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

PJM Staff White Paper

PJM Interconnection
November 2025

For Public Use

This page is intentionally left blank

# Contents

# I. Executive Summary

On July 30, 2025, the PJM Board of Managers approved changes to the Regional Transmission Expansion Plan (RTEP), totaling a net increase of $193.2 million for baseline projects to 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 $2.4 million. Scope and cost changes to existing projects will result in a net decrease of $80.8 million. This yields an overall RTEP net decrease of approximately $78.4 million to resolve baseline criteria violations, for which PJM recommended Board approval. PJM is also providing the 2025 annual update of RTEP generation and merchant transmission Network Upgrades in this white paper. New projects with signed Generation Interconnection Agreements (GIAs), project scope changes and project cancellations have resulted in a net increase of $604.4 million for Network Upgrades. Overall, with both baseline projects and Network Upgrades, PJM recommended an RTEP net increase of approximately $526 million. With these changes, RTEP projects will total approximately $58,522.82 million since the first Board approvals in 2000.

PJM sought the Reliability and Security Committee consideration and full Board approval of the RTEP baseline projects summarized in this white paper. On November 18, 2025, 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

PJM recommended baseline projects totaling approximately $2.4 million. The projects are substation equipment upgrades at various substations to address TPL-001-5 P5 contingency violations.

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).

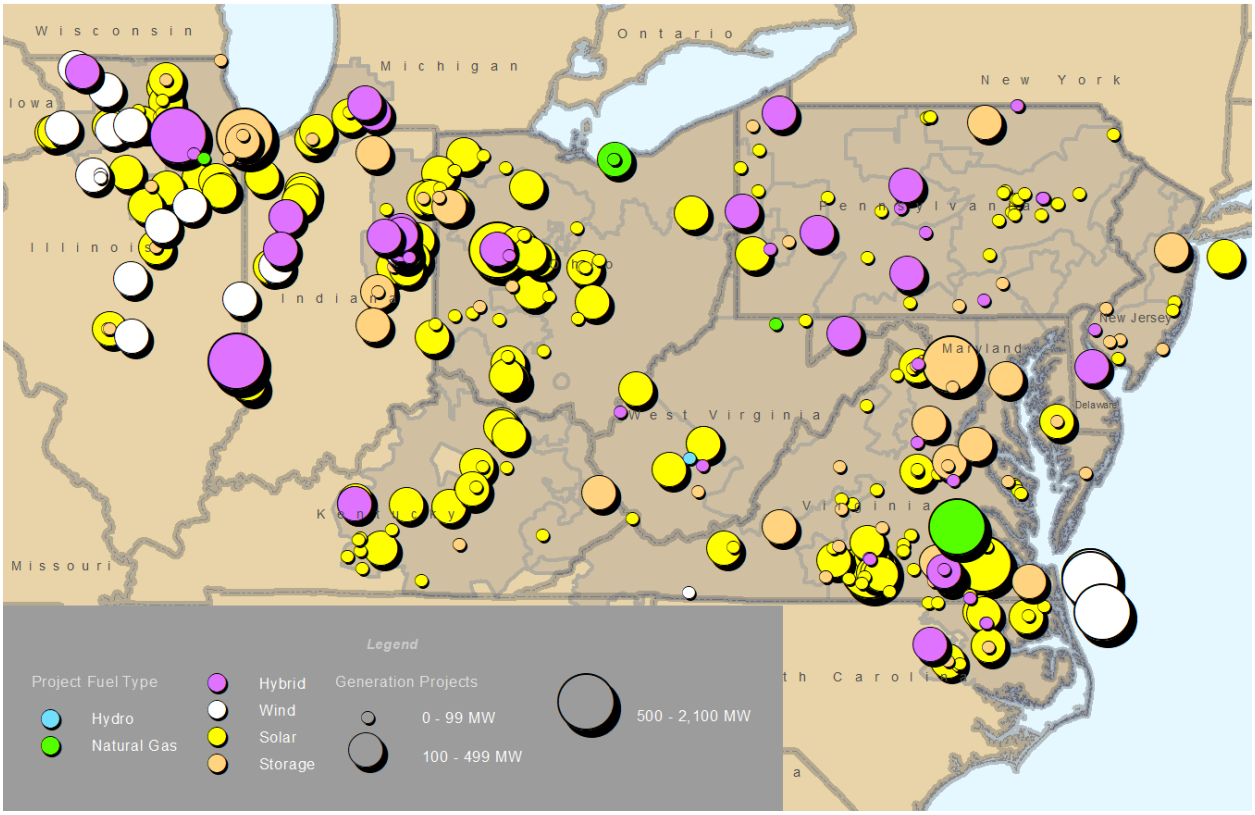
# IV. New Services Queue

Throughout 2025, PJM has continued to study New Service Requests. These studies evaluated the impact of the New Service Request and included an evaluation of new generation interconnections, increases in generation at existing stations, long-term firm transmission service requests and merchant transmission interconnection requests.

These studies were last reviewed with the Board Reliability and Security Committee in February of 2025. Since that time, PJM has completed 398 System Impact Studies, and 522 New Service Requests have withdrawn. New projects

with signed Interconnection Service Agreements (ISAs), project scope changes and project cancellations have resulted in a net increase of $604.4 million for network upgrades. The map below shows the locations of the new units associated with the completed interconnection System Impact Studies along with the fuel type and relative size. A listing of the projects with recently completed System Impact Studies is provided in Attachment C. A listing of the network upgrades associated with these projects is shown in Attachment D. The cost for the network upgrades associated with these interconnection projects is the responsibility of the Project Developer.

**Map 1.** Completed Interconnection System Impact Studies



# V. Changes to Previously Approved Projects

## *Scope/Cost Changes*

The following scope/cost modifications were recommended:

### Project 9A:

- Project 9A is a market efficiency-driven project that was placed in suspension in 2021. The project has both east and west components, and since being placed in suspension, a number of other RTEP projects have been approved and constructed. Some of these projects occupy the same physical location or right-of-way as the 9A-East project. For instance, the 9A-East's Furnace Run-Conastone 230 kV lines are on the same rights-of-way that are now being utilized for the Chanceford-Conastone area 500 kV line and associated developments (2022 Window 3 approved projects). Also, the Chanceford 500 kV station ties into the Peach Bottom-TMI 500 kV line, located in close proximity, and serves similar objectives to 9A-East's Furnace Run 500 kV substation. PJM's most recent reevaluation of project 9A included the 2024 RTEP Window 1 reliability solutions, the 2024 Load Forecast and FirstEnergy's supplemental project s3540.1 (upgrading station equipment downstream of Rice-Ringgold 230 kV line – western portion). The reevaluation results showed that project 9A continues to exceed the 1.25 B/C threshold. Of the three scenarios studied, the scenario with the highest B/C ratio and least cost was the 9A-West only scenario. In July 2025, PJM obtained Board approval to modify the scope of Transource project 9A to retain the western portion and remove the eastern portion of the project, and terminate the project's suspended status and restore the western portion of the project. The scope reduction of removing project 9A-East reduces the project cost from $322 million to $179 million, resulting in a cost decrease of approximately $143 million.

### Project b3333 Buchanan 1 & 2 Deactivation:

The baseline project b3333 is driven by the deactivation of the Buchanan units 1 and 2. The owners of the Buchanan units withdrew their original deactivation request in June 2023. Since then, the units' owners notified PJM in March 2025 of their desire to deactivate again and have now deactivated the units as of July 2025. Due to the delay in deactivation timeline, the original planned new substation land (planned part of the original deactivation studies in 2023) is no longer available and has to be moved to a new location 2.6 miles away, which has resulted in a scope modification for the project. Detailed redlines of the scope change are available in the July 2025 SRRTEP-W Reliability Analysis Update presentation. The main update reflects the new Horn Mountain substation location and consequent revised line upgrades. This scope change results in the cost estimate increasing from $40.2 million to $106.6 million, resulting in a net increase of $66.4 million.

### Broadford 765 kV Circuit Breaker Replacement Cancellation:

The baseline project component b4000.200 (replace circuit breaker Q2 at Broadford 765 kV substation) is being canceled. There was a rating error in the study for the breaker, and with the corrected rating, the breaker replacement is no longer required. This scope reduction results in a net decrease of $4.5 million.

**Bergen Spare Equipment – Series Reactors:**

The original baseline project scope for b3869 was to remove/retire the two Bergen 138 kV series reactors and relocate the Bergen generator No. 1 point of interconnection from Bergen 138 kV to Bergen 345 kV GIS through the existing 345/138 kV transformer. PSE&G's FERC Form 715 criteria did not allow it to buy a spare reactor, which is why the original scope was recommended. However, PSE&G has since changed its FERC Form 715 criteria to allow for the purchase of the spare reactor. The new scope is to replace the two Bergen 138 kV series reactors with two new dry type 138 kV series reactors. The project scope change results in the cost estimate increasing from $12.5 million to $12.8 million, resulting in a net increase of $0.3 million.

All of the changes noted above result in a net RTEP cost decrease of approximately $80.8 million.

## VI. Review by the Transmission Expansion Advisory Committee (TEAC)

The project needs and recommended solutions discussed in this report were reviewed with stakeholders during 2025, most recently at the November 2025 TEAC meeting. In addition to receiving verbal feedback and comments during the relevant meetings, written comments were requested to be submitted to PJM to communicate any concerns with project recommendations.

## VII. 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).

Cost allocations are calculated in accordance with Schedule 12 of the Open Access Transmission Tariff. 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 no later than 30 days following approval by the Board.

## VIII. 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 to recommend to the full Board for approval the new projects and changes to the existing RTEP projects as detailed in this white paper. On November 18, 2025, the Board approved the addition of RTEP baseline projects as well as other changes to the RTEP as summarized in this paper.

# Attachment A – Reliability Project Single-Zone Allocations

| Upgrade ID | Description | Cost Estimate ($M) | Designated Entity / Transmission Owner | Cost Responsibility | Required IS Date |
|---|---|---|---|---|---|
| b3333.14 | Install ~2.6 mi greenfield 69 kV line from greenfield Mount Heron station to the existing Horn Mountain S.S. | 18.02 | AEP | AEP (100.00%) | 6/1/2023 |
| b3869.3 | Replace the two Bergen 138 kV series reactors with two new dry type 138 kV series reactors. | 12.77 | PSEG | PSEG (100.00%) | 12/1/2029 |
| b3936.1 | AEP Zone 2024W1 P5 Solution #1: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP07, 2024-P5-AEP08. | 0.07 | AEP | AEP (100.00%) | 6/1/2029 |
| b3936.2 | AEP Zone 2024W1 P5 Solution #2: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP03, 2024-P5-AEP04. | 0.11 | AEP | AEP (100.00%) | 6/1/2029 |
| b3936.3 | AEP Zone 2024W1 P5 Solution #3: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP09, 2024-P5-AEP10, 2024-P5-AEP11, 2024-P5-AEP12. | 0.08 | AEP | AEP (100.00%) | 6/1/2029 |
| b3936.4 | AEP Zone 2024W1 P5 Solution #4: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP05. | 0.12 | AEP | AEP (100.00%) | 6/1/2029 |
| b3936.5 | AEP Zone 2024W1 P5 Solution #5: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP01. | 0.09 | AEP | AEP (100.00%) | 6/1/2029 |
| b3936.6 | AEP Zone 2024W1 P5 Solution #6: Install battery chargers and associated equipment and upgrade protection equipment at OVEC substation. Addresses the following FGs: 2024-P5-AEP02. | 0.58 | OVEC | AEP (100.00%) | 6/1/2029 |
| b3936.7 | AEP Zone 2024W1 P5 Solution #7: Install battery chargers and associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP06. | 0.15 | AEP | AEP (100.00%) | 6/1/2029 |
| b3937.1 | 2024W1 DVP P5 Solution #1 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP01 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.2 | 2024W1 DVP P5 Solution #2 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP02 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.3 | 2024W1 DVP P5 Solution #3 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP03 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.4 | 2024W1 DVP P5 Solution #4 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP04 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.5 | 2024W1 DVP P5 Solution #5 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP05 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.6 | 2024W1 DVP P5 Solution #6 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP06 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |

| Upgrade ID | Description | Cost Estimate ($M) | Designated Entity / Transmission Owner | Cost Responsibility | Required IS Date |
|---|---|---|---|---|---|
| b3937.7 | 2024W1 DVP P5 Solution #7 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP07 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.8 | 2024W1 DVP P5 Solution #8 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP08 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.9 | 2024W1 DVP P5 Solution #9 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP09 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.10 | 2024W1 DVP P5 Solution #10 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP10 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.11 | 2024W1 DVP P5 Solution #11 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP11 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.12 | 2024W1 DVP P5 Solution #12 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP12 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.13 | 2024W1 DVP P5 Solution #13 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP13 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.14 | 2024W1 DVP P5 Solution #14 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP14 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.15 | 2024W1 DVP P5 Solution #15 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP15 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.16 | 2024W1 DVP P5 Solution #16 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP16 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.17 | 2024W1 DVP P5 Solution #17 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP17 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.18 | 2024W1 DVP P5 Solution #18 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP18 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.19 | 2024W1 DVP P5 Solution #19 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP19 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.20 | 2024W1 DVP P5 Solution #20 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP20 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.21 | 2024W1 DVP P5 Solution #21 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP21 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.22 | 2024W1 DVP P5 Solution #22 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP23 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.23 | 2024W1 DVP P5 Solution #23 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP24 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.24 | 2024W1 DVP P5 Solution #24 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP26 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.25 | 2024W1 DVP P5 Solution #25 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP27 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.26 | 2024W1 DVP P5 Solution #26 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP28 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.27 | 2024W1 DVP P5 Solution #27 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP29 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |

| Upgrade ID | Description | Cost Estimate ($M) | Designated Entity / Transmission Owner | Cost Responsibility | Required IS Date |
|---|---|---|---|---|---|
| b3937.28 | 2024W1 DVP P5 Solution #28 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP30 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.29 | 2024W1 DVP P5 Solution #29 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP31 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.30 | 2024W1 DVP P5 Solution #30 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP32 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.31 | 2024W1 DVP P5 Solution #31 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP33 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.32 | 2024W1 DVP P5 Solution #32 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP34 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.33 | 2024W1 DVP P5 Solution #33 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP35 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.34 | 2024W1 DVP P5 Solution #34 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP36 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.35 | 2024W1 DVP P5 Solution #35 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP37 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.36 | 2024W1 DVP P5 Solution #36 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP38 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.37 | 2024W1 DVP P5 Solution #37 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP39 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.38 | 2024W1 DVP P5 Solution #38 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP40 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3937.39 | 2024W1 DVP P5 Solution #39 – DC Supply Monitoring: Addressing FG # 2024-P5-DVP41 | 0.02 | Dominion | Dominion (100.00%) | 6/1/2029 |
| b3939.1 | 2024W1 PSEG P5 Solution #1 – Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG01 | 0.08 | PSEG | PSEG (100.00%) | 6/1/2029 |
| b3939.2 | 2024W1 PSEG P5 Solution #2 – Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG02 | 0.08 | PSEG | PSEG (100.00%) | 6/1/2029 |
| b3939.3 | 2024W1 PSEG P5 Solution #3 – Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG03 | 0.08 | PSEG | PSEG (100.00%) | 6/1/2029 |
| b3939.4 | 2024W1 PSEG P5 Solution #4 – Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5DYN-PSEG01 | 0.08 | PSEG | PSEG (100.00%) | 6/1/2029 |
| b3939.5 | 2024W1 PSEG P5 Solution #5 – Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5DYN-PSEG02 | 0.08 | PSEG | PSEG (100.00%) | 6/1/2029 |

## Attachment B – Reliability Project Multi-Zone Allocations

None

# Attachment C – Interconnection New Service Requests With System Impact Study Reports Issued

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| PJM-TVA | AI1-218 | LTF | 0.00 | 500.00 |
| AEC | AF1-238 | Storage | 20.00 | 50.00 |
| AEC | AF2-020 | Storage | 8.00 | 20.00 |
| AEC | AF2-020 | Storage | 8.00 | 20.00 |
| AEC | AF2-024 | Storage | 9.60 | 24.00 |
| AEC | AF2-025 | Storage | 8.00 | 20.00 |
| AEC | AG1-001 | Solar | 11.78 | 31.00 |
| AEC | AG1-254 | Solar, Storage | 25.30 | 38.00 |
| AEP | AE2-045 | Solar | 84.28 | 200.00 |
| AEP | AE2-073 | Solar | 21.00 | 50.00 |
| AEP | AE2-160 | Hydro | 30.00 | 51.00 |
| AEP | AE2-160 | Hydro | 30.00 | 51.00 |
| AEP | AE2-276 | Storage | 50.00 | 50.00 |
| AEP | AE2-325 | Storage | 31.32 | 52.20 |
| AEP | AF1-063 | Solar | 19.30 | 30.00 |
| AEP | AF1-071 | Solar | 6.84 | 18.00 |
| AEP | AF1-088 | MTX | 1000.00 | 1000.00 |
| AEP | AF1-118 | Solar, Storage | 268.90 | 350.00 |
| AEP | AF1-119 | Solar, Storage | 140.00 | 200.00 |
| AEP | AF1-148 | Solar, Storage | 95.40 | 159.00 |
| AEP | AF1-161 | Storage | 25.00 | 50.00 |
| AEP | AF1-162 | Storage | 60.00 | 100.00 |
| AEP | AF1-176 | Solar, Storage, Hybrid | 155.68 | 300.00 |
| AEP | AF1-202 | Wind | 34.00 | 200.00 |
| AEP | AF1-204 | Wind | 63.75 | 255.00 |
| AEP | AF1-207 | Solar | 34.00 | 180.00 |
| AEP | AF1-221 | Solar | 25.20 | 180.00 |
| AEP | AF1-223 | Solar | 90.00 | 150.00 |
| AEP | AF1-268 | Solar | 57.10 | 83.00 |
| AEP | AF1-275 | Solar | 30.00 | 50.00 |
| AEP | AF1-323 | Solar | 33.00 | 55.00 |
| AEP | AF2-008 | MTX | 500.00 | 1000.00 |
| AEP | AF2-014 | Solar | 90.00 | 150.00 |
| AEP | AF2-068 | Solar | 90.00 | 150.00 |
| AEP | AF2-078 | Solar, Storage | 120.00 | 200.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| AEP | AF2-083 | Solar | 100.00 | 150.00 |
| AEP | AF2-094 | Solar | 26.40 | 40.00 |
| AEP | AF2-106 | Solar | 90.00 | 150.00 |
| AEP | AF2-107 | Solar | 32.30 | 50.00 |
| AEP | AF2-127 | Solar | 24.90 | 38.00 |
| AEP | AF2-132 | Solar | 180.00 | 300.00 |
| AEP | AF2-133 | Solar | 180.00 | 300.00 |
| AEP | AF2-137 | Solar | 210.00 | 500.00 |
| AEP | AF2-149 | Solar | 32.00 | 80.00 |
| AEP | AF2-162 | Solar | 30.00 | 45.00 |
| AEP | AF2-173 | Solar | 84.00 | 140.00 |
| AEP | AF2-177 | Wind | 26.00 | 200.00 |
| AEP | AF2-191 | Solar | 66.00 | 110.00 |
| AEP | AF2-204 | Solar, Storage | 72.00 | 110.00 |
| AEP | AF2-205 | Solar | 120.00 | 200.00 |
| AEP | AF2-209 | Solar | 19.60 | 140.00 |
| AEP | AF2-224 | Solar | 42.00 | 100.00 |
| AEP | AF2-291 | Solar | 60.00 | 100.00 |
| AEP | AF2-302 | Solar | 12.00 | 20.00 |
| AEP | AF2-335 | Solar | 60.00 | 100.00 |
| AEP | AF2-359 | Solar | 75.00 | 125.00 |
| AEP | AF2-370 | Storage | 20.00 | 0.00 |
| AEP | AF2-371 | Solar | 50.40 | 84.00 |
| AEP | AF2-375 | Solar | 77.76 | 129.60 |
| AEP | AF2-376 | Storage | 20.00 | 50.00 |
| AEP | AF2-377 | Storage | 20.00 | 50.00 |
| AEP | AF2-382 | Solar | 45.00 | 75.00 |
| AEP | AF2-388 | Wind | 35.20 | 200.00 |
| AEP | AF2-389 | Solar | 30.00 | 50.00 |
| AEP | AF2-396 | Solar, Storage, Hybrid | 200.00 | 200.00 |
| AEP | AF2-407 | Storage | 300.00 | 300.00 |
| AEP | AF2-408 | Storage | 80.00 | 80.00 |
| AEP | AF2-440 | Solar | 25.00 | 50.00 |
| AEP | AG1-003 | Solar, Storage | 226.00 | 400.00 |
| AEP | AG1-004 | Storage | 200.00 | 200.00 |
| AEP | AG1-017 | Wind | 2.26 | 12.64 |
| AEP | AG1-022 | Solar | 12.00 | 20.00 |
| AEP | AG1-024 | Solar | 35.70 | 85.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| AEP | AG1-034 | Solar | 53.55 | 127.50 |
| AEP | AG1-047 | Solar | 60.00 | 100.00 |
| AEP | AG1-066 | Solar | 48.00 | 80.00 |
| AEP | AG1-089 | Storage | 12.00 | 30.00 |
| AEP | AG1-091 | Solar | 32.40 | 50.00 |
| AEP | AG1-107 | Solar | 85.70 | 150.00 |
| AEP | AG1-109 | Storage | 25.00 | 0.00 |
| AEP | AG1-124 | Solar | 53.01 | 90.00 |
| AEP | AG1-125 | Solar | 234.90 | 400.00 |
| AEP | AG1-126 | Solar | 234.90 | 400.00 |
| AEP | AG1-136 | Storage | 40.00 | 100.00 |
| AEP | AG1-163 | Solar | 42.00 | 100.00 |
| AEP | AG1-194 | Solar, Storage, Hybrid | 27.00 | 79.00 |
| AEP | AG1-218 | Solar | 150.00 | 250.00 |
| AEP | AG1-222 | Storage | 90.00 | 150.00 |
| AEP | AG1-226 | Solar | 142.00 | 450.00 |
| AEP | AG1-232 | Solar | 81.00 | 135.00 |
| AEP | AG1-237 | Wind | 26.00 | 200.00 |
| AEP | AG1-297 | Storage | 75.00 | 300.00 |
| AEP | AG1-302 | Solar | 180.00 | 300.00 |
| AEP | AG1-311 | Solar, Storage | 69.40 | 99.00 |
| AEP | AG1-324 | Solar, Storage | 27.90 | 39.00 |
| AEP | AG1-349 | Solar | 156.00 | 260.00 |
| AEP | AG1-351 | Solar | 34.80 | 58.00 |
| AEP | AG1-365 | Solar | 60.00 | 100.00 |
| AEP | AG1-366 | Storage | 20.00 | 50.00 |
| AEP | AG1-367 | Solar | 60.00 | 100.00 |
| AEP | AG1-368 | Solar | 60.00 | 100.00 |
| AEP | AG1-369 | Solar | 29.94 | 49.90 |
| AEP | AG1-375 | Solar | 60.00 | 100.00 |
| AEP | AG1-410 | Solar | 180.00 | 300.00 |
| AEP | AG1-411 | Storage | 100.00 | 100.00 |
| AEP | AG1-414 | Solar | 45.00 | 75.00 |
| AEP | AG1-433 | Wind | 17.60 | 100.00 |
| AEP | AG1-436 | Solar | 75.00 | 125.00 |
| AEP | AG1-447 | Storage | 55.00 | 55.00 |
| AEP | AG1-494 | Storage | 20.00 | 50.00 |
| AEP | AG1-508 | Wind | 9.30 | 63.30 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| AEP | AG1-522 | Solar | 180.00 | 300.00 |
| AEP | AG1-523 | Solar | 180.00 | 300.00 |
| AEP | AG1-524 | Solar | 180.00 | 300.00 |
| AEP | AG1-525 | Solar | 180.00 | 300.00 |
| AEP | AG1-528 | Solar | 135.00 | 225.00 |
| AEP | AG1-554 | Solar | 32.70 | 49.99 |
| AEP | AG1-555 | Solar, Storage | 88.40 | 120.00 |
| AEP | AG1-562 | Solar | 150.00 | 250.00 |
| AMPT | AG1-319 | Solar | 39.00 | 65.00 |
| APS | AF1-099 | Solar, Storage, Hybrid | 75.90 | 126.50 |
| APS | AF1-142 | Solar, Storage, Hybrid | 121.44 | 202.40 |
| APS | AF2-114 | Solar | 9.00 | 15.00 |
| APS | AF2-117 | Solar | 46.67 | 70.00 |
| APS | AF2-311 | Solar | 55.00 | 100.00 |
| APS | AF2-316 | Solar | 82.70 | 150.00 |
| APS | AG1-182 | Solar | 65.21 | 100.00 |
| APS | AG1-186 | Storage | 34.79 | 0.00 |
| APS | AG1-233 | Solar | 30.00 | 50.00 |
| APS | AG1-307 | Solar, Storage | 56.00 | 80.00 |
| APS | AG1-363 | Solar, Storage | 220.00 | 300.00 |
| APS | AG1-415 | Solar | 25.00 | 50.00 |
| APS | AG1-514 | Storage | 4.00 | 10.00 |
| APS | AG1-517 | Natural Gas | 50.00 | 50.00 |
| APS | AG1-527 | Solar | 129.00 | 215.00 |
| APS | AG1-533 | Solar | 24.00 | 40.00 |
| ATSI | AF2-004 | Natural Gas | 33.00 | 33.00 |
| ATSI | AF2-005 | Natural Gas | 8.00 | 8.00 |
| ATSI | AF2-126 | Solar | 8.00 | 12.00 |
| ATSI | AF2-321 | Solar | 88.80 | 148.00 |
| ATSI | AG1-039 | Solar | 23.52 | 56.00 |
| ATSI | AG1-054 | Solar | 25.20 | 40.00 |
| ATSI | AG1-239 | Solar | 90.00 | 150.00 |
| ATSI | AG1-489 | Solar, Storage | 145.00 | 175.00 |
| ATSI | AG1-500 | Natural Gas | 385.50 | 406.40 |
| ATSI | AG1-501 | Natural Gas | 10.00 | 11.30 |
| BGE | AG1-104 | Storage | 120.00 | 300.00 |
| ComEd | AE1-070 | Natural Gas | 135.00 | 0.00 |
| ComEd | AE1-114 | Wind | 34.00 | 150.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| ComEd | AE1-172 | Wind | 44.88 | 255.00 |
| ComEd | AE2-173 | Storage | 50.00 | 50.00 |
| ComEd | AE2-223 | Wind | 19.50 | 150.00 |
| ComEd | AE2-261 | Solar | 179.40 | 299.00 |
| ComEd | AE2-321 | Solar | 67.00 | 100.00 |
| ComEd | AE2-341 | Solar | 100.60 | 150.00 |
| ComEd | AF1-030 | Solar | 66.90 | 100.00 |
| ComEd | AF1-048 | Storage | 31.32 | 52.20 |
| ComEd | AF1-090 | Wind | 35.20 | 200.00 |
| ComEd | AF1-200 | MTX | 2035.00 | 2100.00 |
| ComEd | AF1-280 | Solar | 0.00 | 200.00 |
| ComEd | AF1-296 | Wind | 33.60 | 190.89 |
| ComEd | AF1-314 | Wind | 37.20 | 212.00 |
| ComEd | AF1-331 | Solar | 20.00 | 20.00 |
| ComEd | AF2-027 | Storage | 20.00 | 50.00 |
| ComEd | AF2-031 | Storage | 8.00 | 20.00 |
| ComEd | AF2-032 | Solar | 13.60 | 20.00 |
| ComEd | AF2-034 | Solar, Storage, Hybrid | 10.80 | 20.00 |
| ComEd | AF2-041 | Solar | 180.00 | 300.00 |
| ComEd | AF2-069 | Wind | 1.98 | 8.40 |
| ComEd | AF2-070 | Wind | 3.10 | 18.15 |
| ComEd | AF2-095 | Solar | 86.40 | 144.00 |
| ComEd | AF2-096 | Solar | 180.00 | 300.00 |
| ComEd | AF2-142 | Solar | 90.00 | 150.00 |
| ComEd | AF2-143 | Solar | 90.00 | 150.00 |
| ComEd | AF2-182 | Solar | 0.00 | 300.00 |
| ComEd | AF2-199 | Solar | 60.00 | 100.00 |
| ComEd | AF2-200 | Solar | 120.00 | 200.00 |
| ComEd | AF2-201 | Wind, Solar, Hybrid | 51.40 | 199.00 |
| ComEd | AF2-225 | Solar | 63.00 | 150.00 |
| ComEd | AF2-226 | Storage | 20.00 | 50.00 |
| ComEd | AF2-252 | Storage | 20.00 | 50.00 |
| ComEd | AF2-319 | Storage | 20.00 | 50.00 |
| ComEd | AF2-329 | Storage | 42.20 | 42.20 |
| ComEd | AF2-349 | Solar | 0.00 | 300.00 |
| ComEd | AF2-350 | Solar | 60.00 | 100.00 |
| ComEd | AF2-352 | Storage | 20.00 | 50.00 |
| ComEd | AF2-363 | Solar | 48.84 | 81.40 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| ComEd | AF2-366 | Solar | 56.94 | 94.90 |
| ComEd | AF2-392 | Wind | 35.20 | 199.00 |
| ComEd | AF2-393 | Storage | 55.00 | 60.00 |
| ComEd | AF2-394 | Storage | 40.00 | 40.00 |
| ComEd | AF2-441 | Storage | 80.00 | 200.00 |
| ComEd | AG1-005 | Solar | 120.00 | 200.00 |
| ComEd | AG1-118 | Solar | 180.00 | 300.00 |
| ComEd | AG1-120 | Solar | 71.16 | 118.60 |
| ComEd | AG1-127 | Solar | 57.10 | 95.10 |
| ComEd | AG1-236 | Wind | 23.40 | 180.00 |
| ComEd | AG1-298 | Storage | 500.00 | 500.00 |
| ComEd | AG1-374 | Solar | 180.00 | 300.00 |
| ComEd | AG1-434 | Wind | 35.20 | 175.00 |
| ComEd | AG1-435 | Wind | 35.20 | 150.00 |
| ComEd | AG1-460 | Storage | 12.00 | 30.00 |
| ComEd | AG1-462 | Solar | 153.00 | 255.00 |
| ComEd | AG1-512 | Storage | 16.00 | 40.00 |
| ComEd | AG1-553 | Solar | 0.00 | 260.00 |
| Dayton | AE1-092 | Solar | 96.40 | 206.60 |
| Dayton | AE2-305 | Solar | 46.80 | 78.00 |
| Dayton | AF1-053 | Storage | 16.00 | 40.00 |
| Dayton | AF1-054 | Solar | 23.10 | 38.50 |
| Dayton | AF1-282 | Solar | 60.00 | 100.00 |
| Dayton | AF1-283 | Solar | 78.00 | 130.00 |
| Dayton | AF2-066 | Solar | 48.00 | 80.00 |
| Dayton | AF2-298 | Solar | 29.90 | 49.90 |
| Dayton | AG1-207 | Storage | 85.00 | 85.00 |
| Dayton | AG1-231 | Solar | 12.00 | 20.00 |
| Dayton | AG1-323 | Solar, Storage, Hybrid | 40.00 | 40.00 |
| DL | AF2-384 | Solar, Storage | 20.00 | 20.00 |
| DL | AG1-485 | Storage | 55.00 | 55.00 |
| Dominion | AE1-148 | Solar | 54.00 | 90.00 |
| Dominion | AE1-173 | Solar | 480.00 | 800.00 |
| Dominion | AE2-094 | Solar, Storage | 207.20 | 300.00 |
| Dominion | AE2-122 | Offshore Wind | 158.90 | 800.10 |
| Dominion | AE2-147 | Solar | 90.00 | 150.00 |
| Dominion | AE2-156 | Storage | 100.00 | 100.00 |
| Dominion | AE2-185 | Solar | 36.00 | 60.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| Dominion | AE2-187 | Solar | 36.00 | 60.00 |
| Dominion | AE2-231 | Solar | 26.40 | 44.00 |
| Dominion | AE2-250 | Solar | 54.00 | 82.50 |
| Dominion | AE2-283 | Solar | 28.00 | 53.00 |
| Dominion | AE2-291 | Solar | 61.20 | 102.00 |
| Dominion | AE2-313 | Solar | 188.40 | 314.00 |
| Dominion | AF1-069 | Solar, Storage | 67.70 | 94.00 |
| Dominion | AF1-123 | Offshore Wind | 253.20 | 833.00 |
| Dominion | AF1-124 | Offshore Wind | 254.10 | 836.00 |
| Dominion | AF1-125 | Offshore Wind | 249.30 | 820.00 |
| Dominion | AF1-128 | Natural Gas | 569.00 | 569.00 |
| Dominion | AF1-152 | Solar | 30.00 | 50.00 |
| Dominion | AF1-294 | Solar | 22.20 | 41.00 |
| Dominion | AF2-013 | Storage | 100.00 | 100.00 |
| Dominion | AF2-035 | Solar | 48.00 | 72.00 |
| Dominion | AF2-037 | Solar | 56.40 | 94.00 |
| Dominion | AF2-042 | Solar | 300.00 | 500.00 |
| Dominion | AF2-046 | Solar | 83.70 | 126.00 |
| Dominion | AF2-063 | Solar | 90.00 | 150.00 |
| Dominion | AF2-080 | Solar | 48.50 | 70.00 |
| Dominion | AF2-081 | Solar | 56.00 | 80.00 |
| Dominion | AF2-091 | Solar | 14.28 | 34.00 |
| Dominion | AF2-115 | Solar | 13.50 | 25.00 |
| Dominion | AF2-120 | Solar | 37.20 | 62.00 |
| Dominion | AF2-171 | Solar | 90.00 | 150.00 |
| Dominion | AF2-222 | Solar | 100.00 | 167.00 |
| Dominion | AF2-297 | Solar | 48.00 | 80.00 |
| Dominion | AF2-299 | Solar | 10.80 | 18.00 |
| Dominion | AF2-300 | Solar | 12.00 | 20.00 |
| Dominion | AF2-303 | Solar, Storage | 100.00 | 100.00 |
| Dominion | AF2-304 | Solar, Storage | 89.00 | 89.00 |
| Dominion | AF2-324 | Solar | 45.00 | 75.00 |
| Dominion | AF2-403 | Storage | 8.00 | 0.00 |
| Dominion | AF2-404 | Storage | 0.00 | 0.00 |
| Dominion | AG1-007 | Solar | 6.00 | 9.40 |
| Dominion | AG1-008 | Solar | 83.70 | 126.00 |
| Dominion | AG1-021 | Solar | 10.80 | 20.00 |
| Dominion | AG1-038 | Solar | 18.90 | 45.00 |
| Dominion | AG1-075 | Solar | 93.20 | 150.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| Dominion | AG1-082 | Solar, Storage, Hybrid | 12.00 | 20.00 |
| Dominion | AG1-083 | Solar, Storage, Hybrid | 12.00 | 20.00 |
| Dominion | AG1-098 | Solar | 64.20 | 107.00 |
| Dominion | AG1-105 | Solar | 54.00 | 90.00 |
| Dominion | AG1-106 | Solar | 16.00 | 23.00 |
| Dominion | AG1-135 | Solar | 36.00 | 60.00 |
| Dominion | AG1-146 | Solar | 18.00 | 30.00 |
| Dominion | AG1-147 | Solar | 42.00 | 70.00 |
| Dominion | AG1-152 | Storage | 40.00 | 100.00 |
| Dominion | AG1-153 | Storage | 30.00 | 75.00 |
| Dominion | AG1-154 | Storage | 20.00 | 50.00 |
| Dominion | AG1-166 | Solar | 6.00 | 20.00 |
| Dominion | AG1-167 | Solar | 4.50 | 15.00 |
| Dominion | AG1-168 | Solar | 4.50 | 15.00 |
| Dominion | AG1-169 | Solar | 4.50 | 15.00 |
| Dominion | AG1-170 | Solar | 3.00 | 10.00 |
| Dominion | AG1-171 | Solar | 12.00 | 20.00 |
| Dominion | AG1-172 | Solar | 12.00 | 20.00 |
| Dominion | AG1-173 | Solar | 12.00 | 20.00 |
| Dominion | AG1-221 | Storage | 20.00 | 50.00 |
| Dominion | AG1-272 | Solar, Storage, Hybrid | 6.00 | 20.00 |
| Dominion | AG1-273 | Solar, Storage, Hybrid | 6.00 | 20.00 |
| Dominion | AG1-274 | Solar, Storage, Hybrid | 6.00 | 20.00 |
| Dominion | AG1-285 | Solar | 75.00 | 125.00 |
| Dominion | AG1-305 | Solar | 37.80 | 63.00 |
| Dominion | AG1-342 | Solar | 21.60 | 36.00 |
| Dominion | AG1-343 | Solar, Storage, Hybrid | 35.00 | 62.50 |
| Dominion | AG1-346 | Solar | 12.00 | 20.00 |
| Dominion | AG1-384 | Solar, Storage, Hybrid | 6.00 | 20.00 |
| Dominion | AG1-393 | Solar | 12.00 | 20.00 |
| Dominion | AG1-394 | Solar | 5.00 | 14.20 |
| Dominion | AG1-412 | Storage | 80.00 | 200.00 |
| Dominion | AG1-427 | Solar | 71.14 | 118.56 |
| Dominion | AG1-428 | Solar | 28.08 | 46.80 |
| Dominion | AG1-437 | Solar | 60.00 | 100.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| Dominion | AG1-438 | Solar | 60.00 | 100.00 |
| Dominion | AG1-439 | Solar | 150.00 | 250.00 |
| Dominion | AG1-442 | Storage | 35.00 | 35.00 |
| Dominion | AG1-443 | Storage | 35.00 | 35.00 |
| Dominion | AG1-444 | Storage | 80.00 | 80.00 |
| Dominion | AG1-449 | Storage | 122.00 | 122.00 |
| Dominion | AG1-451 | Storage | 20.00 | 20.00 |
| Dominion | AG1-502 | Solar, Storage, Hybrid | 64.00 | 80.00 |
| Dominion | AG1-502 | Solar, Storage | 64.00 | 80.00 |
| Dominion | AG1-503 | Solar, Storage, Hybrid | 16.00 | 20.00 |
| Dominion | AG1-503 | Solar, Storage | 16.00 | 20.00 |
| Dominion | AG1-536 | Storage | 32.00 | 75.00 |
| Dominion | AG1-537 | Storage | 32.00 | 75.00 |
| Dominion | AG1-551 | Solar | 13.10 | 19.99 |
| Dominion | AG1-552 | Solar | 12.20 | 18.00 |
| Dominion | AG1-559 | Solar, Storage | 13.30 | 20.00 |
| DPL | AF1-231 | Storage | 7.60 | 19.00 |
| DPL | AF2-358 | Solar | 60.00 | 100.00 |
| DPL | AG1-450 | Storage | 25.00 | 25.00 |
| DPL | AG1-497 | Solar, Storage, Hybrid | 84.00 | 120.00 |
| EKPC | AE1-246 | Solar | 57.20 | 85.00 |
| EKPC | AE2-138 | Solar | 20.80 | 260.00 |
| EKPC | AE2-210 | Solar | 7.20 | 90.00 |
| EKPC | AE2-275 | Solar | 7.20 | 90.00 |
| EKPC | AE2-308 | Solar | 60.00 | 100.00 |
| EKPC | AF1-116 | Solar | 72.00 | 120.00 |
| EKPC | AF1-233 | Solar | 113.10 | 188.50 |
| EKPC | AF2-090 | Solar | 73.60 | 110.00 |
| EKPC | AF2-111 | Solar | 150.00 | 250.00 |
| EKPC | AF2-260 | Solar | 53.00 | 85.00 |
| EKPC | AF2-307 | Solar | 39.60 | 64.20 |
| EKPC | AF2-308 | Storage | 28.00 | 28.00 |
| EKPC | AF2-309 | Solar | 42.00 | 70.00 |
| EKPC | AF2-348 | Solar | 150.00 | 250.00 |
| EKPC | AF2-355 | Solar | 135.00 | 225.00 |
| EKPC | AF2-365 | Solar | 30.00 | 50.00 |
| EKPC | AF2-391 | Solar, Storage | 72.00 | 120.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| EKPC | AG1-067 | Solar | 24.80 | 38.00 |
| EKPC | AG1-070 | Solar | 32.70 | 45.00 |
| EKPC | AG1-071 | Solar | 37.50 | 55.00 |
| EKPC | AG1-320 | Solar | 54.80 | 82.00 |
| EKPC | AG1-341 | Solar, Storage | 63.60 | 106.00 |
| EKPC | AG1-353 | Solar | 58.80 | 98.00 |
| EKPC | AG1-354 | Solar | 90.00 | 150.00 |
| EKPC | AG1-405 | Solar | 34.20 | 57.00 |
| EKPC | AG1-406 | Storage | 22.00 | 22.00 |
| EKPC | AG1-471 | Solar | 32.40 | 54.00 |
| EKPC | AG1-526 | Solar | 133.20 | 222.00 |
| JCPL | AF2-413 | Storage | 250.00 | 250.00 |
| JCPL | AG1-188 | Solar | 8.32 | 19.80 |
| JCPL | AG1-189 | Solar | 5.10 | 12.00 |
| ME | AG1-052 | Storage | 20.00 | 20.00 |
| ME | AG1-482 | Solar, Storage | 20.00 | 20.00 |
| ME | AG1-486 | Storage | 15.00 | 15.00 |
| OVEC | AF2-124 | Solar | 50.40 | 120.00 |
| PENELEC | AF1-106 | Storage, Solar | 20.00 | 20.00 |
| PENELEC | AF1-240 | Solar | 11.00 | 15.75 |
| PENELEC | AF2-010 | Solar | 46.00 | 77.00 |
| PENELEC | AF2-050 | Solar | 30.00 | 50.00 |
| PENELEC | AF2-296 | Solar | 12.00 | 20.00 |
| PENELEC | AF2-405 | Storage | 10.00 | 10.00 |
| PENELEC | AF2-412 | Storage | 100.00 | 100.00 |
| PENELEC | AG1-090 | Solar, Storage, Hybrid | 30.00 | 95.00 |
| PENELEC | AG1-303 | Solar | 26.40 | 44.00 |
| PENELEC | AG1-377 | Solar | 6.00 | 20.00 |
| PENELEC | AG1-378 | Solar | 6.00 | 20.00 |
| PENELEC | AG1-392 | Solar | 18.00 | 30.00 |
| PENELEC | AG1-392A | Solar | 18.00 | 30.00 |
| PENELEC | AG1-392B | Solar | 9.00 | 15.00 |
| PENELEC | AG1-392C | Solar | 9.00 | 15.00 |
| PENELEC | AG1-455 | Storage | 35.00 | 35.00 |
| PENELEC | AG1-473 | Solar, Storage, Hybrid | 32.34 | 53.90 |
| PENELEC | AG1-548 | Solar, Storage, Hybrid | 45.00 | 150.00 |
| PENELEC | AG1-549 | Solar, Storage, Hybrid | 85.00 | 100.00 |

| Transmission Owner | Queue Position | Fuel Type | MW Capacity (FTIR/FTWR) | MW Energy (nFTIR/nFTWR) |
|---|---|---|---|---|
| PEPCO | AG1-483 | Storage | 500.00 | 500.00 |
| PPL | AF2-056 | Solar | 33.00 | 50.00 |
| PPL | AF2-082 | Solar | 33.00 | 55.00 |
| PPL | AF2-086 | Solar | 11.80 | 19.60 |
| PPL | AF2-331 | Solar | 30.00 | 50.00 |
| PPL | AF2-332 | Solar | 30.00 | 50.00 |
| PPL | AF2-333 | Solar | 12.00 | 20.00 |
| PPL | AF2-334 | Solar | 12.00 | 20.00 |
| PPL | AF2-417 | Solar | 12.00 | 20.00 |
| PPL | AF2-421 | Solar | 12.00 | 20.00 |
| PPL | AF2-424 | Solar | 12.00 | 20.00 |
| PPL | AF2-425 | Solar | 12.00 | 20.00 |
| PPL | AF2-433 | Solar | 12.00 | 20.00 |
| PPL | AF2-434 | Solar | 12.00 | 20.00 |
| PPL | AF2-444 | Solar | 11.80 | 19.80 |
| PPL | AG1-156 | Solar | 39.50 | 60.00 |
| PPL | AG1-164 | Solar | 12.00 | 20.00 |
| PPL | AG1-165 | Solar | 12.00 | 20.00 |
| PPL | AG1-259 | Solar | 6.70 | 15.90 |
| PPL | AG1-259 | Solar | 6.70 | 15.90 |
| PPL | AG1-260 | Solar | 6.70 | 15.90 |
| PPL | AG1-260 | Solar | 6.70 | 15.90 |
| PPL | AG1-277 | Solar, Storage, Hybrid | 32.00 | 40.00 |
| PPL | AG1-278 | Solar, Storage, Hybrid | 15.42 | 20.00 |
| PPL | AG1-279 | Solar, Storage, Hybrid | 15.42 | 20.00 |

# Attachment D – Interconnection Network Upgrades

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n0629 | Sewaren - Woodbridge "O" - Reconductor Circuit - Upgrade 230 kV line | 11.100 | 7/1/2009 |
| n0636.2 | Portland - replace Terminal Equipment - upgrade 230 kV 1 CT, 1 CB and 1 line trap | 1.040 | 7/1/2009 |
| n0645.1 | Whippany - Roseland - upgrade 230 kV of JCPL side (rebuild circuit) | 11.910 | 7/1/2009 |
| n0657 | Atlantic - Larrabee - upgrade 230 kV reconductor circuit | 6.320 | 7/1/2009 |
| n0666.1 | Hudson - 230 kV substation upgrade | 31.200 | 7/1/2009 |
| n0666.10 | Hudson - Replace 230 kV breaker 4HB, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.11 | Hudson - Replace 230 kV breaker 1HA, upgrade with 80 kA (cost differential from 63 to 80 kA) | 0.000 | 7/1/2009 |
| n0666.12 | Hudson - Replace 230 kV breaker 1HC, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.13 | Hudson - Replace 230 kV breaker 1HA, upgrade with 80 kA (cost differential from 63 to 80 kA) | 0.000 | 7/1/2009 |
| n0666.2 | Hudson - Replace 230 kV breaker 2HC, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.3 | Hudson - Replace 230 kV breaker 2HA, upgrade with 80 kA (cost differential from 63 to 80 kA) | 0.000 | 7/1/2009 |
| n0666.4 | Hudson - Replace 230 kV breaker 3HA, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.5 | Hudson - Replace 230 kV breaker 1HB, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.6 | Hudson - Replace 230 kV breaker 4HA, upgrade with 80 kA (cost differential from 63 to 80 kA) | 0.000 | 7/1/2009 |
| n0666.7 | Hudson - Replace 230 kV breaker 4HC, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0666.8 | Hudson - Replace 230 kV breaker 3HB, upgrade with 80 kA (cost differential from 63 to 80 kA) | 0.000 | 7/1/2009 |
| n0666.9 | Hudson - Replace 230 kV breaker 3HC, upgrade with 80 kA | 0.000 | 7/1/2009 |
| n0985 | Replace Athenia 230 kV breaker 21H | 1.500 | 7/1/2009 |
| n0986 | Replace Athenia 230 kV breaker 11H | 1.500 | 7/1/2009 |
| n0987 | Replace Athenia 230 kV breaker 51H | 1.500 | 7/1/2009 |
| n0988 | Replace Athenia 138 kV breaker 2BH | 1.500 | 7/1/2009 |
| n1035 | Athenia - Bergen - build new 230 kV Parallel Circuit | 129.190 | 6/1/2010 |
| n1236 | Essex34 - Replace 230 kV Breaker 4LM with 80 kA Symmetrical Breaker | 1.500 | 6/1/2010 |
| n1246 | Expansion to Bluff Point station to include four 138 kV breakers in a ring bus configuration, relaying, SCADA, and associated equipment. | 4.310 | 10/31/2011 |
| n1246.1 | Line work to reroute the College Corner - Jay 138 kV line into Bluff Point station. One span of 138 kV conductor out terminating on interconnection customer's first pole outside of AEP's Bluff Point station. continued in notes. | 0.440 | 10/31/2011 |
| n1246.2 | 138 kV primary and back-up metering to be installed in the expanded Bluff Point yard and transformer relaying replacement at the Bluff Point station. | 0.370 | 10/31/2011 |
| n1325 | Doubs - Install redundant channel transfer trip carrier equipment on the Bismark (Mt. Storm) 500 kV terminal | 0.061 | 12/31/2010 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n1397 | Rhodes Lane - Construct a one span 2-2032 ACSR 500 kV loop line from the existing Yukon-Browns Run (Hatfield) line at approximately 2.8 miles from substation to new switching station | 5.600 | 6/1/2011 |
| n1398 | Yukon - Upgrade the relaying for the Rhodes Lane terminal and install fiber optic cable from the 500 kV line dead-end structure to the control building | 0.200 | 6/1/2011 |
| n1571 | T94 Cook-Palesades - Construct new 345 kV Switching Station connecting to the Cooks - Palisades circuits, including 5-345 kV CB, Relays, metering, SCADA and associated equipment | 2.000 | 3/1/2010 |
| n1572 | Cook - Upgrade line relaying with AEP standard relay package of 345 kV station on Cook-Palisades circuit | 0.100 | 3/1/2010 |
| n1865 | Front Royal - Construct loop in line 508 to a new 3-breaker ring bus substation | 7.310 | 4/15/2015 |
| n1866 | Meadow Brook - Install dual primary relays | 0.040 | 4/15/2015 |
| n2085 | Woodville - Install 42.31 MVAR capacitors in substation from the MVAR deficiency at Bever Valley | 2.330 | 11/1/2012 |
| n2143 | Install anti-islanding (transfer trip) facilities at Taneytown 2 substation. | 0.260 | 12/1/2011 |
| n2146 | Expand Frostburg#1 substation. Extend 138 kV bus, install 1-138 kV breaker, 3-138 kV disconnect switches, 138 kV metering, arresters, line traps and CVTIs. | 1.553 | 12/1/2010 |
| n3285.1 | Replace existing Ox wave trap with 4000 A. | 0.917 | 6/1/2015 |
| n3285.2 | Replace existing Bristers wave trap with 4000 A. | 0.053 | 6/1/2015 |
| n3287 | Install Breaker and a half interconnection substation for Brunswick Generator X2-076 and loop in and out line 570. | 13.315 | 6/1/2015 |
| n3289 | Rawlings - Install three breaker ring bus substation on line 556 | 8.626 | 6/1/2015 |
| n3290 | X2-076 - Add new 500 kV transmission line between line 570 and 556. | 64.729 | 6/1/2015 |
| n3292 | Carson - Rearrange substation to separate line 556 and 570 from the same breaker bay. | 4.832 | 6/1/2015 |
| n3301 | Essex 230 kV Three Breaker Bay Expansion less one breaker | 7.000 | 12/31/2015 |
| n3316 | Replace two 500 kV shield wires between Yukon sub and Rhodes Lane switching station with OPGW | 0.400 | 6/1/2011 |
| n3317 | Hatfield - Revise/upgrade relay equipment | 0.600 | 6/1/2011 |
| n3356.17 | North Anna - Replace existing wave trap with 4000 A | 0.120 | 12/1/2015 |
| n3454.1 | Loudoun - Upgrade breakers L152, L252 with 63 kA breaker | 0.630 | 6/1/2016 |
| n3454.2 | Loudoun - Upgrade breakers L152, L252 with 63 kA breaker | 0.630 | 6/1/2016 |
| n3457.1 | Pleasant View - Upgrade breakers H1T274 (274T2098), SC322 & H1T201 (201T2098) with 63 kA breaker | 0.960 | 6/1/2016 |
| n3457.2 | Pleasant View - Upgrade breakers H1T274 (274T2098), SC322 & H1T201 (201T2098) with 63 kA breaker | 0.960 | 6/1/2016 |
| n3457.3 | Pleasant View - Upgrade breakers H1T274 (274T2098), SC322 & H1T201 (201T2098) with 63 kA breaker | 0.960 | 6/1/2016 |
| n3487 | Install a new 5 breaker North Keys Area Road sub. | 2.700 | 6/1/2016 |
| n3488 | Connect Pepco 5071 line into new 500 kV North Keys Area Road sub | 3.000 | 6/1/2016 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n3508 | Replace the Ridgeley 'A' 34.5 kV breaker | 0.100 | 10/31/2010 |
| n3562 | Rebuild the Lackawanna-Peckville 230 kV line (3.0 miles), the first 0.6 miles of the Blooming Grove-Peckville 230 kV line and a new 0.7-mile 230 kV line using double bundled 1590 ACSR | 14.050 | 6/1/2017 |
| n3563 | Install one new 3000A, 230 kV circuit breaker, and upgrade equipment in Bay 4 of the Lackawanna 230 kV substation to a rating of 3000A. | 3.870 | 6/1/2017 |
| n3575 | Install new 500 kV gas-insulated line between the Sunbury 500 kV substation and the new X2-025 interconnection facility. | 7.080 | 10/31/2015 |
| n3576 | Install fourth bay to the double breaker Sunbury 500 kV substation to connect the line from the X2-025 interconnection facility. | 1.980 | 10/31/2015 |
| n3645 | Rock Springs - Engineering and design related activities associated with relocating one H-frame structure and re-positioning another H-frame structure and the future generator disconnect in the Rock Springs 500 kV substation. | 0.870 | 6/1/2017 |
| n3646 | Rock Springs - Engineering and design related activities associated with upgrading bus differential protection relays. | 0.050 | 6/1/2017 |
| n3655 | Y1-033 - Install 115 kV three position ring bus interconnect substation. | 4.100 | 12/31/2014 |
| n3656 | Y1-033 - Connect Penn Mar - Deep Creek line into new 115 kV Y1-033 substation. | 0.240 | 12/31/2014 |
| n3657 | Penn Mar - Replace relaying on 115 kV Y1-033 (former Rockwood) line to accommodate new fiber connection. | 0.160 | 12/31/2014 |
| n3658 | Rockwood - Install new wave trap, CVT, tuner, DCB relaying, TT relaying, and line relaying on 115 kV Y1-033 (former Penn Mar) line. | 0.360 | 12/31/2014 |
| n3659 | Penn Mar - Install 1300 nm Single Mode Fiber-Optic Cables with dedicated fibers between Y1-033 Ring Bus and Penn Mar 115 kV SS, approximately 4.7 miles. | 0.510 | 10/1/2014 |
| n3670 | Y1-086 - replace six poles, add two poles and upgrade approximately one mile of OH conductor to 477 aluminum. | 0.240 | 6/1/2015 |
| n3711 | Elderberry Station - New substation consisting of 3 circuit breakers, SCADA, revenue metering and associated equipment. | 8.800 | 10/1/2014 |
| n3711.1 | Elderberry Station - Revenue metering and associated equipment. | 0.350 | 10/1/2014 |
| n3712 | Dumont-Olive 345 kV - Loop the Dumont-Olive circuit into and out of the X2-052 interconnection station. | 0.320 | 10/1/2014 |
| n3713 | Replace relays at Olive on the Dumont line. | 1.500 | 10/1/2014 |
| n3752 | Upgrade Brambleton Transfer Trip | 0.710 | 6/1/2016 |
| n3772 | Replace existing static wire with OPGW on line 5071 which runs from Burches Hill to Chalk Point | 1.600 | 6/1/2016 |
| n3925 | Bayshore-Fostoria Central/Bayshore-Monroe 345 kV, Loops to Interconnecting Substation | 3.020 | 12/31/2017 |
| n3926 | Bayshore Substation - update relaying on the 345 kV Fostoria Central and Monroe lines. | 0.580 | 12/31/2017 |
| n3927 | Fiber - build approximately one mile of ADSS fiber to existing backbone connection to Bayshore substation. | 0.420 | 12/31/2017 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n3960 | Construct new 345 kV (Stemple) station switchyard | 13.150 | 8/31/2017 |
| n3961 | Install 345 kV revenue metering at new switchyard | 2.290 | 8/31/2017 |
| n3962 | Remote end work at Canton Central Station | 0.060 | 8/31/2017 |
| n3963 | Remote end relay work at Tidd Station | 0.060 | 8/31/2017 |
| n3985 | Replace 3 Marysville 765 kV wavetraps on the Sorenson-Marysville 765 kV line | 0.900 | 1/15/2028 |
| n3998 | Blue Mound -Kincaid - 345 kV transmission line tie-in | 3.400 | 12/31/2013 |
| n4000 | Blue Mound - Remote-end relay upgrade | 1.500 | 12/31/2013 |
| n4076 | Upgrade relaying at Fostoria Central 345 kV substation. Also, replace existing Fostoria Central - Bay Shore 345 kV metering on 345 kV Bayshore circuit to FirstEnergy. | 0.180 | 5/15/2017 |
| n4106 | Replace Two Switches at the Clifty Creek 345 kV Station | 0.413 | 7/31/2024 |
| n4106.1 | Replace 4 Clifty switches on the Jefferson - Clifty 345 kV line | 0.830 | 12/31/2022 |
| n4106.4 | Reconductor 0.75 miles of the Jefferson - Clifty 345 kV line | 2.500 | 12/31/2022 |
| n4106.6 | Replace Jefferson Breaker (5000A) | 1.200 | 9/15/2027 |
| n4211 | Construct and cut in 0.75 miles of new 345 kV transmission line | 2.664 | 8/31/2017 |
| n4251.10 | Replace Todhunter 138 kV breaker 939 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4251.4 | Replace Todhunter 138 kV breaker 921 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4251.6 | Replace Todhunter 138 kV breaker 927 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4251.7 | Replace Todhunter 138 kV breaker 929 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4251.8 | Replace Todhunter 138 kV breaker 933 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4251.9 | Replace Todhunter 138 kV breaker 935 from 63 kA to 80 kA | 0.600 | 6/1/2018 |
| n4254 | Reconductor the Todhunter - Nickel 138 kV line. | 4.380 | 6/1/2018 |
| n4332 | Upgrade carrier equipment and install DTT on the 115 kV Niles Valley line. Utilize existing equipment on Everts Drive (future Mainesburg) line to receive breaker status from Mainesburg breaker. | 0.160 | 12/31/2009 |
| n4333 | Install anti-islanding scheme at Mainesburg to transmit breaker open status of the Mansfield 115 kV line breaker. | 0.090 | 12/31/2009 |
| n4334 | Install anti-islanding scheme at Pierce Brook to transmit breaker open status of the Potter 115 kV line breaker. | 0.090 | 12/31/2009 |
| n4335 | Upgrade relay and carrier equipment at 115 kV Potter substation | 0.000 | 12/31/2009 |
| n4338.3 | Replace with an 80 kA circuit breaker at Bruce Mansfield breaker GEN NO 3-(B8 | 1.530 | 6/1/2018 |
| n4339.1 | Replace with an 80 kA circuit breaker at Bruce Mansfield breaker GEN2-HAN(B23 | 1.360 | 6/1/2018 |
| n4339.2 | Replace with an 80 kA circuit breaker at Bruce Mansfield breaker GEN3-S.(B12 | 1.530 | 6/1/2018 |
| n4367 | Construct a three-switch tap structure substation by cutting the Bayview-Kellam 69 kV circuit. | 1.300 | 12/31/2016 |
| n4401 | Tie in new 500 kV substation built to connect Z2-046. | 3.150 | 6/1/2018 |
| n4402 | Installation of fiber optic line to support new substation for Z2-046 | 1.200 | 6/1/2018 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n4492 | Transmission Line Loop Niles Valley-Potter 115 kV | 0.380 | 6/1/2017 |
| n4493 | Z1-069 Interconnection Substation - oversight for OTB 115 kV three breaker ring bus interconnection substation. | 0.000 | 6/1/2017 |
| n4494 | Niles Valley protection changes | 0.440 | 6/1/2017 |
| n4682 | Construct new 500 kV 3 breaker ring bus substation to connect the AA1-076 project. | 0.000 | 10/1/2019 |
| n4694 | Build new 345 kV, 3-breaker ring bus for the AA1-123 project. | 0.830 | 12/1/2019 |
| n4695 | Tie in new substation for AA1-123 to the Highland-Sammis 345 kV line | 4.490 | 12/1/2019 |
| n4696 | Protection system modifications at Highland substation. | 0.100 | 12/1/2019 |
| n4697 | Protection system modifications at Sammis substation. | 0.600 | 12/1/2019 |
| n4793 | Install a new 63 kA breaker into existing bus position at the Sewaren 230 kV substation along with the associated disconnect switches, equipment and structures. | 6.480 | 6/1/2018 |
| n4843 | Metering and relay settings adjustments at Oak Grove 138 kV Substation | 0.000 | 5/25/2018 |
| n4857 | Construct a new three breaker ring bus interconnection substation near the South Reading - North Boyertown 230 kV Line; Location South Reading - North Boyertown 230 kV Line | 1.000 | 7/1/2019 |
| n4858 | Upgrade line carrier and transfer trip relaying/equipment affected by the AA2-115 interconnection; Location South Reading 230 kV Substation | 2.300 | 7/1/2019 |
| n4859 | Upgrade line carrier and transfer trip relaying/equipment affected by the AA2-115 interconnection; Location: Hosensack 230 kV Substation | 0.470 | 7/1/2019 |
| n4860 | Upgrade carrier relaying affected by the AA2-115 interconnection; Location: North Boyertown 230 kV Substation. | 0.080 | 7/1/2019 |
| n4861 | Loop the South Reading-North Boyertown 230 kV Line into the new AA2-115 interconnection substation (Approximately 200' in length); Location South Reading- North Boyertown 230 kV Line. | 1.670 | 7/1/2019 |
| n4906 | Upgrade the wire drops to the high side circuit switcher. Change the tap settings on the Pumphrey breakers B31 & B32 current transformers to correspond to 3000 amps and adjust relays to accommodate. Reset 6 additional relays and change out an auxiliary | 0.150 | 1/1/2016 |
| n4986 | Region Line Tap on Wyalusing 34.5 kV line AA2-133 Point of Interconnection including costs associated with 34.5 kV Metering Package. | 0.030 | 6/1/2017 |
| n4987 | New Albany SS. 34.5 kV Relaying Upgrade for AA2-133 Generation Interconnection. | 0.050 | 6/1/2017 |
| n4988 | Wyalusing SS. 34.5 kV Relaying Upgrade for AA2-133 Generation Interconnection. | 0.050 | 6/1/2017 |
| n4989 | East Towanda SS. Relaying Upgrade for AA2-133 Generation Interconnection. | 0.050 | 6/1/2017 |
| n4990 | 34.5 kV Pole Recloser Work Wyalusing-New Albany 34.5 kV. | 0.050 | 6/1/2017 |
| n5056 | Install dual fiber optic cables from the new AA1-123 Interconnection SS to the Sammis SS approximately 11 miles. | 3.340 | 12/31/2019 |
| n5142 | Install new relay panel at Old Church substation | 0.066 | 8/31/2016 |
| n5143 | Old Church - Build circuit #474 extension for 4 miles | 0.975 | 8/31/2016 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n5144 | Re-conductor a portion of the Kendall – Lockport 'B' 345 kV line along with sag mitigation on a separate portion. | 38.670 | 6/30/2019 |
| n5174 | New 230 kV series reactor and required associated substation equipment at Erie East substation | 3.946 | 1/31/2019 |
| n5177 | Reconductor 3 spans (2 structures) of the Roseland-Williams 230 kV Line with 1590 ACSS conductor. | 0.570 | 6/1/2018 |
| n5295 | TSS 92 McLean - Engineering and Construction Oversight | 1.450 | 12/1/2018 |
| n5296 | TSS 92 McLean - Transmission Line Cut In and Turning Structures | 2.910 | 12/1/2018 |
| n5297 | Relay, Protection, and Communication Upgrades at TSS 80 Pontiac Midpoint | 0.210 | 12/1/2018 |
| n5298 | Brokaw - Relay, Protection, and Communication Upgrades | 0.040 | 12/1/2018 |
| n5304 | Replace the George Washington wavetrap (2000A) on the Kammer - George Washington 138 kV line | 0.210 | 6/1/2020 |
| n5352 | To accommodate the interconnection on the Kammer – Vassell 765 kV circuit a new three circuit breaker 765 kV switching station physically configured in a breaker and half bus arrangement but operated as a ring-bus will be constructed 40 miles east of the Kammer 765 kV substation | 39.850 | 3/1/2022 |
| n5409 | Build New AB2-158 Switching Substation (interconnection substation) | 13.080 | 10/1/2018 |
| n5410 | Install Transmission structure in line with South Anna - Louisa 230 kV transmission line to allow the proposed interconnection switching station to be interconnected with the transmission system | 3.000 | 10/1/2018 |
| n5474 | AC1-173 Fiber system modifications at Haviland and East Lima | 0.010 | 10/21/2020 |
| n5564 | Reconductor Roseland-Cedar Grove 230 kV Line with 1590 ACSS | 16.120 | 6/1/2019 |
| n5565 | Reconductor the Williams-Cedar Grove 230 kV Line with 1590 ACSS | 0.000 | 6/1/2019 |
| n5630 | Adjust remote, relaying, and metering settings at Avon 138 kV Sub | 0.065 | 6/1/2019 |
| n5648 | Relay Settings - convert 2-terminal gen lead to 3-terminal gen lead at AC1-173 substation | 0.060 | 10/31/2019 |
| n5756 | Mitigate sag limitation on the AB1-122 Tap – Dresden; R 345 kV line. | 6.930 | 6/1/2021 |
| n5808 | Install two new 345 kV circuit breakers, Relocate the Bunsonville 345 kV line connection, Relocate and replace the Bunsonville 345 kV metering at the Eugene 345 kV Station | 3.420 | 6/1/2018 |
| n5915 | Reconductor the Elwood - Goodings Grove 'B' 345 kV line, upgrade the station conductor at both line terminals, and upgrade the line circuit breaker at Goodings Grove. | 30.830 | 6/1/2022 |
| n5916 | Reconductor the Elwood - Goodings Grove 'R' 345 kV line, upgrade the station conductor at both line terminals, and upgrade the line circuit breaker at Goodings Grove. | 31.520 | 6/1/2022 |
| n5918 | Upgrade station conductor on the Kendall - Lockport 'B' 345 kV line. | 35.590 | 6/1/2022 |
| n5968 | Install one 138 kV Circuit Breaker at the Jay 138 kV Substation and associated equipment, including upgrades to line protection and controls. | 2.290 | 10/1/2020 |
| n6005 | Install attachment facility line and associated hardware to accept the Interconnection Customer generator lead line terminating at the AC2-103 Interconnection substation. | 0.010 | 12/31/2021 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n6006 | Construct three breaker 345 kV ring bus substation for future four (4) breaker expansion at AC2-103. | 9.470 | 12/31/2021 |
| n6007 | Construct a line tap to the proposed AC2-103 switching station. Construct one span from the proposed AC2-103 switching station to the customer POI at Beaver-Davis Besse (S-26) 345 kV Line Tap to Customer POI. | 1.384 | 12/31/2021 |
| n6008 | Standard dual SEL421 panel with UPLC for pilot scheme and DTT for the AC2-103 line at Beaver SS. | 0.286 | 12/31/2021 |
| n6009 | Standard dual SEL421 panel with UPLC for pilot scheme and DTT for the AC2-103 line at Davis Bessie SS. | 0.286 | 12/31/2021 |
| n6010 | Estimated MPLS router at AC2-103 substation to provide SCADA transport for new RTU. Next MPLS hops for SCADA backhaul are assumed to be at Avery substation and Hayes substation. | 0.186 | 12/31/2021 |
| n6129 | Remote protection and communication changes to allow for interconnection of the AC1-080 generating Customer Facility with the transmission system | 0.851 | 4/1/2021 |
| n6249 | Replace the wave trap on the Hillside 230 kV terminal at the East Towanda Substation | 0.315 | 6/1/2019 |
| n6263.3 | Reconductor 5.5 miles of ACSR ~ 336.4 ~ 30/7 ~ ORIOLE Harrison - Zuber 138 kV line conductor with 795 ACSR or equivalent | 8.250 | 12/31/2023 |
| n6263.4 | Replace 800 Amp wavetrap at Harrison on the Harrison - Zuber 138 kV line | 0.100 | 12/31/2023 |
| n6334 | Modify protection and communication work to support interconnection of new AC1-120 generator | 0.250 | 6/1/2019 |
| n6335 | Build new structures to cut and loop the line #2 into AC1-120 115 kV substation | 1.300 | 6/1/2019 |
| n6336 | Build a three breaker 115 kV substation at the AC1-120 facility | 5.300 | 6/1/2019 |
| n6490 | Construct 69 kV Attachment line from the Point of Interconnection to the Milton 230/69 kV substation | 0.811 | 6/30/2022 |
| n6491 | Modify the Milton 230/69 kV Substation relays to accommodate the AE2-042 interconnection request. | 0.138 | 6/30/2022 |
| n6492 | Remove the existing disconnect switches and install new disconnect switches and surge arrestors with support structures at the Milton 230/69 kV Substation | 0.400 | 6/30/2022 |
| n6497.4 | Replace 3, 3000A wave traps at Rockport and 3, 3000A wave traps at Jefferson on the Rockport - Jefferson 765 kV line | 0.430 | 8/15/2022 |
| n6497.5 | Replace 12 3000A switches at Rockport | 6.000 | 12/31/2023 |
| n6525.1 | Replace 1200 A Switch at Fremont | 0.200 | 5/31/2028 |
| n6604 | The upgrade is to replace the station conductor at Station 20. A preliminary estimate for this upgrade is $0.6M with an estimate construction timeline of 24 months subject to outage scheduling coordination with Station 20 Braidwood Nuclear Station. Upon completion of the upgrade the ratings will be 1872/2162/2500/2973 MVA (SN/SLTE/SSTE/SLD) | 0.000 | 12/31/2027 |
| n6630 | Reconductoring line with 1033 ACSS conductor | 89.827 | 5/31/2022 |
| n6715 | Build new structures to cut and loop the transmission line into AC1-191 115 kV substation | 2.290 | 12/31/2020 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n6716 | Modify protection and communication work to support interconnection of new AC1-191 generator | 0.169 | 12/31/2020 |
| n6735 | Sag study is required on 19.5 mile double circuit line between Forstoria Central and Lemoyn. The cost is expected to be 78,000. New ratings after sag Mitigation S/N: 1409 MVA, S/E: 1887MVA. Rebuild/Reconductor cost: $29.2 million. | 0.078 | 6/1/2023 |
| n6741.2 | 1) A sag study will be required on the 9.5 miles of ACSR ~ 954 ~ 45/7 ~ Bundled - Conductor Section 1 to mitigate the overload. Depending on the sag study results, the cost for this upgrade is expected to be between $38,000 (no remediation required, just sag study) and $19 million (complete line reconductor/rebuild). New rating after sag study: S/N:1409 S/E: 1887. Time Estimate: a) Sag Study: 6-12 months. b) Rebuild: The standard time required for construction differs from state to state. | 0.038 | 5/1/2030 |
| n6776 | Sag Study will be required on 37.9 miles of line between Bixby and Kirk | 0.152 | 5/1/2030 |
| n6795 | Build a three-breaker 230 kV substation at the AC1-189 facility | 6.470 | 12/31/2017 |
| n6796 | Build new structures to cut and loop the transmission line into AC1-189 230 kV substation | 1.670 | 12/31/2017 |
| n6797 | Modify protection and communication work to support interconnection of new AC1-189 generator | 0.070 | 12/31/2017 |
| n6802 | ACECCShermr01: To mitigate the AE1-240 tap to Sherman 69 kV line section overload a 600 amp disc switch must be upgraded at Sherman | 0.020 | 12/31/2028 |
| n6840 | ComEd 345 kV L11212 SSTE rating is 1846 MVA. The upgrade will be to install a new 345 kV bus tie circuit breaker at Station 12 Dresden. The new 345 kV breaker will be installed as BT CB 12-13. Initial review of this proposal is that the existing contingency will be reduced and potentially reducing the post contingency flow. PJM to confirm this proposal in study. The ratings for L11212 will not change rather the contingency as stated above will be revised. | 3.075 | 11/24/2026 |
| n6860 | The upgrade will require a ComEd Relay group review of the 765 kV Bus Tie 3-4 Circuit Breaker Current Transformer settings. A possible upgrade of the relay scheme may be required.<br>A preliminary estimate for this upgrade is $1M with an estimated construction timeline of 18 months. Upon completion of this upgrade the ratings will be 4142/4460/5331/6368 MVA (SN/SLTE/SSTE/SLD). | 1.000 | 12/31/2029 |
| n7002 | Construct a new three-breaker ring bus on the 115 kV line (977) between Middletown Junction Substation and Zions View Substation. Perform related project management, and Supervisory Control and Data Acquisition (SCADA) and fiber communication work. | 9.705 | 9/15/2029 |
| n7003 | Cut the existing Middletown Junction – Smith Street (977) 115 kV line between existing structure 65 and structure 66 to create a loop to the proposed ring | 2.679 | 9/15/2029 |
| n7004 | Replace existing line relaying with (1) standard line relaying panel with (1) SEL421 and (1) SEL411L. Install (1) standard breaker control panel with (1) SEL451 BFT and (1) SATEC Meter at Middletown Junction Substation | 0.687 | 9/15/2029 |
| n7005 | Replace (1) 115 kV OCB due to single CT condition with 145 kV 3000A 40 kAIC breaker. Replace existing line relaying with (1) standard line relaying panel with (1) SEL421 and (1) SEL411L. Install (1) standard breaker control | 1.528 | 9/15/2029 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | panel with (1) SEL451 BFT and (1) SATEC Meter at Smith Street Substation | | |
| n7017 | Perform a sag study on the 7.8 mile section of ACSR 477 26/7 HAWK on the Mottv - E Elkhart 138 kV line | 0.031 | 10/31/2023 |
| n7018 | Perform a sag study on the 8.5 mile section of ACSR 477 26/7 HAWK on the Corey - Mottv 138 kV line | 0.034 | 10/31/2023 |
| n7049 | Install a second 230 kV circuit of 3.94 miles from Ladysmith to Ladysmith CT (Line 2089) with a 2000/2000/2300 MVA conductor. Add Breakers at both stations. | 6.320 | 10/1/2023 |
| n7092 | Perform a sag study on the Fall Creek - Madison 138 kV line | 0.030 | 6/1/2022 |
| n7135 | Upgrade Greenbrook terminal equipment to achieve a SER of 1167MVA | 0.530 | 6/1/2022 |
| n7151.1 | Perform a sag study on the 5 miles of ACSR 397.5 30/7 LARK Conductor on the Techdr - M Funk 138 kV line | 0.020 | 3/28/2022 |
| n7151.2 | Perform a sag study on the 14.5 miles of ACSR 556.5 26/7 DOVE Conductor on the Techdr - M Funk 138 kV line | 0.058 | 3/28/2022 |
| n7152 | Perform a sag study on the Edgemo - Vicker 138 kV line | 0.019 | 3/28/2022 |
| n7153 | Rebuild 0.13 miles of 300 CU on the AF2-106 Tap - Glen Lyn 138 kV line | 0.010 | 3/28/2022 |
| n7154 | Perform a sag study on the Schiris - Techdr 138 kV line | 0.020 | 3/28/2022 |
| n7155 | Perform a sag study on the AD2-179 Tap - AF2-105 Tap 138 kV line | 0.007 | 3/28/2022 |
| n7155.1 | Rebuild/reconductor 1.78 mi. 300 CU Overhead Conductor | 2.670 | 2/28/2028 |
| n7246 | Expand Cedar Creek 138 kV substation from a three position ring bus to a four (4) position ring bus | 2.990 | 8/15/2023 |
| n7339 | AE2-217: Construct a new 3-breaker Ring Bus on the 138 kV East Springfield-London line. This includes Project Management. | 5.587 | 12/31/2021 |
| n7340 | SCADA/Fiber Communication: Design, install, and test/commission MPLS Equipment for SCADA transport. | 0.182 | 12/31/2021 |
| n7341 | Estimated SCADA work at East Springfield & London substation to support relay installations, updated relay settings, and wave trap installations. Estimated in-sub fiber run to customer-built fiber to support communications to AE2-217 substation. | 0.084 | 12/31/2021 |
| n7342 | Install fiber from AE2-217 to North Titus for communication transport at AE2-217 to North Titus | 0.880 | 12/31/2021 |
| n7343 | East Springfield – London No. 1 138 kV Line Loop: Loop the East Springfield – London No. 1 138 kV line into the new AE2-217 substation between existing structures #5762 and #5763, approximately 8.44 miles from the London substation. | 1.355 | 12/31/2021 |
| n7344 | London – North Titus 138 kV Line Loop: Transfer conductor and install dead-end hardware assemblies on the new 3-pole structure | 0.088 | 12/31/2021 |
| n7345 | East Springfield: Line Terminal Upgrade | 0.797 | 12/31/2021 |
| n7346 | London: Line Terminal Upgrade | 1.007 | 12/31/2021 |
| n7467.1 | Replace three Marysville 765 kV Wavetraps (3000A) | 0.000 | 12/31/2024 |
| n7470 | Expand Gunn Road 345 kV Station, including the addition of one 345 kV circuit breaker, installation of associated protection and control equipment, | 1.332 | 9/30/2019 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | 345 kV line risers, switches, jumpers, and supervisory control and data acquisition (SCADA) equipment. | | |
| n7504 | Reconductor/bundle circuit 23103 from Dickerson to Station H. This would raise the thermal rating to approximately 1200 MVA. To achieve this rating the 2 breakers and 4 disconnect switches connected to this circuit would also have to be upgraded along with any other associated terminal equipment | 5.304 | 6/1/2024 |
| n7506 | Reconductor 4.1 miles of 115 kV Line 1021 from Grey Spot to Harmony with 768.2 ACSS 250 C | 2.700 | 12/31/2022 |
| n7513 | dom-474: Rebuild 1.07 miles of 230 kV Line 299 from Marsh Run to Remington CT with 2-636 ACSR 150 C | 2.900 | 12/1/2023 |
| n7526 | dom-429: Reconductor 0.877 miles of 115 kV Line 65 from Whitestone to Rappahannock with 768.2 ACSS 250 C | 1.140 | 12/31/2022 |
| n7614 | dom-404: Reconductor 1.4 miles of 115 kV Line 89 from Hayes to AF1-201 Tap with 768.2 ACSS 250 C. Replace Line Switch at Hayes terminal. | 2.040 | 12/31/2022 |
| n7618 | Replace two Meadowlake CBs (3000A) | 2.000 | 12/31/2024 |
| n7635 | Rebuild 0.79 miles of 230 kV Line 2088 from Louisa CT to Gordonsville with 2-795 ACSR 150 C | 1.190 | 7/1/2022 |
| n7655 | ACEWood691to2r01: To mitigate the Woodstowns 69 kV bus tie overload, breaker 'T' will be replaced with a 2000 amp breaker. | 0.190 | 12/31/2023 |
| n7679 | Replace 1272 AAC Jumper at Allen station | 0.100 | 12/31/2029 |
| n7725 | Upgrade Description: A Sag Study will be required on the 0.33 miles of ACSR 795 45/7 TERN- Conductor to mitigate the overload. Depending on the sag study results, the cost for this upgrade is expected to be between $20,000 (no remediations required, just sag study) and 0.5 million (complete line reconductor/rebuild. | 0.020 | 10/31/2024 |
| n7754.1 | Replace 5 Sub conductor 2000 AAC 91 Str at Danville2 138 kV station | 0.000 | 11/30/2022 |
| n7754.2 | Replace 3 Sub conductor 2000 AAC 91 Str at East Danville 138 kV station | 0.000 | 11/30/2022 |
| n7853.1 | Re-arrange line #1012 to loop into and out of the new three breaker AD2-063 115 kV switching station. A new three breaker ring bus substation will be installed between structures 2068/446 and 2068/447. | 1.199 | 12/31/2024 |
| n7853.2 | Build a three breaker AD1-152 230 kV switching station. AD1-152 provides for the initial construction of a new 230 kV three breaker ring substation between transmission structures 2068/446 and 2068/447. The objective of this project is to build a 230 kV, 3-breaker ring bus to support the new 80 MW solar farm built by Piney Creek Solar, LLC. The site is located along Dominion Energy's existing 230 kV, 2068 line from Clover substation to Sedge Hill substation. The cut line will consume two of the positions in the ring bus. The third position will be for the 230 kV feed from Piney Creek Solar, LLC collector station for the new 80 MW solar farm. The new 230 V three breaker ring substation will share a common footprint and fence line with Piney Creek Solar, LLC collector station. The demarcation point between the two stations will be the 230 kV breaker disconnect switch 4-hole pad in the Piney Creek Solar, LLC collector station by the common fence. The grounding systems for each station will be tied together. The developer will provide the | 7.597 | 12/31/2024 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n7853.3 | Remote protection and communications work at Clover 230 kV Substation | 0.056 | 12/31/2024 |
| n7853.4 | Remote drawing work at Sedge Hill 230 kV Substation | 0.016 | 12/31/2024 |
| n8052.1 | Substation to be expanded with one new gas 138 kV circuit breaker, Two new 138 kV MODs, new 138 kV CCVTs, and associated equipment | 2.982 | 12/31/2019 |
| n8052.2 | Install new primary, backup, and control relay and protection equipment for the new terminal. | 0.530 | 12/31/2019 |
| n8071.1 | Construct a new 69 kV ring bus station, initially populated with three circuit breakers, expandable to four (4) breakers | 7.290 | 10/21/2022 |
| n8071.2 | Installation of two new steel, 85' single circuit, single pole dead-end structures on concrete piers with anchor bolt cages and two spans of ACSR 1033.5 (Curlew) transmission line conductor with 7#8 Alumoweld shield wire at Kenzie Creek - Stone Lake 69 kV | 1.200 | 10/21/2022 |
| n8071.3 | Install two new fiber optic cable paths at Kenzie Creek - Stone Lake 69 kV | 0.239 | 10/21/2022 |
| n8071.4 | Replace all 447 all aluminum conductors. Replace the bus differential panel at Stone Lake 69 kV | 0.731 | 10/21/2022 |
| n8071.5 | Rebuild 0.6 miles of the Pokagon – Colby 69 kV Circuit | 2.191 | 10/21/2022 |
| n8152 | dom-378: Add Additional 500/230 kV Transformer at Midlothian Substation | 40.000 | 12/31/2022 |
| n8162 | ComEd 345 kV L0304 SSTE rating is 1512 MVA. The upgrade will be to mitigate the sag on the Powerton - Tazewell 345 kV line and replace a 345 kV disconnect switch. A preliminary estimate for this work is $9.7M with a estimated construction timeline of 30 months. Upon completion of this upgrade the new ratings will be 1679/2058/2107/2280/2622 MVA (SN/SLTE/SSTE/SLD/ALDR). | 3.700 | 1/18/2027 |
| n8199.1 | Expand the station yard, fence and ground grid, Install One New 138 kV Circuit Breaker, One New Line Termination at the Centerburg 138 kV Station | 0.955 | 2/28/2018 |
| n8199.2 | Re-terminate the Centerburg - Trent 138 kV circuit to a different bay position at the Centerburg 138 kV station. | 0.381 | 2/28/2018 |
| n8206 | Snyder: Extend the Snyder 69 kV bus. Install one 69 kV circuit breaker. | 2.313 | 10/31/2021 |
| n8393 | String 3.19 miles of 336.4 ACSR or equivalent conductor on the open side of the existing double circuit structures ( 6-wire ) at 05BEATTY 138.0 kV - 05ZUBER 138.0 kV. Note, further engineering study will need to be performed to confirm this reinforcement can be performed on the existing lattice structures built in the 1950s. | 6.000 | 12/31/2024 |
| n8396 | Replace the existing Green County 161/69 kV, 93 MVA transformer with a 150 MVA transformer. | 2.280 | 12/31/2024 |
| n8431 | Install CCVTs on the Alloy 138 kV line exit at Kanawha River Station. Replace P&C relays. | 0.377 | 10/1/2021 |
| n8434.1 | Reconfigure the Haviland - West Van Wert 69 kV Circuit | 0.196 | 6/30/2021 |
| n8437 | Install 138 kV Metering at Alloy 34.5 kV Station | 0.619 | 10/1/2021 |
| n8444.1 | Re-arrange line #2076 to loop into and out of the new three breaker AF1-114 230 kV switching station | 2.701 | 11/30/2021 |
| n8444.2 | Remote protection and communication work. | 0.294 | 11/30/2021 |
| n8444.3 | Build a three breaker AF1-114 230 kV switching station | 8.388 | 11/30/2021 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8471 | East Sayre-North Waverly 115 kV line upgrade - FE (NYISO project driven) | 1.417 | 11/1/2027 |
| n8495.1 | Construct transmission tap from the Point of Change in Ownership to the Sunbury-Lock Haven 69kV line. | 0.900 | 1/1/2027 |
| n8495.2 | Modify Sunbury-Lock Haven 69kV line to tine in the new interconnection facilities | 0.280 | 1/1/2027 |
| n8495.3 | Modify relays at Lock Haven 69kV Substation | 0.240 | 1/1/2027 |
| n8495.4 | Modify relays at Sunbury 69kV Substation | 0.240 | 1/1/2027 |
| n8502.1 | Rockwood - Review and revise relay settings as needed | 0.064 | 12/31/2027 |
| n8502.2 | Bigby - Review and revise relay settings as needed | 0.064 | 12/31/2027 |
| n8503.1 | Construct the proposed AE2-048 345 kV breaker and a half station, to be operated as a three circuit breaker ring bus, initially expandable to six (6) circuit breakers | 14.262 | 12/31/2028 |
| n8503.2 | Install two new fiber optic cable paths consisting of 0.5 miles of 144 count ADLT cable installed in new underground right of way (“ROW”) and associated terminating equipment and devices (transceivers, multiplexors, routers) at Muskingum River – West Millersport 345 kV | 0.175 | 12/31/2028 |
| n8503.3 | New AE2-048 Switching station Tie-in at Muskingum River – West Millersport 345 kV | 1.823 | 12/31/2028 |
| n8503.5 | Replace one wavetrap and line tuner with two new 1-phase wavetraps and line tuners; and Review and revise (as needed) the protective relay settings at Muskingum River 345 kV | 0.173 | 12/31/2028 |
| n8503.6 | Replace one wavetrap and line tuner with two new 1-phase wavetraps and line tuners; and Review and revise (as needed) the protective relay settings at West Millersport 345 kV | 0.173 | 12/31/2028 |
| n8509.1 | Install bus-tie circuit breaker and all related relays and appurtenance at STA 21 Kincaid to interconnect AF2-032 | 3.500 | 8/30/2026 |
| n8509.2 | Install deadend and metering to interconnect AF2-032 | 2.800 | 8/30/2026 |
| n8510 | Review and revise the protective relay settings at the proposed AE2-048 345 kV Station to account for the additional generation of AE2-136 | 0.058 | 12/31/2028 |
| n8513.1 | Construct the proposed 69 kV breaker and a half station, to be operated as a three circuit breaker ring bus, initially expandable to six (6) circuit breakers at East Hartford - Murch 69 kV | 6.409 | 1/15/2027 |
| n8513.2 | Install two new steel, 80' single circuit, single pole dead-end structures on concrete piers with anchor bolt cages and two spans of aluminum conductor steel-reinforced cable (“ACSR”) 795 (Drake) transmission line conductor with 7#10 Alumoweld shield wire at East Hartford - Murch 69 kV | 1.179 | 1/15/2027 |
| n8513.3 | Review and revise the protective relay settings at the Hartford 69 kV Station | 0.096 | 1/15/2027 |
| n8513.4 | Review and revise the protective relay settings at the Almena 69 kV Station | 0.096 | 1/15/2027 |
| n8513.5 | Install two new fiber optic cable paths consisting of 0.2 miles of 48 count ADLT cable installed in new underground right of way (“ROW”) and associated terminating equipment and devices (transceivers, multiplexors, routers) at Proposed AF1-084 69 kV, Hartford 69 kV, and Almena 69 kV stations new right of way | 0.236 | 1/15/2027 |
| n8516 | Allen Junction Substation - Review relay settings. | 0.071 | 5/31/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8517 | Stryker Substation - Review relay settings. | 0.071 | 5/31/2028 |
| n8518 | Reconfigure East Fayette substation from 4 breaker ring bus to double breaker, double bus configuration. | 7.852 | 5/31/2028 |
| n8519 | Re-terminate the Arche Energy – East Fayette 138 kV Line into the East Fayette substation. | 0.514 | 5/31/2028 |
| n8520 | Relocate and re-terminate the East Fayette-Stryker 138 kV line into the expanded double breaker double bus East Fayette substation to accommodate the line exit for AF1-206. | 1.491 | 5/31/2028 |
| n8527.1 | Upgrade the existing Berry Hill 138 kV Station | 1.399 | 3/30/2027 |
| n8527.2 | Review and update the line relay settings Axton 138 kV Station | 0.077 | 3/30/2027 |
| n8527.3 | Review and update the line relay settings | 0.077 | 3/30/2027 |
| n8528.1 | Construct a new 138 kV breaker and a half station, to be operated as a three circuit breaker ring bus, initially expandable to six (6) circuit breakers at Varner - Sowers 138 kV | 9.179 | 11/30/2027 |
| n8528.2 | Transmission Line Tie-in at Varner - Sowers 138 kV | 1.561 | 11/30/2027 |
| n8528.3 | Review and revise the protective relay settings at Varner138 kV | 0.088 | 11/30/2027 |
| n8528.4 | Review and revise the protective relay settings at Sowers 138 kV | 0.088 | 11/30/2027 |
| n8528.5 | Final tie in foe fiber installation in new ROW at Varner - AF1-091 station - Sowers 138 kV | 0.316 | 11/30/2027 |
| n8529 | New relays to accommodate the AF1-245 generator lead line | 0.076 | 12/1/2028 |
| n8530 | Review and revise the protective relay settings at Cole 345 kV | 0.058 | 12/31/2027 |
| n8531.1 | Install two new steel, 80' single circuit, single pole dead-end structures on concrete piers with anchor bolt cages and two spans of aluminum conductor steel-reinforced cable (“ACSR”) 795 (Drake) transmission line conductor with 7#10 Alumoweld shield wire at Van Buren 69 kV | 0.809 | 12/31/2028 |
| n8531.2 | Review and revise the protective relay settings at the Van Buren 69 kV Station | 0.089 | 12/31/2028 |
| n8531.3 | Replace the protective relays at the Liberty Center 69 kV Station, updating to accommodate the dual current differential scheme | 0.238 | 12/31/2028 |
| n8532.1 | Install (2) 34.5 kV load-break air switches with SCADA control on the Gilbert – Rocktown Road 34.5 kV line approximately 1.2 miles from Frenchtown and 3.5 miles from Frenchtown Solar 3. Provide 120V AC Power Supply to accommodate SCADA controlled line switches. | 1.378 | 10/1/2027 |
| n8532.2 | Build new structures on the A729 West Flemington 34.5 kV line to facilitate construction of new tap on the Gilbert – Rocktown Road 34.5 kV line | 0.825 | 10/1/2027 |
| n8532.3 | Gilbert - Review relay settings | 0.048 | 10/1/2027 |
| n8532.4 | Rocktown Road Substation - Review relay settings | 0.048 | 10/1/2027 |
| n8533.1 | Construct (2) line switches on the Claysburg-Hollidaysburg 46kV line approximately 0.1 miles from Claysburg Substation. | 0.856 | 12/31/2027 |
| n8533.2 | Revise relay settings at Holidaysburg 46kV substation | 0.055 | 12/31/2027 |
| n8533.3 | Revise relay settings at Claysburg 46kV substation | 0.054 | 12/31/2027 |
| n8535 | Construct a new 69 kV three-position ring bus substation off the right-of-way for line (Laurel - Roadstown) #0799. Two of the positions will be | 12.949 | 12/31/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | transmission line terminals for the tie-in of line #0799 to the substation. The third position will be a terminal configured for the interconnection of the AF1-208 generator. | | |
| n8536 | Cut and loop in #0799 transmission line (Laurel - Roadstown) to the new 69 kV three-position ring bus substation. The line from the new ring bus to Laurel will remain as #0799, while the line from the new ring bus to Roadstown will be named #06XX. | 1.946 | 12/31/2028 |
| n8537 | Update relaying at Laurel substation for the #0799 Line from Laurel to the new AF1-208 substation. | 0.125 | 12/31/2028 |
| n8538 | Update relaying at Roadstown substation for the #06XX Line from the new AF1-208 substation to Roadstown. | 0.125 | 12/31/2028 |
| n8543 | Ronco Substation: Revise Relay Settings | 0.060 | 10/1/2027 |
| n8544 | Hatfield Substation: Revise Relay Settings | 0.058 | 10/1/2027 |
| n8545 | Fort Martin Substation: Revise Relay Settings | 0.058 | 10/1/2027 |
| n8546 | Review and Revise the protective relay settings at Jacksons Ferry 138 kV Station | 0.058 | 6/15/2027 |
| n8547 | Gilbert Substation: Remove circuit switcher BK12. Install (1) 230 kV H-frame, (3) CVTs, (3) surge arresters, and (1) MOAB disconnect switch, and relaying. Install pre-wired relay panel and update relay settings. | 2.047 | 12/31/2026 |
| n8548 | Morris Park Substation: Update the relay settings for the 230 kV Gilbert - Morris Park line terminal. | 0.058 | 12/31/2026 |
| n8549 | Morristown Substation: Update the relay settings for the 230 kV Gilbert - Morristown line terminal. | 0.058 | 12/31/2026 |
| n8550 | Glen Gardner Substation: Update the relay settings for the 230 kV Gilbert-Glen Gardner line terminal | 0.058 | 12/31/2026 |
| n8551 | Review and revise the protective relay settings at Jay 138 kV to account for the additional AG1-071 generation | 0.061 | 7/14/2025 |
| n8557 | Construct a new 345 kV breaker and a half switching station at Olive - Reynolds 345 kV, to be operated as a three circuit breaker ring bus, initially expandable to six (6) circuit breakers at | 16.429 | 3/31/2028 |
| n8558 | Replace the protective relays and circuit breaker control and install a new ethernet switch at Olive 345 kV | 0.854 | 3/31/2028 |
| n8559 | Tie in the new AE2-045 345 kV switching station at Olive - Reynolds 345 kV | 2.398 | 3/31/2028 |
| n8561 | Morgan Street Substation: Replace 34.5 kV Mount Hope line relays and controls; and install (1) 34.5 kV PT | 0.636 | 12/31/2026 |
| n8565 | Oyster Creek – Whitings 34.5 kV: Install (2) line switches, one on each side of tap on the Q121 Oyster Creek – Whitings 34.5 kV Line, approximately 1.5 miles from Bamber Lake to the generator facility near structure 90200. | 1.085 | 3/31/2027 |
| n8566 | Oyster Creek Substation: Revise relay settings | 0.068 | 3/31/2027 |
| n8567 | Whitings Substation: Revise relay settings | 0.067 | 3/31/2027 |
| n8568 | Kittatinny Substation: Install new 230 kV breakers, disconnect switches and line terminal for AG1-511 direct connection. | 4.697 | 5/31/2028 |
| n8569 | Yards Creek Substation: Relay Setting Changes | 0.065 | 5/31/2028 |
| n8570 | Newton Substation: Relay Setting Changes | 0.066 | 5/31/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8571 | Portland Substation: Relay Setting Changes | 0.061 | 5/31/2028 |
| n8581 | Install two SCADA operated switches on the Miller REC - Warrior Ridge 46 kV Line | 0.612 | 8/1/2027 |
| n8582 | Replace line relaying panel at Warrior Ridge substation | 0.465 | 8/1/2027 |
| n8583 | Oyster Creek – Whitings 34.5 kV: Install (2) line switches, one on each side of tap on the Q121 Oyster Creek – Whitings 34.5 kV Line, approximately 4.5 miles from Oyster Creek and 4 miles from Bamber Lake to the generator facility near structure 90253. | 1.024 | 3/31/2027 |
| n8584 | Oyster Creek Substation: Revise relay settings | 0.068 | 3/31/2027 |
| n8585 | Whitings Substation: Revise relay settings | 0.067 | 3/31/2027 |
| n8586 | Roxbury Substation: Install new 23 kV PT on the Arco line. Revise relay settings for new customer tap. Replace existing 23 kV KRB ARCO relays with SEL-0351S line panel | 2.816 | 8/31/2027 |
| n8587.0 | Construct a new 69 kV ring bus station; initially populated with two circuit breakers, expandable to four (4) circuit breakers. | 7.484 | 9/30/2028 |
| n8588.0 | Connect the proposed 69 kV station to the existing Hurley - Looney Creek 69 kV | 2.978 | 9/30/2028 |
| n8589.0 | Remote End Work at Looney Creek 69 kV Station | 1.853 | 9/30/2028 |
| n8591.0 | TSS 964 Substation: Revise relay settings | 0.150 | 12/31/2029 |
| n8592.0 | Transmission Line Tie-In: L96407 345 kV line tie into new TSS 931 Cottonwood Creek substation | 14.100 | 12/31/2029 |
| n8593.0 | TSS 931 Cottonwood Creek Substation - Transmission Line Tie-In Fiber: OPGW | 0.610 | 12/31/2029 |
| n8614.0 | Guilford Substation: Revise relay settings. | 0.000 | 6/30/2025 |
| n8615.0 | Modify Blooming Grove-West Damascus 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.614 | 12/31/2027 |
| n8616.0 | Modify relays at Paupack 69 kV Substation | 0.137 | 12/31/2027 |
| n8617.0 | Modify relays at Blooming Grove 69 kV Substation | 0.137 | 12/31/2027 |
| n8618.0 | Modify Harwood - East Hazelton 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.614 | 3/1/2027 |
| n8619.0 | Modify relays at Harwood 69 kV Substation | 0.137 | 3/1/2027 |
| n8620.0 | Expand the Waugh Chapel 230 kV substation by adding a new breaker in position B29. | 8.339 | 6/1/2029 |
| n8621.0 | Upgrade the existing Meadow Lane 345 kV Station | 2.231 | 7/1/2027 |
| n8633.0 | Upgrade the existing Inez 138 kV Station | 1.757 | 3/30/2028 |
| n8634.0 | Modify Scott Tap - Bowmans Mill Tap 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.097 | 12/31/2027 |
| n8635.0 | Modify relays at Columbia 69 kV Substation | 0.137 | 12/31/2027 |
| n8636.0 | Modify relays at Glen Brook 69 kV Substation | 0.137 | 12/31/2027 |
| n8641.0 | Double Toll Gate Substation - Install carrier equipment | 0.534 | 9/30/2029 |
| n8642.0 | Kabletown Substation - replace line relaying panel | 0.574 | 9/30/2029 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8643.0 | Old Chapel - Update nameplate/relay settings | 0.012 | 9/30/2029 |
| n8644.0 | Expand Maddox Creek 345 kV Station for the interconnection of AF2-014 | 1.533 | 12/31/2027 |
| n8645.0 | Update Protection and Control Settings at East Lima 345 kV | 0.072 | 12/31/2027 |
| n8646.0 | Update Protection and Control Settings at RP Mone 345 kV | 0.072 | 12/31/2027 |
| n8660.0 | Add a new terminal position “F” at 138/69kV Middle Substation 69kV bus #1, including new circuit breakers, disconnect switches, supporting foundations and structures, among other physical equipment. | 2.560 | 4/30/2028 |
| n8665.0 | Install security and communications infrastructure at AG1-415 interconnection substation | 1.280 | 4/30/2027 |
| n8666.0 | Install approximately 5.6 miles of new 48-count of OPGW/ADSS fiber solution between the planned AG1-307 interconnecting substation and the planned AG1-415 interconnecting substation. | 2.281 | 4/30/2027 |
| n8667.0 | Cut and loop Double Toll Gate - Millville 138 kV line into new 3-breaker ring bus for AG1-415 (approx. 9.6 miles from Double Toll Gate and 0.2 miles from Old Chapel) | 1.330 | 4/30/2027 |
| n8668.0 | Double Toll Gate Substation - Update relay settings | 0.040 | 4/30/2027 |
| n8669.0 | Millville Substation - Update relay settings | 0.043 | 4/30/2027 |
| n8670.0 | AG1-307 Substation - Update relay settings | 0.042 | 4/30/2027 |
| n8681.0 | Desoto 138 kV - remote protection including 1 wavetrap at the Desoto 138 kV station, upgrade of current remote end protection to a dual fiber-based ICON MUX relaying scheme, 2 small form factor pluggable transceivers | 0.421 | 12/31/2027 |
| n8682.0 | Jay 138 kV - protection relays review and revise (as needed) the protective relay settings at the Jay 138 kV Station. Reconfigure the ICON with one new SFP transceiver at the Jay 138 kV station for communication towards the proposed AF1-268 138 kV Station. | 0.128 | 12/31/2027 |
| n8683.0 | Perch 138 kV - Reconfigure the CES with one new SFP transceiver at the Perch 138 kV Station. | 0.060 | 12/31/2027 |
| n8685.0 | Review and update relay settings at Proposed AF1-202 345 kV Switching Station | 0.071 | 1/31/2028 |
| n8686.0 | Reconfigure existing ethernet switch at Hartford City 69 kV Station | 0.059 | 1/31/2028 |
| n8687.0 | Reconfigure existing ethernet switch at Hartford City 69 kV Station | 0.059 | 1/31/2028 |
| n8688.0 | Final tie in of Fiber installation at at AF1-119 345 kV Switching Station | 0.466 | 1/31/2028 |
| n8689.0 | Review and review relay settings at Proposed AF1-119 345 kV Switching Station | 0.061 | 1/31/2028 |
| n8690.0 | AF1-119 Switching Station Tie-in to Keystone - Desoto 345 kV | 1.866 | 1/31/2028 |
| n8691.0 | Modify Sunbury – Columbia 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.796 | 5/1/2027 |
| n8692.0 | Modify relays at Columbia 69 kV Substation | 0.137 | 12/31/2027 |
| n8693.0 | Relay modifications at Sunbury 69 kV substation | 0.137 | 12/31/2027 |
| n8703.0 | Tie the proposed 138 kV Switching Station into the existing Desoto - Jay Circuit. Install two new steel, 85' single circuit, single pole dead-end structures and two spans of aluminum conductor steel-reinforced (ACSR) 795 Drake (26/7) transmission line conductor with 7#8 Alumoweld shield | 1.179 | 12/31/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | wire in the existing Desoto - Jay 138 kV right of way (ROW), cutting in the proposed 138 kV Switching Station in an in-and-out arrangement. | | |
| n8704.0 | Final tie in for fiber installation from AF1-268 - Desoto 138 | 0.325 | 12/31/2027 |
| n8705.0 | Expand the existing Sharp Road Station Control House, replace the existing underhung-mounted capacitor disconnect switch, install associated structures, jumpers, buswork, insulators, grounding, cables, telecommunications, SCADA, fiber-optic relaying connectivity & equipment, and foundations. | 0.420 | 1/31/2028 |
| n8706.0 | Replace the existing fence with 190 feet of new fencing and a new 24-foot gate. | 0.392 | 1/31/2028 |
| n8707.0 | Relocate and replace Structure #1 in the Commerce - Sharp Road 69 kV Circuit. | 0.561 | 1/31/2028 |
| n8722.0 | Installation of one new 3000A 138 kV circuit breaker, Installation of two new 3000A disconnect switches, review and revise (as necessary) of the protective relay settings for the remainder of the Fall Creek 138 kV Station, replace associated conductors, telecom terminal equipment, insulators, arresters, foundations, and structures. | 0.666 | 12/7/2027 |
| n8723.1 | Build a three breaker AE2-094 500 kV switching station | 23.010 | 6/1/2031 |
| n8723.2 | Re-arrange line #585 to loop into and out of the new three breaker AE2-094 500 kV switching station | 2.210 | 6/1/2031 |
| n8723.3 | Remote protection and communication work at Carson and Rogers Road Substations | 0.190 | 6/1/2031 |
| n8729.0 | TO construction scope of work at AG1-054 substation (includes security systems) | 1.328 | 3/31/2026 |
| n8730.0 | Design, install, and test/commission Multi-Protocol Label Switching (MPLS) equipment for Supervisory Control and Data Acquisition (SCADA) transport at AG1-054 interconnection substation | 0.310 | 3/31/2026 |
| n8731.0 | Install 3.44 miles of ADSS to nearest splice point of OPGW on existing Campbell – Cedar Street line. | 1.328 | 3/31/2026 |
| n8732.0 | Loop the Campbell to Cedar Street 69 kV line into new interconnection substation approximately 10.2 miles from Campbell substation (between Potter and Harlan substations) | 0.770 | 3/31/2026 |
| n8733.0 | Frew Mill Substation – update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8734.0 | Potter Substation – update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8735.0 | Willowbrook Substation – update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8736.0 | Harlan Substation - update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8737.0 | Leesburg Substation - update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8738.0 | Veterans Substation - update drawings and nameplates for line name change | 0.029 | 3/31/2026 |
| n8739.0 | Frisco Substation – review and update relay settings | 0.048 | 3/31/2026 |
| n8740.0 | McDowell Substation – review and update relay settings | 0.048 | 3/31/2026 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8741.0 | New Castle Substation – review and update relay settings | 0.048 | 3/31/2026 |
| n8742.0 | Masury Substation – review and update relay settings | 0.051 | 3/31/2026 |
| n8743.0 | Columbiana Substation – review and update relay settings | 0.051 | 3/31/2026 |
| n8744.0 | Lowellville Substation – review and update relay settings | 0.051 | 3/31/2026 |
| n8745.0 | Cedar Street Substation – Update drawings and nameplates for line name change. Review and update relay settings. Convert primary and back up relays to POTT over fiber with step distance | 0.067 | 3/31/2026 |
| n8746.0 | Campbell Substation – Update drawings and nameplates for line name change. Review and update relay settings. Convert primary and back up relays to POTT over fiber with step distance. | 0.073 | 3/31/2026 |
| n8747.0 | Keisters Substation – review and update relay settings | 0.051 | 3/31/2026 |
| n8748.0 | Review and revise (as necessary) the protective relay settings at the Keystone - Desoto 345 kV Station to account for the additional generation | 0.061 | 3/10/2026 |
| n8749.0 | Revise relay settings at Harwick Substation | 0.062 | 6/1/2027 |
| n8750.0 | Revise relay settings at Yukon Substation | 0.061 | 6/1/2027 |
| n8751.0 | Revise relay settings at Brackenridge Substation | 0.060 | 6/1/2027 |
| n8752.0 | Revise relay settings at Huntingdon Substation | 0.059 | 6/1/2027 |
| n8753.0 | Revise relay settings at Pittsburgh Mills Substation | 0.059 | 6/1/2027 |
| n8754.0 | Revise relay settings at White Valley Substation | 0.059 | 6/1/2027 |
| n8755.0 | Revise relay settings at All Dam 6 Substation | 0.059 | 6/1/2027 |
| n8756.0 | Revise relay settings at Shaffers Corner Substation | 0.061 | 6/1/2027 |
| n8757.0 | Revise relay settings at Springdale Substation | 0.062 | 6/1/2027 |
| n8758.0 | Revise relay settings at Cheswick Substation | 0.053 | 6/1/2027 |
| n8759.0 | Revise relay settings at Plum Substation | 0.053 | 6/1/2027 |
| n8760.0 | New 345 kV (3) breaker ring bus Switching Station with control relaying, (1) drop in control module, (9) motorized disconnect switches, (1) Three phase coupling capacitor voltage transformers (CCVT), (3) Single phase coupling capacitor voltage transformers (CCVT), (2) single phase station service voltage transformers, (2) A-frame line exit structures, (4) single phase line trap for line exit, r, (2) Dual Directional Comparison Blocking for each line exit, associated conductors, telecom terminal equipment, insulators, arresters, foundations and structures | 18.224 | 6/10/2026 |
| n8761.0 | Transmission line tie-in: remove (2) existing structure and install (2) new dead-end structure on concrete pier and anchor bolts, (2) additional steel single pole dead-end structure on concrete piers with anchor bolts, (4) spans of double bundle T-line conductor in an in-and-out arrangement | 10.484 | 6/10/2026 |
| n8762.0 | Keystone upgrade 345: replace/upgrade protective relay to match the new 345 kV Switching Station, install (1) new line trap | 0.385 | 6/10/2026 |
| n8763.0 | Desoto Upgrade 345 kV: Review and revise protective relay to match the new 345 kV Switching Station, install (1) new line trap | 0.125 | 6/10/2026 |
| n8764.0 | Hartford CES Upgrade: Reconfigure the CES with one new SFP transceiver at the Hartford City Station | 0.030 | 6/10/2026 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8765.0 | Jay CES Upgrade: reconfigure the CES with one new Small Form-Factor Pluggable (SFP) transceiver at the Jay Station | 0.030 | 6/10/2026 |
| n8766.0 | Install (2) 0.1 mile of All Dielectric Loose Tube (ADLT) station exit transitions and (2) new fiber-optic cable paths consisting of 3.2 miles of 48 count All Dielectric Self Supporting (ADSS) | 0.767 | 6/10/2026 |
| n8775.0 | Expand existing substation Independence 69 kV / Point Lookout 69 kV: install one new 16 ft. x 12 ft. DICM (drop-in control module) non-mirrored control house expansion, review and revise (as necessary) the protective relay settings for the remainder of the Point Lookout 69 kV Station | 0.395 | 12/7/2027 |
| n8776.0 | Upgrade Fries 69kV substation: review and revise (as necessary) the protective relay settings at the Fries 69 kV Remote End Station | 0.061 | 12/7/2027 |
| n8777.0 | Upgrade Jubal Early 69kV substation: review and revise (as necessary) the protective relay settings at the Fries 69 kV Remote End Station | 0.061 | 12/7/2027 |
| n8781.0 | Expand the TSS 189 Crego road substation to accommodate the AF2-366 project | 6.340 | 3/29/2028 |
| n8782.0 | Relocate L8302 and L11106 138 kV lines to new deadends at TSS 189 Crego Rd Substation | 1.458 | 3/29/2028 |
| n8783.0 | Construct a new 138 kV ring bus station, initially populated with three circuit breakers, expandable to four (4) breakers. | 9.959 | 4/15/2027 |
| n8784.0 | New AF2-375 138 kV switching station Tie-in | 1.120 | 4/15/2027 |
| n8785.0 | Review and revise protective relay settings at Ebersonle 138 kV | 0.453 | 4/15/2027 |
| n8786.0 | Review and revise protective relay settings at Fostoria Central 138 kV | 0.453 | 4/15/2027 |
| n8787.0 | install two new fiber optic cable paths consisting of 0.2 miles of 144 count ADLT cable | 0.241 | 4/15/2027 |
| n8788.0 | Installation of one 16’ x 12’ drop-in control module, Relocation of the circuit breaker “D” bus side disconnect switch. | 0.378 | 1/22/2027 |
| n8791.0 | Modify Blooming East Palmerton - Acahela 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.903 | 12/31/2027 |
| n8792.0 | Modify relays at Acahela 69 kV Substation | 0.137 | 12/31/2027 |
| n8793.0 | Modify relays at East Palmerton 69 kV Substation | 0.137 | 12/31/2027 |
| n8800.0 | New 345 kV 3 breaker ring bus Switching Station with control relaying, 1 drop-In control module, 9 motorized disconnect switches, 6 single phase coupling capacitor voltage transformers, 3 each on the line exits to the proposed AE2-045 and Reynolds 345 kV Stations, 1 line discharging ground switch, 2 single phase line traps for the line exit to the proposed AE2-045 345 kV Station, 2 single phase station service voltage transformers , 2 A-Frame line exit structures, 1 each for line exits to the proposed AE2-045 and Reynolds 345 kV Stations, a dual Directional Comparison Blocking line protection relaying scheme for the line to the proposed AE2-045 345 kV Station, a direct fiber based dual current differential line protection relaying scheme for the line to the Reynolds (NIPSCO) 345 kV Station, associated conductors (buswork, ground grid, jumpers), telecom terminal equipment, insulators, arresters, foundations, and structures. | 14.367 | 11/4/2026 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8801.0 | Interconnection Substation Tie-In with removal of 1 steel lattice structure along the Olive – Reynolds 345 kV Circuit, installation of 2 new steel, single circuit, single pole dead end structures on concrete piers with anchor bolt cages along the existing Olive - Reynolds #1 (NIPSCO) 345 kV Circuit, installation of 1 new steel, single circuit, single pole, running angle structure on a concrete pier with an anchor bolt cage along the existing Olive – Reynolds (NIPSCO) 345 kV Circuit, raising of the Olive – Reynolds #2 Circuit for the Olive – Reynolds #1 Circuit to pass underneath, installation 2 single pole, single circuit, steel dead end structures on concrete piers with anchor bolt cages along the perimeter of the proposed 345 kV switching station, 4 spans of double bundle ACSR 954 (Cardinal) transmission line conductor with Guinea shield wire, cutting in the proposed 345 kV switching station in an in-and-out arrangement. | 3.537 | 11/4/2026 |
| n8802.0 | Remote Settings at Olive 345 kV, review and revise (as needed) the protective relay settings at the Olive 345 kV Station. | 0.071 | 11/4/2026 |
| n8803.0 | Upgrade at Meadow Lake 345 kV reconfigure the Carrier Ethernet Switch with 1 new Small Form-factor transceiver at the Meadow Lake 345 kV station. | 0.059 | 11/4/2026 |
| n8804.0 | Upgrade at Greentown 345 kV reconfigure the CES with 1 new SFP transceiver at the Greentown 345 kV station. | 0.059 | 11/4/2026 |
| n8805.0 | Fiber Installation in New ROW - Install 2 new fiber-optic All Dielectric Loose Tube station exit transitions and 2 new fiber-optic cable paths consisting of 2.6 miles of 144 count ADLT cable installed in new underground ROW to existing splices on the Reynolds – Meadow Lake fiber cable. This installation is required to accommodate fiber-based relaying between the proposed AF1-207 and Reynolds 345 kV Stations, supervisory control and data acquisition connectivity, and carrier ethernet switch connectivity. | 0.757 | 11/4/2026 |
| n8806.0 | Final Tie in for Fiber installation in New ROW at Monticello 345 kV | 0.320 | 11/4/2026 |
| n8817.0 | Substation Expansion at Kanawha River 138 kV | 0.541 | 5/31/2028 |
| n8818.0 | Install new revenue metering on a new structure inside Alloy 34.5 kV Station | 0.887 | 5/31/2028 |
| n8829.0 | Review and revise the protective relay settings to account for the additional generation of AG1-047. | 0.061 | 5/1/2026 |
| n8833.0 | New 345 kV (3) breaker ring bus Switching Station with control relaying, (1) drop in control module (DICM), (6) disconnect switch, (1) additional breaker string disconnect switch, (3) motor operated disconnect switch, (2) Single phase Station Service Voltage Transformers (SSVT), (6) Single phase coupling capacitor voltage transformers (CCVT), (2) H-frame line exit structures, (1) single phase line trap for line exit, (1) Dual Directional Comparison Blocking (DCB) for each line exit, (1) station battery & charger, (1) Integrated Communications Optical Network Multiplexor (ICON MUX), associated conductors, telecom terminal equipment, insulators, arresters, foundations and structures | 8.322 | 12/31/2027 |
| n8834.0 | Transmission line tie-in: remove (1) existing structure and install (2) new dead-end structure on concrete pier and anchor bolts, (2) new H-frame structure on concrete piers with anchor bolts, (2) new single-pole dead-end structure on concrete piers with anchor bolts (4) spans T-line conductor in an in-and-out arrangement, (2) sheild wire | 1.749 | 12/31/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8835.0 | Hillsboro upgrade 138: replace/upgrade protective relay with ICON MUX diff relay, Reconfigure existing ICON, remove existing line trap & tuner line to Hutchings 138 kV, replace existing 1-phase CCVT with 3-phase CCVT | 0.443 | 12/31/2027 |
| n8836.0 | Hutchings 138 kV: Review and revise protective relay settings | 0.604 | 12/31/2027 |
| n8837.0 | AC2-061 138 kV: reconfigure the ICON at the AC2-061 138 kV station for fiber-optic communication connectivity with the proposed AF2-440 138 kV interconnection station | 0.023 | 12/31/2027 |
| n8838.0 | Install 0.3 mile of All Dielectric Loose Tube (ADLT) for two new extensions from the proposed IMTCo 138 kV station to the new 85-foot transmission line extension dead ends and transition the extensions into two new OPGW splices. | 0.300 | 12/31/2027 |
| n8839.0 | New 138 kV substation: Review and revise protective relay settings to account for the additional generations | 0.061 | 12/31/2027 |
| n8840.0 | Construct new 3 breaker ring along Back Oak-Hatfield 500 kV line | 0.901 | 12/10/2029 |
| n8841.0 | Install/Test 3,115 ft underground 96,888 aerial 48F/SM ADSS from Jade Meadow AG1-363 substation control house to Black Oak #1 substation control house | 3.420 | 12/10/2029 |
| n8842.0 | Design, install, test/commission MPLS equipment for SCADA at Hatfield Substation (KATCo) | 0.236 | 12/10/2029 |
| n8843.0 | Cut existing Hatfield-Black Oak 500 kV approximately 5.3 miles from Black Oak Sub and 56 miles from Hatfield sub to create loop into new substation | 7.000 | 12/10/2029 |
| n8844.0 | Install one(1) line relaying panel at Black Oak Substation | 0.663 | 12/10/2029 |
| n8845.0 | Install one(1) line relaying panel at Hatfield Substation (KATCo) | 0.682 | 12/10/2029 |
| n8846.0 | IMTCo will review and revise (as necessary) the protective relay settings at the proposed AF1-207 345 kV Station to account for the additional generation. | 0.061 | 5/5/2027 |
| n8854.0 | IMTCo will review and revise (as necessary) the protective relay settings at the Allen 345 kV Station to account for the additional generation. | 0.061 | 12/23/2027 |
| n8855.0 | IMTCo will review and revise (as necessary) the protective relay settings at the Allen 345 kV Station to account for the additional generation. | 0.061 | 12/23/2027 |
| n8857.0 | Construct new three breaker ring bus on the Millville – Old Chapel (Double Toll Gate) 138 kV line for AG1-307 Interconnection Substation | 9.520 | 11/1/2027 |
| n8858.0 | Design, installation, and testing/commissioning for MPLS equipment for SCADA transport at AG1-307 Substation | 0.231 | 11/1/2027 |
| n8859.0 | Cut and loop in the Millville – Old Chapel (Double Toll Gate) 138 kV line to the interconnection substation for AG1307, approximately 0.1 mile | 0.837 | 11/1/2027 |
| n8860.0 | Double Toll Gate Substation - Update relay settings | 0.055 | 11/1/2027 |
| n8861.0 | Millville Substation - Update relay settings | 0.053 | 11/1/2027 |
| n8862.0 | AG1-182/AG1-186 Substation - Update relay settings | 0.055 | 11/1/2027 |
| n8870.0 | Review and update relay settings for Ontelaunee Substation | 0.051 | 11/30/2027 |
| n8885.0 | Installation of one new 3000A 138 kV circuit breaker with associated control relaying, creating a new line exit position on the western face of the 138 kV box bay.<br>Installation of two new 138 kV breaker disconnect switches. | 0.901 | 1/19/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | Installation of three single phase capacitor coupled voltage transformers (CCVT) for the new line exit to the Allen 138 kV Station.<br>Associated conductors, insulators, arrestors, foundations, and structures<br>Review and revision (as necessary) of the protective relay settings for the remainder of the Magley 138 kV Station. | | |
| n8886.0 | The Magley – Allen 138 kV Circuit will be reterminated into the western face of the 138 kV box bay at the Magley 138 kV Station. The circuit will then be rerouted to the north, creating sufficient clearance for the installation of the new line exit to the AG1-232 generation facilities. Required facilities will include but are not limited to:<br>Installation of two single pole, single circuit, steel running angle structures on concrete piers with anchor bolt cages.<br>Installation of one single pole, single circuit, steel dead end structure on a concrete pier with an anchor bolt cage.<br>Installation of three spans of aluminum conductor steel reinforced (ACSR) 795 (Drake) transmission line conductor with 7#8 Alumoweld shield wire.<br>Removal of one existing steel pole structure in the Magley – Allen 138 kV Circuit Right of Way. | 0.898 | 1/19/2028 |
| n8887.0 | Extend the existing Vandalia 69 kV south bus by one bay to accommodate a new disconnect switch and breaker. Procure and install new breakers, disconnect switches, structures, and foundations | 1.487 | 10/1/2027 |
| n8892.0 | Three 63 kA circuit breakers with associated control relaying.<br>One 16' x 48' Drop-In Control Module (DICM).<br>Nine (9) motorized disconnect switches.<br>Six (6) single phase coupling capacitor voltage transformers (CCVT), three each on the line exits to the proposed AF1-215 and AF2-133 345 kV Stations.<br>Two single phase station service voltage transformers (SSVT).<br>Two A-Frame line exit structures, one each on the line exits to the proposed AF1-215 and AF2-133 345 kV Stations.<br>Two single phase line traps on the line exit to the proposed AF1-215 345 kV Station.<br>A fiber-based Integrated Communications Optical Network Multiplexor (ICON MUX) dual current differential line protection relay scheme for the line to the proposed AF2-133 345 kV Station.<br>A Dual Directional Comparison Blocking (DCB) with Direct Transfer Trip (DTT) line protection relay scheme for the line to the proposed AF1-215 345 kV Station.<br>Associated conductors (buswork, ground grid, jumpers), telecom terminal equipment, insulators, arresters, foundations, and structures. | 13.920 | 9/30/2027 |
| n8893.0 | Install two All Dielectric Loose Tube (ADLT) fiber-optic cable station exit transitions<br>Two new fiber-optic cable paths consisting of 14.4 miles of 144 count ADLT cable installed in new underground ROW.<br>This installation is required to accommodate fiber-based relaying between the New 345 kV Switching Station and proposed AF2-133 345 kV Stations, supervisory control and data acquisition (SCADA) connectivity, and carrier ethernet switch (CES) connectivity. | 4.195 | 9/30/2027 |
| n8894.0 | Removal of three existing steel lattice structures (structures 205, 206, and 207). | 6.204 | 9/30/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | Installation of two new steel, single circuit, single pole dead end structures on concrete piers with anchor bolt cages.<br>Installation of two steel, single circuit, single pole, running angle structures on concrete piers with anchor bolt cages.<br>Installation of three steel, single circuit, single pole, tangent structures on concrete piers with anchor bolt cages.<br>Installation of four (4) spans of double bundle ACSR 954 (Cardinal) transmission line conductor with 7#8 Alumoweld shield wire. | | |
| n8895.0 | Replacement of the protective relays to accommodate a fiber-based ICON MUX dual current differential line protection scheme at the proposed AF2-133 345 kV Station. | 0.335 | 9/30/2027 |
| n8896.0 | Review and revision of the protective relay settings at the proposed AF1-215 345 kV Station. | 0.071 | 9/30/2027 |
| n8897.0 | Reconfigure the Carrier Ethernet Switch (CES) with a new Small Form-factor Pluggable (SFP) transceiver at the proposed AF2-205 345 kV Station. | 0.055 | 9/30/2027 |
| n8898.0 | Final Tie in for Fiber installation in New ROW | 0.320 | 9/30/2027 |
| n8899.0 | Stand-Alone Network: New 345 kV (3) breaker ring bus Switching Station with control relaying, (1) drop in control module (DICM), (9) motor operated disconnect switch, (2) Single phase Station Service Voltage Transformers (SSVT), (6) Single phase coupling capacitor voltage transformers (CCVT), (2) A-frame line exit structures, (4) single phase line trap for line exit, (2) Dual Directional Comparison Blocking (DCB), associated conductors, telecom terminal equipment, insulators, arresters, foundations and structures | 13.970 | 3/22/2027 |
| n8900.0 | Transmission 345 kV Tie-in: Installation of two new 150' steel, single circuit, single pole dead end structures on concrete piers with anchor bolt cages in the existing Olive - Reynolds #2 345 kV Circuit Right of Way.<br>Installation of one 170' steel, single circuit, single pole, running angle structure on a concrete pier with an anchor bolt cage to support the Olive – Reynolds #1 345 kV Circuit, maintaining clearances with the Olive – Reynolds #2 345 kV Circuit. Installation of two spans of double bundle ACSR 954 (Cardinal) transmission line conductor with Guinea 159 ACSR 12/7 shield wire, cutting in the New 345 kV Switching Station in an in-and-out arrangement | 1.866 | 3/22/2027 |
| n8901.0 | AF2-215 345 kV: Review and revise protective relay settings | 0.071 | 3/22/2027 |
| n8902.0 | AF2-133 345 kV: Review and revise protective relay settings | 0.394 | 3/22/2027 |
| n8903.0 | Stand-Alone Fiber installation in New Right-Of-Way if AF2-133 project executed: Replacement of the DCB line protection relay scheme for the line to the New AF1-215 345 kV Switching Station with a dual fiber-based Integrated Communications Optical Network Multiplexor (ICON MUX) current differential relaying scheme for the line to the proposed AF2-133 345 kV Station. Removal of two line traps on the line exit to the New AF1-215 345 kV Switching Station at the New AF2-205 345 kV Switching Station. | 2.738 | 3/22/2027 |
| n8904.0 | Fiber Tie-in: install two new All Dielectric Loose Tube (ADLT) fiber-optic cable station exit transitions and 9.4 miles of 96 count ADLT cable installed in new underground ROW. This installation is required to accommodate fiber-based relaying between the proposed New AF2-133 and AF2-205 345 | 0.320 | 3/22/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | kV Switching Stations, supervisory control and data acquisition (SCADA) connectivity, and carrier ethernet switch (CES) connectivity. | | |
| n8905.0 | Three 63 kA circuit breakers with associated control relaying.<br>One 16' x 48' Drop-In Control Module (DICM).<br>Nine (9) motorized disconnect switches.<br>Six (6) single phase coupling capacitor voltage transformers (CCVT), three each on the lines to the Eugene and Dequine 345 kV Stations.<br>Two single phase station service voltage transformers (SSVT).<br>Two A-Frame line exit structures, one each on the line exits to the Eugene and Dequine 345 kV Stations.<br>Associated conductors (buswork, ground grid, jumpers), telecom terminal equipment, insulators, arresters, foundations, and structures.<br>A fiber-based Integrated Communications Optical Network Multiplexor (ICON MUX) dual current differential line protection relay scheme for the line to the Dequine Station.<br>A fiber-based Integrated Communications Optical Network Multiplexor (ICON MUX) dual current differential line protection relay scheme for the line to the Eugene Station.<br>The civil work required to develop a site that accommodates the installation of the above station includes grading of a 580' x 370' pad with an assumed fall across the pad of 18' and a minimum of 200' x 24' of access road. | 16.464 | 1/19/2028 |
| n8906.0 | Removal of one double circuit lattice tower along the existing Dequine – Eugene 345 kV Circuit.<br>Installation of two 120' new steel, single circuit, single pole dead end structures on concrete piers with anchor bolt cages along the existing Dequine - Eugene 345 kV Circuit.<br>Installation of one 120' steel, single circuit, single pole, running angle structure on a concrete pier with an anchor bolt cage to support the Dequine – Sullivan 345 kV Circuit, maintaining clearances to the Dequine – Eugene 345 kV Circuit.<br>Installation of two spans of double bundle ACSR 954 (Cardinal) transmission line conductor with ACSR GUINEA shield wire, cutting in the proposed 345 kV station in an in-and-out arrangement. | 1.866 | 1/19/2028 |
| n8907.0 | IMTCo will review and revise (as needed) the protective relay settings at the Dequine 345 kV Station.<br>IMTCo will reconfigure the existing carrier ethernet switch (CES) and dual ICON MUX, installing three new transceivers at the Dequine Station.<br>IMTCo will upgrade the existing relays at the Dequine 345 kV Station by installing a new dual fiber-based ICON MUX current differential protection scheme. | 0.496 | 1/19/2028 |
| n8908.0 | IMTCo will review and revise (as needed) the protective relay settings at the Eugene 345 kV Station.<br>IMTCo will upgrade the existing relays at the Eugene 345 kV Station by installing a new dual fiber-based ICON MUX current differential protection scheme.<br>IMTCo will reconfigure the existing carrier ethernet switch (CES) and dual ICON MUX, installing three new transceivers at the Eugene Station. | 0.493 | 1/19/2028 |
| n8909.0 | IMTCo will install two new fiber-optic cable station exit transitions to new splices on the existing Eugene – Dequine 345 kV OPGW. This installation is required to accommodate ICON MUX relaying between the proposed AG1- | 0.301 | 1/19/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | 237, Eugene, and Dequine 345 kV Stations, supervisory control and data acquisition (SCADA) connectivity, and carrier ethernet switch (CES) connectivity. | | |
| n8915.0 | Modify Sunbury-Dauphin 69 kV line to tie in the new Transmission Owner Interconnection Facility. | 0.903 | 12/31/2027 |
| n8916.0 | Modify relays at Sunbury 69 kV Substation | 0.137 | 12/31/2027 |
| n8917.0 | Modify relays at Dauphin 69 kV Substation | 0.137 | 12/31/2027 |
| n8918.0 | New 765 Switching Station on Maryville - Flatlick 765 kV, initially populated with four (4) circuit breakers, expandable to five (5) circuit breakers | 78.390 | 1/17/2028 |
| n8919.0 | Install two new fiber optic cable paths consisting of 0.2 miles of 144 count ADLT cable | 0.690 | 1/17/2028 |
| n8920.0 | Maryville – Flatlick 765 kV new 765 kV switching station tie – in | 8.410 | 1/17/2028 |
| n8921.0 | Review and revise protective relays settings at Maryville 765 kV Substation | 1.660 | 1/17/2028 |
| n8922.0 | Review and revise protective relays settings at Flatlick 765 kV Substation | 1.090 | 1/17/2028 |
| n8923.0 | Review and revise (as necessary) the protective relays settings at the new AG1-125 765 kV Switching Station to account for the additional generation | 0.061 | 1/17/2028 |
| n8924.0 | Interconnection substation tie-in: Cut and loop the Urbana-Darby 138 kV line into the new substation and Re-route Givens Tap 138 kV line | 5.972 | 5/31/2029 |
| n8925.0 | New two-bay breaker and a half switching station | 13.451 | 5/31/2029 |
| n8926.0 | Remote end relaying at Urbana substation | 0.680 | 5/31/2029 |
| n8927.0 | Remote end relaying at Darby substation | 0.710 | 5/31/2029 |
| n8928.0 | Remote end relaying at Mutual substation | 0.073 | 5/31/2029 |
| n8929.0 | Interconnection substation tie-in: Cut and loop the Hutchings-Crown 69 kV line into the new substation and Re-route New LebanonTap 69 kV line | 6.102 | 3/31/2028 |
| n8930.0 | New four-position ring bus switching station; expandable to six | 10.693 | 3/31/2028 |
| n8931.0 | Remote end relaying at Crown substation | 0.075 | 3/31/2028 |
| n8932.0 | Remote end relaying at Hutchings substation | 0.075 | 3/31/2028 |
| n8933.0 | Remote end relaying at Lebanon substation | 0.075 | 3/31/2028 |
| n8934.1 | Three-breaker AF2-304 (AG1-000B) 230 kV switching station located along VEPCO's existing 230 kV line #240 from Wards Creek Substation to Surry Substation | 12.570 | 9/1/2028 |
| n8934.2 | Re-arrange line #240 to loop into and out of the new 230 kV switching station | 3.966 | 9/1/2028 |
| n8934.3 | Remote protection and communication work at Wards Creek, Surry, and Hopewell 230 kV Substations | 0.372 | 9/1/2028 |
| n8935.1 | Build a new AE1-173 500 kV three-breaker ring switching station located along VEPCO's existing 500 kV, 544 line from Carson Substation to Suffolk Substation | 22.897 | 10/1/2029 |
| n8935.2 | Re-arrange line #544 to loop into and out of the new three-breaker AE1-173 500 kV switching station | 5.659 | 10/1/2029 |
| n8935.3 | Remote protection and communication work at Carson and Suffolk 500 kV Substations | 0.191 | 10/1/2029 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n8936.1 | Construct a new 230 kV Generation Interconnect Line into the Edgecombe Nug Station. This will involve a total demo and rebuild of the existing Edgecombe Nug Station | 10.470 | 9/1/2029 |
| n8936.2 | Re-energize Line 229 and Line 2167 to interconnect Edgecombe 230 kV substation | 4.069 | 9/1/2029 |
| n8936.3 | Remote protection and communication work at Hathaway and Tarboro 230 kV substations | 0.389 | 9/1/2029 |
| n8943.0 | Construct a new 69 kV substation consisting of a three-position ring bus off the right-of-way for line #0724 (Salem - Woodstown). Two of the positions on the ring bus will be transmission line terminals for the tie-in of line #0724 to the substation. The third position will be a terminal configured for the interconnection of the AG1-254 generator. Install new protective relays for the AG1-254 terminal and ACE line terminals on the new three-breaker ring bus. | 11.124 | 5/1/2029 |
| n8944.0 | Update primary relaying for line #0724 at Churchtown substation. | 0.023 | 5/1/2029 |
| n8945.0 | Update primary relaying for line #0724 at Woodstown substation. | 0.023 | 5/1/2029 |
| n8946.0 | Modify Line #0724 to loop it in and out of the new ring bus. Install two steel poles and two overhead spans to the new substation. | 1.283 | 5/1/2029 |
| n8947.0 | Install two new fiber optic cable paths consisting of 0.5 miles of 48 count ADLT cable installed in new underground ROW and associated terminating equipment and devices (transceivers, multiplexors, routers) | 0.403 | 5/15/2027 |
| n8948.0 | Reconfigure Raritan River substation and add a new 230 kV circuit breaker to support AF2-413 generator interconnection. | 4.474 | 11/30/2029 |
| n8949.0 | Upgrade relay settings for EH Werner Substation | 0.061 | 11/30/2029 |
| n8950.0 | Upgrade relay settings for Parlin Substation | 0.061 | 11/30/2029 |
| n8951.0 | Upgrade relay settings for Red Oak Substation | 0.061 | 11/30/2029 |
| n8952.0 | Upgrade relay settings for South River Substation | 0.061 | 11/30/2029 |
| n8956.0 | New AF2-359 345 kV switching station Tie-in | 2.124 | 12/5/2026 |
| n8957.0 | Review and revise protective relay settings at Olive 345 kV | 0.071 | 12/5/2026 |
| n8958.0 | Review and revise protective relay settings at University Park 345 kV | 0.450 | 12/5/2026 |
| n8959.0 | Upgrade Clay 345 kV substation to interconnect the AF1-282 Generating Facility. Remove existing rigid bus and install one 345 kV breaker and one 345 kV disconnect switch on existing stand in the fourth (future) position of the ring bus. Install rigid bus from the 345 kV ring to the new take-off structure location. Install three line PT's at the new take-off structure location, and add one new relay panel for line protection and metering of the AF1-282 generator tie line in the existing control enclosure. Also install rigid bus and two additional 345 kV disconnect switches on the north end of the ring to accommodate future expansion of the ring | 2.937 | 5/1/2030 |
| n8960.0 | Review and update relay protection settings at Lynchburg substation | 0.075 | 5/1/2030 |
| n8961.0 | Review and update relay protection settings at Stuart substation | 0.075 | 5/1/2030 |
| n8962.0 | Review and revise relay settings as required | 0.065 | 12/31/2027 |
| n8977.0 | (Oversight)Stand-Alone Network: New 345 kV (3) breaker ring bus Switching Station with control relaying, (1) drop in control module (DICM), | 0.415 | 2/9/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | (9) motor operated disconnect switch, (1) phase to ground switch, (2) Single phase Station Service Voltage Transformers (SSVT), (6) Single phase coupling capacitor voltage transformers (CCVT), (2) A-frame line exit structures, (4) single phase line trap for line exits, (2) Dual Directional Comparison Blocking (DCB),(2) A-frame line exit structure, associated conductors, telecom terminal equipment, insulators, arresters, foundations and structures | | |
| n8978.0 | Transmission 345 kV Tie-in: Two new 130' custom steel, single circuit, three-pole dead end structures on concrete piers with anchor bolt cages, One new 140' custom steel, single circuit, single-pole dead end structure on a concrete pier with an anchor bolt cage, Two spans of aluminum conductor steel reinforced (ACSR) 2156 (Bluebird) transmission line conductor with ACSR 159 (Guinea) shield wire. | 2.738 | 2/9/2027 |
| n8979.0 | Olive 345 kV: Review and revise protective relay settings | 0.071 | 2/9/2027 |
| n8980.0 | AE2-045 345 kV: Review and revise protective relay settings | 0.071 | 2/9/2027 |
| n8985.0 | Update relay settings at Lake Nelson for the two circuits entering the station from JCPL's Raritan River station | 0.307 | 11/30/2029 |
| n8986.0 | Expansion of the Clifford 138 kV Station ground grid (including yard and fence) | 1.583 | 12/31/2027 |
| n8987.0 | IMPCo will review and revise (as necessary) the protective relay settings at the Sullivan 345 kV Station to account for the additional generation. | 0.061 | 1/26/2028 |
| n8988.0 | Tie the proposed AF2-106 138 kV Switching Station into the existing Glen Lyn – Claytor #1 138 kV Circuit | 6.720 | 2/28/2028 |
| n8989.0 | Replace the protective relays, remove one wave trap and install a new ICON at Claytor 138 kV Station. | 0.983 | 2/28/2028 |
| n8990.0 | Review and revise the protective relay settings at the Glen Lyn 138 kV Station. | 0.071 | 2/28/2028 |
| n8991.0 | Install one new All Dielectric Loose Tube (ADLT) fiber-optic cable station exit transition and 0.2 miles of new ADLT fiber-optic cable to a new splice on existing fiber-cable at the Morgan's Cut 138 kV Station | 0.218 | 2/28/2028 |
| n8992.0 | Tie in the proposed 138 kV station into existing Sporn South-Leon circuit (APCo) | 7.340 | 3/31/2028 |
| n8993.0 | Replace existing protective relays with new fiber-based ICON MUX current differential relays at Sporn South 138 kV station (APCo) | 0.377 | 3/31/2028 |
| n8994.0 | Reconfigure existing ICON with one new small form-factor pluggable (SFP) transceiver at Sporn 345 kV station (APCo) | 0.030 | 3/31/2028 |
| n8995.0 | Reconfigure existing ICON with one new (SFP) transceiver at Mountaineer 765 kV station (APCo) | 0.030 | 3/31/2028 |
| n8996.0 | Review and revise (as needed) protective relay settings at Leon 138 kV station (APCo) | 0.027 | 3/31/2028 |
| n8997.0 | Fiber installation in existing ROW for AF2-291 interconnection | 0.306 | 3/31/2028 |
| n8998.0 | Final tie in for fiber installation in new ROW for AF2-291 interconnection | 0.068 | 3/31/2028 |
| n9000.0 | (1) New three, expandable to four (4), breaker 138 kV ring bus substation | 7.100 | 3/31/2028 |
| n9001.0 | Stand-Alone Network: New 345 kV (3) breaker ring bus Switching Station with control relaying, (1) drop in control module (DICM), (9) motor operated | 0.415 | 2/6/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| | disconnect switch, (2) Single phase Station Service Voltage Transformers (SSVT), (6) Single phase coupling capacitor voltage transformers (CCVT), (2) A-frame line exit structures, (2) single phase line trap for line exit, (2) Dual Directional Comparison Blocking (DCB), associated conductors, telecom terminal equipment, insulators, arresters, foundations and structures | | |
| n9002.0 | Transmission 345 kV Tie-in: Installation of two 120' steel, double circuit, single pole dead end structures on concrete piers with anchor bolt cages in the existing Reynolds - Olive #2 345 kV Circuit Right of Way.<br>Installation of two 120' steel, single circuit, single pole, dead end structures along the perimeter of the proposed New 345 kV Switching Station.<br>Installation of four (4) spans of double bundle ACSR 954 (Cardinal) transmission line conductor with 7#8 Alumoweld shield wire, cutting in the proposed 345 kV station in an in-and-out arrangement.<br>Removal of one existing steel lattice structure (structure #226). | 2.491 | 2/6/2027 |
| n9003.0 | AF2-215 345 kV: Review and revise protective relay settings | 0.071 | 2/6/2027 |
| n9004.0 | AF2-133 345 kV: Review and revise protective relay settings | 0.071 | 2/6/2027 |
| n9005.0 | Fiber Tie-in: Install two new All Dielectric Loose Tube (ADLT) fiber-optic cable station exit transitions, splicing into the new fiber-cables to be installed by the proposed AF2-205 Switching Station project. | 0.274 | 2/6/2027 |
| n9006.0 | Revise relay settings at Beaver Substation | 0.053 | 4/1/2026 |
| n9007.0 | Revise relay settings at NASA Substation | 0.053 | 4/1/2026 |
| n9008.0 | Revise relay settings at Wellington Substation | 0.053 | 4/1/2026 |
| n9009.0 | Revise relay settings at Ford Substation | 0.055 | 4/1/2026 |
| n9010.0 | Revise relay settings at Henrietta Substation | 0.055 | 4/1/2026 |
| n9011.0 | Revise relay settings at Johnson Substation | 0.055 | 4/1/2026 |
| n9012.0 | Revise relay settings at Woodings Substation | 0.100 | 4/1/2026 |
| n9022.0 | Review & revise the protective relay settings at the new AF2-132 switching station to account for additional generations. | 0.061 | 1/15/2028 |
| n9023.0 | New 69 kV ring bus station; initially populated with three circuit breakers, expandable to four (4) circuit breakers | 0.000 | 2/26/2027 |
| n9024.0 | Proposed AF2-389 69 kV Switching Station Tie-in | 0.000 | 2/26/2027 |
| n9025.0 | Reconfigure the existing ICON and carrier ethernet switch (CES), installing two new small form-factor pluggable (SFP) transceivers at the AF2-083 69 kV Station.<br>Review and revise the protective relay settings there. | 0.000 | 2/26/2027 |
| n9026.0 | Reconfigure the existing ICON, installing one new SFP transceiver at the Stone Lake 69 kV Station.<br>Review and revise the protective relay settings there. | 0.000 | 2/26/2027 |
| n9027.0 | Reconfigure the existing CES at Corey 69 kV Station, installing one new SFP transceiver there. | 0.000 | 2/26/2027 |
| n9028.0 | Install two new fiber-optic cable-station exit transitions and 0.2 miles of 144 count ADLT cable to new splices on the existing all dielectric self-supporting (ADSS) cable. | 0.000 | 2/26/2027 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n9029.0 | Proposed AF2-389, proposed AF2-083, and Stone Lake 69 kV Switching Stations - Final Tie in for Fiber installation in New ROW. | 0.000 | 2/26/2027 |
| n9038.0 | TSS 931 Cottonwood creek substation - Distribution for Aux Power | 5.450 | 12/31/2029 |
| n9039.0 | Transmission tie the proposed 138 kV Switching Station into the proposed Lockbourne - Good Hope line | 1.441 | 1/31/2028 |
| n9040.0 | Review and revise (as needed) the protective relay settings at the Lockbourne 138 kV Switching Station. | 0.088 | 1/31/2028 |
| n9041.0 | Review and revise (as needed) the protective relay settings at the Lemaster 138 kV Switching Station. | 0.088 | 1/31/2028 |
| n9042.0 | Install two new All Dielectric Loose Tube (ADLT) fiber-optic cable in new underground ROW and associated terminating equipment and devices (transceivers, multiplexors, routers). | 0.395 | 1/31/2028 |
| n9043.0 | Review and revise (as needed) the protective relay settings at the new proposed 138 kV Switching Station. | 0.061 | 1/31/2028 |
| n9047.0 | Review and revise the protective relay settings at the College Corner 138 kV Station | 0.061 | 2/24/2027 |
| n9051.0 | Expansion of existing Dequine 345 kV substation | 1.450 | 1/31/2028 |
| n9054.0 | Upgrade the existing Tillman 138 kV Switching Station | 2.618 | 3/2/2028 |
| n9055.0 | Allen – Timber Switch 138 kV Circuit re-route. | 1.002 | 3/2/2028 |
| n9056.0 | Reconfigure the existing ICON and review and revise the protective relay settings. | 0.084 | 3/2/2028 |
| n9057.0 | Reconfigure the existing ICON and review and revise the protective relay settings plus replace aluminum conductor jumper. | 0.084 | 3/2/2028 |
| n9058.0 | Expand to the south and east by roughly 120’ x 60’ including civil pad work, fencing, and ground grid. | 0.613 | 3/2/2028 |
| n9065.0 | Reconfigure the existing CES, installing one new transceiver at Hartford 345 kV | 0.059 | 12/29/2028 |
| n9066.0 | Reconfigure the existing CES, installing one new transceiver at Bluffton 345 kV | 0.059 | 12/29/2028 |
| n9067.0 | Final fiber tie-in at the new 345 kV Switching Station. | 0.320 | 12/29/2028 |
| n9068.0 | New 345 kV Switching Station tie-in to Sorenson -Desoto 345 kV. | 1.866 | 12/29/2028 |
| n9069.0 | Review and revise the protective relay settings and Install one single phase line trap on the line exit at Desoto 345 kV | 0.146 | 12/29/2028 |
| n9070.0 | Review and revise the protective relay settings and Install one single phase line trap on the line exit ar Sorenson 345 kV | 0.146 | 12/29/2028 |
| n9079.0 | Expand Mississinewa Sub property and remove existing equipment | 0.904 | 1/31/2028 |
| n9080.0 | Upgrade the existing Mississinewa 138 kV Station for interconnection of PJM queue project AG1-414 | 3.882 | 1/31/2028 |
| n9081.0 | Modify the existing Deer Creek – Wes Del 138 kV Circuit, raising the circuit to accommodate the crossing of the generation lead circuit underneath | 1.850 | 1/31/2028 |
| n9082.0 | Upgrade the protective relaying at the Deer Creek substation | 0.396 | 1/31/2028 |
| n9083.0 | Upgrade the protective relaying at the proposed AE1-207 138 kV Switching Station | 0.358 | 1/31/2028 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n9084.0 | KPCo will review and revise the protective relay settings at the Inez 138 kV Station. | 0.061 | 2/29/2028 |
| n9085.0 | East Towanda Substation: Install (1) 230 kV wave trap, line tuner, and coax. Install (1) carrier panel containing (2) RFL GARD 8000 units, (1) PCM-5350, and (1) skewed hybrid. Review and revise relay settings as required. | 0.532 | 11/1/2026 |
| n9086.0 | Install approx. 3.15 miles of new 48-count OPGW/ADSS fiber solution between the planned AE2-226 Kabletown interconnecting substation and the planned AG1-307 interconnecting substation. | 0.688 | 11/1/2027 |
| n9098.0 | Construct a new 138 kV ring bus Switching Station initially populated with three circuit breakers, expandable to four (4) circuit breakers on the Claytor - Glen Lyn #1 Circuit. | 9.291 | 2/28/2028 |
| n9099.0 | Install new 230 kV breaker, switches, foundations and structures in the existing Dickerson 230 kV breaker-and-a-half bay. | 4.940 | 8/1/2030 |
| n9100.0 | Install new 69 kV terminal position at Ontario 69 KV substation | 9.132 | 2/28/2028 |
| n9135.0 | Upgrade the Powerton-Tazewell 345 kV circuit 1 terminal equipment and breaker and a half leg at Tazewell from 3000A to 4000A. Rebuild 0.6 miles of the Powerton-Tazewell 345 kV transmission line to increase the ampacity to 4000A | 2.760 | 12/1/2025 |
| n9270.0 | Expand the Clay 345 kV substation to a five-breaker ring bus. Remove one 345 kV breaker, install two 345 kV breakers, four (4) 345 kV disconnect switches, one take-off structure for the AF1-283 line terminal position, three line PT's, three arresters, one shield mast, new rigid bus and steel supports. One station service transformer will be relocated. | 8.560 | 5/1/2030 |
| n9271.0 | Review and update relay protection settings at Lynchburg substation | 0.075 | 5/1/2030 |
| n9272.0 | Review and update relay protection settings at Stuart substation | 0.075 | 5/1/2030 |
| n9278.0 | Centerburg 138 kV - review and revise relay settings for AG1-024 | 0.060 | 11/30/2028 |
| n9279.0 | Centerburg 138 kV - review and revise relay settings for AG1-034 | 0.060 | 11/30/2028 |
| n9285.0 | Remove the existing 138/69 kV TR1 transformer.<br>Remove the existing dual 2000 kCM Strain Bus Assembly on the 138 kV side. | 0.289 | 1/19/2028 |
| n9286.0 | Replace existing 138/69 kV TR1 transformer with a 130 MVA transformer. This replacement is required due to a criteria violation not considered under the PJM studies. AEP performs a separate study that monitors non-PJM monitored (sub-transmission) utility equipment.<br>Move the primary station service with the new transformer.<br>Replace the TR1 transformer low side jumpers to reach the box bay structure. | 2.501 | 1/19/2028 |
| n9290.0 | Add new line position and two 230 kV breakers at Remington CT substation for AG1-152 | 13.264 | 9/1/2029 |
| n9293.0 | Construct 12.5 kV circuit to Tar River Substation | 4.500 | 6/1/2028 |
| n9294.0 | Expand Tar River Substation | 1.500 | 6/1/2028 |
| n9296.0 | Re-arrange line #2145 to loop into and out of the new three breaker AF2-013 230 kV switching station | 3.025 | 10/1/2029 |
| n9297.0 | Build a 230 kV three breaker ring AF2-013 switching station | 12.198 | 10/1/2029 |

| SubId | Description | Cost Estimate ($M) | Required In-Service Date |
|---|---|---|---|
| n9298.0 | Remote protection and communication work at Arnold's Corner 230 kV Substation, Dahlgren 230 kV Substation, and Birchwood Nug 230 kV Substation for AF2-013 | 0.517 | 10/1/2029 |
| n9298.1 | Arnold's Corner 230 kV Substation: Project AF2-013 provides for drawing work, relay resets, and field support necessary to change the line 2145 destination at Arnold's Corner Substation | 0.000 | 10/1/2029 |
| n9298.2 | Dahlgren 230 kV Substation: Project AF2-013 provides for drawing work, islanding panel addition, relay resets, and field support necessary to change line 2145 destination to AF2-013 Generator Interconnect. | 0.000 | 10/1/2029 |
| n9298.3 | Birchwood Nug 230 kV Substation: Project AF2-013 provides for drawing work, islanding panel addition, relay resets, and field support necessary to change line 2145 destination from Birchwood Nug to AF2-013 Generator Interconnect | 0.000 | 10/1/2029 |
| n9300.0 | Review and revise (as necessary) the protective relay settings at the Logtown 138 kV Station, and replace current transformer on the line exit to AG1-369 Generating Facility at the Logtown 138 kV Station | 0.022 | 3/17/2029 |
| n9301.0 | Review and revise (as necessary) the protective relay settings at the Logtown 138 kV Station to account for the additional generation | 0.061 | 3/17/2029 |
| n9303.0 | Upgrade line relaying equipment at Mainesburg terminal. | 0.956 | 5/31/2027 |
| n9304.0 | Upgrade line relaying equipment at Homer City terminal. | 0.950 | 5/31/2027 |
| n9316.0 | Change relay settings at the Maysville Substation | 0.055 | 1/18/2027 |
| n9317.0 | Change relay settings at the McDowell Substation | 0.053 | 1/18/2027 |
| n9318.0 | Change relay setting at the Cedar Street Substation | 0.053 | 1/18/2027 |
| n9319.0 | Change relay settings at the Campbell Substation | 0.053 | 1/18/2027 |
| n9320.0 | Change relay settings at the Sharon Substation | 0.053 | 1/18/2027 |
| n9321.0 | Change relay settings at the Dillworth Substation | 0.052 | 1/18/2027 |
| n9642.0 | New four-position ring bus switching station expandable to six, Olive substation 69 kV. | 10.693 | 1/2/2028 |