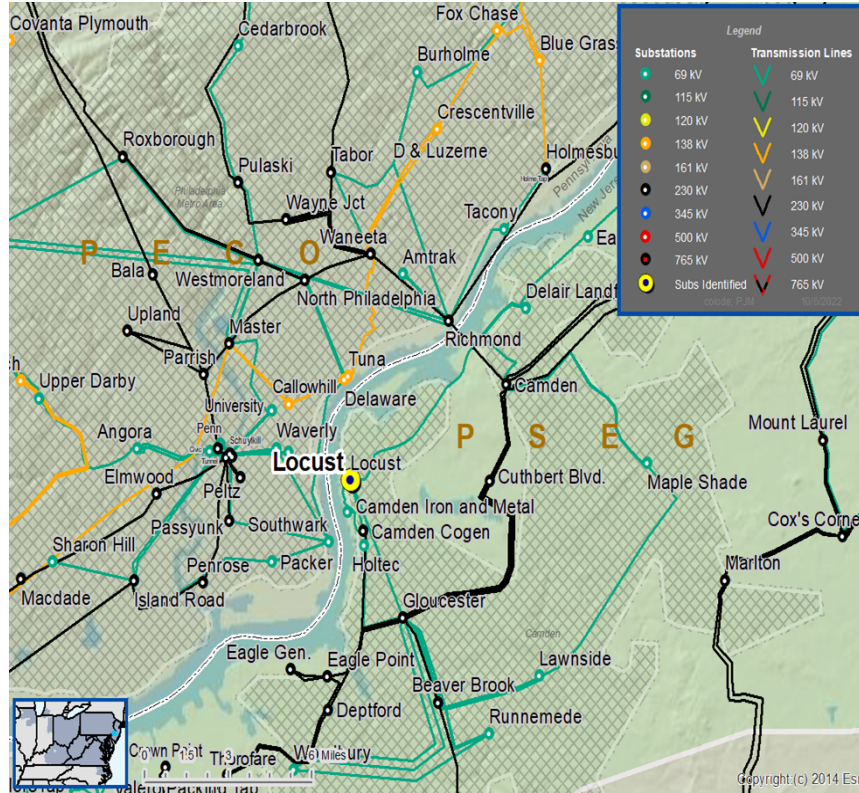


The recommended solution is to construct a new three-breaker ring bus at MacLane Tap to tie into the Warrior Ridge-Belleville 46 kV D line and the 1LK line. The estimated cost for this project is \$10.1 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PENELEC, will be designated to complete this work.

**Baseline Project b3755: Locust Street Conversion**  
**PSEG Transmission Zone**

In the 2027 RTEP case, low voltage and voltage drop violations at Locust 69 kV station for a bus contingency.

**Map 15. b3755 – Locust Street Conversion**

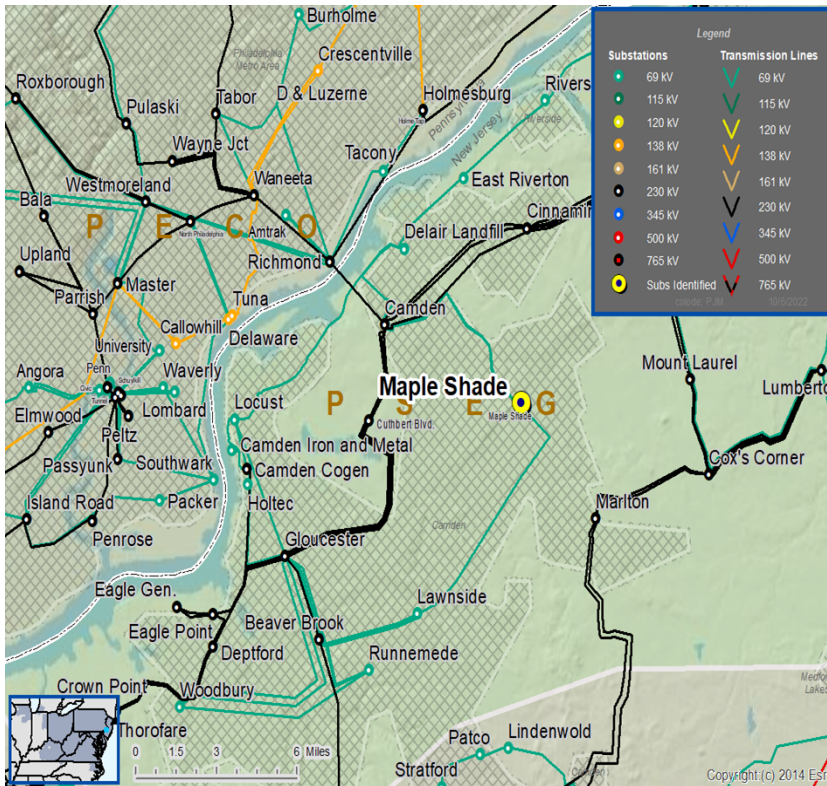


The recommended solution is to convert Locust Street 69 kV from a straight bus to a ring bus. The estimated cost for this project is \$30 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PSEG, will be designated to complete this work.

**Baseline Project b3756: Maple Shade 69 kV Conversion**  
**PSEG Transmission Zone**

In the 2027 RTEP case, voltage drop violation at Maple Shade 69 kV station for multiple line fault stuck breaker contingencies.

**Map 16. b3756 – Maple Shade 69 kV Conversion**

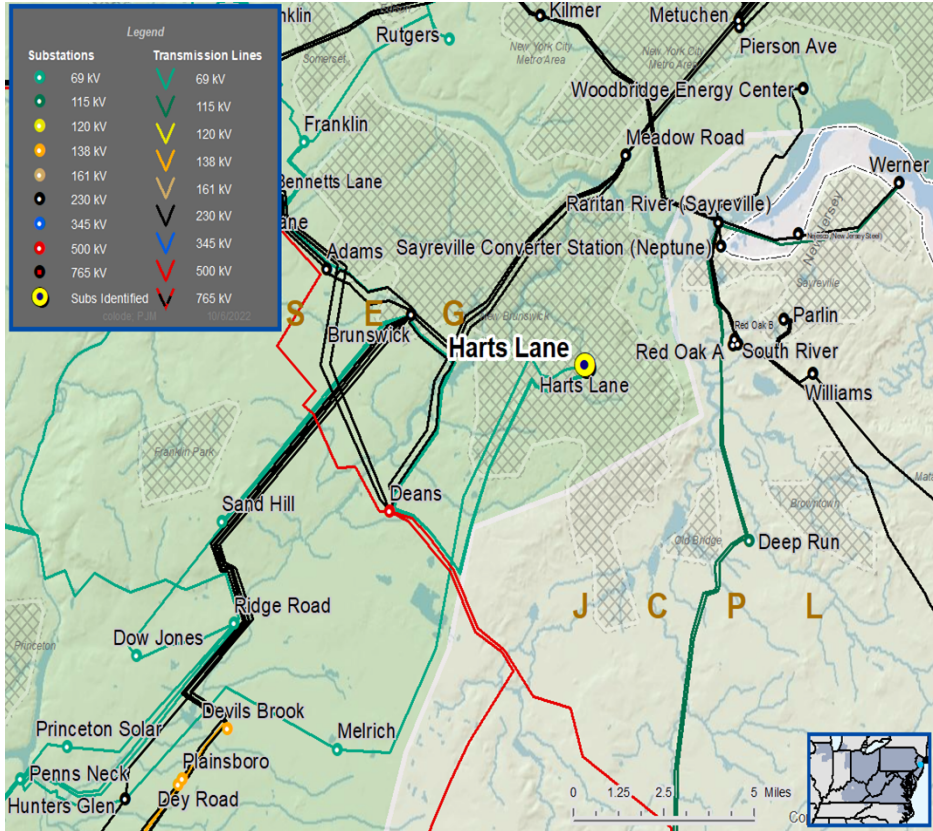


The recommended solution is to convert Maple Shade 69 kV from a straight bus to a ring bus. The estimated cost for this project is \$33.9 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PSEG, will be designated to complete this work.

**Baseline Project b3758: Harts Lane 69 kV Construction**  
**PSEG Transmission Zone**

In the 2027 RTEP case, voltage drop violations at Harts Lane station for several multiple N-1-1 contingencies.

**Map 17. b3758 – Harts Lane 69 kV Construction**



The recommended solution is to construct a new 69 kV line from 14th Street to Harts Lane. The estimated cost for this project is \$34.4 million. This project has a required and projected in-service date of June 2027. The local transmission owner, PSEG, will be designated to complete this work.

**IV. Transmission Owner Criteria Projects**

Of the \$644.72 million of new recommended baseline transmission system enhancements, approximately \$107.77 million is driven by transmission owner planning criteria, which makes up approximately 17% of the new project cost estimates.



## V. Changes to Previously Approved Projects

### *Scope/Cost Changes*

The following scope/cost modifications are recommended:

#### **APS Transmission Zone**

Baseline project b3710 has undergone a scope/cost increase. During 2027 RTEP analysis, it was determined that the topology change caused the new AA2-161 to Charleroi line to be overloaded. The new overload is conductor-limited, and the cost to upgrade 12.8 miles is \$32 million. As a result, the cost-effective solution is to alternatively reconductor Yukon to AA2-161 ckt 1 & 2 while maintaining the existing topology. The cost to upgrade is \$10.64 million. The total cost of the project has decreased from \$14.37 million to \$10.64 million. These changes were reviewed by the Transmission Expansion Advisory Committee (TEAC). Project needs and recommended solutions as discussed in this report were reviewed with stakeholders during 2022, most recently at the December 2022 TEAC meetings. Written comments were requested to be submitted to PJM to communicate any concerns with project recommendations. No comments have been received as of this white paper publication date.

## VI. Cost Allocation

Cost allocations for recommended projects are shown in Attachment A (for allocation to a single zone) and Attachment B (for allocation to multiple zones), Attachment C (for TMEP) and Attachment D (for Multi-Driver Project).

Cost allocations are calculated in accordance with Schedule 12 of the Open Access Transmission Tariff (OATT). Baseline reliability project allocations are calculated using a distribution factor methodology that allocates cost to the load zones that contribute to the loading on the new facility. The allocations will be filed at FERC 30 days following approval by the Board.

## VII. Board Approval

The PJM Reliability and Security Committee is requested to endorse the additions and changes to the RTEP proposed in this white paper and recommends to the full Board for approval the new projects and changes to the existing RTEP projects as detailed in this white paper. The RTEP is published annually on PJM's website.

## Attachment A – Reliability Project Single-Zone Allocations

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3710	Scope Change: During 2027 RTEP analysis, it was determined that the topology change caused the new AA2-161 to Charleroi line to be overloaded. The new overload is conductor limited and the cost to upgrade 12.8 miles is \$32 M. As a result, the cost-effective solution is to alternatively reconductor Yukon to AA2-161 ckt 1 & 2 while maintaining the existing topology. The cost to upgrade is \$10.64 M Expand the future AA2-161 138 kV six (6) breaker ring bus into an eleven (11) breaker substation with a breaker-and-a-half layout by constructing five (5) additional breakers and expanding the bus. Loop the Yukon - Charleroi #2 138 kV line into the future AA2-161 substation. Relocate terminals as necessary at AA2-161. Upgrade terminal equipment (wavetraps, substation conductor) and relays at Yukon, Huntingdon, Springdale, Charleroi, and the AA2-161 substation.	\$10.64	APS	APS	6/1/2026
b3731	Replace 40kV breaker J at McComb station with a new 3000A 40kA breaker	\$0.50	AEP	AEP	6/1/2027
b3732	Install a 6 MVAR, 34.5kV cap bank at Morgan Run station	\$0.37	AEP	AEP	6/1/2027
b3733	Rebuild the 1.8 mile 69kV T-line between Summerhill and Willow Grove Switch. Replace 4/0 ACSR conductor with 556 ACSR.	\$5.10	AEP	AEP	6/1/2027
b3734	Install a 7.7 MVAR, 69kV cap bank at both Otway station and Rosemount station	\$1.73	AEP	AEP	6/1/2027
b3735	Terminate the existing Broadford – Wolf Hills #1 138 kV line into Abingdon 138 kV Station. This line currently bypasses the existing Abingdon 138 kV Station; Install two new 138 kV circuit breakers on each new line exit towards Broadford and towards Wolf Hills #1; Install one new 138 kV circuit breaker on line exit towards South Abingdon for standard bus sectionalizing	\$8.48	AEP	AEP	6/1/2027
b3736.1	Establish 69kV bus and new 69 kV line CB at Dorton substation.	\$1.13	AEP	AEP	12/1/2027
b3736.2	At Breaks substation, reuse 72kV breaker A as the new 69kV line breaker.	\$0.71	AEP	AEP	12/1/2027
b3736.3	Rebuild ~16.7 mi Dorton – Breaks 46kV line to 69kV	\$58.52	AEP	AEP	12/1/2027
b3736.4	Retire ~17.2 mi Cedar Creek – Elwood 46kV circuit.	\$11.15	AEP	AEP	12/1/2027
b3736.5	Retire ~ 6.2 mi Henry Clay – Elwood 46kV line section.	\$4.30	AEP	AEP	12/1/2027

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3736.6	Retire Henry Clay 46 kV substation and replace with Poor Bottom 69 kV station. Install a new 0.7 mi double circuit extension to Poor Bottom 69kV.	\$3.42	AEP	AEP	12/1/2027
b3736.7	<b>Retire Draffin substation and replace with a new substation. Install a new 0.25 mi double circuit extension to New Draffin substation.</b>	<b>\$2.01</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.8	Remote End work at Jenkins substation	\$0.03	AEP	AEP	12/1/2027
b3736.9	<b>Provide Transition fiber to Dorton, Breaks, Poor Bottom, Jenkins and New Draffin substations</b>	<b>\$0.41</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.10	Henry Clay S.S Retirement:	\$0.30	AEP	AEP	12/1/2027
b3736.11	<b>Cedar Creek substation work</b>	<b>\$0.44</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.12	Breaks substation retire 46kV equipment:	\$0.25	AEP	AEP	12/1/2027
b3736.13	<b>Retire Pike 29 SS and Rob Fork SS</b>	<b>\$0.42</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.14	Serve Pike 29 and Rob Fork customers from nearby 34kV Distribution sources.	\$0.00	AEP	AEP	12/1/2027
b3736.15	<b>Poor Bottom substation install</b>	<b>\$0.00</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.16	Henry Clay 46kV substation retirement	\$0.00	AEP	AEP	12/1/2027
b3736.17	<b>New Draffin 69kV substation install</b>	<b>\$0.00</b>	<b>AEP</b>	<b>AEP</b>	<b>12/1/2027</b>
b3736.18	Draffin 46kV substation retirement	\$0.00	AEP	AEP	12/1/2027
b3738	<b>Charleroi - Dry Run 138 kV Line: Replace Limiting Terminal Equipment</b>	<b>\$0.38</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
b3739	Dry Run - Mitchell 138 kV Line: Replace Limiting Terminal Equipment	\$0.40	APS	APS	6/1/2027
b3740	<b>Glen Falls - Bridgeport 138 kV Line: Replace Limiting Terminal Equipment</b>	<b>\$1.88</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
b3741	Yukon - Charleroi No.1 138 kV Line: Replace Limiting Terminal Equipment	\$0.70	APS	APS	6/1/2027
b3742	<b>Yukon - Charleroi No.2 138 kV Line: Replace Limiting Terminal Equipment</b>	<b>\$0.45</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
b3743	At Bedington Substation: Replace substation conductor, wavetrap, CT's and upgrade relaying At Cherry Run Substation: Replace substation conductor, wavetrap, CT's, disconnect switches, circuit breaker and upgrade relaying At Marlowe: Replace substation conductor, wavetrap, CT's and upgrade relaying.	\$4.60	APS	APS	6/1/2027
b3744	<b>Replace one span of 1272 ACSR from Krendale substation to structure 35 (~630 ft) Replace one span of 1272 ACSR from Shanor Manor to structure 21 (~148 ft) Replace 1272 ACSR risers at Krendale &amp; Shanor Manor Substations</b>	<b>\$1.75</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
	<b>Replace 1272 ACSR Substation Conductor at Krendale Substation Replace relaying at Krendale Substation Revise Relay Settings at Butler &amp; Shanor Manor Substations.</b>				
<b>b3745</b>	Carbon Center Substation - Install Redundant Relaying	\$0.57	APS	APS	6/1/2027
<b>b3746</b>	<b>Meadow Brook Substation - Install Redundant Relaying</b>	<b>\$0.21</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
<b>b3747</b>	Bedington Substation - Install Redundant Relaying	\$0.28	APS	APS	6/1/2027
<b>b3749</b>	<b>Rebuild the New Church - Piney Grove 138 kV line</b>	<b>\$63.00</b>	<b>DPL</b>	<b>DPL</b>	<b>6/1/2027</b>
<b>b3750</b>	Upgrade Seward Terminal Equipment of the Seward-Blairsville 115 kV Line to increase the line rating such that the Transmission Line conductor is the limiting component.	\$0.43	PENELEC	PENELEC	6/1/2027
<b>b3751</b>	<b>Rebuild 6.4 miles of the Roxbury - Shade Gap 115 kV line from Roxbury to the AE1-071 115 kV ring bus with single circuit 115 kV construction</b>	<b>\$15.03</b>	<b>PENELEC</b>	<b>PENELEC</b>	<b>6/1/2027</b>
<b>b3752</b>	Rebuild 7.2 miles of the Shade Gap - AE1-071 115 kV line section of the Roxbury - Shade Gap 115 kV line	\$17.43	PENELEC	PENELEC	6/1/2027
<b>b3753</b>	<b>Replace the Tyrone North 115 /46 kV transformer with a new standard 75 MVA top rated bank and upgrade the entire terminal to minimum 100 MVA capability for both SN and SE rating</b>	<b>\$2.82</b>	<b>PENELEC</b>	<b>PENELEC</b>	<b>6/1/2027</b>
<b>b3754</b>	At Maclane tap: Construct a new three breaker ring bus to tie into the Warrior Ridge - Belleville 46 kV D line and the 1LK line	\$10.09	PENELEC	PENELEC	6/1/2027
<b>b3755</b>	<b>Convert Locust Street 69kV from a Straight Bus to a Ring Bus.</b>	<b>\$30.00</b>	<b>PSEG</b>	<b>PSEG</b>	<b>6/1/2027</b>
<b>b3756</b>	Convert Maple Shade 69kV from a Straight Bus to a Ring Bus	\$33.90	PSEG	PSEG	6/1/2027
<b>b3758</b>	<b>Construct a new 69kV line from 14th Street to Harts Lane</b>	<b>\$34.40</b>	<b>PSEG</b>	<b>PSEG</b>	<b>6/1/2027</b>
<b>b3759</b>	Reconductor approximately 10.5 miles of 115kV Line #23 segment from Oak Ridge to AC2-079 Tap to minimum emergency ratings of 393 MVA Summer / 412 MVA Winter	\$23.50	Dominion	Dominion	6/1/2027
<b>b3761</b>	<b>Install 138 kV Breaker on the Ridgway 138/46 kV #2 Transformer</b>	<b>\$1.10</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
<b>b3762</b>	Rebuild EKPC's Fawkes-Duncannon Lane Tap 556.5 ACSR 69 kV line section (7.2 miles) using 795 ACSR.	\$8.50	EKPC	EKPC	12/1/2026
<b>b3763</b>	<b>Replace the Jug Street 138kV breakers M, N, BC, BF, BD, BE, D, H, J, L, BG, BH, BJ, BK with 80KA breakers</b>	<b>\$14.00</b>	<b>AEP</b>	<b>AEP</b>	<b>6/1/2024</b>

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
<b>b3764</b>	Replace the Hyatt 138kV breakers AB1 and AD1 with 63kA breakers	\$2.00	AEP	AEP	6/1/2024
<b>b3765</b>	<b>Purchase one 80 MVAR 345 kV spare reactor, to be located at the Mainesburg station.</b>	<b>\$6.44</b>	<b>PENELEC</b>	<b>PENELEC</b>	<b>12/1/2022</b>
<b>b3766.1</b>	Hayes – New Westville 138 kV line: Build ~0.19 miles of 138 kV line to the Indiana/ Ohio State line to connect to AES's line portion of the Hayes – New Westville 138 kV line with the conductor size 795 ACSR26/7 Drake. The following cost includes the line construction and ROW.	\$0.38	AEP	AEP	6/1/2027
<b>b3766.2</b>	<b>Hayes – Hodgin 138 kV line: Build ~0.05 miles of 138 kV line with the conductor size 795 ACSR26/7 Drake. The following cost includes the line construction, ROW, and fiber.</b>	<b>\$1.22</b>	<b>AEP</b>	<b>AEP</b>	<b>6/1/2027</b>
<b>b3766.3</b>	Hayes 138 kV: Build a new 4-138 kV circuit breaker ring bus. The following cost includes the new station construction, property purchase, metering, station fiber and the College Corner –Randolph 138 kV line connection.	\$7.44	AEP	AEP	6/1/2027
<b>b3766.4</b>	<b>New Westville – AEP Hodgin 138kV Line: Construct a 138kV 1.86-mile single circuit transmission line. This transmission line will help loop the radial load served at New Westville as part of the overall effort to improve reliability in this area. Also, it provides a source to feed New Westville load while the 138kV tie built back into the AES Ohio system</b>	<b>\$3.70</b>	<b>Dayton</b>	<b>Dayton</b>	<b>6/1/2027</b>
<b>b3766.5</b>	New Westville – West Manchester 138kV Line: Construct a new approximate 11-mile single circuit 138kV line from New Westville to the Lewisburg tap off 6656. Convert a portion of 6656 West Manchester – Garage Rd 69kV line between West Manchester - Lewisburg to 138kV operation (circuit is built to 138kV). This will utilize part of the line already built to 138kV and will take place of the 3302 that currently feeds New Westville. The 3302 line will be retired as part of this project.	\$16.00	Dayton	Dayton	6/1/2027
<b>b3766.6</b>	<b>West Manchester Substation: The West Manchester Substation will be expanded to a double bus double breaker design where AES Ohio will install one 138kV circuit breaker, a 138/69kV transformer, and eight new 69kV circuit breakers. These improvements will improve help improve a non-standard bus arrangement where there is only one bus tie today and will improve the switching arrangement for the West Sonora Delivery Point.</b>	<b>\$9.90</b>	<b>Dayton</b>	<b>Dayton</b>	<b>6/1/2027</b>

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
<b>b3768</b>	Rebuild/Reconductor the Germantown - Lincoln 115 kV Line. Approximately 7.6 miles. Upgrade limiting terminal equipment at Lincoln, Germantown and Straban	\$17.36	ME	ME	6/1/2027
<b>b3772</b>	<b>Reconductor 27.3 miles of the Messick Road - Morgan 138 kV Line from 556 ACSR to 954 ACSR. At Messick Road Substation: Replace 138 kV wave trap, circuit breaker, CT's, disconnect switch, and substation conductor and upgrade relaying. At Morgan Substation: Upgrade Relaying</b>	<b>\$49.23</b>	<b>APS</b>	<b>APS</b>	<b>6/1/2027</b>
<b>b3773</b>	McConnellsburg 138 kV Susbtation: Install 33 MVAR switched capacitor, 138 kV Breaker, and associated relaying	\$3.05	APS	APS	6/1/2027
<b>b3774</b>	<b>Upgrade terminal equipment at Brunner Island (on the Brunner Island - Yorkana 230 kV circuit)</b>	<b>\$2.50</b>	<b>PPL</b>	<b>PPL</b>	<b>6/1/2027</b>

## Attachment B – Reliability Project Multi-Zone Allocations

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3769	Install second TMI 500/230kV Transformer with additional 500 and 230 bus expansions	\$30.19	ME	ME (45.74%) / PPL (54.26%)	6/1/2027
b3770	Rebuild 1.4 miles of existing single circuit 230 kV tower line between BGE's Graceton substation to the Brunner Island PPL tie-line at the MD/PA state line to double circuit steel pole line with one (1) circuit installed to uprate 2303 circuit	\$8.40	BGE	BGE (99.98%) / ME (0.01%) / PPL (0.01%)	6/1/2027
b3771	Reconductor two (2) 230 kV circuits from Conastone to Northwest #2	\$37.76	BGE	BGE (70.70%) / PEPCO (29.30%)	6/1/2027

## Attachment C – TMEP Project Cost Allocation

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3760	At Powerton Sub, replace most limiting facility 800A wave trap with 2000A wave trap on the Powerton-Towerline 138kV line terminal	\$0.20	ComEd	AEC(0.93%) / AEP(13.17%) / APS(5.41%) / ATSI(6.91%) / BGE(3.21%) / Dayton(1.80%) / DEOK(2.68%) / DL(1.38%) / Dominion(10.80%) / DPL(1.92%) / ECP(0.14%) / EKPC(1.40%) / HTP(0.12%) / JCPL(2.22%) / ME(1.68%) / Neptune(0.50%) / OVEC(0.02%) / PECO(4.06%) / PENELEC(2.17%) / PEPCO(3.37%) / PPL(3.41%) / PSEG(4.18%) / RE(0.14%) / MISO(28.38%)	6/1/2025

### Attachment D – Multi – Driver Project Cost Allocation

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3775.1	Outside of the Green Acres substation, swap the NIPSCO Green Acre Tap towers from the St. John-Green Acres-Olive 345 kV line to the University Park N-Olive 345 kV line to create a University Park N-Green Acres-Olive and St. John-Olive 345 kV lines.	\$1.98	NEET	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%) /EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd (54.45%) / Dayton (45.55%)	12/1/2026
b3775.2	Reconductor NEET's section of Crete(IN/IL border)-St. John 345 kV line (6.95 miles).	\$1.99	NEET	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%) /EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd (62.41%) / Dayton (37.59%)	12/1/2026
b3775.3	Rebuild ComEd's section of 345 kV double circuit in IL from St. John to Crete (5 miles) with twin bundled 1277 ACAR conductor.	\$16.64	ComEd	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%) /EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd (62.41%) / Dayton (37.59%)	12/1/2026



Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3775.4	Rebuild 12.7 miles of 345 kV double circuit extending from Crete to E. Frankfort with twin bundled 1277 ACAR conductor.	\$42.28	ComEd	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd(100.00%)	12/1/2026
b3775.5	Replace E. Frankfort 345 kV circuit breaker “9-14” with 3150A SF6 circuit breaker.	\$3.27	ComEd	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd(100.00%)	12/1/2026
b3775.6	Perform sag study mitigation work on the Dumont-Stillwell 345 kV line (remove a center-pivot irrigation system from under the line, allowing for the normal and emergency ratings of the line to increase)	\$0.22	AEP	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> AEP (12.38%) / ComEd (87.62%)	12/1/2026

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3775.7	Upgrade the limiting element at Stillwell or Dumont substation to increase the rating of the Stillwell-Dumont 345 kV line to match conductor rating.	\$2.00	AEP	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> AEP (12.38%) / ComEd (87.62%)	12/1/2026
b3775.8	Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing	\$2.00	NIPSCO	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd (62.41%) / Dayton (37.59%)	12/1/2026
b3775.9	Upgrade the existing terminal equipment (substation conductor) at Green Acres on the existing St. John to Green Acres 345 kV line with bundled 2x1590 ACSR Lapwing	\$2.00	NIPSCO	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%)/EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> ComEd (54.45%) / Dayton (45.55%)	12/1/2026

Upgrade ID	Description	Cost Estimate (\$M)	TO	Cost Responsibility	Required In-Service Date
b3775.10	Perform a sag study on the Olive – University Park 345kV line to increase the operating temperature to 225 F. Remediation work includes two tower replacements on the line.	\$1.50	AEP	<b>Market Efficiency Driver: (52.75%)</b> AEC(0.87%) /AEP(24.07%) /APS(3.95%) /BGE(4.30%) /Dayton(3.52%) /DEOK(5.35%) /Dominion(20.09%) /DPL(1.73%) /DL(2.11%) /ECP(0.17%) /EKPC(1.73%) /ATSI(11.04%) /HTP(0.07%) /JCPL(1.98%) /ME(1.63%) /NEPTUNE(0.43%) /OVEC(0.07%) /PECO(3.59%) /PENELEC(1.68%) /PEPCO(3.91%) /PPL(3.64%) /PSEG(3.93%) /RE(0.14%) <b>Reliability Driver (47.25%):</b> AEP (100.00%)	12/1/2026