



# **PJM Baseline Reliability Assessment**

## **2025–2040 Period: TPL-001-5.1**

**PJM**

**March 18, 2026**

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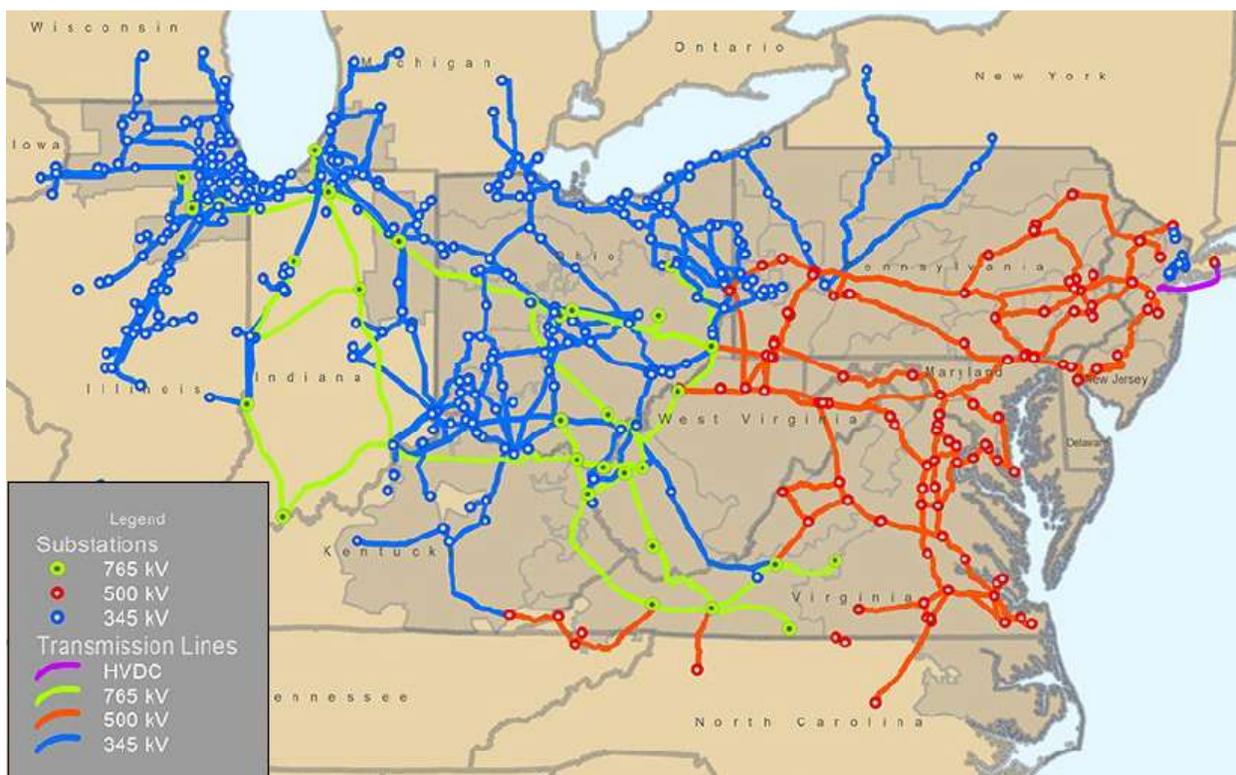
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## Introduction

PJM, a FERC-approved regional transmission organization (RTO), coordinates the movement of wholesale electricity across a high-voltage transmission system in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia, as shown on Map 1. PJM’s footprint encompasses major U.S. load centers from the Atlantic Coast to the western border of Illinois, including the metropolitan areas in and around Baltimore, Chicago, Columbus, Cleveland, Dayton, Newark, Norfolk, Philadelphia, Pittsburgh, Richmond, Toledo and Washington, D.C. PJM’s RTEP process identifies transmission system additions and improvements needed to serve more than 67 million people throughout 13 states and the District of Columbia. The PJM system includes key U.S. Eastern Interconnection transmission arteries, providing members with access to PJM’s regional power markets as well as those of adjoining systems. Collaborating with more than 1,000 members, PJM dispatches more than 182,000 MW of generation capacity over 88,000 miles of transmission lines over 360,000 square miles of territory.

**Map 1.** Existing PJM 345 kV, 500 kV and 765 kV Network



As a Federal Energy Regulatory Commission (FERC)-approved Regional Transmission Organization (RTO), one of PJM’s core functions encompasses regional transmission planning. PJM is also a North American Electric Reliability Corporation (NERC)-registered Reliability Coordinator, Planning Coordinator and Transmission Planner. PJM’s annual planning process is known as the PJM Regional Transmission Expansion Plan (RTEP). The RTEP process is established in the PJM Operating Agreement, Schedule 6 – Regional Transmission Expansion Planning Protocol. The RTEP processes and procedures are described in detail in the PJM Regional Transmission Planning Process manuals. PJM Manual 14B, PJM Region Transmission Planning Process, contains the process used to complete the annual baseline reliability assessment.

PJM’s Regional Transmission Expansion Plan (RTEP) identifies transmission upgrades and enhancements that are required to preserve the reliability of the transmission system. The PJM system is planned such that it can be operated to applicable system operating limits (SOLs) while supplying projected customer demands and projected firm transmission service over a range of forecast system demands under contingency conditions that have a reasonable probability of occurrence. PJM reliability planning encompasses a comprehensive series of detailed analyses that ensure reliability and compliance under the most stringent of the applicable NERC, Regional Entity (RE or SERC, as applicable), PJM and local criteria. To accomplish this each year, a baseline assessment is completed for applicable facilities over the near term (1–5 years) and longer term (years 6–15). All BES facilities are included in the RTEP baseline assessment process as required by NERC standards.

PJM is registered with NERC as the Reliability Coordinator (RC), Transmission Operator (TOP), Balancing Authority (BA), Planning Coordinator (PC), Transmission Planner (TP), Transmission Service Provider (TSP) and Resource Planner (RP). There are multiple transmission zones within PJM. **Table 1** lists individual transmission zones in the PJM footprint. A few smaller PJM transmission owners are modeled within another larger PJM transmission area and are not explicitly listed on this table. Examples of these are SMECO, AMPT, CPP, EPRS, HTP, NEPT, ITCI, Linden, NEET, ODEC, NETD, Transource and COH.

**Table 1.** PJM Area Transmission Zones

|         |   |
|---------|---|
| AP      | Allegheny Power (FirstEnergy)                     |
| AE      | Atlantic City Electric                            |
| AEP     | American Electric Power                           |
| ATSI    | American Transmission Systems, Inc. (FirstEnergy) |
| BGE     | Baltimore Gas and Electric                        |
| ComEd   | Commonwealth Edison                               |
| DAY     | AES Ohio, formerly Dayton Power and Light Company |
| DEO&K   | Duke Energy Ohio and Kentucky                     |
| DLCO    | Duquesne Light Company                            |
| DP&L    | Delmarva Power                                    |
| EKPC    | East Kentucky Power Cooperative                   |
| JCP&L   | Jersey Central Power and Light                    |
| METED   | Metropolitan Edison Co                            |
| OVEC    | Ohio Valley Electric Corporation                  |
| PECO    | PECO Energy Company                               |
| PENELEC | Pennsylvania Electric Company                     |
| PEPCO   | Potomac Electric Power Company                    |
| PPL     | PPL Electric Utilities                            |
| PSEG    | Public Service Electric & Gas Company             |
| RECO    | Rockland Electric Company                         |
| UGI     | UGI Utilities Inc.                                |
| DVP     | Dominion Energy                                   |

PJM is interconnected with neighboring systems and has over 100 BES transmission ties to these adjacent systems. **Table 2** lists PJM’s neighboring systems and associated entities. PJM coordinates planning analyses with adjacent Planning Coordinators and Transmission Planners to ensure that contingencies on neighboring systems within a few buses away are studied as part of PJM’s RTEP process.

**Table 2.** PJM Neighboring Systems

|       |   |
|-------|---|
| ALTE  | Alliant Gas and Electric – East         |
| ALTW  | Alliant Gas and Electric – West         |
| AMIL  | Ameren Illinois                         |
| CPLE  | Carolina Power and Light Company - East |
| CPLW  | Carolina Power and Light Company - West |
| DEI   | Duke Energy Indiana                     |
| DUKE  | Duke Energy Carolinas                   |
| IPL   | Indianapolis Power and Light Company    |
| ITCT  | International Transmission Company      |
| LGEE  | LGE Energy                              |
| MEC   | MidAmerican Energy                      |
| METC  | Michigan Electric Transmission Co.      |
| NIPS  | Northern Indiana Public Service Company |
| NYISO | New York ISO                            |
| TVA   | Tennessee Valley Authority              |
| WEC   | Wisconsin Electric Power Company        |

The PJM Regional Transmission Expansion Planning (RTEP) process is a comprehensive and holistic planning procedure that identifies transmission system upgrades and additions required to ensure grid reliability, meet demand, and support wholesale market efficiency across PJM’s footprint.

The purpose of the RTEP is to ensure the Transmission System remains compliant with NERC, RF, SERC, PJM planning Criteria and Transmission Owner Reliability Planning Criteria.

## Executive Summary

PJM is responsible for the development of a Regional Transmission Expansion Plan (RTEP) for the PJM system that will meet the electrical needs of the region in a safe, reliable, secure, and cost-efficient manner. As further described in following portions of this assessment, the PJM RTEP combines a broad set of analyses into a single plan. The annual RTEP process consists of a baseline reliability review, i.e. analysis to identify the transmission needs associated with changing system conditions such as load addition, generation interconnection and merchant transmission, review of conditions experienced in real-time operations, interregional reliability analysis, and many other special studies. The RTEP incorporates the unique needs identified by in-depth thermal, stability, short-circuit and voltage reliability analysis. PJM ensures a robust and comprehensive annual RTEP by incorporating all of these diverse needs into a single plan.

The annual RTEP planning assessment includes a comprehensive review of PJM BES facilities as required by NERC standard TPL-001-5.1. PJM maintains a series of power flow, short-circuit and stability cases that represent a range of critical system conditions for a range of forecast demand levels and study years. The annual RTEP baseline analysis performs the following tests at a minimum to ensure NERC TPL compliance:

- 1 | Thermal Analysis**
  - (a) Normal system (all facilities in service), single and multiple contingency analysis as required by NERC TPL-001-5.1, including non-convergent events
  - (b) Generation Deliverability Analysis
  - (c) Load Deliverability Analysis
  - (d) N-1-1 Analysis, including non-convergent events
  - (e) Summer Reliability Analysis, including non-convergent events
  - (f) Light Load Reliability Analysis, including non-convergent events
  - (g) Winter Reliability Analysis, including non-convergent events
  - (h) Individual Plant Deliverability Analysis
- 2 | Short-Circuit fault duty Analysis**
- 3 | Voltage Analysis**
  - (a) Voltage limit testing, including voltage magnitude and voltage drop monitoring for many of the test methods listed above for the thermal analysis, including non-convergent events
  - (b) PV analysis, including Transfer Limits
- 4 | Stability Analysis**
  - (a) Transient Stability
  - (b) Small Signal Stability (oscillations)
  - (c) Transient Voltage Stability
  - (d) Nuclear Plant Interface Requirements (NPIR)
  - (e) RAS Evaluation
- 5 | Spare Equipment Analysis**
- 6 | Known Outage Analysis**
- 7 | Extreme Event Analysis**

- 8 |** Critical Substation Planning Analysis
- 9 |** Generator Deactivation Analysis
- 10 |** New Service Requests
  - (a) Generation interconnections
  - (b) Merchant transmission interconnections
  - (c) Long-term firm transmission service
- 11 |** Surplus Interconnection Requests
- 12 |** Upgrades Requests

In addition to the analysis stated above, PJM also performed Transfer Limit Analysis on an as-needed bases to assess performance of several regional projects.

The PJM RTEP process is a comprehensive, board-approved, 15-year planning analysis process designed to ensure grid reliability. PJM assesses the needs of the system at peak load for year five in the near term and over the longer term (up to 7-8 years depending on the RTEP year) to identify baseline transmission enhancements that require more time to implement.

PJM Planning conducted a range of analyses on several different cases in 2025 RTEP. The findings are summarized in the Key Findings section in this report. Appendix A represents a snapshot of all upgrades identified in RTEP evaluations prior to 2030. These identified upgrades, when added to the previously existing system, function as the base system for future models.

PJM has conducted a comprehensive assessment of the ability of the PJM system to meet all applicable reliability planning criteria. The applicable reliability planning criteria are listed below:

- NERC Planning Standards: <http://www.nerc.com/pa/Stand/Pages/default.aspx>
- RF Reliability Standards: <https://www.rfirst.org/compliance/standards/>
- SERC Reliability Corporation: <https://www.serc.org/learning/resource-library/regional-criteria-guidelines/>
- PJM Reliability Planning Criteria as contained in PJM Regional Transmission Planning Process Manuals: <http://www.pjm.com/library/manuals.aspx>
- Transmission Owner Reliability Planning Criteria as filed in their respective FERC Form 715 filing: <http://www.pjm.com/planning/planning-criteria/to-planning-criteria.aspx>

PJM coordinates interregional activities with neighboring systems pursuant to PJM's Tariff and interregional agreements. PJM annually participates in a wide range of interregional groups and committees. Several significant efforts in 2025 are listed below.

- 1 |** Interregional planning groups
  - (a) Independent System Operator / Regional Transmission Organization (ISO/RTO) Council (IRC)
  - (b) Eastern Interconnection Planning Collaborative (EIPC): Planning Coordinators of the Eastern Interconnection
    - i. Released its "EIPC Interregional Transfer Capability" white paper in December 2024
    - ii. Conducted an analysis that improved the models of system response to frequency events and assess the 2025 system. Results were published in February 2024.

- iii. EIPC Modeling Coordination Working Group (MCWG) continued to provide coordination between EIPC and the Multiregional Modeling Working Group (MMWG).
- iv. The EIPC met and has several new initiatives, including increased EIPC review and discussion of emerging and upcoming NERC compliance activities. Additionally, the EIPC formed a NERC Large Loads Task Force to facilitate EIPC discussion, consensus and information sharing among EIPC members.
- (c) Joint Operating Agreement with New York ISO (NYISO) and Joint Operating Agreement with Mid-Continent ISO (MISO)
  - i. Joint ISO/RTO Planning Committee (JIPC) activities pursuant to the PJM/NYISO/ISO-NE Northeast Planning Coordination Protocol
    - (1) Interregional Planning Stakeholder Advisory Committee (IPSAC) – Reliability Interconnection Queue and Market Efficiency Analysis
  - ii. Joint RTO Planning Committee (JRPC) activities pursuant to the MISO/PJM Joint Operating Agreement
    - (1) Interregional Planning Stakeholder Advisory Committee (IPSAC) – Reliability and Market Efficiency Analysis
- (d) Southeastern Regional Transmission Planning: (SERTP)
  - i. Joint Operating Agreement with Duke Energy Progress (DEP)
- (e) Joint Reliability Coordination Agreement between PJM and TVA and LGE/KU
- (f) North Carolina Transmission Planning Collaborative (NCTPC) planning and data-sharing agreement
- 2 |** North American Electric Reliability Corporation (NERC) and Eastern Interconnection Reliability Assessment Group (ERAG)-related activities
  - (a) SERC Reliability Corporation and associated committees and working groups
  - (b) RFC Reliability Corporation and associated committees and working groups

## Key Findings

Inclusive of the baseline upgrades identified in the Results section of this assessment, PJM assesses its system as being compliant with the thermal, voltage, reactive, short circuit and stability requirements of all applicable standards, including NERC Standard TPL-001-5.1 for both the near term and longer term. The Results section of this assessment includes all planned upgrades needed to meet the performance requirements of Table 1 of the TPL standard throughout the planning horizon.

The reinforcements identified as part of the 2025 RTEP that are required to achieve compliance having an estimated cost of around \$11.80 billion are described below. The required and projected in-service date of these upgrades are also included. A complete list of projects, along with detailed descriptions of the conditions that are driving the need for them, are described in the 2025 RTEP Window 1 Reliability Analysis Report. PJM staff from Transmission Policy & Project Management coordinates with the transmission owners and generation or merchant transmission developers to monitor project schedules for implementation of these reinforcements and coordinate any required outage activities to ensure these reinforcements are completed by their required in-service dates. The cost estimates below are based on those provided by the responsible entities and discussed at the monthly Transmission Expansion Advisory Committee (TEAC) and three Subregional RTEP Committee (SRRTEP) meetings.

PJM has completed the 2025 RTEP P5 reliability criteria analysis and is working with its transmission owners to finalize the scope of Corrective Action Plans (CAPs) to remediate the violations. Corrective reinforcements can include, among other things, the elimination of non-redundancy and/or inclusion of monitoring and reporting at a Control Center where applicable.

**Table 3.** 2025 RTEP Baseline ID Details

| Upgrade ID | Sub ID  | Project Description  | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|--|----------|--------------------------|---------------------------|---------------------|
| b4053      | b4053.8 | Build a new 500 kV line from Elmont-Kraken (approximately 31 miles). The new line will be constructed primarily of double-circuit 500 kV/230 kV monopole structures. The proposed route follows existing 230 kV line No. 2032 from Elmont-Hanover-Four Rivers and 230 kV line No. 256 from Four Rivers-Kings Dominion-St Johns-Kraken. | Dominion | 6/1/2032                 | 6/1/2032                  | 147.85              |
| b4053      | b4053.7 | Upgrade/install 6000A equipment at North Anna substation to support the new conductor termination.   | Dominion | 6/1/2032                 | 6/1/2032                  | 2.16                |
| b4053      | b4053.6 | Rebuild 20 miles of 500 kV line No. 576 from North Anna substation to Vontay substation using 6000A conductor.   | Dominion | 6/1/2032                 | 6/1/2032                  | 102.70              |

| Upgrade ID | Sub ID   | Project Description   | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|----------|--------------------------|---------------------------|---------------------|
| b4053      | b4053.5  | Design and construct a new Voltage Source Converter (VSC) HVDC station at Mosby substation to support the new HVDC link.  | Dominion | 6/1/2032                 | 6/1/2032                  | 745.42              |
| b4053      | b4053.4  | Design and construct a new Voltage Source Converter (VSC) HVDC station at Heritage substation to support the new HVDC link.   | Dominion | 6/1/2032                 | 6/1/2032                  | 773.73              |
| b4053      | b4053.3  | Construct a new bipolar +/- 525 kV HVDC link connecting Heritage and Mosby substations, where the link has a capability of transmitting 3,000 MW. The HVDC link, approximately 185 miles in length, will be fully routed underground between the two new proposed converter stations, one at Heritage and one at Mosby. | Dominion | 6/1/2032                 | 6/1/2032                  | 2271.70             |
| b4053      | b4053.29 | Uprate 500 kV line No. 560 terminal equipment at Burches Hill substation in PEPCO so as not to limit the conductor rating. The scope includes upgrading/replacing two circuit breakers, four switches and two different portions of stranded bus.   | PEPCO    | 6/1/2032                 | 6/1/2032                  | 10.31               |
| b4053      | b4053.28 | Replace 500 kV circuit breakers (54265 and 553T564) and all associated equipment to line No. 553 including switches and CT with 5000A equipment at Cunningham substation.   | Dominion | 6/1/2032                 | 6/1/2032                  | 9.20                |
| b4053      | b4053.27 | Upgrade/install 6000A equipment at Midlothian substation to support the new conductor termination from Vontay.  | Dominion | 6/1/2032                 | 6/1/2032                  | 2.16                |
| b4053      | b4053.26 | Rebuild 20 miles of 500 kV line No. 576 from Vontay substation to Midlothian substation using 6000A conductor.  | Dominion | 6/1/2032                 | 6/1/2032                  | 102.70              |
| b4053      | b4053.25 | Upgrade 500 kV line No. 539 associated equipment at Yeat substation to support the new conductor rating.  | Dominion | 6/1/2032                 | 6/1/2032                  | 0.33                |

| Upgrade ID | Sub ID   | Project Description   | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|----------|--------------------------|---------------------------|---------------------|
| b4053      | b4053.24 | Upgrade 500 kV line No. 539 associated equipment at Ox substation to support the new conductor rating.  | Dominion | 6/1/2032                 | 6/1/2032                  | 2.25                |
| b4053      | b4053.23 | Rebuild approximately 22 miles of 500 kV line No. 539 Yeat-Ox using 6000A conductor on double-circuit structures with the option of adding a 230 kV line at a later time.   | Dominion | 6/1/2032                 | 6/1/2032                  | 122.66              |
| b4053      | b4053.22 | Uprate 500 kV line No. 567 associated terminal equipment at Surry to 5000A standards.   | Dominion | 6/1/2032                 | 6/1/2032                  | 2.46                |
| b4053      | b4053.21 | Uprate 500 kV line No. 567 associated terminal equipment at Chickahominy to 5000A standards.  | Dominion | 6/1/2032                 | 6/1/2032                  | 0.03                |
| b4053      | b4053.20 | Uprate 500 kV line No. 563 associated terminal equipment at Midlothian to 5000A standards.  | Dominion | 6/1/2032                 | 6/1/2032                  | 2.43                |
| b4053      | b4053.2  | Rebuild approximately 0.19-mile segment of 500 kV line No. 560 from Possum Point substation (structure 560/1A) to Burches Interconnection (structure 560/1F) using 6000A conductor.   | Dominion | 6/1/2032                 | 6/1/2032                  | 3.49                |
| b4053      | b4053.19 | Uprate 500 kV line No. 563 associated terminal equipment at Carson to 5000A standards.  | Dominion | 6/1/2032                 | 6/1/2032                  | 6.15                |
| b4053      | b4053.18 | Rebuild approximately 37.4 miles of 500 kV line No. 563 from Carson-Midlothian. The proposed structures to be installed are mainly 500/230 kV double-circuit V-string suspension towers. The 230 kV circuit position will be vacant at the completion of this project but serves to accommodate a future 230 kV line. | Dominion | 6/1/2032                 | 6/1/2032                  | 228.48              |
| b4053      | b4053.17 | Replace equipment on the 500 kV side of Carson substation with 5000A equipment.   | Dominion | 6/1/2032                 | 6/1/2032                  | 12.44               |
| b4053      | b4053.16 | Loop 765 kV Joshua Falls-Yeat into the new Vontay substation, which will  | Dominion | 6/1/2032                 | 6/1/2032                  | 8.36                |

| Upgrade ID   | Sub ID   | Project Description   | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|----------|---|----------|--------------------------|---------------------------|---------------------|
|              |          | result in two 765 kV lines: from Joshua Falls-Vontay and Vontay-Yeat.   |          |                          |                           |                     |
| <b>b4053</b> | b4053.15 | Loop 500 kV line No. 576 into the new Vontay substation, which will result in two 500 kV lines: from North Anna-Vontay and Vontay-Midlothian.   | Dominion | 6/1/2032                 | 6/1/2032                  | 6.69                |
| <b>b4053</b> | b4053.14 | Loop 500 kV line No. 553 into the new Vontay substation, which will result in two 500 kV lines: Cunningham-Vontay and Vontay-Elmont.  | Dominion | 6/1/2032                 | 6/1/2032                  | 6.69                |
| <b>b4053</b> | b4053.13 | Construct a new 765/500 kV Vontay switching station at the crossing of 500 kV line No. 553 Cunningham-Elmont and 765 kV line Joshua Falls-Yeat. Develop two 765 kV line terminal positions and three 500 kV line terminal positions. Install one 765/500 kV transformer, with provisions for a future second transformer.   | Dominion | 6/1/2032                 | 6/1/2032                  | 217.76              |
| <b>b4053</b> | b4053.12 | Install two 500 kV breakers and all associated terminal equipment in the available bay adjacent to existing breaker XT590 to achieve a redundant breaker arrangement. Upgrade existing terminal equipment to 500 kV, 5000A 63 kAIC standards including breaker (XT590), disconnect switches (59078, X74), leads and bus work. Install two 500 kV breakers and all associated terminal equipment in the available bay adjacent to existing breaker 55972 to achieve a redundant breaker arrangement. Upgrade existing terminal equipment to 500 kV, 5000A 63 kAIC standards including breaker (55972), disconnect switches (55975, 55974), leads and bus work. | Dominion | 6/1/2030                 | 6/1/2030                  | 9.56                |
| <b>b4053</b> | b4053.11 | Cut and loop line No. 5008 into Mosby substation, which will result in two 500 kV lines: line No. 5008 Morrisville-Mosby and line No. 9573 Mosby-Wishing Star.  | Dominion | 6/1/2030                 | 6/1/2030                  | 6.69                |

| Upgrade ID | Sub ID   | Project Description  | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|--|----------|--------------------------|---------------------------|---------------------|
| b4053      | b4053.10 | Construct one new 500 kV line terminal position at the proposed Kraken substation.   | Dominion | 6/1/2032                 | 6/1/2032                  | 8.61                |
| b4053      | b4053.1  | Uprate 500 kV line No. 560 terminal equipment at Possum Point substation so as not to limit the conductor rating.                                | Dominion | 6/1/2032                 | 6/1/2032                  | 0.40                |
| b4052      | b4052.9  | Replace two breakers, one bushing CT, one stranded bus conductor, four disconnect switches at Brighton 500 kV substation.                        | PEPCO    | 6/1/2032                 | 1/0/1900                  | 8.00                |
| b4052      | b4052.8  | Relocate Dickerson "D"-Quince Orchard 23035 to terminate at Dickerson "H" at Dickerson No. 2 tie location.                                       | PEPCO    | 6/1/2032                 | 1/0/1900                  | 8.88                |
| b4052      | b4052.7  | Install 3.2% 230 kV series reactor at Dickerson "H" terminal side of the Edwards Ferry-Dickerson circuit.  | PEPCO    | 6/1/2032                 | 1/0/1900                  | 0.85                |
| b4052      | b4052.6  | Aspen 500 kV remote work for Dickerson (new 500 kV)-Aspen line   | Dominion | 6/1/2032                 | 1/0/1900                  | 0.00                |
| b4052      | b4052.5  | Rocky Point 500 kV remote work for Dickerson (new 500 kV)-Rocky Point line   | APS      | 6/1/2032                 | 1/0/1900                  | 0.00                |
| b4052      | b4052.4  | Aspen-Dickerson (new 500 kV) termination work at Dickerson 500 kV  | PEPCO    | 6/1/2032                 | 1/0/1900                  | 9.49                |
| b4052      | b4052.3  | Rocky Point-Dickerson (new 500 kV) termination work at Dickerson 500 kV  | PEPCO    | 6/1/2032                 | 1/0/1900                  | 9.49                |
| b4052      | b4052.2  | Install two 500/230 kV transformers connecting a new 500 kV Dickerson station and Dickerson "H" 230 kV station including 230 kV substation work. | PEPCO    | 6/1/2032                 | 1/0/1900                  | 67.05               |
| b4052      | b4052.11 | Replace Bells Mill T3 XF with new PEPCO standard 260 MVA 230/138 kV transformer.   | PEPCO    | 6/1/2032                 | 1/0/1900                  | 12.80               |
| b4052      | b4052.10 | Replace one stranded bus conductor, three thermal relays, two disconnect switches at Quince Orchard 230 kV substation.                           | PEPCO    | 6/1/2032                 | 1/0/1900                  | 3.75                |

| Upgrade ID | Sub ID   | Project Description   | TO      | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|---------|--------------------------|---------------------------|---------------------|
| b4052      | b4052.1  | New 500/230 kV substation (Dickerson) by cutting into the Aspen-Rocky Point 500 kV line   | PEPCO   | 6/1/2032                 | 1/0/1900                  | 161.83              |
| b4036      | b4036.6  | Upgrade Belmont Terminal of Mountaineer - Belmont 765 kV Line   | APS     | 6/1/2032                 | 1/0/1900                  | 0.00                |
| b4036      | b4036.4  | Upgrade Juniata Terminal of Keystone - Juniata 500 kV Line  | PPL     | 6/1/2032                 | 1/0/1900                  | 0.00                |
| b4036      | b4036.9  | Construct a new single-circuit 765 kV transmission line between Kammer and proposed Buttermilk Falls substations (APS Zone). The total length of the line is 114 miles. | NEET    | 6/1/2032                 | 1/0/1900                  | 571.11              |
| b4036      | b4036.8  | Construct a new single-circuit 765 kV transmission line between Kammer and proposed Buttermilk Falls substations (AEP Zone). The total length of the line is 114 miles. | NEET    | 6/1/2032                 | 6/1/2031                  | 96.98               |
| b4036      | b4036.7  | Kammer substation work for new Kammer-Buttermilk Falls 765 kV line termination  | AEP     | 6/1/2032                 | 6/1/2031                  | 16.80               |
| b4036      | b4036.5  | Upgrade Mountaineer terminal of Mountaineer-Belmont 765 kV line.  | AEP     | 6/1/2032                 | 6/1/2031                  | 1.03                |
| b4036      | b4036.3  | Upgrade Keystone terminal of Keystone-Juniata 500 kV line.  | PENELEC | 6/1/2032                 | 6/1/2031                  | 7.76                |
| b4036      | b4036.23 | Upgrade Conemaugh terminal of Conemaugh-Buttermilk Falls 500 kV line (formerly Keystone-Conemaugh).   | PENELEC | 6/1/2032                 | 1/0/1900                  | 17.08               |
| b4036      | b4036.22 | Transmission line work: Loop in Keystone-Conemaugh 500 kV into Buttermilk Falls. Establish Conemaugh-Buttermilk Falls.  | PENELEC | 6/1/2032                 | 1/0/1900                  | 11.20               |
| b4036      | b4036.21 | Upgrade Keystone terminal of Keystone-Buttermilk Fall 500 kV line (formerly Keystone-Conemaugh).  | PENELEC | 6/1/2032                 | 1/0/1900                  | 15.01               |
| b4036      | b4036.20 | Transmission line work: Loop in Keystone-Conemaugh 500 kV into Buttermilk Falls-Establish Keystone-Buttermilk Falls.  | PENELEC | 6/1/2032                 | 1/0/1900                  | 11.20               |
| b4036      | b4036.2  | Upgrade South Bend terminal of Keystone-South Bend 500 kV line.   | APS     | 6/1/2032                 | 1/0/1900                  | 0.76                |

| Upgrade ID | Sub ID   | Project Description   | TO      | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|---------|--------------------------|---------------------------|---------------------|
| b4036      | b4036.19 | Replace nine 500 kV circuit breakers Conemaugh 500 kV substation with new 63 kA, 5000A breakers.  | PENELEC | 6/1/2032                 | 6/1/2031                  | 22.24               |
| b4036      | b4036.18 | Construct two new single-circuit 500 kV t-lines between proposed Mountain Stone substation and Juniata substation. The total length of the line is 0.6 miles.   | PPL     | 6/1/2032                 | 6/1/2031                  | 5.32                |
| b4036      | b4036.17 | Install two new 500 kV circuit breakers with 63 kA, 5000A rating in transformer T24 and T25 bay. Both transformers will be in double-bus, double-breaker position after adding these two new breakers (Sunbry). | PPL     | 6/1/2032                 | 6/1/2031                  | 4.98                |
| b4036      | b4036.16 | Install two new 500 kV circuit breaker at north and south bus to terminate the 765-500 kV transformers leads. Upgrade protection settings at Juniata (NextEra work).  | NEET    | 6/1/2032                 | 1/0/1900                  | 0.00                |
| b4036      | b4036.15 | Install two new 500 kV circuit breaker at north and south bus to terminate the 765-500 kV transformers leads. Upgrade protection settings at Juniata (PPL work).  | PPL     | 6/1/2032                 | 6/1/2031                  | 9.95                |
| b4036      | b4036.14 | 765/500 kV substation work at new Buttermilk station  | NEET    | 6/1/2032                 | 6/1/2031                  | 170.29              |
| b4036      | b4036.13 | 765/500 kV substation work at new Mountain Stone  | NEET    | 6/1/2032                 | 6/1/2031                  | 166.94              |
| b4036      | b4036.12 | Construct a new single-circuit 765 kV transmission line between proposed Buttermilk Falls and proposed Mountain Stone substations (PPL Zone). The total length of the line is 108 miles.                        | NEET    | 6/1/2032                 | 1/0/1900                  | 92.03               |
| b4036      | b4036.11 | Construct a new single-circuit 765 kV transmission line between proposed Buttermilk Falls and proposed Mountain Stone substations (PENELEC Zone). The total length of the line is 108 miles.                    | NEET    | 6/1/2032                 | 6/1/2031                  | 541.32              |
| b4036      | b4036.10 | Construct a new single-circuit 765 kV transmission line between Kammer  | NEET    | 6/1/2032                 | 1/0/1900                  | 26.63               |

| Upgrade ID | Sub ID   | Project Description   | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|----------|--------------------------|---------------------------|---------------------|
|            |          | and proposed Buttermilk Falls substations (PENELEC Zone). The total length of the line is 114 miles.  |          |                          |                           |                     |
| b4036      | b4036.1  | Upgrade Keystone terminal of Keystone-South Bend 500 kV line.   | PENELEC  | 6/1/2032                 | 6/1/2031                  | 0.76                |
| b4035      | b4035.2  | Replace Smith Mountain 138 kV switches CS1, CS2 and C1S2 with 3000A switches and replace switch jumpers with 2-1272 AAC.  | AEP      | 1/1/2029                 | 6/1/2027                  | 0.37                |
| b4035      | b4035.1  | Reconductor one span of the Smith Mountain-Museville 138 kV line with 2-556 ACSR conductor.   | AEP      | 1/1/2029                 | 6/1/2027                  | 1.43                |
| b4034      | b4034.4  | This project at Lanexa substation requires a relay reset only on line 2016 relays.  | Dominion | 1/1/2029                 | 1/1/2029                  | 0.02                |
| b4034      | b4034.3  | This project at Harmony Village substation requires a relay reset only on line 2016 relays.   | Dominion | 1/1/2029                 | 1/1/2029                  | 0.02                |
| b4034      | b4034.2  | This project involves installing a new 230/115 kV TX1 transformer using a 115 kV breaker and associated switches, as well as a new 230 kV line from Lanexa & Harmony Village with a 230 kV breaker and associated switches. | Dominion | 1/1/2029                 | 1/1/2029                  | 17.33               |
| b4034      | b4034.1  | The existing line 2016 in the corridor will be cut into the Goalders Creek three-breaker ring bus station such that the remaining section of line going to Harmony Village will be renumbered to 2XX1.                      | Dominion | 1/1/2029                 | 1/1/2029                  | 4.48                |
| b4032      | b4032.6  | PSEG 230 kV transmission line work: Rework PSEG 230 kV lines into JCPL Montville substation.  | PSEG     | 6/1/2030                 | 11/1/2029                 | 13.63               |
| b4032      | b4032.5  | 500 kV terminal upgrade at Hopatcong and Roseland-Loop the Roseland-Hopatcong 500 kV line into Montville substation   | PSEG     | 6/1/2030                 | 11/1/2029                 | 0.65                |
| b4029      | b4029.18 | Replace Six 230 kV breakers at Susquehanna  | PPL      | 6/1/2030                 | 6/1/2030                  | 4.50                |

| Upgrade ID | Sub ID   | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|------|--------------------------|---------------------------|---------------------|
| b4068      | b4068.9  | Marysville 765 kV substation scope:<br>Create a new 765 kV line position.<br>Install two 765 kV circuit breakers.<br>Create a new 765 kV line position to relocate the existing 765 kV Sorenson line. Install one 765 kV circuit breaker.<br>Add one 765/345 kV, 2250 MVA transformer.  | AEP  | 6/1/2030                 | 10/31/2030                | 112.01              |
| b4068      | b4068.8  | Teddy-Marysville 765 kV:<br>Construct a 35.4-mile 765 kV AC overhead transmission line between the proposed 765 kV Teddy substation and the existing 765 kV Marysville substation (AEP Portion).  | AEP  | 6/1/2030                 | 10/31/2030                | 130.96              |
| b4068      | b4068.7  | Teddy-Marysville 765 kV:<br>Construct a 35.4-mile 765 kV AC overhead transmission line between the proposed 765 kV Teddy substation and the existing 765 kV Marysville substation (FE Portion).   | ATSI | 6/1/2030                 | 10/31/2030                | 45.50               |
| b4068      | b4068.6  | Teddy 765/345 kV substation:<br>Install two 250 MVAR 345 kV capacitor banks at Teddy substation.  | ATSI | 6/1/2030                 | 10/31/2030                | 5.56                |
| b4068      | b4068.5  | Teddy 765/345 kV substation scope:<br>Construct a new 765/345 kV greenfield substation interconnecting the new 765 kV Marysville line and the new 765 kV Greentown line with three 100 MVAR single-phase reactors on each 765 kV line. Install nine 765 kV circuit breakers. Install two 765/345 kV, 2250 MVA transformers. Install nine 345 kV circuit breakers. | ATSI | 6/1/2030                 | 10/31/2030                | 222.77              |
| b4068      | b4068.47 | Beatty-Hayden structures: Lower the existing Beatty-Hayden 345 kV line between structures 2 and 3 to facilitate crossing the proposed Teddy-Beatty 345 kV line.   | AEP  | 6/1/2030                 | 10/31/2030                | 3.00                |
| b4068      | b4068.46 | East Springfield-London structures: Lower the existing First Energy East Springfield 138 kV line between structures 29 and 30 on the proposed Teddy-Beatty 345 kV line.   | ATSI | 6/1/2030                 | 10/31/2030                | 1.00                |

| Upgrade ID | Sub ID   | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|------|--------------------------|---------------------------|---------------------|
| b4068      | b4068.45 | Gavin-Marysville structures: Raise the existing Gavin to Marysville 765 kV line between structures 358 and 359 to facilitate crossing the proposed Teddy to Beatty 345 kV line.   | AEP  | 6/1/2030                 | 10/31/2030                | 3.00                |
| b4068      | b4068.44 | Ohio Central-Fostoria Central structure: Remove structure 10 and replace with lower structure to lower the line.  | AEP  | 6/1/2030                 | 10/31/2031                | 1.00                |
| b4068      | b4068.43 | Kammer Dumont structures: Lower the existing Kammer to Dumont 765 kV line between structure 169 and 170 to facilitate crossing the proposed Conesville to Guernsey 765 kV line.   | AEP  | 6/1/2030                 | 10/30/2030                | 2.00                |
| b4068      | b4068.42 | Ohio Central station scope: Install two new 138 kV circuit breakers.  | AEP  | 6/1/2030                 | 10/31/2031                | 3.00                |
| b4068      | b4068.41 | Adkins 765 kV substation scope: Construct a 765 kV yard at Adkins substation. Install seven 765 kV circuit breakers. Install three 100 MVAR single-phase reactors on each 765 kV line.  | AEP  | 6/1/2030                 | 10/31/2031                | 102.97              |
| b4068      | b4068.40 | Conesville-West Millersport 765 kV: Construct a new 49.1-mile single-circuit 765 kV AC overhead transmission line between the new Conesville 765 kV substation and the new West Millersport 765 kV substation.  | AEP  | 6/1/2030                 | 10/31/2031                | 243.65              |
| b4068      | b4068.4  | Greentown-Teddy 765 kV line: Construct a 27.08-mile 765 kV AC overhead transmission line between the existing Greentown 765 kV substation and the proposed Teddy 765 kV substation (ATSI Portion).<br><br>The total line length is 137 miles of the Greentown to Teddy 765 kV line. | ATSI | 6/1/2030                 | 10/31/2031                | 125.28              |
| b4068      | b4068.39 | Conesville 765 kV substation scope: Upgrade the existing Conesville substation to include a 765 kV yard and expand the 345 kV yard. Install six 765 kV circuit breakers. Install one  | AEP  | 6/1/2030                 | 10/31/2030                | 140.97              |

| Upgrade ID   | Sub ID   | Project Description   | TO     | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|----------|---|--------|--------------------------|---------------------------|---------------------|
|              |          | 765/345 kV, 2250 MVA transformer. Install one-circuit 345 kV circuit breaker. Replace wave trap and circuit switcher in 138 kV yard.  |        |                          |                           |                     |
| <b>b4068</b> | b4068.38 | Meadow Lake 345 kV substation scope: Replace four 345 kV circuit breakers.  | AEP    | 6/1/2030                 | 10/31/2031                | 4.00                |
| <b>b4068</b> | b4068.37 | South Kenton 138 kV substation scope: Replace line-side disconnect switches and bus tie switch on East Lima line at South Kenton substation.  | AEP    | 6/1/2030                 | 10/31/2031                | 0.11                |
| <b>b4068</b> | b4068.36 | Hess 138 kV substation scope: Replace one 138 kV circuit breaker to alleviate CT thermal limit.   | AEP    | 6/1/2030                 | 10/31/2031                | 0.70                |
| <b>b4068</b> | b4068.35 | OSU 138 kV station scope: Replace one 138 kV circuit breaker.   | AEP    | 6/1/2030                 | 10/31/2031                | 0.50                |
| <b>b4068</b> | b4068.34 | Bethel 138 kV substation scope: Replace one 138 kV circuit breaker.   | AEP    | 6/1/2030                 | 10/31/2031                | 0.50                |
| <b>b4068</b> | b4068.33 | Wilson-Fifth Avenue 138 kV line: Perform sag remediation on the Wilson-Fifth Avenue 138 kV line.  | AEP    | 6/1/2030                 | 10/31/2031                | 18.25               |
| <b>b4068</b> | b4068.32 | Roberts-Kenny 138 kV rebuild: Retire 3.18 miles of the Roberts-Kenny 138 kV underground line and install new underground cable for increased require ratings.   | AEP    | 6/1/2030                 | 10/31/2031                | 66.36               |
| <b>b4068</b> | b4068.31 | Allen 138 kV substation scope: Replace bus conductor at Allen station.  | AEP    | 6/1/2030                 | 10/31/2031                | 0.05                |
| <b>b4068</b> | b4068.30 | Newark 138 kV Center station scope: Replace wave trap and limiting bus conductor at Newark Center substation.   | AEP    | 6/1/2030                 | 10/31/2031                | 0.70                |
| <b>b4068</b> | b4068.3  | Greentown-Teddy 765 kV line: Construct a 49.92-mile 765 kV AC overhead transmission line between the existing Greentown 765 kV substation and the proposed Teddy 765 kV substation (DAYTON Portion).<br><br>The total line length is 137 miles of the Greentown to Teddy 765 kV line. | Dayton | 6/1/2030                 | 10/31/2031                | 230.94              |

| Upgrade ID | Sub ID   | Project Description  | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|--|-----|--------------------------|---------------------------|---------------------|
| b4068      | b4068.29 | Hayden-Cole 345 kV: Rebuild 7.8 miles of Beatty-Hayden 345 kV line.  | AEP | 6/1/2030                 | 10/31/2031                | 37.87               |
| b4068      | b4068.28 | Hyatt-Maliszewski 345 and 138 kV rebuild:<br>Rebuild 5.25-mile section of the 345 kV circuit from Hyatt station to Maliszewski station that shares tower with 138 kV line.   | AEP | 6/1/2030                 | 10/31/2031                | 17.06               |
| b4068      | b4068.27 | West Millersport-Kirk 345 kV:<br>Rebuild 6.37-mile section of the double-circuit West Millersport-Kirk 345 kV circuit.   | AEP | 6/1/2030                 | 10/31/2031                | 24.30               |
| b4068      | b4068.26 | West Millersport-Adkins 765 kV:<br>Construct a new 38-mile single-circuit 765 kV AC overhead transmission line between the new 765 kV West Millersport substation and the new 765 kV Adkins substation.  | AEP | 6/1/2030                 | 10/31/2031                | 201.83              |
| b4068      | b4068.25 | Bixby 345 kV substation Scope: New relaying at Bixby 345 kV substation   | AEP | 6/1/2030                 | 10/31/2031                | 0.08                |
| b4068      | b4068.24 | Ohio Central 138 kV scope:<br>Extend existing Ohio Central 345 kV extension by one span to cut into the existing Conesville-Newark Center 138 kV line to loop the existing Conesville-Newark Center 138 kV line into Ohio Central station by installing four new three-pole steel pole structures. | AEP | 6/1/2030                 | 10/31/2031                | 3.50                |
| b4068      | b4068.23 | Ohio Center-Bixby 345 kV:<br>Wreck part of Ohio Center-Bixby 345 kV circuit around West Millersport 345 kV to facilitate the Conesville-West Millersport 765 kV line.<br><br>Note: The cost for Conesville-West Millersport 765 kV is a different component.                                       | AEP | 6/1/2030                 | 6/30/2028                 | 3.86                |
| b4068      | b4068.22 | Ohio Center-Conesville 345 kV:<br>Wreck Ohio Center-Conesville 345 kV circuit to facilitate the Conesville-West Millersport 765 kV line.   | AEP | 6/1/2030                 | 6/30/2028                 | 1.46                |

| Upgrade ID | Sub ID   | Project Description   | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|-----|--------------------------|---------------------------|---------------------|
|            |          | Note: The cost for Conesville-West Millersport 765 kV is a different component.   |     |                          |                           |                     |
| b4068      | b4068.21 | Ohio Central 345 kV scope: Retire a segment of the Bixby to Ohio Central 345 kV line and install approximately 3 miles of greenfield single-circuit 345 kV line from structure 284 to West Millersport substation.  | AEP | 6/1/2030                 | 10/31/2031                | 12.00               |
| b4068      | b4068.20 | West Millersport substation scope: Construct a new 765 kV West Millersport yard. Install four circuit breakers. Install one 765/345 kV, 2250 MVA transformer. Install one 345 kV circuit breaker.   | AEP | 6/1/2030                 | 10/31/2031                | 118.11              |
| b4068      | b4068.2  | Greentown-Teddy 765 kV line: Construct a 60-mile 765 kV AC overhead transmission line between the existing Greentown 765 kV substation and the proposed Teddy 765 kV substation (AEP Portion).<br><br>The total line length is 137 miles of the Greentown to Teddy 765 kV line. | AEP | 6/1/2030                 | 10/31/2031                | 277.57              |
| b4068      | b4068.19 | Guernsey-Conesville 765 kV: Construct a new 32-mile single-circuit 765 kV AC overhead transmission line between the existing Guernsey 765 kV substation and the new 765 kV Conesville substation.   | AEP | 6/1/2030                 | 10/31/2030                | 166.17              |
| b4068      | b4068.18 | Guernsey 765 kV substation scope: Create a new 765 kV line position to interconnect the new 765 kV Conesville line. Install one 765 kV circuit breaker.   | AEP | 6/1/2030                 | 10/31/2030                | 5.54                |
| b4068      | b4068.17 | Beatty 345 kV substation scope: Create a new 345 kV line position to interconnect the new 345 kV Teddy line. Install two 345 kV circuit breakers.   | AEP | 6/1/2030                 | 10/31/2030                | 3.86                |
| b4068      | b4068.16 | Cole 345 kV substation scope: Create a new 345 kV line position to  | AEP | 6/1/2030                 | 10/31/2030                | 1.00                |

| Upgrade ID   | Sub ID   | Project Description  | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|----------|--|------|--------------------------|---------------------------|---------------------|
|              |          | interconnect the new 345 kV Teddy line.  |      |                          |                           |                     |
| <b>b4068</b> | b4068.15 | Teddy-Cole single-circuit 345 kV: <ul style="list-style-type: none"> <li>• Install second circuit on the vacant side of the existing 9.7-mile 345 kV AC overhead transmission line between the existing Cole 345 kV substation and the existing Beatty 345 kV substation.</li> <li>• The total length of Teddy-Cole 345 kV circuit is 41.7 miles.</li> </ul> | AEP  | 6/1/2030                 | 10/31/2030                | 21.63               |
| <b>b4068</b> | b4068.14 | Teddy-Cole single-circuit 345 kV: Construct a new 13.34-mile 345 kV line between the proposed Teddy 345 kV substation and existing Cole 345 kV substation on a shared structure with Teddy-Beatty single-circuit 345 kV (AEP portion). The total length of Teddy-Cole 345 kV circuit is 41.7 miles.  | AEP  | 6/1/2030                 | 10/31/2030                | 37.40               |
| <b>b4068</b> | b4068.13 | Teddy-Cole single-circuit 345 kV: Construct a new 18.66-mile 345 kV line between the proposed Teddy 345 kV substation and existing Cole 345 kV substation on a shared structure with Teddy-Beatty single-circuit 345 kV (FE portion). The total length of Teddy-Cole 345 kV circuit is 41.7 miles.   | ATSI | 6/1/2030                 | 10/31/2030                | 50.19               |
| <b>b4068</b> | b4068.12 | Teddy-Beatty single-circuit 345 kV: Construct a new 13.34-mile 345 kV line between the proposed Teddy 345 kV substation and existing Beatty 345 kV substation on a shared structure with Teddy-Cole single-circuit 345 kV (AEP portion). The total length of Teddy-Beatty 345 kV circuit is 32 miles.  | AEP  | 6/1/2030                 | 10/31/2030                | 37.40               |
| <b>b4068</b> | b4068.11 | Teddy-Beatty single-circuit 345 kV: Construct a new 18.66-mile 345 kV line between the proposed Teddy 345 kV substation and existing Beatty 345 kV substation on a shared structure with Teddy-Cole single-circuit 345 kV  | ATSI | 6/1/2030                 | 10/31/2030                | 50.19               |

| Upgrade ID   | Sub ID   | Project Description   | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|----------|---|----------|--------------------------|---------------------------|---------------------|
|              |          | (FE portion).<br>The total length of Teddy-Beatty 345 kV circuit is 32 miles.   |          |                          |                           |                     |
| <b>b4068</b> | b4068.10 | Marysville 765 kV substation: Add one 765 kV STATCOM.   | AEP      | 6/1/2030                 | 10/31/2030                | 164.25              |
| <b>b4068</b> | b4068.1  | Greentown 765 kV substation scope (AEP): Create a new 765 kV line position with three 100 MVAR single-phase reactors. Install two 765 kV circuit breakers.  | AEP      | 6/1/2030                 | 10/31/2031                | 45.29               |
| <b>b4053</b> | b4053.33 | Replace 230 kV 63 kA breakers 213732, 226132 with 80 kA breakers at Celestial substation.   | Dominion | 6/1/2030                 | 6/1/2030                  | 2.00                |
| <b>b4053</b> | b4053.32 | Replace 230 kV, 63 kA breakers H592, L292, 203292, 207592, 28392-3, H692, L192 with 80 kA breakers at Elmont substation.  | Dominion | 6/1/2030                 | 6/1/2030                  | 7.00                |
| <b>b4053</b> | b4053.31 | Replace 500 kV, 40 kA breakers H1T559 with 63 kA breakers at Clifton substation.  | Dominion | 6/1/2030                 | 6/1/2030                  | 1.00                |
| <b>b4053</b> | b4053.30 | Replace 230 kV, 63 kA breakers 205182, 2051T2063, 221282 with 80 kA breakers at Clifton substation.   | Dominion | 6/1/2030                 | 6/1/2030                  | 3.00                |
| <b>b3975</b> | b3975.2  | Upgrade one 69 kV breaker at Huntington Court.  | AEP      | 6/1/2030                 | 6/1/2030                  | 1.00                |
| <b>b4020</b> | b4020.3  | <ul style="list-style-type: none"> <li>• Wreck and rebuild OH circuit including transfer of any underbuilt circuits below the 69 kV.</li> <li>• Install composite poles instead of wood poles.                             <ul style="list-style-type: none"> <li>• Install shield wire.</li> </ul> </li> <li>• Install fiber and all necessary fiber accessories.</li> <li>• Install high-capacity conductor from Gloucester to Nicholson.</li> <li>• Minimum ratings: summer normal - 1100A (131 MVA)</li> <li>• Replace UG cable with high-capacity conductor and sweeps as required.</li> </ul> | PSEG     | 6/1/2030                 | 6/1/2030                  | 9.45                |
| <b>b4020</b> | b4020.2  | Replace existing OH wire with high-capacity conductor at Nicholson 230 kV. Replace LP10K relays   | PSEG     | 6/1/2030                 | 6/30/2030                 | 0.15                |

| Upgrade ID   | Sub ID  | Project Description  | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|---------|--|------|--------------------------|---------------------------|---------------------|
|              |         | with new primary SEL-311L and backup SEL-411L relays.  |      |                          |                           |                     |
| <b>b4020</b> | b4020.1 | <ul style="list-style-type: none"> <li>• Replace/update pole riser, pot head riser, associated sweeps and cable as required to accept high-capacity conductor at Gloucester 230 kV.</li> <li>• Replace LP41K relays with new primary SEL-311L and backup SEL-411L relays.</li> </ul> Replace duct banks as required.   | PSEG | 6/1/2030                 | 6/1/2030                  | 1.20                |
| <b>b3985</b> | b3985.4 | Johnson substation – Replace 451-B-163 breaker with a 63 kA, 3000A circuit breaker.  | ATSI | 6/1/2030                 | 6/1/2030                  | 0.96                |
| <b>b3985</b> | b3985.3 | Hoytdale substation – Replace 83-B-14, 83-B-18, 83-B-22 breakers with 63 kA, 3000A circuit breakers. This will not affect the Hoytdale-New Castle line ratings, which are currently rated at 435/500 SN/SE for circuit Z104 and 329/413 SN/SE for circuit Z110.  | ATSI | 6/1/2030                 | 6/1/2030                  | 2.87                |
| <b>b3985</b> | b3985.2 | Eastlake substation – Replace the following breakers with 80 kA, 3000A circuit breakers. This will not affect the existing line ratings at the station. <ul style="list-style-type: none"> <li>• 46-B-18</li> <li>• 46-B-21</li> <li>• 46-B-24</li> <li>• 46-B-35</li> <li>• 46-B-36</li> <li>• 46-B-32</li> <li>• 46-B-33</li> <li>• 46-B-27</li> <li>• 46-B(795)</li> <li>• 46-B-45</li> <li>• 46-B-54</li> <li>• 46-B-97</li> </ul> | ATSI | 6/1/2030                 | 6/1/2030                  | 11.48               |
| <b>b3984</b> | b3984.1 | Replace 69 kV circuit breakers <ul style="list-style-type: none"> <li>• 501-B-24</li> <li>• 501-B-272</li> <li>• 501-B-274</li> </ul>  | ATSI | 6/1/2030                 | 6/1/2030                  | 1.53                |
| <b>b3983</b> | b3983.2 | Belmont substation – Replace B-8 138 kV circuit breaker with a 63 kA, 3000A breaker. This will not affect the line   | APS  | 6/1/2030                 | 6/1/2030                  | 0.96                |

| Upgrade ID | Sub ID  | Project Description  | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|--|----------|--------------------------|---------------------------|---------------------|
|            |         | ratings of the Belmont-Trissler 138 kV 604 line, which is currently rated at 176/229 SN/SE or the Belmont-Edgelawn 138 kV line, which is currently rated at 292/314 SN/SE. |          |                          |                           |                     |
| b4025      | b4025.3 | Install 138 kV BT circuit breaker and associated equipment at Sandwich.  | ComEd    | 4/15/2030                | 12/1/2030                 | 1.95                |
| b4025      | b4025.2 | Convert Mendota straight bus to ring by installing four new 138 kV circuit breakers.   | ComEd    | 4/15/2030                | 12/1/2030                 | 10.37               |
| b4025      | b4025.1 | Build new 28-mile transmission line from Mendota to Sandwich.  | ComEd    | 4/15/2030                | 12/1/2030                 | 159.57              |
| b4031      | b4031.3 | At Fork Union substation, upgrade relevant equipment below 2000A, such as line leads, breakers, switches and CTs to accommodate the upgraded line 5.                       | Dominion | 6/30/2030                | 6/30/2030                 | 1.00                |
| b4031      | b4031.2 | At Bremsco substation, upgrade relevant equipment below 2000A, such as line leads, breakers, switches and CTs to accommodate the upgraded line 5.                          | Dominion | 6/30/2030                | 6/30/2030                 | 1.00                |
| b4031      | b4031.1 | Wreck and rebuild line No. 5 using conductor with minimum summer rating of 393 MVA.  | Dominion | 6/30/2030                | 6/30/2030                 | 5.00                |
| b4030      | b4030.9 | Charlottesville-Fork Union 230 kV rebuild: Wreck and rebuild ~24 miles of Charlottesville-Fork Union 230 kV line.  | Dominion | 6/1/2030                 | 6/1/2030                  | 106.49              |
| b4030      | b4030.8 | Yadkin 500 kV substation scope: Replace all terminal equipment at Yadkin 500 kV substation to be rated to 5000A.   | Dominion | 6/1/2030                 | 6/1/2030                  | 0.24                |
| b4030      | b4030.7 | Suffolk 500 kV substation scope: Replace all terminal equipment at Suffolk 500 kV substation to be rated to 5000 A.  | Dominion | 6/1/2030                 | 6/1/2030                  | 5.23                |
| b4030      | b4030.6 | Suffolk-Yadkin 500 kV rebuild: Rebuild approximately 13.2 miles of Suffolk-Yadkin 500 kV line.   | Dominion | 6/1/2030                 | 6/1/2030                  | 68.86               |
| b4030      | b4030.5 | Chesterfield 230 kV substation scope: Install a new 230 kV, 80 kA 4000A  | Dominion | 6/1/2030                 | 6/1/2030                  | 1.50                |

| Upgrade ID   | Sub ID   | Project Description  | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|----------|--|----------|--------------------------|---------------------------|---------------------|
|              |          | circuit breaker at Chesterfield 230 kV substation.   |          |                          |                           |                     |
| <b>b4030</b> | b4030.4  | Chesterfield 230 kV substation scope: Replace all terminal equipment, line leads and bus at Chesterfield 230 kV substation to be rated to 4000A.   | Dominion | 6/1/2030                 | 6/1/2030                  | 3.51                |
| <b>b4030</b> | b4030.3  | Basin 230 kV substation scope: Replace all terminal equipment, line leads and bus at Basin 230 kV substation to be rated to 4000A.   | Dominion | 6/1/2030                 | 6/1/2030                  | 1.96                |
| <b>b4030</b> | b4030.2  | Chesterfield-Hopewell 230 kV reconductor: Reconductor 230 kV lines No. 211 and No. 228 between the existing Chesterfield-Hopewell 230 kV substation. Each line reconductor is ~3 miles long.   | Dominion | 6/1/2030                 | 6/1/2030                  | 6.34                |
| <b>b4030</b> | b4030.16 | Sycamore Springs 230 kV substation scope: Reset relays at Sycamore Springs 230 kV substation.  | Dominion | 6/1/2030                 | 6/1/2030                  | 0.04                |
| <b>b4030</b> | b4030.15 | Mt. Eagle tap 230 kV substation scope: Upgrade disconnect switches at Mt. Eagle tap 230 kV substation to 4000A.  | Dominion | 6/1/2030                 | 6/1/2030                  | 0.65                |
| <b>b4030</b> | b4030.14 | Bremo 230 kV substation scope: Replace all terminal equipment at Bremo 230 kV substation to support the new conductor ratings of the Fork Union-Bremo 230 kV rebuild.                          | Dominion | 6/1/2030                 | 6/1/2030                  | 1.80                |
| <b>b4030</b> | b4030.13 | Fork Union 230 kV substation scope: Replace all terminal equipment at Fork Union 230 kV substation to support the new conductor ratings of the Fork Union-Bremo 230 kV rebuild.                | Dominion | 6/1/2030                 | 6/1/2030                  | 1.60                |
| <b>b4030</b> | b4030.12 | Fork Union 230 kV substation scope: Replace all terminal equipment at Fork Union 230 kV substation to support the new line conductor ratings of the Charlottesville-Fork Union 230 kV rebuild. | Dominion | 6/1/2030                 | 6/1/2030                  | 2.24                |
| <b>b4030</b> | b4030.11 | Charlottesville 230 kV substation scope:   | Dominion | 6/1/2030                 | 6/1/2030                  | 3.35                |

| Upgrade ID | Sub ID   | Project Description  | TO       | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|--|----------|--------------------------|---------------------------|---------------------|
|            |          | Replace all terminal equipment at Charlottesville 230 kV substation to support the new line conductor ratings of the Charlottesville-Fork Union 230 kV rebuild.  |          |                          |                           |                     |
| b4030      | b4030.10 | Fork Union-Bremo 230 kV rebuild: Wreck and Rebuild approximately 1.74 miles of Fork Union-Bremo 230 kV line.   | Dominion | 6/1/2030                 | 6/1/2030                  | 10.81               |
| b4030      | b4030.1  | Chesterfield-Basin 230 kV rebuild: Wreck and rebuild approximately 12.5 miles of Chesterfield-Basin 230 kV line.   | Dominion | 6/1/2030                 | 6/1/2030                  | 100.31              |
| b4029      | b4029.9  | The Montour-Glen Brook 230 kV 1 and 2 DCT line is 24.9 miles long. For this project, the developer will reconduct 0.70 miles of this route with ACCC 1036/87/392 (2045 kcmil) conductor. Another 5.2 miles of the route will be rebuilt with new steel pole structures and double-bundle 1590 ACSR conductor. The remaining 19 miles of the route is being rebuilt and reconducted as part of supplemental project s2373 to address end of life for CORTEN structures. | PPL      | 5/1/2030                 | 5/1/2030                  | 37.15               |
| b4029      | b4029.8  | Address end-of-life concerns by rebuilding the existing 38-mile Juniata-Sunbury 500 kV line using single-circuit design.   | PPL      | 5/1/2030                 | 5/1/2030                  | 162.89              |
| b4029      | b4029.7  | Retermination of the Monroe-Fox Hill and Monroe-Martins Creek 230 kV lines into their new locations in the upgraded 230 kV breaker-and-a-half yard.  | PPL      | 5/1/2030                 | 5/1/2030                  | 8.27                |
| b4029      | b4029.6  | Upgrade the existing Monroe 230/138 kV substation to a two-bay breaker and a half on the 230 kV side (with space to accommodate two future bays), and a double-bus double-breaker design on the 138 kV side.   | PPL      | 5/1/2030                 | 5/1/2030                  | 30.95               |
| b4029      | b4029.5  | Susquehanna-Tomhicken 230 kV 1 and 2 DCT line reconductor:   | PPL      | 5/1/2030                 | 5/1/2030                  | 29.73               |

| Upgrade ID | Sub ID   | Project Description  | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|--|-----|--------------------------|---------------------------|---------------------|
|            |          | Reconduct both circuits on the existing DCT tower with ACCC 1036/87/392 (2045 kcmil) conductor.  |     |                          |                           |                     |
| b4029      | b4029.4  | Bifurcate the Sunbury-Susquehanna 500 kV line bringing both segments into a new Kelayres 500 kV station on separate towers.<br>From the bifurcation point, build a 24-mile extension to Kelayres, resulting in a Sunbury-Kelayres 500 kV line. | PPL | 5/1/2030                 | 5/1/2030                  | 133.64              |
| b4029      | b4029.3  | Bifurcate the Sunbury-Susquehanna 500 kV line. From the bifurcation point, build a 13-mile extension to Kelayres, resulting in a Susquehanna-Kelayres 500 kV line.   | PPL | 5/1/2030                 | 5/1/2030                  | 20.87               |
| b4029      | b4029.2  | Add one 500 kV, 4000A circuit breaker, two 500 kV, 4000A MODs and a Kelayres 890 MVA 500/230 kV T3 transformer.  | PPL | 5/1/2030                 | 5/1/2030                  | 29.02               |
| b4029      | b4029.16 | Reuse existing bay and upgrade to 3000A. Existing bay at Susquehanna vacated by the former Sunbury line. Inspect all facilities, refurbish and insure bay rating of 3000A.   | PPL | 5/1/2030                 | 5/1/2030                  | 1.24                |
| b4029      | b4029.15 | Construct a new breaker-and-a-half bay at Susquehanna T10 230 kV station and initially populate with two 230 kV, 3000A circuit breakers and four 230 kV, 3000A MODs, leaving a position for a future breaker to be added.                      | PPL | 5/1/2030                 | 5/1/2030                  | 6.62                |
| b4029      | b4029.14 | Susquehanna T10-Susquehanna 230 kV No. 3 line: Construct a new Susquehanna T10-Susquehanna 230 kV No. 3 line (~2.7 miles) using an approximately 75% brownfield route, with a short greenfield segment near the Susquehanna station.           | PPL | 5/1/2030                 | 5/1/2030                  | 14.33               |
| b4029      | b4029.13 | Glen Brook - Susquehanna T10 1 & 2 DCT line reconductor  | PPL | 5/1/2030                 | 5/1/2030                  | 2.63                |
| b4029      | b4029.12 | Reterminate high side of T4 transformer into bay 2E of the 230 kV yard.  | PPL | 5/1/2030                 | 5/1/2030                  | 1.46                |

| Upgrade ID | Sub ID   | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|------|--------------------------|---------------------------|---------------------|
| b40290     | b4029.11 | At the Jenkins 230/69 kV substation, re-terminate the Jenkins 230/69 kV T2 and T4 transformers into bay positions in the 69 kV and 230 kV yards, respectively. Add one new 230 kV, 3000A circuit breaker, and two 230 kV, 3000A MODs to accommodate the retermination of the T4 transformer into the east bay position in the existing 230 kV breaker-and-a-half bay 2. Add two new 69 kV, 3000A circuit breakers and four 69 kV, 3000A switches to accommodate the retermination of the T2 transformer into a new 69 kV double-bus double-breaker bay 4. | PPL  | 5/1/2030                 | 5/1/2030                  | 8.71                |
| b4029      | b4029.10 | At Glen Brook 230/69 kV substation, replace ten 230 kV, 2000A MODs with 230 kV, 3000A MODs.   | PPL  | 5/1/2030                 | 5/1/2030                  | 2.50                |
| b4029      | b4029.1  | Expand existing Slykerville 230 kV station to add a 500 kV yard. Build a new Kelayres 500 kV breaker-and-a-half substation. Add two 890 MVA, 500/230 kV transformers at Kelayres.   | PPL  | 5/1/2030                 | 5/1/2030                  | 72.92               |
| b4005      | b4005.2  | Replace the existing 1590 ACSR single conductor on the Roseland to Laurel Ave 230 kV line with a 1590 ACSS single conductor.  | PSEG | 3/1/2028                 | 3/1/2028                  | 5.06                |
| b4005      | b4005.1  | Replace the existing 1590 ACSR single conductor on the Roseland to Livingston 230 kV line with a 1590 ACSS single conductor.  | PSEG | 3/1/2028                 | 3/1/2028                  | 4.87                |
| b4004      | b4004.1  | Upgrade existing 1590 ACSR stranded bus on facility.  | DPL  | 6/1/2030                 | 5/31/2030                 | 0.03                |
| b3942      | b3942.1  | Replace two CFD relays with two SEL-487B bus relays. Install two new SEL-451 relays from breaker control of circuit breaker 785 and circuit breaker 875 respectively. Wiring modifications to existing 220-53 line relays to all dual overlapping relays on circuit breaker 785 for bus protection and line protection.   | PECO | 6/1/2030                 | 5/31/2030                 | 0.69                |

| Upgrade ID | Sub ID  | Project Description  | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|--|------|--------------------------|---------------------------|---------------------|
| b3954      | b3954.1 | At Thomas Road, replace 69 kV circuit switcher XT1 with a 40 kA circuit switcher.  | AEP  | 6/1/2030                 | 6/1/2030                  | 0.71                |
| b4003      | b4003.5 | Update relay settings for the College Corner-Trenton line at DEOK's Trenton substation.  | DEOK | 6/1/2030                 | 6/1/2030                  | 0.03                |
| b4003      | b4003.4 | Update relay settings for the College Corner-Collinsville line at DEOK's Collinsville substation.  | DEOK | 6/1/2030                 | 6/1/2030                  | 0.03                |
| b4003      | b4003.3 | Relay Settings at College Corner station needed due to Duke rebuilding their College Corner-Collinsville 138 kV line section.  | AEP  | 6/1/2030                 | 6/1/2030                  | 0.06                |
| b4003      | b4003.2 | Rebuild parts of the College Corner (AEP)-Trenton (DEOK) 138 kV circuit that shares a common structure with the College Corner (AEP)-Collinsville (DEOK) circuit from the OH/IN state line (Tower 10P-X1-129) to Collinsville substation. AEP owns approximately 0.1 miles of the line from College Corner substation to the OH/IN state line. DEOK owns the remaining 24.19 miles from the state line to Trenton substation. Only the 11.90-mile DEOK section that shares a common structure with College Corner (AEP)-Collinsville (DEOK) will be rebuilt with 954ACSS/TW conductor (@ 200C) and new double-circuit structures. The remaining sections from Collinsville-Trenton will be left untouched. DEOK will be doing a route survey to see if easement updates and/or additional structures are required. | DEOK | 6/1/2030                 | 6/1/2030                  | 13.24               |
| b4003      | b4003.1 | Rebuild the College Corner (AEP)-Collinsville (DEOK) 138 kV circuit from the OH/IN state line (tower 10P-X1-129) to Collinsville substation. AEP owns approximately 0.1 miles of the line from College Corner substation to the OH/IN state line. DEOK owns the remaining 11.90 miles from the state line to Collinsville substation. The  | DEOK | 6/1/2030                 | 6/1/2030                  | 45.11               |

| Upgrade ID | Sub ID  | Project Description  | TO      | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|--|---------|--------------------------|---------------------------|---------------------|
|            |         | entire 11.90 mile section that DEOK owns will be rebuilt with 954ACSS/TW conductor (@ 200C) and new double-circuit structures. The College Corner (AEP)-Trenton (DEOK) line is on the other side of the double-circuit structure and will also be rebuilt. DEOK will be doing a route survey to see if easement updates and/or additional structures are required. |         |                          |                           |                     |
| b4002      | b4002.2 | Adjust the relay settings at Penn Mar, Garrett and Deep Creek substations to accommodate the new ratings and impedance changes associates with the Garrett-Garrett tap 115 kV line rebuild.  | PENELEC | 6/1/2029                 | 6/1/2029                  | 0.13                |
| b4002      | b4002.1 | <ul style="list-style-type: none"> <li>Rebuild approximately 1.9 miles of 115 kV line with larger conductor.</li> <li>Install OPGW for the static.</li> <li>Install one new SCADA-controlled 2000A disconnect with whips.</li> </ul>   | APS     | 6/1/2029                 | 6/1/2029                  | 9.02                |
| b4001      | b4001.2 | Reconductor new Redbud McCanns Rd. 138 kV line with 795 kcmil 45/7 ACSS for 0.5 miles from Redbud 138 kV substation to Str. 175 of the existing Redbud-West Winchester 138 kV line at approximate coordinates (39.217478, -78.128621).   | APS     | 6/1/2030                 | 6/1/2030                  | 5.04                |
| b4001      | b4001.1 | Construct the McCanns Rd. 138 kV switching station and interconnect the existing Redbud-West Winchester 138 kV line and Bartonville-Stephenson 138 kV line.  | APS     | 6/1/2030                 | 6/1/2030                  | 18.83               |
| b4033      | b4033.9 | Upgrade line relaying at Tasley Substation (69kV).   | ODEC    | 12/31/2030               | 9/30/2030                 | 1.11                |
| b4033      | b4033.8 | Construct new 69kV transmission line from Oak Hall - Tasley in existing ROW.   | ODEC    | 12/31/2030               | 12/31/2030                | 41.74               |
| b4033      | b4033.7 | Rebuild 69kV line from Oak Hall - Hallwood - Tasley.   | ODEC    | 12/31/2030               | 12/31/2030                | 29.81               |
| b4033      | b4033.6 | Rebuild Oak Hall Substation 69kV yard and upgrade to breaker-and-a-half (BAAH) configuration to  | ODEC    | 12/31/2030               | 9/30/2030                 | 32.46               |

| Upgrade ID | Sub ID   | Project Description  | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|--|------|--------------------------|---------------------------|---------------------|
|            |          | accommodate new Tasley - Oak Hall line.  |      |                          |                           |                     |
| b4033      | b4033.5  | At Belle Haven Substation (69kV), replace one capacitor bank (14.4 MVAR).  | ODEC | 12/31/2030               | 6/30/2028                 | 1.14                |
| b4033      | b4033.4  | At Cheriton Substation (69kV), install one new capacitor bank (3.6 MVAR).  | ODEC | 12/31/2030               | 6/30/2028                 | 1.19                |
| b4033      | b4033.3  | At Kellam Substation (69kV), replace one capacitor bank (14.4 MVAR) and install one new capacity bank (7.2 MVAR).  | ODEC | 12/31/2030               | 6/30/2028                 | 2.52                |
| b4033      | b4033.2  | Convert Tasley Substation (69kV) to breaker-and-a-half (BAAH) configuration with two new breaker bays in order to accommodate new Tasley - Oak Hall line and Tasley cap banks.   | ODEC | 12/31/2030               | 12/31/2030                | 18.83               |
| b4033      | b4033.10 | Upgrade line relaying at Kellam Substation (69kV).   | ODEC | 12/31/2030               | 9/30/2030                 | 0.58                |
| b4033      | b4033.1  | At Tasley Substation (69kV) replace one capacitor bank (14.4 MVAR) and install one new capacitor bank (7.2 MVAR).  | ODEC | 12/31/2030               | 6/30/2028                 | 2.64                |
| b4032      | b4032.4  | PSEG 500 kV transmission line work: Loop the Roseland-Hopatcong 500 kV line into JCPL Montville substation.  | PSEG | 6/1/2030                 | 11/1/2029                 | 9.04                |
| b4032      | b4032.3  | Replace the 2-pole wood structure No. 154 on the Montville-Whippany 34.5 kV O93 line with a monopole UG riser and install approximately 200 ft. of new UG conductor to be spliced with existing section of UG conductor into the Montville substation. | JCPL | 6/1/2030                 | 11/1/2029                 | 1.13                |
| b4032      | b4032.2  | Replace the 2-pole wood structure No. 154 on the Montville-Whippany 34.5 kV, K115 line with a monopole and UG riser. Install approximately 200 ft. of new UG conductor to be spliced with existing section of UG conductor into Montville substation.  | JCPL | 6/1/2030                 | 11/1/2029                 | 1.49                |
| b4032      | b4032.1  | Install a 500 kV double-breaker double-bus at Montville substation   | JCPL | 6/1/2030                 | 11/1/2029                 | 72.14               |

| Upgrade ID   | Sub ID  | Project Description   | TO    | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|---------|---|-------|--------------------------|---------------------------|---------------------|
|              |         | Install a 500/230 kV transformer and 500 kV breaker. Install new breaker string in the 230 kV yard to create a breaker-and-a-half layout. Reterminate the 230-34.5 kV transformers.   |       |                          |                           |                     |
| <b>b4028</b> | b4028.1 | Rebuild 2.3 miles of the Mound Street-St Clair Avenue 138 kV UG line with 5000 KCM XLPE cable.  | AEP   | 6/1/2030                 | 4/1/2030                  | 41.59               |
| <b>b4027</b> | b4027.2 | Replace the 2" IPS Sch. 40 conductor with 4" IPS Sch. 40 conductor at Smith Mountain station on the Smith Mountain-Rock Castle branch allowing the branch to exceed a summer emergency rating of 1765 A.  | AEP   | 6/1/2030                 | 6/1/2029                  | 0.28                |
| <b>b3943</b> | b3943.1 | Install a new 345/138 kV transformer TR 84, and associated equipment at State line substation. Install two 345 kV circuit breakers, one 138 kV circuit breaker and associated equipment; also replace the 138 kV BT 732 circuit breaker at State line substation.       | ComEd | 12/1/2030                | 12/1/2030                 | 20.81               |
| <b>b3981</b> | b3981.1 | Install a new 345/138 kV TR83 at Elk Grove and associated equipment. Install three 138 kV and one 345 kV circuited breakers and associated equipment at Elk Grove substation.   | ComEd | 6/1/2030                 | 6/1/2030                  | 28.96               |
| <b>b4006</b> | b4006.1 | Install 765/345 kV TR 91 and associated 765 kV and 345 kV circuit breakers at Wilton Center.  | ComEd | 12/1/2030                | 12/1/2030                 | 45.81               |
| <b>b3982</b> | b3982.1 | Disconnect and remove the 34 kV tertiary cap bank on the Cherry Valley 345/138 kV transformer TR 82 and install a 138 kV bus 3 cap bank and associated equipment at Cherry Valley substation.   | ComEd | 6/1/2030                 | 6/1/2030                  | 7.73                |
| <b>b3944</b> | b3944.1 | Rebuild the McGuffey to Locust 69 kV line (~1.35 miles) with 954 ACSR rail conductor and OPGW. The 54 wood poles will be replaced with light duty, steel poles. The rebuild will take place in the existing right-of-way, and the distribution underbuilds will also be | DEOK  | 6/1/2030                 | 5/29/2029                 | 5.32                |

| Upgrade ID   | Sub ID  | Project Description   | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|---------|---|-----|--------------------------|---------------------------|---------------------|
|              |         | restored. Conductor drops going into McGuffey and Locust substations will be replaced with 954 AAC conductor.   |     |                          |                           |                     |
| <b>b3945</b> | b3945.1 | Adjust Mullens 138 kV cap bank Vhi setting to 1.04. Adjust protection settings as needed at the station.  | AEP | 12/1/2030                | 12/1/2030                 | 0.10                |
| <b>b3946</b> | b3946.1 | Adjust existing Jarrett 138/46 kV transformer tap to 1:1 to boost voltages on the sub-transmission network.   | AEP | 4/15/2030                | 4/15/2030                 | 0.10                |
| <b>b3946</b> | b3946.2 | Adjust the existing Hartland 46 kV cap bank Vhi setting to 1.04.  | AEP | 4/15/2030                | 4/15/2030                 | 0.10                |
| <b>b4027</b> | b4027.1 | Sag study the Smith Mountain-Moneta 138 kV line. Approximately 14 structures will need to be added in existing rights-of-way to increase the sag along the existing centerline such that the higher requested ampacity can be achieved along the corridor and maintain safety clearances. | AEP | 6/1/2030                 | 6/1/2029                  | 9.60                |
| <b>b3947</b> | b3947.1 | Remove cans on existing Baileysville 46 kV cap bank to reduce it to 7.2 MVAR.   | AEP | 12/1/2030                | 12/1/2030                 | 0.10                |
| <b>b3948</b> | b3948.1 | Replace the existing 9.6 MVAR 69 kV capacitor bank at Johns Creek station with a 17.2 MVAR capacitor bank. Circuit switcher "AA" will also be replaced.   | AEP | 4/15/2030                | 4/15/2030                 | 1.48                |
| <b>b4026</b> | b4026.2 | Rebuild approximately 11.1 miles of 69 kV line from Sherwood to Auglaize station.   | AEP | 4/15/2030                | 2/1/2030                  | 21.51               |
| <b>b3949</b> | b3949.1 | Change XF tap settings at Chauncey station to boost the sub-transmission voltage.   | AEP | 4/15/2030                | 4/15/2030                 | 0.10                |
| <b>b3949</b> | b3949.2 | Change the XF tap settings at Huff Creek station to boost the sub-transmission voltage.   | AEP | 4/15/2030                | 4/15/2030                 | 0.10                |
| <b>b4026</b> | b4026.1 | Rebuild approximately 3.5 miles of 69 kV line from Platter Creek to Sherwood station.   | AEP | 4/15/2030                | 2/1/2030                  | 7.17                |

| Upgrade ID | Sub ID  | Project Description  | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|--|-----|--------------------------|---------------------------|---------------------|
| b3950      | b3950.1 | Adjust existing Tazewell 138/34.5 kV transformer tap to 1:1 to help mitigate voltages on the 34.5 kV bus.  | AEP | 6/1/2030                 | 6/1/2030                  | 0.10                |
| b3952      | b3952.1 | Replace 138 kV, 3000A circuit breakers H and H1 with 4000A circuit breakers.   | AEP | 6/1/2030                 | 6/1/2030                  | 1.51                |
| b3953      | b3953.1 | Replace 138 kV circuit switcher XT3 with a higher fault current capable circuit breaker at New Carlisle.   | AEP | 6/1/2030                 | 6/1/2030                  | 1.02                |
| b4024      | b4024.2 | Upgrade breaker, rigid bus, relay and disconnect switch at Laurel substation on the Sharptown-Laurel facility.   | DPL | 6/1/2030                 | 5/31/2030                 | 1.70                |
| b3955      | b3955.1 | Build ~0.8-mile 138 kV double-circuit extension from Roberts-Wilson 138 kV line into the Milepost 138 kV substation.   | AEP | 6/1/2030                 | 6/1/2030                  | 8.33                |
| b3955      | b3955.2 | Install additional 2-138 kV circuit breakers at Milepost substation to allow for the Robert-Wilson 138 kV line to come into the Milepost substation. DICM will need an expansion for additional relaying panels.   | AEP | 6/1/2030                 | 6/1/2030                  | 3.84                |
| b3956      | b3956.1 | Upgrade 336.4 ACSR 26/7 station conductor at Galloway 69 kV.   | AEP | 6/1/2030                 | 6/1/2030                  | 0.18                |
| b4024      | b4024.1 | Rebuild existing Sharptown-Laurel 69 kV circuit utilizing 954 ACSR "Rail" 45/7 conductor.  | DPL | 6/1/2030                 | 5/31/2030                 | 36.55               |
| b3957      | b3957.1 | At Haviland substation, replace TR No. 4 with 138/69/12 kV 130 MVA bank, along with associated equipment such as the switch (600A), Sub cond 795 AAC 37 Str., and Sub cond 300 MCM CU bus equipment.               | AEP | 12/1/2030                | 6/1/2030                  | 5.87                |
| b3951      | b3951.1 | To solve the voltage violations, a 69 kV circuit switcher and an 11.5 MVAR capacitor bank will be installed on the 69 kV bus at Falcon station. Falcon station will need to be expanded to fit the capacitor bank. | AEP | 4/15/2030                | 4/15/2030                 | 3.35                |

| Upgrade ID | Sub ID  | Project Description   | TO  | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|---|-----|--------------------------|---------------------------|---------------------|
| b3958      | b3958.1 | Perform sag study mitigations on ~1.4 miles of line from str. 8 to str 21 to bring conductor to full 142 MVA SE rating.   | AEP | 6/1/2030                 | 6/1/2030                  | 0.36                |
| b3959      | b3959.1 | The line section overloading is roughly ~0.8 miles consisting of 336 ACSR 30/7 Oriole from structure 44 to Lick station. Reconductor limiting line conductor on the Lick-Ironman 69 kV circuit to match the rest of the line. | AEP | 6/1/2030                 | 6/1/2030                  | 1.10                |
| b3960      | b3960.1 | Replace 138 kV, 40 kA circuit breaker DD with higher fault-current-capable counterpart (63 kA). The new circuit breaker will have a larger footprint, which will require the shifting of nearby equipment.                    | AEP | 6/1/2030                 | 6/1/2030                  | 0.77                |
| b4023      | b4023.1 | Upgrade existing 500 and 750 SDCU on Vienna side of Vienna-Loretto facility with 2x954 ACSR. Replace three 138 kV 600A disconnect switches with 2000A rated units.  | DPL | 12/1/2030                | 5/31/2030                 | 1.81                |
| b3962      | b3962.1 | Replace 138 kV circuit breakers CB-H014F2 and CB-H014F5 with 63 kA fault-current-capable breakers.  | AEP | 6/1/2030                 | 6/1/2030                  | 0.85                |
| b3963      | b3963.1 | Replace 138 kV circuit breakers 102, 103 and circuit switcher XT4 with 63 kA fault-current-capable breakers.  | AEP | 6/1/2030                 | 6/1/2030                  | 2.89                |
| b4022      | b4022.1 | Replace approx. 2 miles per circuit of existing HPFF cables with new 3500 KCM CU LPP HPFF cables.   | BGE | 6/1/2030                 | 6/1/2030                  | 58.49               |
| b3961      | b3961.1 | Replace station terminal equipment: South Side Lima 34.5 kV replace 4/0 AAC, 7-Str. Replace 34.5 kV CB-L jumpers and 34.5 kV Sterling line riser.   | AEP | 12/1/2030                | 6/1/2030                  | 0.08                |
| b3964      | b3964.1 | The 138 kV circuit switcher XT3 will be replaced with a 63 kA breaker.  | AEP | 6/1/2030                 | 6/1/2030                  | 0.94                |
| b3965      | b3965.1 | Replace 138 kV circuit switchers XT1, XT3, XT2 and XT4 with 63 kA fault-current-capable counterpart.  | AEP | 6/1/2030                 | 6/1/2030                  | 4.60                |

| Upgrade ID | Sub ID  | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|---|------|--------------------------|---------------------------|---------------------|
| b3966      | b3966.1 | Replace 138 kV circuit breakers A, AA, D, E, F, XT1 and XT2 with 63 kA fault-current-capable counterpart. Reroute one line entrance in the station to make more room for the larger breakers.                                     | AEP  | 9/30/2030                | 6/1/2030                  | 3.56                |
| b3967      | b3967.1 | Replace the existing Cambridge 34.5 kV circuit breaker F with a 40 kA, 3000A unit.  | AEP  | 6/1/2030                 | 6/1/2030                  | 0.80                |
| b4021      | b4021.3 | Reconductor 69 kV line from Prospect Park to North Paterson with a high-capacity conductor, including installing new composite poles and manholes along the line as required.   | PSEG | 6/1/2030                 | 6/1/2030                  | 13.87               |
| b3969      | b3969.1 | Replace Findlay Center transformer No. 1 with a 138/69/34.5 90 MVA Unit. Replace the TR1 LS disconnect switch.  | AEP  | 6/1/2030                 | 6/1/2030                  | 3.94                |
| b3970      | b3970.1 | Rebuild line: ~2.87 miles Kenton-South Kenton 69 kV.  | AEP  | 6/1/2030                 | 6/1/2030                  | 13.19               |
| b4021      | b4021.2 | Upgrade the Pfisterer connection inside of North Paterson to accept new high-capacity cable; reconfigure duct banks in North Paterson to accommodate new high-capacity cable.   | PSEG | 6/1/2030                 | 6/1/2030                  | 1.17                |
| b3971      | b3971.1 | At Haviland, reconductor bus No. 1 Sub cond 500 MCM CU 37 Str toward Haviland bus No. 2 and reconductor Haviland bus No. 2 500 KCM CU, 37-Str. and 795 KCM AAC, 37-Str. toward Timber SW 138 kV.                                  | AEP  | 12/1/2030                | 6/1/2030                  | 1.47                |
| b3972      | b3972.1 | Perform a ratings study and clearance mitigation on the ~5.55-mile section of sag derated 556.5 ACSR 26/7 DOVE conductor (East Lima-STR 28) between the East Lima-Haviland 138 kV circuit on the East Lima-West Lima 138 kV line. | AEP  | 4/15/2030                | 4/15/2030                 | 6.80                |
| b4021      | b4021.1 | Upgrade the Pfisterer connection inside of Prospect Park to accept new  | PSEG | 6/1/2030                 | 6/1/2030                  | 0.67                |

| Upgrade ID   | Sub ID  | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|---------|---|------|--------------------------|---------------------------|---------------------|
|              |         | high-capacity cable; modify conduit as needed.  |      |                          |                           |                     |
| <b>b3974</b> | b3974.1 | Replace circuit breaker R with a new 69 kV, 40 kA circuit breaker.  | AEP  | 6/1/2030                 | 6/1/2030                  | 0.85                |
| <b>b3975</b> | b3975.1 | Install a new 138/69 kV transformer at Catawba station with a high-side circuit switcher and a low-side circuit breaker.  | AEP  | 12/1/2030                | 6/1/2030                  | 7.77                |
| <b>b3976</b> | b3976.1 | At Bedington: <ul style="list-style-type: none"> <li>• Install foundation, conduit and grounding for new equipment.</li> <li>• Install three 138 kV surge arresters.</li> <li>• Replace one existing 138 kV CVT with three 138 kV CVTs.</li> <li>• Replace one lot of limiting conductor.                             <ul style="list-style-type: none"> <li>• Install one lot of cables and grounding.</li> </ul> </li> <li>• Replace one existing 138 kV Eagle line terminal relay panel and breaker failure, with one standard line relaying panel consisting of one SEL-421, one SEL-411L and one SEL-451.</li> </ul> | APS  | 6/1/2030                 | 6/1/2030                  | 1.96                |
| <b>b3977</b> | b3977.1 | At Meadow Brook: <ul style="list-style-type: none"> <li>• Install conduit and grounding for new equipment.                             <ul style="list-style-type: none"> <li>• Install one lot of cables and grounding for new equipment.</li> </ul> </li> <li>• Replace one 138 kV wave trap on the West Winchester line terminal.</li> </ul>   | APS  | 6/1/2030                 | 6/1/2030                  | 0.36                |
| <b>b4019</b> | b4019.3 | Reconductor 69 kV line from Rahway to Roselle station. High-capacity conductor to be rated at least 1100 summer normal and 1200 summer emergency. <ul style="list-style-type: none"> <li>• 2 miles of OH wreck and rebuild</li> <li>• 2.5 miles of OH new construction</li> <li>• 0.2 miles of UG. Replace fiber as required.</li> </ul>  | PSEG | 6/1/2030                 | 6/1/2030                  | 27.00               |
| <b>b3978</b> | b3978.1 | <ul style="list-style-type: none"> <li>• Reconductor one span of transmission line outside Ottawa substation.</li> <li>• Reconductor one span of transmission line outside Lakeview substation.</li> </ul>  | ATSI | 6/1/2030                 | 6/1/2030                  | 1.09                |

| Upgrade ID | Sub ID  | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|---|------|--------------------------|---------------------------|---------------------|
| b3978      | b3978.2 | Replace limiting terminal equipment at Lakeview substation. <ul style="list-style-type: none"> <li>• Two thermal relays</li> <li>• Two 138 kV disconnect switches</li> <li>• Limiting substation conductor</li> </ul>   | ATSI | 6/1/2030                 | 6/1/2030                  | 0.32                |
| b3979      | b3979.2 | Abbe-Johnson No.1 69 kV line (Elyria Water P.C.-Spring Valley): <ul style="list-style-type: none"> <li>• Replace one 69 kV disconnect switch.</li> </ul>  | ATSI | 6/1/2030                 | 6/1/2030                  | 0.71                |
| b3979      | b3979.1 | Abbe-Johnson No.1 69 kV line (Johnson-Elyria Water P.C.):[GE1.1][AH1.2] <ul style="list-style-type: none"> <li>• Reconductor one span of transmission line between Johnson substation and Elyria Water P.C.</li> <li>• Replace one 69 kV disconnect switch.</li> <li>• Upgrade one thermal relay.</li> <li>• Modify Elyria Loop Tap configuration.</li> <li>• Install one 69 kV disconnect switch.</li> </ul> | ATSI | 6/1/2030                 | 6/1/2030                  | 2.07                |
| b3980      | b3980.1 | Bellevue-Groton 69 kV line: <ul style="list-style-type: none"> <li>• Rebuild 4 miles of the Bellevue-Groton 69 kV line.</li> </ul>  | ATSI | 6/1/2030                 | 6/1/2030                  | 9.53                |
| b4019      | b4019.2 | Replace/update riser structure, pot head, cable and sweeps as required to accept high-capacity conductor at Roselle 69 kV. Rebuild duct banks as needed.  | PSEG | 6/1/2030                 | 6/1/2030                  | 1.35                |
| b3980      | b3980.2 | Bellevue substation: <ul style="list-style-type: none"> <li>• Replace three 69 kV disconnect switches.</li> <li>• Revise relay settings.</li> <li>• Replace limiting substation conductor.</li> </ul>   | ATSI | 6/1/2030                 | 6/1/2030                  | 0.47                |
| b4019      | b4019.1 | Replace/update riser structure, pot head, cable and sweeps as required to accept high-capacity conductor at Rahway 69 kV. Rebuild duct banks as needed.   | PSEG | 6/1/2030                 | 6/1/2030                  | 1.05                |
| b3979      | b3979.3 | Abbe-Johnson No.1 69 kV line (Spring Valley-Lorain College): <ul style="list-style-type: none"> <li>• Replace two 69 kV disconnect switches.</li> </ul>   | ATSI | 6/1/2030                 | 6/1/2030                  | 0.44                |

| Upgrade ID | Sub ID  | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|---------|---|------|--------------------------|---------------------------|---------------------|
| b3940      | b3940.1 | The 345 kV ring bus at Woodsdale substation will be reconfigured into a 345 kV breaker-and-half yard to improve substation reliability. Additionally, all 2000A equipment at Woodsdale substation will be upgraded to 3000A to increase substation capacity. Currently two DEOK supplemental projects that are planned at Woodsdale substation: s3447.1 & s3601.1. DEOK will convert all of s3447.1 & parts of s3601.1 to address these reliability violations. | DEOK | 6/1/2030                 | 11/16/2028                | 36.82               |
| b4018      | b4018.9 | Loop the Leisure Village-South Lakewood 34.5 kV F214 line into the new 34.5 kV ring bus station, approximately 0.1 miles.   | JCPL | 6/1/2030                 | 6/1/2030                  | 0.92                |
| b3986      | b3986.1 | Replace Windsor 34.5 kV Breakers: <ul style="list-style-type: none"> <li>• KQ</li> <li>• Q143</li> <li>• 324-B-25 (J136-1)</li> <li>• 324-B-22 (J2)</li> <li>• 324-B-31 (MG)</li> <li>• 324-B-34 (K137-1)</li> <li>• 324-B-19 (BK2)</li> <li>• 324-B-28 (M65-1)</li> <li>• 324-B-16 (G215-1)</li> <li>• BK4</li> <li>• 324-B-7 (H4)</li> <li>• 324-B-8 (H60)</li> <li>• 324-B-54 (BK5_BBUS)</li> <li>• 324-B-51 (BK5_ABUS)</li> </ul>                           | JCPL | 6/1/2029                 | 6/1/2029                  | 8.36                |
| b3980      | b3980.3 | Groton substation: <ul style="list-style-type: none"> <li>• Revise relay settings</li> </ul>  | ATSI | 6/1/2030                 | 6/1/2030                  | 0.10                |
| b3987      | b3987.1 | Replace East Flemington 34.5 kV circuit breakers C731, V724, A729, TC, H736, AV, YH and Y727 with 40 kA, 3000A breakers.  | JCPL | 6/1/2030                 | 6/1/2030                  | 3.46                |
| b4018      | b4018.8 | Build a new 34.5 kV ring bus switching station (adjacent to Vermont Avenue substation).   | JCPL | 6/1/2030                 | 6/1/2030                  | 13.33               |
| b4011      | b4011.1 | Install new 115 kV capacitor; replace limiting conductors, line relaying and  | ME   | 6/1/2030                 | 6/1/2030                  | 3.56                |

| Upgrade ID   | Sub ID  | Project Description   | TO      | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|--------------|---------|---|---------|--------------------------|---------------------------|---------------------|
|              |         | disconnect switches at North Hanover on the Jackson terminal.   |         |                          |                           |                     |
| <b>b4018</b> | b4018.7 | Reconfigure 34.5 kV switchyard at Metedeconk Substation to a breaker-and-a-half yard.   | JCPL    | 6/1/2030                 | 6/1/2030                  | 2.18                |
| <b>b4011</b> | b4011.2 | Replace limiting conductors, line relaying, circuit breaker and two 115 kV disconnect switches at Jackson on the North Hanover terminal.                                      | ME      | 6/1/2030                 | 6/1/2030                  | 0.57                |
| <b>b4011</b> | b4011.3 | Rebuild the Jackson-North Hanover 115 kV 968 line as a double circuit, approximately 13.2 miles, using 954 ACSR 45/7. The line will be energized in a six-wire configuration. | ME      | 6/1/2030                 | 6/1/2030                  | 57.65               |
| <b>b4012</b> | b4012.1 | Belleville-Center Union 46 kV line – Replace structures and use 795 ACSR 26/7 conductor on spans D-356 through D-360.   | PENELEC | 6/1/2030                 | 6/1/2030                  | 2.72                |
| <b>b4018</b> | b4018.6 | Replace line relaying at Leisure Village Substation.  | JCPL    | 6/1/2030                 | 6/1/2030                  | 0.15                |
| <b>b4013</b> | b4013.1 | Install a 10.8 MVAR capacitor at Colts Neck 34.5 kV substation.   | JCPL    | 6/1/2030                 | 6/1/2030                  | 2.69                |
| <b>b4014</b> | b4014.1 | Install a 5.4 MVAR capacitor at Sussex 34.5kV substation.   | JCPL    | 6/1/2030                 | 6/1/2030                  | 2.28                |
| <b>b4015</b> | b4015.1 | At Long Branch substation, replace the 34.5 kV line terminal disconnect switch  | JCPL    | 6/1/2030                 | 6/1/2030                  | 0.53                |
| <b>b4018</b> | b4018.5 | Remove equipment and add breakers and switches at Metedeconk Substation. Remove equipment to isolate transformers.  | JCPL    | 6/1/2030                 | 6/1/2030                  | 14.46               |
| <b>b4016</b> | b4016.1 | Rebuild the Jamesburg-Monroe 34.5 kV N40 line from Jamesburg substation to Monroe Junction substation, approximately 1.2 miles.   | JCPL    | 6/1/2030                 | 6/1/2030                  | 5.13                |
| <b>b4016</b> | b4016.2 | Replace limiting conductor and revise relay settings at Monroe substation.  | JCPL    | 6/1/2030                 | 6/1/2030                  | 0.21                |
| <b>b4018</b> | b4018.4 | Replace limiting conductor at Larrabee substation.  | JCPL    | 6/1/2030                 | 6/1/2030                  | 0.13                |

| Upgrade ID | Sub ID   | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|------|--------------------------|---------------------------|---------------------|
| b4016      | b4016.3  | Install new relay and revise relay settings at Costco substation.   | JCPL | 6/1/2030                 | 6/1/2030                  | 0.25                |
| b4016      | b4016.4  | Rebuild a section of the Englishtown-Monroe Junction 34.5 kV H34 line that is mutual with the Costco-Monroe Junction 34.5 kV N40 line near Monroe Junction substation, approximately 0.4 miles. | JCPL | 6/1/2030                 | 6/1/2030                  | 0.76                |
| b4017      | b4017.1  | Upgrade line relaying at Van Hiseville substation.  | JCPL | 6/1/2030                 | 6/1/2030                  | 0.55                |
| b4018      | b4018.3  | Terminate 34.5 kV lines to new 34.5 kV ring bus station.  | JCPL | 6/1/2030                 | 6/1/2030                  | 0.22                |
| b4017      | b4017.2  | Rebuild Great Adventure 34.5 kV substation as an eleven-breaker, breaker-and-a-half station   | JCPL | 6/1/2030                 | 6/1/2030                  | 26.17               |
| b4017      | b4017.3  | Upgrade line relaying at Windsor Substation.  | JCPL | 6/1/2030                 | 6/1/2030                  | 0.08                |
| b4018      | b4018.2  | Replace line relaying at South Lakewood Substation.   | JCPL | 6/1/2030                 | 6/1/2030                  | 0.15                |
| b4017      | b4017.5  | Rebuild the Cookstown-Van Hiseville 34.5 kV V22 line from Str No. 91445 to Greater Adventure substation as a double circuit, approximately 5.2 miles.   | JCPL | 6/1/2030                 | 6/1/2030                  | 17.93               |
| b4017      | b4017.4  | Rebuild the Cookstown-Windsor 34.5 kV H60 line from Cookstown substation to Str No. 58 as a double circuit, approximately 4.7 miles. Terminate new line into Cookstown substation.              | JCPL | 6/1/2030                 | 6/1/2030                  | 14.59               |
| b4017      | b4017.6  | At Cookstown Substation, replace 34.5 kV breaker, two disconnect switches, relaying and ancillary terminal equipment.   | JCPL | 6/1/2030                 | 6/1/2030                  | 2.36                |
| b4018      | b4018.1  | Purchase land needed to support construction of new 34.5 kV switching station.  | JCPL | 6/1/2030                 | 6/1/2030                  | 0.15                |
| b4018      | b4018.11 | Install new hardware and wire on the Larrabee - Point Pleasant No. 2 34.5 kV R44 line to support the rebuild project, approximately 2.6 miles.  | JCPL | 6/1/2030                 | 6/1/2030                  | 17.80               |

| Upgrade ID | Sub ID   | Project Description   | TO   | Required In Service Date | Projected In Service Date | Cost Estimate (\$M) |
|------------|----------|---|------|--------------------------|---------------------------|---------------------|
| b4018      | b4018.13 | Install a new tie line (Ckt 2) from the existing Vermont Avenue substation to the new 34.5 kV ring bus station, approximately 0.1 miles   | JCPL | 6/1/2030                 | 6/1/2030                  | 0.68                |
| b4018      | b4018.12 | Install a new tie line (Ckt 1) from the existing Vermont Avenue substation to the new 34.5 kV ring bus station, approximately 0.1 miles.  | JCPL | 6/1/2030                 | 6/1/2030                  | 0.75                |
| b4018      | b4018.10 | Install new hardware and wire on the Herbertsville - Larrabee 34.5 kV Q43 line to support the rebuild project of approximately 2.6 miles.   | JCPL | 6/1/2030                 | 6/1/2030                  | 14.82               |
| b3968      | b3968.1  | Replace North Newark TR#1 with a 90 MVA bank. DICM expansion will be required. Replace motor operators on high-side switch "Z." Install two 138 kV disconnects on existing 138 kV lattice box bay. Install two 69 kV disconnects on existing 69 kV H-frame structure. | AEP  | 12/1/2030                | 6/1/2030                  | 6.33                |
| b4068      | b4068.48 | Marysville 765 kV substation: Add two 250 MVAR 345 kV capacitor banks.  | AEP  | 1/0/1900                 | 10/31/2030                | 5.56                |
| b4068      | b4068.49 | Hyatt-Maliszewski 345 and 138 kV rebuild: Rebuild 5.25-mile section of the 138 kV circuit from Hyatt station to Maliszewski station that shares tower with 345 kV line.   | AEP  | 1/0/1900                 | 10/31/2031                | 17.06               |

## Objective and Scope

The objectives of this assessment were as follows:

- 1 | To identify system reinforcements as required to ensure compliance with NERC standards TPL-001-5.1
- 2 | To identify areas where the system as planned for the near-term period 2025 through 2030 would not meet applicable reliability standards
- 3 | To develop and recommend preliminary facility expansion plans, including cost estimates and required in-service dates, to ensure all areas meet applicable reliability criteria
- 4 | To identify areas where the system as planned for the longer-term period 2031 through 2040 that would not meet applicable reliability criteria, and where appropriate, develop expansion plans. These plans include required in-service dates of the facilities needed to bring those areas into compliance. This longer-term planning is in consideration of larger scope projects that may require a long lead time to implement.

- 5 |** To establish what will be included as baseline expansion costs for the allocation of the costs of expansion for those projects included in new services queues

The scope of this assessment included analysis for the period 2025 through 2040 to ensure the system would meet all applicable reliability planning criteria. These assessments include baseline thermal, baseline voltage, thermal and voltage load deliverability, generation deliverability, short circuit and baseline stability analysis. The baseline thermal and voltage analysis encompasses an exhaustive analysis of all BES facilities for compliance with NERC P0 – P7 (TPL-001-5.1) events.

## Analysis Methodology

PJM completed a robust series of steady-state analysis (see table 4 below) over a broad spectrum of system conditions encompassing a range of study years and forecast demand levels. The following sections detail the assumptions of the modeling and analysis. The analysis sub-sections are grouped by the analysis type. The modeling assumptions of the 2030 cases and analysis are discussed in detail. The modeling assumptions for the retool cases are not discussed in detail but followed the same procedure as the 2030 case, which can be found in PJM Manual 14B, Attachment H. The modeling assumptions of all of the cases follow the procedure in PJM Manual 14B, Attachment B. All study year cases model all normal (NERC TPL P0) operating procedures in place. PJM Manual 3, Transmission Operations, contains all PJM operating procedures that are applicable to PJM planning studies.

**Table 4.** Analysis Type Summary

| Analysis Type                            | NERC Contingency Category from Table 1 of TPL Standard | Applicable Limits Monitored   | Monitored Elements   |
|--|--|---|--|
| Spare Equipment Analysis                 | P1, P2   | All System Operating Limits, including the most limiting thermal, voltage limit (magnitude and deviation), voltage collapse | All BES & select lower voltage facilities, all ties to neighboring systems regardless of voltage |
| Planned Outage Analysis                  | P1   |   |  |
| Extreme Event Analysis                   | *Refer to TPL-001-5 Table 1                            |   |  |
| Normal System                            | P0   |   |  |
| Single Contingency Analysis              | P1, P2   |   |  |
| Multiple Contingency Analysis            | P4, P5, P7   |   |  |
| N-1-1 Analysis                           | P3, P6   |   |  |
| Load Deliverability Analysis             | P0, P1   |   |  |
| Summer Reliability Analysis              | P0, P1, P2, P4, P5, P7                                 |   |  |
| Winter Reliability Analysis              |  |   |  |
| Light Load Reliability Analysis          |  |   |  |
| Individual Plant Deliverability Analysis | P1, P2-2,  | Thermal Only  |  |
| Generation Deliverability Analysis       | P2-3, P2-4, P4 and P7                                  |   |  |

## Modeling Assumptions & Critical System Conditions

*PJM selected a range of forecast demand levels for the year 2030.*

- 2030 90/10 Summer Peak
- 2030 50/50 Summer Peak
- 2030 Light Load Reliability Analysis (50% of Conforming Load)
- 2030 Winter Reliability Analysis

In addition to the analysis of the 2030 system, as part of this assessment, PJM also performed analysis of multiple critical system conditions in the near-term and longer-term planning horizons. The assessments of the critical system conditions within these study years will be discussed in subsequent sections of this document.

In 2025, PJM continued its effort in pursuing modifications to the RTEP process Generator Deliverability methodology, as initiated in 2021 with PJM stakeholders in the Planning Committee, to improve variable resource modeling and consistency with operations. PJM pursued Generator Deliverability modifications in order to more accurately reflect the emerging resource mix under summer, light load and winter operating conditions. PJM's existing Generator Deliverability test does not dispatch generation in the same way as PJM's real-time operations, and therefore does not accurately reflect the behavior of PJM's rapidly evolving resource mix. Instead of dispatching generation in merit order (by least cost), the existing test relies on historic capacity factors to derate all generation. PJM's updated block dispatch methodology, implemented starting in 2023, included a new dispatch approach that better aligns with how operations dispatches units based on economic conditions. With this new approach, LDA imports will be limited to their Capacity Emergency Transfer Objective (CETO) in the base case. Additionally, only firm interchange will be modeled in the base case, with separate, simplified procedures for performing historical interchange sensitivity analysis.

In 2023, PJM updated Manual 14B language for the light load period for planning studies. The published line and transformer daytime thermal ratings at ambient temperatures of 50° F (10° C) winter, 95° F (35° C) summer and 59° F (15° C) light load are used as the default rating sets for all facilities. PJM will apply alternate transmission owner ambient temperature rating sets wherever variations exist.

The load forecast from the 2025 PJM Load Forecast Report was used and can be found on the [PJM website](#) (PDF).

The 2030 summer peak analysis used the 2030 summer model from the 2024 series MMWG (Multiregional Model Working Group) case. The model was updated according to the procedures in PJM Manual 14B, Attachment H. The case build is a collaborative process that involves PJM, PJM transmission owners and neighboring entities. The case was reviewed with all PJM transmission owners to ensure that all existing and planned facilities were modeled. All future transmission upgrades with a required in-service date up to and including June 1, 2030, for summer, Dec. 1, 2030, for winter and April 15, 2030, for light load were modeled as in service. The list of future upgrades along with a schedule for implementation is contained in Appendix A.

All existing generations were modeled in the base case. Future generation that had an executed Interconnection Service Agreement (ISA) or Generation Interconnection Agreement (GIA) was modeled along with any upgrades required to maintain the reliability of the PJM system including the future generation. Information on 2025 RTEP assumptions can be found on the Transmission Expansion Advisory Committee (TEAC) page for [March 2025 TEAC Assumptions](#), [April 2025 TEAC Assumptions](#) and [May 2025 TEAC Assumptions](#).

Adequate Reactive Power resources were included in the base model to ensure system voltage performance. Some of the reactive power resources modeled are existing and in-service equipment while some are planned with a future implementation date. A list of the planned reactive upgrades along with a schedule for implementation is contained in Appendix A. Table 5 below is a summary of the reactive power resources included in the 2030 case (note these are in addition to the reactive power associated with the generation noted above).

**Table 5.** 2030 Reactive Power Resources in Base Case Static MVAR: Capacitor Banks, Switched Shunts, Dynamic MVAR: SVCs, Synchronous Condensers and Dynamic Switched Shunts

|                    | Static       | Dynamic      | Total         |
|--------------------|--------------|--------------|---------------|
| AP                 | 7789         | 3210         | 10999         |
| AEP                | 16430        | 650          | 17080         |
| AEC                | 1236         | 450          | 1686          |
| BGE                | 9000         | 700          | 9700          |
| CE                 | 8990         | 1800         | 10790         |
| DAY                | 1618         | 9            | 1627          |
| DEO&K              | 846          | 0            | 846           |
| DLCO               | 292          | 0            | 292           |
| DP&L               | 1548         | 375          | 1923          |
| DVP                | 12233        | 2350         | 14583         |
| EKPC               | 1315         | 0            | 1315          |
| FE                 | 6850         | 1614         | 8464          |
| JCPL               | 4967         | 40           | 5007          |
| METED              | 1347         | 500          | 1847          |
| PECO               | 4767         | 700          | 5467          |
| PENELEC            | 2374         | 674          | 3048          |
| PEPCO              | 1905         | 350          | 2255          |
| PJM*               | 0            | 0            | 0             |
| PPL                | 4458         | 0            | 4458          |
| PSEG               | 9673         | 0            | 9673          |
| RECO               | 0            | 0            | 0             |
| UGI                | 66           | 0            | 66            |
| <b>Grand Total</b> | <b>97704</b> | <b>13422</b> | <b>111125</b> |

The interchange targets in **06** below represent the net sum of all existing and planned yearly long-term firm transmission service commitments between PJM and neighboring systems for the 2030 summer period. A 2030, 2025 series MMWG case was used as a starting point for the modeling; all PJM firm transactions were included in the RTEP base case modeling. The base dispatch is set as defined in PJM Manual 14B, Attachment B.

**Table 6.** Net Yearly Long-Term Firm Interchange

| 2030 Summer RTEP Interchange |       |            |
|------------------------------|-------|------------|
| Source                       | Sink  | Total (MW) |
| PJM                          | NYISO | 817        |
| PJM                          | LGEE  | -485       |
| PJM                          | DEI   | 0          |
| PJM                          | WEC   | 94         |
| PJM                          | LAGN  | 500        |
| PJM                          | CPL   | 105        |
| PJM                          | DUK   | -100       |
| PJM                          | TVA   | -50        |
| PJM                          | AMIL  | -738       |
| PJM                          | MEC   | 454        |
| PJM                          | SMT   | 0          |
| Total                        |       | 597        |

In all cases, where the physical design of connections or breaker arrangements resulted in the outage of more than the faulted facility when the fault was cleared, the additional facilities were also outaged in the load flow. That is, the breaker arrangements and system topology are used to develop and maintain the contingency files. For example, if a transformer is tapped off a line without a breaker, both the line and transformer were outaged as a single contingency event.

In addition, approved operating procedures were utilized as applicable. These operating procedures include the use of control devices such as Phase Angle Regulators (PARs) to manage flows on the system. Also, the expected operation of Remedial Action Schemes (RAS) were modeled and additionally tested where applicable. A complete listing of applicable remedial action schemes and operating procedures can be found in the [Transmission Operation Manual \(M-03\)](#).

### Contingencies Considered

The thermal and voltage analysis used a set of contingencies as required by NERC TPL standards. PJM's rationale was to define and select a comprehensive set that includes every possible BES contingency. Every possible single and multiple contingency loss of PJM BES elements as described in Table 1 of NERC TPL-001-5.1 was defined in contingency files and included in the assessment. The contingency set also included an inclusive set of single and multiple facility contingencies of non-BES elements that are modeled in the base case; however, a complete set of contingencies involving non-BES facilities was not included in the contingency files in instances when issues on non-BES facilities are not expected to propagate to the BES system.

Contingency analysis takes into account the removal of all elements that the protection system and other automatic controls are expected to disconnect without operator intervention. This includes tripping of generators and transmission elements.

In addition to the contingencies studied within PJM's footprint, analysis includes contingencies located in areas outside of PJM's footprint. PJM worked with its neighboring ISOs and RTOs to identify off-system contingencies that could affect PJM's system. All contingencies identified by these entities have been included in PJM's RTEP analysis.

- Around 14,200 single contingencies were defined, including contingencies involving the loss of facilities in neighboring systems.
- Around 32,300 multiple facility contingencies were defined, including contingencies involving the loss of facilities in neighboring systems.
- The N-1-1 analysis considers over 201 million single contingency combinations.

## Spare Equipment

In instances where an entity's spare equipment strategy could result in the unavailability of major transmission equipment that has a lead time of one year or more (such as a transformer), PJM studies the impact of this possible unavailability on system performance. Annually, PJM solicits input from its transmission owners to identify long-lead-time equipment for subsequent study. Steady-state analysis (Requirement 2.1.5) is conducted for the P0, P1 and P2 categories, and stability analysis (Requirement 2.4.5) is conducted for the P1 and P2 categories defined in Table 1 of TPL-001-5.1 with the conditions that the system is expected to experience during the possible unavailability of the long-lead-time equipment. Results of the analysis are documented in the "2025 RTEP Spare Equipment Strategy Analysis\_TPL\_001-5\_Final\_v2".

## Planned Outages in the Transmission Planning Horizon

Although there are situations in which outages are planned and scheduled more than 12 months in advance, more often outages are submitted no more than one year in advance of the planned outage. In cases where outages are scheduled for less than one year out, the lead time makes it impractical for inclusion in planning studies under the TPL time frame. Outages planned with a lead time of less than one year are evaluated by PJM Operations.

PJM performed analysis as per TPL-001-5.1 of known outages in the planning horizon by utilizing a documented technical rationale for their selection. For the steady-state portion (Requirement 2.1.4), analysis consisted of studying outages of 30 days or greater and on facilities 230 kV and above as reported through PJM's outage coordination software (eDART). For the stability portion (Requirement 2.4.4), analysis consisted of studying outages within eDART that also had the "stability" or "TSA Stability Study" flag set, which identifies stability-related facilities. Results of the analysis are documented in the "2025 RTEP Maintenance Outage Analysis\_TPL-001-5\_Final" report. The report was sent to PJM Operations for review and situational awareness.

## Extreme Event Analysis

As part of the near-term assessment, PJM conducts studies to assess the impact of the extreme events identified by Transmission Owners as part of TPL-001-5, table 1. The 2030 50/50 summer peak case was evaluated for system performance following the loss of single and two or more (multiple) elements. Every BES facility and select lower voltage facilities were monitored for thermal limits, voltage limits and voltage collapse. Reinforcements are not

required to be developed for areas where the system exceeded applicable thermal limits, voltage limits or became unstable.

## Monitored Facilities

All cases used for this assessment model all PJM BES facilities. The specific facilities monitored for each analysis is described in detail in subsequent sections of this document. PJM also monitored every tie line to neighboring systems regardless of voltage. Over 23,000 individually modeled BES facilities are monitored in the analysis that supports this assessment which includes BES buses and branches including tie lines. In addition to all BES elements, PJM monitors lower voltage, non-BES facilities that are monitored by PJM Operations. PJM also completed several joint studies of neighboring systems as described in the scope contained in the Executive Summary above.

## Analysis of Near Term

As part of the near-term assessment, PJM evaluated a range of critical system conditions. The range of system conditions included thermal and voltage analysis of a 2030 90/10 summer peak scenario, thermal and voltage analysis of a 2030 50/50 summer peak scenario, and thermal and voltage analysis of winter and light load scenarios. The thermal analysis included applicable thermal limit checking. The voltage limit analysis included checking applicable voltage magnitude and voltage drop limits. PV analysis is an important part of the RTEP analysis and is performed for selected scenarios. The methodology for selecting the PV scenarios is discussed in a subsequent section of this document.

Analysis is performed for planning events listed in Table 1 of TPL-001-5.1 to ensure that all performance requirements are met, or upgrades to the system are implemented to address required performance issues.

## Normal System (All Facilities in Service) Analysis

The 2030 50/50 summer peak, winter peak and light load cases were evaluated for system performance under normal conditions. These models use data consistent with information provided in MOD-032 and MOD-033 standards. The normal system analysis as defined in P0 on Table 1 of NERC TPL-001-5.1 does not include a contingency event. Rather, all facilities are assumed to be in service. Every BES facility and select lower voltage facilities in PJM were monitored for normal thermal limits, voltage limits and voltage stability. Reinforcements were developed for areas where the system exceeded applicable thermal limits, voltage limits or became unstable. The reinforcements, along with a schedule for implementation, are contained in the Results section of this document.

## Single Contingency Analysis

The 2030 50/50 summer peak, winter peak and light load cases were evaluated for system performance following the loss of a single element. The single elements included all of the P1 and P2 events defined in Table 1 of NERC TPL-001-5.1. Every BES facility and select lower voltage facilities were monitored for thermal limits, voltage limits and voltage collapse. Additionally, select off-system contingencies that may affect PJM's system were included in the single contingency analysis. Reinforcements were developed for areas where the system exceeded applicable thermal limits, voltage limits or became unstable. The reinforcements, along with a schedule for implementation, are contained in the Results section of this document.

## Multiple Contingency Analysis

The 2030 50/50 summer peak, winter peak and light load cases were evaluated for system performance following the loss of two or more (multiple) elements. The Multiple contingency elements included all of the P4, P5 and P7 events defined in Table 1 of NERC TPL-001-5.1. Every BES facility and select lower voltage facilities were monitored for thermal limits, voltage limits and voltage collapse. Reinforcements were developed for areas where the system exceeded applicable thermal limits, voltage limits or became unstable. The reinforcements, along with a schedule for implementation, are contained in the Results section of this document.

## N-1-1 Analysis

The 2030 Thermal analysis was evaluated for system performance on the 50/50 summer peak and winter peak cases following a single contingency, followed by Security Constrained Reliability Dispatch (SCRD), followed by another single contingency. System adjustments are allowed after the first contingency. Reinforcements were developed for areas where the system failed to meet the applicable normal rating after the first contingency or the applicable emergency rating after the second contingency.

The 2030 Voltage analysis was also evaluated for applicable voltage magnitude and voltage drop limits. The N-1-1 Voltage magnitude and drop test procedure follows a similar method as the thermal test method, except all monitored facilities are monitored for the emergency voltage drop limit for the voltage drop test, and all monitored facilities are monitored for the emergency low and high limit for the voltage magnitude test, after the second contingency. System adjustments are allowed after the first contingency. Reinforcements were developed for areas where voltage violations were identified.

The N-1-1 analysis monitored all BES facilities. The set of single contingencies that was used to compile the contingency pairs included all single contingencies in PJM regardless of voltage, all PJM tie lines regardless of voltage. The contingency pairs that were considered included every possible combination of single contingencies. The N-1-1 analysis also analyzed the contingency pairs in both possible orders to assess every combination and order of events.

Reinforcements were developed for areas where the system failed to meet thermal limits. The reinforcements, along with a schedule for implementation, are contained in the Results section of this document.

## Generator Deliverability Analysis

The PJM Generation Deliverability procedure was used to determine if the PJM transmission system, including all PJM BES elements, was adequate to deliver all PJM capacity resources to the network. Generator Deliverability analysis is performed to ensure that capacity resources within a given electrical area will, in aggregate, be able to be exported to the rest of the PJM region. PJM utilizes the Generator Deliverability procedure to study the normal system and single and multiple contingencies under a stressed generation dispatch that could potentially overload the facility. This method results in the analysis of a large number of critical system conditions. The stressed generation dispatch is unique to each monitored element and contingency pair under study. The Generator Deliverability procedure is defined in PJM Manual, 14B Attachment C.

The 2030 Generator Deliverability analysis tested a large number of critical system conditions. Every facility was monitored for applicable thermal limits for both the normal system and following the loss of every possible contingency.

Reinforcements were developed for areas where the system failed to meet thermal limits. The reinforcements, along with a schedule for implementation, are contained in the Results section of this document.

## Load Deliverability Analysis

The Load Deliverability test procedures were applied to evaluate whether the Capacity Emergency Transfer Limit (CETL) for each electrical area within PJM exceeds its corresponding Capacity Emergency Transfer Objective (CETO).

For each applicable year, Capacity Emergency Transfer Objective (CETO) studies are conducted at the Locational Deliverability Area (LDA) level to determine the import needed for the LDA to satisfy its resource adequacy requirements.

The Capacity Emergency Transfer Limit (CETL) studies are conducted to assess the transmission system’s ability to import the amount of power required by an LDA, as determined by its CETO.

The load deliverability test examines the deliverability under the stressed conditions of a 90/10 summer and winter load forecast for 27 Locational Deliverability Areas (LDAs). The LDAs are defined in Manual 14B, Attachment C. For each LDA, two distinct power flow cases—probabilistic dispatch and deterministic dispatch—are developed, resulting in a total of 54 cases. The rest of PJM is assumed to be operating normally, and generation is scaled up uniformly to supply the LDA under emergencies. The transfer limit is established under system – normal conditions and for all single contingencies (NERC P0 and P1 criteria). Both thermal and voltage analysis are performed at the CETO level to identify potential overload and substations that may experience voltage violations. For each LDA, a Capacity Emergency Transfer Limit (CETL) is calculated, including two thermal limits and two voltage limits.

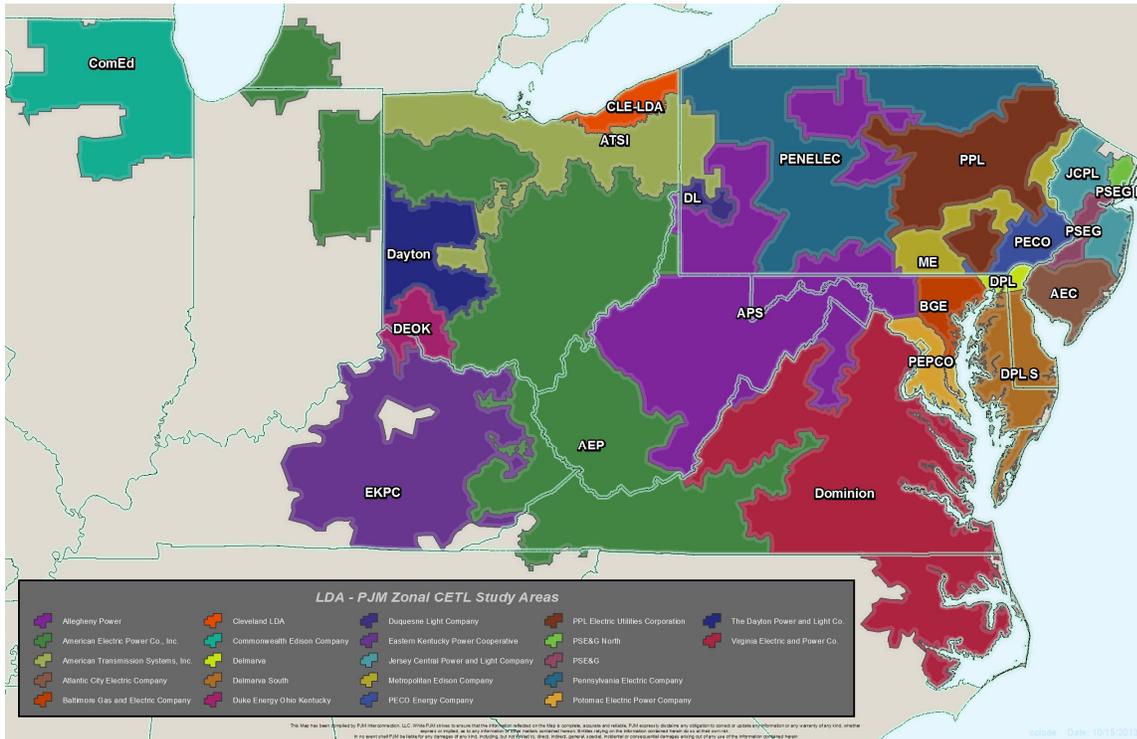
The transmission system is planned to ensure that each LDA meets, at a minimum, its CETO requirement. Where the calculated import capability into an LDA does not satisfy the CETO, system reinforcements are developed to address the deficiency.

There are currently 27 LDAs defined in PJM. The electrical areas within each of the 27 LDAs are described in **Table 77** and **Map 2**.

**Table 7.** PJM Locational Deliverability Areas (LDAs)

| LDA      | Description   |
|----------|---|
| EMAAC    | Global area: JCP&L, PECO, PSEG, AE, DP&L, RECO                                  |
| SWMAAC   | Global area - BGE and PEPCO   |
| MAAC     | Global area: PENELEC, METED, JCP&L, PPL, PECO, PSEG, BGE, PEPCO, AE, DP&L, RECO |
| PLGRP    | PPL & UGI   |
| PJM WEST | Global area: AP, AEP, Dayton, DUQ, ComEd, ATSI, DEO&K, EKPC, OVEC               |
| WMAAC    | Global area: PENELEC, METED, PPL  |
| PENELEC  | Pennsylvania Electric Company   |
| METED    | Metropolitan Edison   |
| JCPL     | Jersey Central Power & Light  |

| LDA       | Description                                       |
|-----------|---|
| PECO      | PECO  |
| PSEG      | Public Service Electric & Gas Company             |
| BGE       | Baltimore Gas and Electric                        |
| PEPCO     | Potomac Electric Power Company                    |
| AE        | Atlantic City Electric                            |
| DPL       | Delmarva Power                                    |
| DPLSOUTH  | Southern portion of Delmarva Power                |
| PSNORTH   | Northern portion of PSEG                          |
| DOMINION  | Dominion Energy                                   |
| APS       | Allegheny Power                                   |
| AEP       | American Electric Power                           |
| DAYTON    | AES Ohio, formerly Dayton Power and Light Company |
| DLCO      | Duquesne Light Company                            |
| ComEd     | Commonwealth Edison                               |
| ATSI      | American Transmission Systems, Inc. (FirstEnergy) |
| DEO&K     | Duke Energy Ohio and Kentucky                     |
| EKPC      | Eastern Kentucky Power Cooperative                |
| Cleveland | Cleveland Area                                    |

**Map 2. PJM Load Deliverability Areas**


The 2030 Load Deliverability test was initiated using the 2030 summer and winter peak base cases. From these base cases, 27 probabilistic dispatch cases and 27 deterministic dispatch cases were developed for each season in accordance with the Load Deliverability procedures outlined in PJM Manual 14B, Attachment C. This approach produced one probabilistic and one deterministic study case for each of the 27 LDAs, resulting in a total of 54 cases per season.

These analyses represent critical system conditions, with load levels set to a 90/10 summer or winter peak for the LDA under evaluation and a 50/50 summer or winter diversified load level for all other areas. Specific system parameters—including load, reactive resources, and phase angle regulator settings—were modeled in accordance with PJM Manual 14B, Attachment G for the Load Deliverability tests. Attachment C of Manual 14B also outlines the generation dispatch methodology for both areas assumed to be experiencing a capacity emergency and those assumed not to be under a capacity emergency.

The Capacity Emergency Transfer Objectives (CETOs) for each of the 27 LDAs were applied to establish the target net interchange for the LDA being evaluated in both the probabilistic and deterministic dispatch cases.

A thermal Load Deliverability analysis was conducted for each of the 27 probabilistic dispatch cases and 27 deterministic dispatch cases. For each LDA, the study evaluated performance under normal system conditions and all single contingencies, monitoring the PJM transmission facilities in accordance with the procedure in Manual 14B, Attachment C. Where thermal limits were exceeded, appropriate reinforcements were identified. These reinforcements, along with their implementation schedules, are detailed in the Results section of this document.

A voltage Load Deliverability analysis was then carried out for each of the 27 probabilistic dispatch cases and 27 deterministic dispatch cases. For each LDA, the study assessed system performance under normal conditions and all

single contingencies while monitoring the PJM transmission facilities in accordance with the procedure in Manual 14B, Attachment C. Critical system conditions were examined, and reinforcements were designed for areas where voltage magnitude limits, voltage drop limits, or voltage stability criteria were not met. These reinforcements, along with their implementation schedules, are provided in the Results section of this document.

### **Summer Reliability Analysis**

PJM performed a year 2030 summer reliability analysis. The summer load levels were modeled as per PJM's 2030 load forecast. This analysis included Generator Deliverability Studies, Baseline Analysis as well as Load Deliverability studies using a 2030 RTEP case with summer loadings and summer transmission line ratings.

The flowgates ultimately used in the summer peak reliability analysis were determined by running all contingencies maintained by PJM planning and monitoring all PJM market-monitored facilities and all BES facilities. The contingencies used for summer reliability analysis included single and multiple contingencies. Normal system conditions (P0) were also studied. All BES facilities and all non-BES facilities in the PJM real-time congestion management control facility list were monitored.

### **Winter Reliability Analysis**

PJM also performed a year 2030 winter reliability analysis. The winter load levels were modeled as per PJM's 2030 load forecast. This analysis included Generator Deliverability Studies, Baseline Analysis as well as Load Deliverability studies using a 2030 RTEP case with winter loadings and winter transmission line ratings.

The flowgates ultimately used in the winter load reliability analysis were determined by running all contingencies maintained by PJM planning and monitoring all PJM market-monitored facilities and all BES facilities. The contingencies used for winter reliability analysis included single and multiple contingencies. Normal system conditions (P0) were also studied. All BES facilities and all non-BES facilities in the PJM real-time congestion management control facility list were monitored.

### **Light Load Reliability Analysis**

PJM also performed a year 2030 light load reliability analysis. The 50% of 50/50 summer peak demand level was chosen as being representative of a stressed light load condition. In regions experience greater than 50% average, PJM will model excess of 50% of the summer peak load in coordination with the service provider. This analysis included Generator Deliverability Studies and Baseline Analysis. In addition to the generation dispatch, the light load reliability analysis procedure also requires that PJM set interchanges within PJM and neighboring regions to their historical values.

The flowgates ultimately used in the light load reliability analysis were determined by running all contingencies maintained by PJM planning and monitoring all PJM market-monitored facilities and all BES facilities. The contingencies used for light load reliability analysis included single and multiple contingencies. Normal system conditions (P0) were also studied. All BES facilities and all non-BES facilities in the PJM real-time congestion management control facility list were monitored.

### **Individual Plant Deliverability Analysis**

PJM also performed year 2030 summer, winter and light load Individual Plant Deliverability analysis. This analysis includes baseline thermal analysis to test one or more generators located at same physical location.

## Critical Substation Planning Analysis (CSPA)

The purpose of the CSPA is to conduct additional screening as part of a five-year annual PJM RTEP cycle to ensure no new CIP-14 facilities are introduced to the PJM system as the transmission network evolves. CSPA is performed to identify instability, uncontrolled separation or cascading resulting in one or more of the following outcomes due to the loss of all voltage levels 69 kV and above at a single transmission facility that meets the NERC CIP-14 substation criteria.

- Loss of load approaching 1000 MW
- Three levels of facility trips
- Case non-convergence issue in steady-state or dynamic analysis covering both angular and voltage stability tests

## Generator Deactivation Analysis

Generator deactivations can alter power flows that may yield violations of established transmission system reliability criteria. Therefore, system upgrades may be required to correct any identified reliability violation. PJM performed system wide assessment of normal system, single contingency, multiple contingency, N-1-1, Generator Deliverability and Load Deliverability testing, as needed for the widespread generation deactivations.

PJM completed studies and developed system reinforcements related to generation deactivation requests for each year. System enhancements, including an implementation schedule, were developed for every system performance issue that was identified as a result of the generation deactivation notifications. The system enhancements required as a result of the generation deactivations are described in more detail in the results section of this report. In addition to new deactivation analysis, PJM continually validates that previously identified system enhancements are still necessary.

For the 2025 RTEP cycle, PJM has studied 12 generator deactivation notifications resulting in over 4,800 MW of existing generation deactivating in 2025 or some point in the near-term planning horizon.

## Retool Analysis of the Near-Term 2025–2030

Retool analysis is performed during the current assessment to verify analysis that was performed in previous assessment is still required. The retool analysis of the near term was performed to verify the RTEP for the near term due to forecasted changes in system conditions. The retool analysis of the near term included Generator Deliverability, Load Deliverability, Baseline Analysis and N-1-1 analysis on case by case basis. The methodologies for each of these analyses was performed as described in the previous sections of this document. A list of retool analysis performed in year 2025 is as follows.

### AEP

- b4000.207, scope change
- s2470.1, cancellation
- s2167, scope change

### APS/PN

- b2743 retool study

#### APS

- b3773 retool study

#### DEOK

- s3600.1, scope change

#### JCP&L

- b2003 cancellation

#### Dominion

- b3800.210-212 - Golden – Mars
- s3673, s3674, s3675, s3676 - Meadowville Area DNH

### 15-Year Planning and Analysis of the Longer-Term System

The purpose of the long-term analysis is to simulate system trends to identify problems that may require longer-lead-time solutions. This enables PJM to take appropriate action when system issues may require initiation of a reinforcement project in anticipation of potential violations in the longer term. System issues uncovered that are amenable to shorter-lead-time remedies will be addressed by near-term analysis. The detailed description of the 15-year planning process is described at Attachment C.4 in PJM Manual 14B.

The 2025 RTEP included a review of the 15-year planning horizon through 2040. The deliverability analysis conducted as part of the review included analysis of the 2030 Summer Peak case, Winter Peak case and Light Load case. The two categories of contingency events considered as part of the long-term studies are single and tower line contingencies.

Following the 15-year procedure, the calculated loading on every flowgate from the near-term analysis was scaled by a factor consistent with the forecasted load growth to determine a facility loading in years 2031 through 2040 (years 6 through 15). Load forecasts for the years 2031 through 2040 from the 2025 PJM Load Forecast Report were used to generate load growth scaling factors for each flowgate in each year. These DC scaling factors were then used to calculate a loading for each flowgate for each year 2031 through 2040 by linear extrapolation.

### Analysis of the Longer-Term System

PJM evaluated a 2032 (year 7) 50/50 Summer Peak case, Winter Peak case and Light Load case. One purpose of this evaluation was to identify any thermal reliability criteria violations in year 2032 that would require a longer-term lead time to resolve. The evaluation identified reliability criteria violations that would require a longer-lead-time solution and are included in the Results section.

### New Service Requests Analysis

Analysis for requests that enter the New Services Queue was performed for several different types of New Service Requests: Generator Interconnections, Merchant Transmission Interconnections, and Long-Term Firm Transmission Service. Analysis for other types of requests are also performed, namely, for Surplus Interconnection Service, Upgrade Requests and Affected System Studies.

The reliability analyses performed to evaluate New Service Requests entering the PJM Cycle process is determined through three sets of System Impact Study phases.

A Phase I System Impact Study is the first study that is performed to evaluate the effect of the New Service Requests on the transmission system. This study includes a load flow analysis, specifically the PJM Generator Deliverability test and the Individual Plant Deliverability test, that is performed on a summer peak load model, a winter peak model, and a light load model to analyze the system for normal/N-0 conditions and subjected to all single and multiple facility contingencies (Excluding N-1-1). If a Project Developer or Eligible Customer elects to move forward at Decision Point 1, they would proceed into Phase II of the Cycle process. The Phase II System Impact Study includes the same load flow analysis as performed in Phase I, as well as any other required steady-state power flow analyses such as voltage studies, N-1-1, Load Deliverability. The Phase II System Impact Study also includes a short-circuit study and stability assessments. If a Project Developer or Eligible Customer elects to move forward at Decision Point 2, they would proceed into Phase III of the Cycle process. The Phase III System Impact Study includes a retool of the reliability analyses performed in Phase II to incorporate the project changes made by the Project Developers and Eligible Customers at Decision Point 2.

PJM studies requests for new generation, merchant transmission and long-term firm transmission service as part of the New Service Request Cycle process. In addition, PJM also studies requests for Surplus Interconnection Service and Upgrade Requests. The process for studying all of these requests is described in PJM Manual 14H. In calendar year 2025, to accommodate requests for new generation, merchant transmission and long-term firm transmission service, PJM completed 130 Phase III System Impact Studies for TC1 projects, and 450 Phase I System Impact Studies for TC2 projects.

Information that is posted on the PJM website includes the status of the New Service Requests as well as the technical study reports. The technical reports include the Phase I, Phase II, and Phase III System Impact Study reports. PJM agreements such as Generation Interconnection Agreements (GIA) and Wholesale Market Participation Agreements (WMPA) are also posted on the website.

Information related to the generation, merchant transmission and long-term firm transmission service requests can be found on the [PJM website](#).

## Short-Circuit Assessment

PJM conducts short-circuit analysis annually to determine whether circuit breakers have interrupting capability for faults that they will be expected to interrupt using the system short-circuit model with any planned generation and transmission facilities in service that could impact the study area. Short-circuit analysis is performed consistent with the current version of the following industry standards:

- 1 | ANSI/IEEE 551 –IEEE Recommended Practice for Calculating Short-Circuit Currents in Industrial and Commercial Power Systems**
  - This standard is used to provide short-circuit current information for breakers and power system equipment used to sense and interrupt fault currents.
- 2 | ANSI/IEEE C37.04 –IEEE Standard Rating Structure for AC High-Voltage Circuit Breakers**
  - This standard is used to establish the rating structure for circuit breakers and equipment associated with breakers.

- 3 | ANSI/IEEE C37.010 –IEEE Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis
  - This standard is used to calculate the fault current on breakers that are rated on a Symmetrical Current Basis taking into consideration reclosing duration, X/R ratio differences, temperature conditions, etc.
- 4 | ANSI/IEEE C37.5 –IEEE Guide for Calculation of Fault Currents for Applications of AC High-Voltage Circuit Breakers Rated on a Total Current Basis
  - This standard is used to calculate the fault current on breakers that are rated on a Total Current Basis.

Each of these standards is used jointly with transmission owners' methodologies as a basis to calculate fault currents on all BES breakers. By using these standards, single-phase-to-ground and three-phase fault currents are calculated and compared to the breaker interrupting capability, provided by the transmission owners, for each BES breaker within the PJM footprint. All breakers whose calculated fault currents exceed breaker interrupting capabilities are considered overdutied and reported to transmission owners for confirmation. All breakers are used in specific short-circuit cases, which help to identify the cause and year breakers are likely to become overdutied.

Short-circuit cases are built consistent with a two-year planning representation and a five-year planning representation. The two-year planning case consists of the current system in addition to all facilities planned to be in service within the next year. The five-year planning case uses the two-year planning case as its base model, and it is updated to include all system upgrades, generation projects and merchant transmission projects planned to be in-service within five years. The five-year planning case is similar to the five-year PJM RTEP load flow base case.

Once an overdutied breaker is confirmed, breaker replacement and reinforcements along with cost estimates are determined. Breaker replacements and reinforcements, along with a schedule for implementation, were presented at monthly TEAC stakeholder meetings and are contained in the Results section of this document.

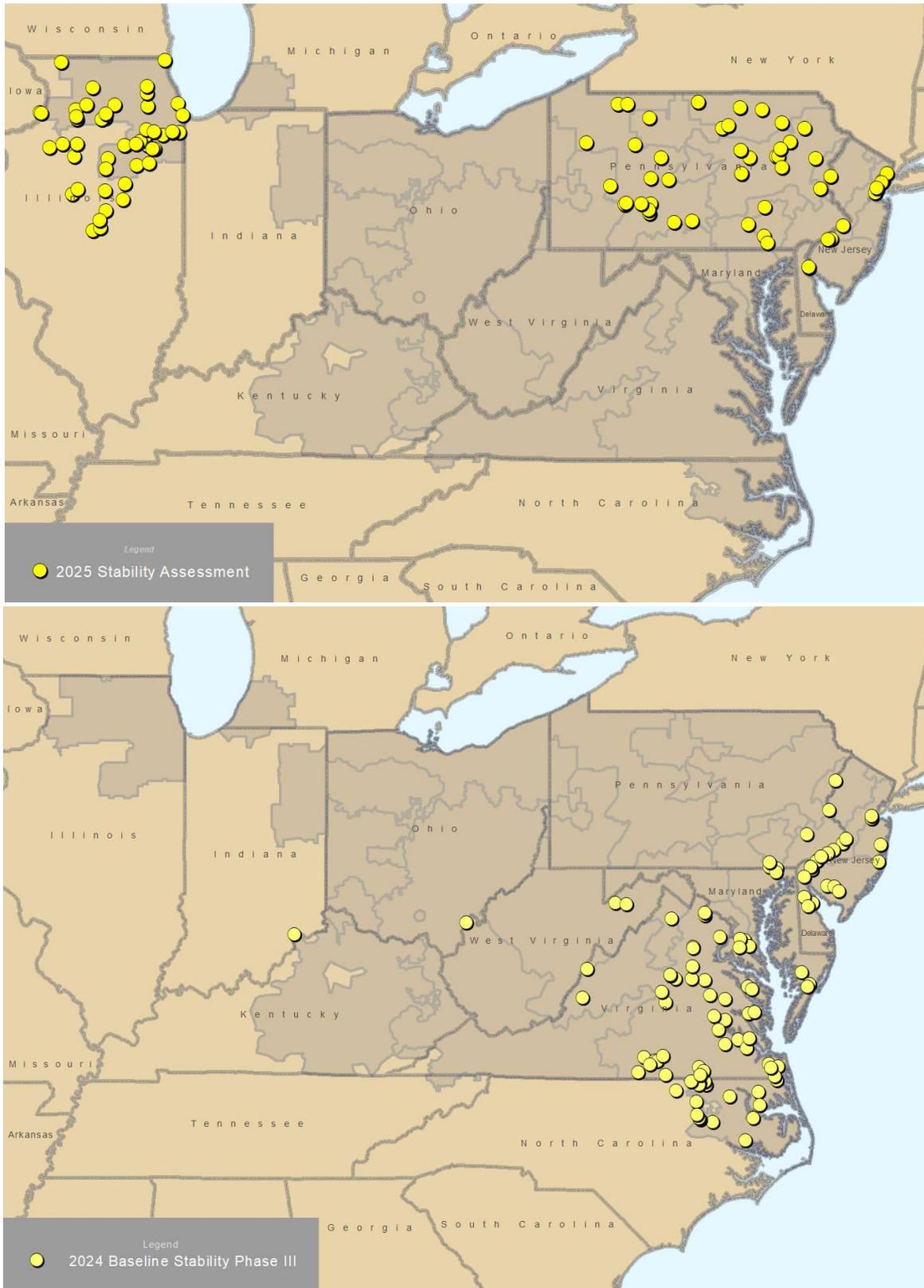
## Stability Assessment

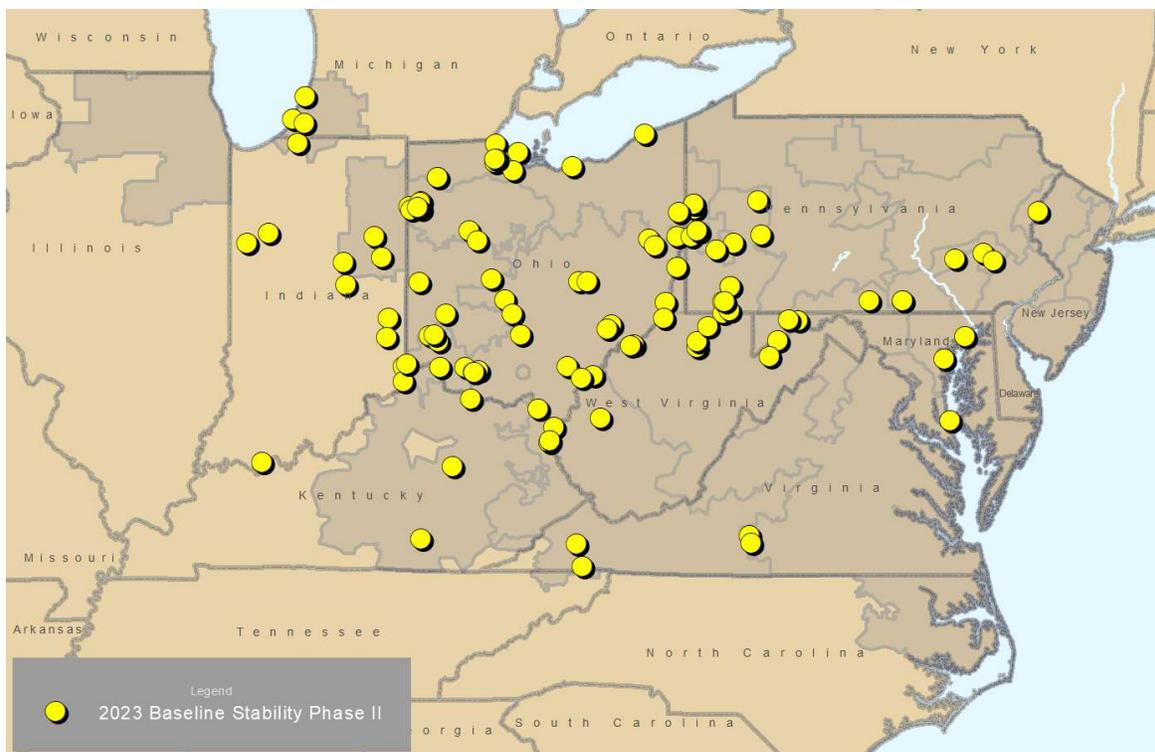
PJM performs multiple tiers of analysis to ensure the system will remain stable and have satisfactory dynamic performance for disturbances that are consistent with Table 1 of the NERC TPL-001-5.1 standard. Collectively, the studies performed assess system dynamic performance over a wide range of load levels and conservative generator dispatch conditions. Whenever system dynamic performance does not meet criteria, appropriate reinforcements are incorporated in the system plans and design. These measures include the installation of PSS (Power System Stabilizer), Excitation system refinements, dynamic or static reactive support for wind generation plants, relaying and breaker configuration modifications. Table 8 shows annual baseline stability analysis of 1/3 of existing station and new service queue stability analysis.

**Table 8.** Number of Generation Stations Studied for Stability as Part of the 2025 RTEP

| Stability Studies  | 2025 RTEP |
|--|-----------|
| Annual baseline stability analysis of 1/3 of existing stations | 104       |
| New Services Queue stability analysis                          | 353       |
| Total  | 457       |

**Map 3.** Three-Year Baseline Stability Cycle





Good engineering practices as related to ensuring adequate system dynamic performance for the bulk electric system start with proper base case models. PJM uses full ERAG MMWG models as a starting point for the dynamic stability analysis. All known transmission system and generation model changes available from approved system plans are incorporated. Step response simulations are conducted to detect and correct any modeling errors. Case initialization results are carefully analyzed to make sure that all the initial conditions are satisfactory. A 20-second, no fault simulation is performed to ensure proper parameters are used in the models.

As part of the 2025 RTEP, several tiers of system stability analysis were performed. The first tier of this analysis includes PJM's annual comprehensive transient stability assessment of generating stations in the system. The annual analysis is performed for one-third of the PJM footprint each year.

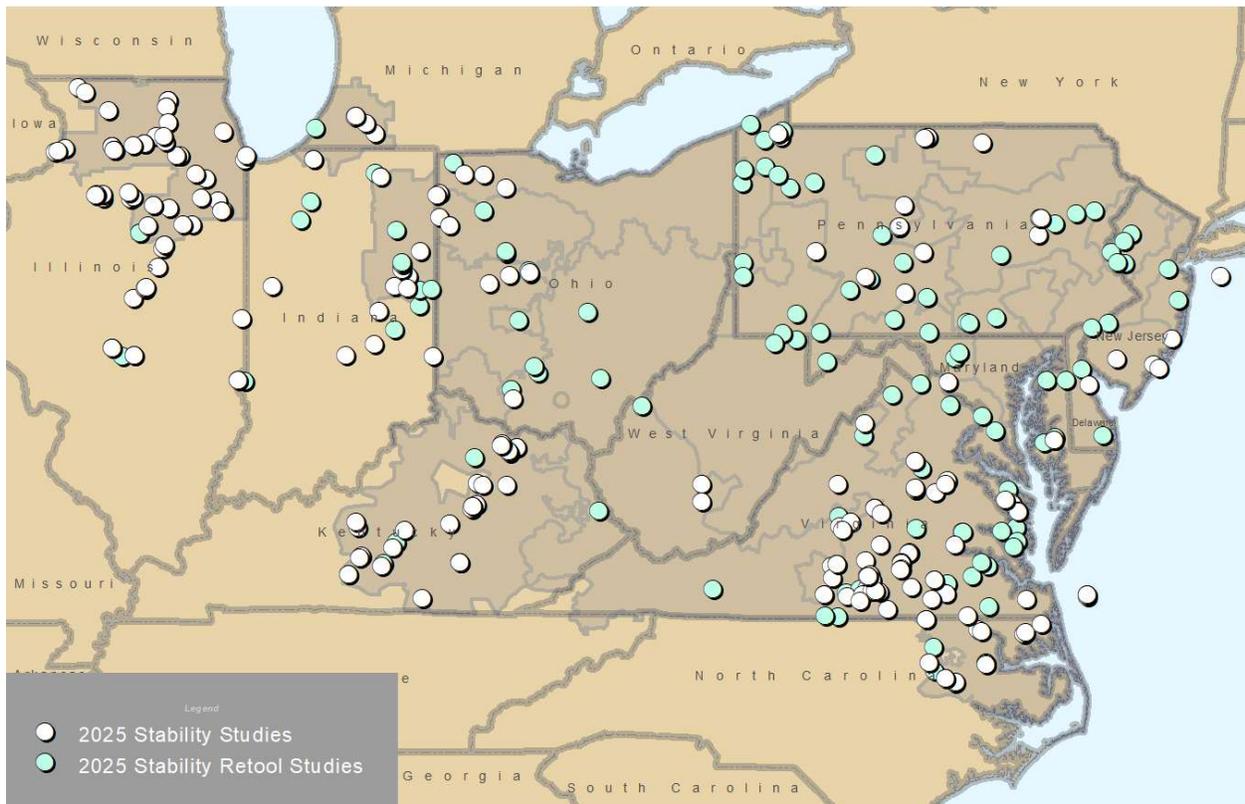
The annual baseline analysis includes an evaluation of the system under light load conditions as well as peak load conditions. PJM's rationale for choosing a light load case is that the light load system conditions are found to be the most challenging and severe from a transient stability perspective. The analysis also includes an evaluation of the system under summer peak loading (50/50) conditions.

PJM incorporates dynamic load models in peak load stability studies to consider the behaviors of dynamic loads including induction motor loads. Various contingencies near load centers and generation stations are studied to ensure the PJM system meets dynamic voltage recovery criteria as well as transient stability and damping criteria. In addition, PJM evaluates the impact of dynamic load models on the system performance under a stressed power transfer condition across the PJM eastern interface.

All PJM stability studies start by testing the system for a major transmission line switching operation. This examines the system under system normal conditions, as specified in TPL-001-5.1. The system response is verified by monitoring generating unit angle, electrical power and system voltage curves over a 20-second time frame. This test also provides information to verify that all dynamic parameters are correctly initiating and responding properly. The

stability test procedure includes a simulation of all applicable disturbances on all outlets of generating plants for single (P1 & P2) and multiple contingency (P3-P7) conditions. Additionally, all existing Remedial Action Schemes (RAS) and their controlling actions are evaluated to ensure their effectiveness. A visual depiction of the coverage of the three latest baseline stability study cycles is shown in Map 3 above.

**Map 4.** Locations of Proposed Generation Studied for Stability in 2025



A second tier of PJM's stability assessment includes stability analysis for all proposed generator interconnections that exceed 20 MW. New generator interconnections represent a significant modification to the system that could affect stability. In 2024, as part of the generation interconnection process, PJM completed transient stability analysis for 370 proposed generator interconnections within the PJM footprint. The locations of these proposed generators are shown in Map 4. In this analysis, P0, P1, P2, P3, P4, P5, P6 and P7 conditions were analyzed for disturbances on all generating plant outlets, as well as on transmission lines at a minimum one bus away and more than one bus away from the point of interconnection if warranted by the system topology. In general, the analysis associated with proposed generation additions identifies any potential transient stability concerns among the generators electrically close to the portion of the system being modified. The proposed generation interconnections span all transmission system voltage levels and are widespread throughout PJM's footprint. Hence, the resulting stability analysis covers broad sections of PJM's BES. Solutions to the identified problems are developed and implemented prior to the proposed generation being placed in service.

As depicted in **Map 4**, the locations of the proposed generation additions are dispersed throughout the PJM footprint. In addition to monitoring the stability of the proposed generation, existing generation within several layers of the interconnection bus are also monitored. The transient stability analysis that is run for proposed generation interconnections not only ensures that the proposed unit will remain stable but also ensures that the transient stability

of existing generation at nearby buses will not be compromised. The results of this analysis and any required upgrades or other mitigation measures needed are identified in the System Impact Study for each New Service Request and are posted on the [PJM website](#).

A third tier of PJM's stability analysis includes ad-hoc studies that were performed in 2025 and occur annually to support PJM Operations and Planning. PJM Planning also coordinates with PJM Operations to review operational performance issues. In addition, sensitivity studies may be requested by stakeholders. Examples of these studies include:

- 2025 Baseline stability study: 104 plants in COMED, PSEG, UGI, PPL and PENELEC including 8 Nuclear plants NPIR and 1 plant RAS stability study
- 2025 N-1-1 stability study: 74 plants in DOMINION, JCPL, PECO, PEPCO, DPL, AEC and OVEC including Operating Guideline mitigation testing
- 2025 System stability assessment using dynamic load models
- 2025 RTEP Non-Competitive project and supplemental (M-3) projects stability evaluation
- 2025 RTEP Window 1 CSPA stability evaluation
- 2025 wind generator repowering stability study
- 2025 Co-located load stability study
- 2025 Summer (2026) maintenance outage stability study
- 2025 Spare Equipment stability study
- 2025 CIP-014 stability study results review
- 2025 Additional stability study (Operating guideline study, Operation outage study; MOD26/MOD27 evaluation; Facility replacement or setting evaluation):
  - Darby #1-6 As-Designed dynamic model evaluation per request from GO
  - Salem #2 As-Designed dynamic model evaluation per request from PSEG
  - Hope Creek #1 As-Designed dynamic model evaluation per request from PSEG
  - Susquehanna stability issues analysis per request from Operation
  - Yards Creek real time instability analysis per request from Operation
  - Artificial Island stability evaluation under 5038 outage condition
  - Safe Harbor MOD-26 model stability evaluation
  - Liberty Printz stability evaluation

Stability analysis is conducted to evaluate key proposal(s) in the RTEP Window process and selected supplemental projects, ensuring that proposed solution(s) have no adverse impact on the system stability.

When a generator owner seeks to materially modify existing generation facilities, PJM also conducts a necessary stability study upon execution of a necessary study agreement. The modification of existing generation facilities includes, but is not limited to, replacing wind turbines, upgrading PV solar inverters and connecting collocated loads to generation facilities. In 2025, a total of seven necessary studies were conducted. The transient stability analysis performed by PJM is done with forward-looking cases representing the system as planned in future years. Given the continued load growth within the PJM footprint and the ongoing transmission system reinforcements that are identified as part of the regional transmission expansion plan, the transient stability of the system is expected to continue to improve.

As a result of PJM integrating each of these tiers of stability assessment, PJM has ensured its compliance to all applicable standards, including the assessments required by Table 1 of the NERC TPL-001-5.1 standard.

Based on PJM's knowledge and evaluation of current and forecasted system conditions, stability-related upgrades would not require a lead time during the longer-term (year six and beyond) time frame, therefore stability analysis is not performed beyond five years out.

### **N-1-1 Stability Assessment**

An N-1-1 stability study for 74 plants was performed as part of the 2025 RTEP. Critical contingency pairs that may lead to potential stability issues were applied to the study. RAS or specific operation guidelines were also implemented if necessary. Comprehensive time-domain simulations for N-1-1 contingencies were conducted to ensure those plants comply with PJM stability criteria. PJM will continue to conduct N-1-1 stability study for selected plants on a rotating basis.

### **Nuclear Plant Interface Requirement (NPIR) Plant-Specific Stability & Voltage Assessment**

PJM has a total of 17 plants that fit the criteria for NPIR stability study. Eight of the 17 nuclear plants were studied as part of the 2025 RTEP. PJM will continue to study these 17 plants annually as part of future RTEPs. RAS or specific operation guidelines were implemented if necessary. Also, several nuclear plant NPIR studies were performed to verify and validate 2025 new dynamic models per TO's request.

In addition to the NPIR stability study, PJM also performed NPIR voltage studies. As part of the 2025 RTEP, all 17 PJM nuclear plants were studied to ensure these plants comply with voltage monitoring criteria. Voltage magnitude and voltage drop were monitored under selected contingencies. Study results have been sent to Nuclear Power Generation Owner (NPGO).

### **RAS Evaluation for PRC-012-2, R4**

PRC-012-2, R4 requires each Planning Coordinator to, at least once every five full calendar years, perform an evaluation of each RAS within its planning area, and provide the results to Reliability Coordinator and RAS-entity, and each impacted Transmission Planner and Planning Coordinator. To comply with PRC-012-2, R4, PJM System Planning evaluated the RAS listed in PJM M03, Attachment A. A total of 14 RAS were reviewed in accordance with PRC-012-2, R4.1.1 – R4.1.5, PJM RAS manual and PJM Manual 03B. From the extensive evaluation, PJM System Planning didn't identify any potential deficiencies with the existing RAS. Additionally, PJM had each RAS entity review the detailed RAS design and coordination, if any, and confirmed that the RAS has no adverse interaction with other RAS, protection and control systems.

## **Results of 2025 RTEP**

The results of the baseline assessment for the 2025–2040 periods were included in the 2025 RTEP Window 1 Reliability Analysis Report. The report, contains all corrective reinforcements, is publicly posted, in compliance with TPL-001-5.1. All the upgrades were presented to the TEAC stakeholder committee at one of the monthly TEAC or SRRTEP stakeholder meetings in 2025. Due to time constraints, some upgrades were presented during January 2026, which were part of 2025 RTEP. The 2025 RTEP Window 1 Reliability Analysis Report can be found on the [PJM Website](#).

## Appendix A - Previously Identified RTEP Baseline Upgrades

Appendix A contains all currently required baseline upgrades that were identified in previous RTEP assessments. This appendix also contains expected Transmission Owner and required in-service dates for facilities. PJM continuously evaluates the lead times of these plans with respect to the expected required in-service dates. The continuing need for these required system facilities was evaluated as part of the 2025 RTEP assessment and will be evaluated in future RTEP assessments. This list of upgrades represents a snapshot of all required planned facilities in the RTEP as of 03/01/2026.

| Baseline ID | Project Description   | Transmission Owner | Required In-Service Date |
|-------------|---|--------------------|--------------------------|
| b1570.3     | Reconductor Union REA - Honda MT 69 kV line   | Dayton             | 6/1/2014                 |
| b1696       | Install a breaker and a half scheme with a minimum of eight 230 kV breakers for five existing lines at Idylwood 230 kV  | Dominion           | 5/1/2016                 |
| b1696.2     | Replace the Idylwood 230 kV '209712' breaker with 50 kA breaker   | Dominion           | 6/1/2017                 |
| b2361       | Construct a 230kV UG line approx. 4.5 miles from Idylwood to Tysons. Tysons Substation will be rebuilt, within its existing footprint, with a 6-breaker ring bus using GIS equipment.   | Dominion           | 6/1/2017                 |
| b2443.6     | Install a second 500/230 kV transformer at Possum Point substation and replace bus work and associated equipment as needed.   | Dominion           | 6/1/2026                 |
| b2554       | Reconductor 3.5 miles of the Lyons – Stirling B Tap 34.5 kV circuit with 556 ACSR   | JCPL               | 6/1/2019                 |
| b2597       | Rebuild approximately 1 mi. section of Dragoon-Virgil Street 34.5 kV line between Dragoon and Dodge Tap switch and replace Dodge switch MOAB to increase thermal capability of Dragoon-Dodge Tap branch                         | AEP                | 6/1/2019                 |
| b2598       | Rebuild approximately 1 mile section of the Kline-Virgil Street 34.5 kV line between Kline and Virgil Street tap. Replace MOAB switches at Beiger, risers at Kline, switches and bus at Virgil Street.                          | AEP                | 6/1/2019                 |
| b2604.1     | Remove approximately 11.32 miles of the 69 kV line between Millbrook Park and Franklin Furnace.   | AEP                | 6/1/2019                 |
| b2604.2     | At Millbrook Park station, add a new 138/69 kV transformer #2 (90 MVA) with 3000 A 40 kA breakers on the high and low side. Replace the 600 A MOAB Switch and add a 3000 A circuit switcher on the high side of transformer #1. | AEP                | 6/1/2019                 |
| b2604.3     | Replace Sciotoville 69 kV station with a new 138/12 kV in-out station (Cottrell) with 2000A line MOABs facing Millbrook Park and East Wheelersburg 138 kV.  | AEP                | 6/1/2019                 |
| b2604.4     | Tie Cottrell switch into the Millbrook Park-East Wheelersburg 138 kV circuit by constructing 0.50 miles of line using 795 ACSR 26/7 Drake (SE 359 MVA).   | AEP                | 6/1/2019                 |
| b2604.5     | Install a new 2000 A 3-way POP Switch outside of Texas Eastern 138 kV substation (Sadiq Switch).  | AEP                | 6/1/2019                 |
| b2604.6     | Replace the Wheelersburg 69 kV station with a new 138/12 kV in-out station (Sweetgum) with a 3000 A 40 kA breaker facing Sadiq Switch and a 2000 A 138 kV MOAB facing Althea.   | AEP                | 6/1/2019                 |

|           |  |            |           |
|-----------|--|------------|-----------|
| b2604.7   | Build approximately 1.4 miles of new 138 kV line using 795 ACSR 26/7 Drake (SE 359 MVA) between the new Sadiq Switch and the new Sweetgum 138 kV stations.   | AEP        | 6/1/2019  |
| b2604.8   | Remove the existing 69 kV Hayport Road Switch.   | AEP        | 6/1/2019  |
| b2604.9   | Rebuild approximately 2.3 miles along existing ROW from Sweetgum to the Hayport Rd switch 69 kV location as 138 kV single circuit and rebuild approximately 2.0 miles from the Hayport Road switch to Althea 69 kV with double circuit 138 kV construction, one side operated at 69 kV to continue service to K.O. Wheelersburg, using 795 ACSR 26/7 Drake (SE 359 MVA). | AEP        | 6/1/2019  |
| b2604.10  | Build a new station (Althea) with a 138/69 kV, 90 MVA transformer. The 138 kV side will have a single 2000 A 40 kA circuit breaker and the 69 kV side will be a 2000 A 40 kA three breaker ring bus.   | AEP        | 6/1/2019  |
| b2604.11  | Remote end work at Hanging Rock, East Wheelersburg and North Haverhill 138 kV.   | AEP        | 6/1/2019  |
| b2743.1   | Tap the Vinco - Hunterstown 500 kV line & create new Rice 500 kV & 230 kV stations. Install two 500/230 kV transformers, operated together.  | Transource | 6/1/2020  |
| b2743.6.1 | Replace the two Ringgold 230/138 kV transformers   | APS        | 6/1/2020  |
| b2743.2   | Transmission Line Work - Tie in new Rice substation to Vinco-Hunterstown 500 kV  | PENELEC    | 6/1/2020  |
| b2743.3   | Upgrade terminal equipment at Vinco 500 kV: on the Vinco - Hunterstown 500 kV circuit  | PENELEC    | 6/1/2020  |
| b2743.4   | Upgrade terminal equipment at Hunterstown 500 kV: on the Vinco - Hunterstown 500 kV circuit  | ME         | 6/1/2020  |
| b2743.5   | Build new 230 kV double circuit line between Rice and Ringgold 230 kV, operated as a single circuit.   | Transource | 6/1/2020  |
| b2743.6   | Reconfigure the Ringgold 230 kV substation to double bus double breaker scheme   | APS        | 6/1/2020  |
| b2743.7   | Rebuild/Reconductor the Ringgold - Catoctin 138 kV circuit and upgrade terminal equipment on both ends   | APS        | 6/1/2020  |
| b2743.8   | Replace Ringgold Substation 138 kV breakers '138 BUS TIE' and 'RCM0' with 40 kA breakers   | APS        | 6/1/2020  |
| b2753.7   | Retire line sections (Dilles Bottom - Bellaire and Moundsville - Dilles Bottom 69 kV lines) south of First Energy 138 kV line corridor, near "Point A". Tie George Washington - Moundsville 69 kV circuit to George Washington - West Bellaire 69 kV circuit.  | AEP        | 5/31/2020 |
| b2760     | Perform a Sag Study of the Saltville - Tazewell 138 kV line to increase the thermal rating of the line   | AEP        | 6/1/2021  |
| b2793     | Energize the spare Fremont Center 138/69 kV 130 MVA transformer #3. Reduces overloaded facilities to 46% loading.  | AEP        | 6/1/2021  |
| b2914     | Rebuild Tharp Tap-KU Elizabethtown 69kV line section to 795 MCM (2.11 miles).  | EKPC       | 12/1/2024 |
| b2932     | Replace terminal equipment at Tanners Creek on Tanners Creek Dearborn 345 kV line.   | AEP        | 6/1/2021  |
| b2938     | Perform a sag mitigations on the Broadford – Wolf Hills 138kV circuit to allow the line to operate to a higher maximum temperature.  | AEP        | 6/1/2022  |
| b2940     | Upgrade the distance relay on the Wayne Co – Wayne Co KY 161kV line to increase the line winter rating would be 167/167  | EKPC       | 12/1/2022 |

|         |   |          |            |
|---------|---|----------|------------|
| b2946   | Convert existing Preston 69 kV Substation to DPL's current design standard of a 3-breaker ring bus.   | DPL      | 6/1/2022   |
| b2981   | Rebuild 115 kV Line No.29 segment between Fredericksburg and Aquia Harbor to current 230 kV standards (operating at 115 kV) utilizing steel H-frame structures with 2-636 ACSR to provide a normal continuous summer rating of 524 MVA at 115 kV (1047 MVA at 230 kV) | Dominion | 12/31/2022 |
| b3020   | Rebuild 500kV Line #574 Ladysmith to Elmont - 26.2 miles long   | Dominion | 6/1/2018   |
| b3055   | Install spare 230/69 kV transformer at Davis Substation   | Dominion | 6/1/2023   |
| b3090   | Convert the OH portion (approx. 1500 Feet) of 230 kV Lines #248 & #2023 to UG and convert Glebe substation to GIS.  | Dominion | 1/1/2021   |
| b3094   | Move 69 kV 12.0 MVAR capacitor bank from Greenbriar to Bullitt Co 69kV substation   | EKPC     | 6/1/2018   |
| b3098.1 | Rebuild Balcony Falls Substation  | Dominion | 6/1/2019   |
| b3124   | Separate metering, station power, and communication at Bruce Mansfield 345 kV station   | ATSI     | 12/31/2020 |
| b3125   | At Davis Bessie 345 kV station: Install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and separate all protection and controls schemes  | ATSI     | 5/31/2020  |
| b3126   | At Perry 345 kV station: Install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and construct a new station access road  | ATSI     | 6/1/2021   |
| b3130   | Construct seven new 34.5 kV circuits on existing pole lines (total of 53.5 miles), Rebuild/Reconductor two 34.5 kV circuits (total of 5.5 miles) and install a 2nd 115/34.5 kV transformer (Werner)   | JCPL     | 6/1/2016   |
| b3130.1 | Construct a new 34.5 kV circuit from Oceanview to Allenhurst 34.5 kV (3.9 Miles) - (replaces B1690)   | JCPL     | 6/1/2016   |
| b3130.2 | Construct a new 34.5 kV circuit from Atlantic to Red Bank 34.5 kV (10.3 Miles) - (replaces B1690)   | JCPL     | 6/1/2016   |
| b3130.3 | Construct a new 34.5 kV circuit from Freneau to Taylor Lane 34.5 kV (10.7 Miles) - (replaces B1690)   | JCPL     | 6/1/2016   |
| b3130.5 | Construct a new 34.5 kV circuit from Red Bank to Belford 34.5 kV (5.7 Miles) - (replaces B1690)   | JCPL     | 6/1/2016   |
| b3130.6 | Construct a new 34.5 kV circuit from Werner to Clark Street (7.3 Miles) - (replaces B1690)  | JCPL     | 6/1/2016   |
| b3134   | Build a new single circuit 69 kV overhead from existing Kellam substation to new Cheriton substation (21 miles).  | ODEC     | 6/1/2019   |
| b3134.1 | Reconfigure the Kellam ring station to create a line terminal for the new 69 kV circuit to Cheriton S/S. Cheriton S/S is a new under construction station (ID s2027) with a 2023 in-service date.   | ODEC     | 6/1/2019   |
| b3134.2 | Build a new single circuit 69 kV overhead line from Kellam S/S to new Cheriton S/S (21 miles)   | ODEC     | 6/1/2019   |
| b3136   | Replace bus conductor at Smith 115 kV substation  | ME       | 6/1/2024   |
| b3143.1 | Rebuild the Silverside – Darley 69 kV circuit   | DPL      | 6/1/2024   |
| b3143.2 | Rebuild the Darley – Naamans 69 kV circuit  | DPL      | 6/1/2024   |

|          |  |          |           |
|----------|--|----------|-----------|
| b3143.3  | Replace three (3) existing 1200 A disconnect switches with 2000 A disconnect switches and install three (3) new 2000 A disconnect switches at Silverside 69 kV station   | DPL      | 6/1/2024  |
| b3143.4  | Replace two (2) 1200 A disconnect switches with 2000 A disconnect switches, replace existing 954 ACSR and 500 SDCU stranded bus with (2) 954 ACSR stranded bus. Reconfigure four (4) CTs from 1200 A to 2000 A and install two (2) new 2000 A disconnect switches, new (2) 954 ACSR stranded bus at Naamans 69 kV station  | DPL      | 6/1/2024  |
| b3143.5  | Replace four (4) 1200 A disconnect switches with 2000 A disconnect switches. Replace existing 954 ACSR and 1272 MCM AL stranded bus with (2) 954 ACSR stranded bus. Reconfigure eight (8) CTs from 1200 A to 2000 A and install Four (4) new 2000 A (310 MVA SE / 351 MVA WE) disconnect switches, new (2) 954 ACSR (331 MVA SE / 369 MVA WE) stranded bus at Darley 69 kV station   | DPL      | 6/1/2024  |
| b3144.1  | Upgrade line relaying and substation conductor on the 46 kV Nanty Glo line exit at Jackson Road substation   | PENELEC  | 6/1/2024  |
| b3150    | Rebuild Ferguson 69/12 kV station in the clear as the 138/12 kV Bear station and connect it to a ~1 mile double circuit 138 kV extension from the Aviation – Ellison Rd 138 kV line to remove the load from the 69 kV line.  | AEP      | 6/1/2024  |
| b3151.9  | Remove 34.5 kV circuit breaker "AD" at Wallen station.   | AEP      | 6/1/2024  |
| b3151.15 | Rebuild the 0.6 mile double circuit section of the Rob Park – South Hicksville / Rob Park – Diebold Road as 69 kV  | AEP      | 6/1/2024  |
| b3160.1  | Construct a ~2.4 mile double circuit 138 kV extension using 1033 ACSR to connect Lake Head to the 138 kV network.  | AEP      | 6/1/2024  |
| b3160.2  | Retire the ~2.5 mile 34.5 kV Niles – Simplicity Tap line.  | AEP      | 6/1/2024  |
| b3160.3  | Retire the ~4.6 mile Lakehead 69 kV Tap  | AEP      | 6/1/2024  |
| b3160.4  | Build new 138/69 kV drop down station to feed Lakehead with a 138 kV breaker, 138 kV switcher, 138/69 kV transformer and a 138 kV MOAB   | AEP      | 6/1/2024  |
| b3160.5  | Rebuild the ~1.2 mile Buchanan South 69 kV Radial Tap using 795 ACSR   | AEP      | 6/1/2024  |
| b3160.6  | Rebuild the ~8.4 mile 69 kV Pletcher – Buchanan Hydro line as the ~9 mile Pletcher – Buchanan South 69 kV line using 795 ACSR.   | AEP      | 6/1/2024  |
| b3160.7  | Install a PoP switch at Buchanan South station with 2 line Moabs.  | AEP      | 6/1/2024  |
| b3161.1  | Install two, 2000 Amp, 115kV line switches. Extend Reymet fence and bus to allow installation of risers to Line #53 (Chesterfield-Kevlar 115 kV).  | Dominion | 6/1/2024  |
| b3208    | Retire approximately 38 miles of the 44 mile Clifford-Scottsville 46 kV circuit. Build new 138 kV "in and out" to two new Distribution stations to serve the load formerly served by Phoenix, Shipman, Schuyler (AEP), and Rockfish stations. Construct new 138 kV lines from Joshua Falls-Riverville (~10 mi.) and Riverville-Gladstone (~5 mi.). Install required station upgrades at Joshua Falls, Riverville and Gladstone stations to accommodate the new 138 kV circuits. Rebuild Reusen – Monroe 69 kV (~4 mi.) | AEP      | 12/1/2022 |

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| b3218   | At Oak Mound 138 kV substation, replace the 138 kV bus tie and Waldo Run #2 breakers with 40 kA, 3000 amp units. Install CTs as 2000/5 MR.  | APS      |          |
| b3224   | Replace a disconnect switch and reconductor a short span of Mt. Pleasant - Middletown Tap line  | DPL      | 6/1/2025 |
| b3227   | Rebuild the Corson-Court 69 kV line to achieve ratings equivalent to 795 ACSR conductor or better   | AEC      | 6/1/2025 |
| b3232   | Replace the existing Williamsburg, ALH (Holidaysburg) and bus section breaker at the Altoona substation with a new breaker with higher interrupting capability.   | PENELEC  | 6/1/2025 |
| b3233   | Install one 34 MVAR 115 kV shunt reactor and breaker. Install one 115 kV circuit breaker to expand the substation to a 4 breaker ring bus.  | PENELEC  | 6/1/2025 |
| b3234   | Extend both the east and west 138 kV buses at Pine substation, and install one 138 kV breaker, associated disconnect switches, and one 100 MVAR reactor.  | ATSI     | 6/1/2025 |
| b3235   | Extend 138 kV bus work to the west of Tangy substation for the addition of the 100 MVAR reactor bay and one 138 kV 40 kA circuit breaker.   | ATSI     | 6/1/2025 |
| b3236   | Extend the 138 kV Bus by adding two new breakers and associated equipment and install a 75 MVAR Reactor   | ATSI     | 6/1/2025 |
| b3238   | Replace (7) overdutied 34.5 kV breakers with 50 kA rated equipment at the Whippany substation.  | JCPL     | 6/1/2025 |
| b3239   | Replace (14) overdutied 34.5 kV breakers with 63 kA rated equipment.  | JCPL     | 6/1/2025 |
| b3242   | Reconfigure Stonewall 138 kV substation from its current configuration to a six-breaker breaker-and-a-half layout and add two 36 MVAR capacitors with capacitor switchers.  | APS      | 6/1/2025 |
| b3243   | Replace risers at Bass 34.5kV station   | AEP      | 6/1/2025 |
| b3244   | Rebuild approximately 9 miles of the Rob Park - Harlan 69 kV line   | AEP      | 6/1/2025 |
| b3245   | Construct a new breaker-and-a-half substation near Tiffany substation. All transmission assets and lines will be relocated to the new substation. The two distribution transformers will be fed via two dedication 115 kV feeds to the existing Tiffany substation.   | PENELEC  | 6/1/2025 |
| b3246   | Convert the existing 115kV Line #172 (Liberty to Lomar DP) and Line #197 (Cannon Branch to Lomar DP) to 230kV. Extend a new 230kV Line between Cannon Branch and Winters Branch.  | Dominion |          |
| b3246.1 | Convert 115 kV Line #172 Liberty-Lomar and 115 kV Line #197 Cannon Branch-Lomar to 230 kV to provide a new 230 kV source between Cannon Branch and Liberty. The majority of 115 kV Line #172 Liberty-Lomar and Line #197 Cannon Branch-Lomar is adequate for 230 kV operation. Lines to have a summer rating of 1047 MVA/1047 MVA (SN/SE) | Dominion | 6/1/2023 |
| b3246.2 | Perform substation work for the 115 kV to 230 kV Line conversion at Liberty, Wellington, Godwin, Pioneer, Sandlot and Cannon Branch.  | Dominion | 6/1/2023 |
| b3248   | Install a low side 69 kV circuit breaker at Albion 138/69 kV transformer 1  | AEP      | 6/1/2025 |
| b3249   | Rebuild the Chatfield-Melmore 138kV line (~ 10 miles) to 1033 ACSR conductor.   | AEP      | 6/1/2025 |

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| b3253   | Install a 3000A 40 kA 138 kV breaker on high side of 138/69 kV transformer #5 at Millbrook Park station. The transformer and associated bus protection will be upgraded accordingly.  | AEP      | 6/1/2025  |
| b3258   | Install a 3000A 63 kA 138 kV breaker on high side of 138/69 kV transformer #2 at Wagenhals station. The transformer and associated bus protection will be upgraded accordingly.   | AEP      | 6/1/2025  |
| b3259   | At West Millersburg station, replace the 138 kV MOAB on the West Millersburg - Wooster 138 kV line with a 3000A 40 kA breaker.  | AEP      | 6/1/2025  |
| b3264   | Install 115kV breaker at Stuarts Draft station and sectionalize 115kV Line#117 into two 115kV lines.  | Dominion | 6/1/2025  |
| b3267   | Rebuild the 4/0 ACSR Norwood-Shopville 69 kV line section using 556 ACSR/TW.  | EKPC     | 12/1/2021 |
| b3268   | Build a switching station at the junction of 115kV line #39 and 115kV line #91 with a 115kV capacitor bank. The switching station will built with 230kV structures but will operate at 115kV.   | Dominion | 12/1/2025 |
| b3269   | At West New Philadelphia station, add a high side 138 kV breaker on the 138/69 kV transformer #2 along with a 138 kV breaker on the line towards Newcomerstown.   | AEP      | 6/1/2025  |
| b3271   | Install a 138 kV circuit breaker at Fremont station on line towards Fremont Center and install a 9.6 MVAR 69 kV capacitor bank at Bloom Road station.   | AEP      | 6/1/2025  |
| b3272   | Install two 138 kV circuit switchers on the high side of 138/34.5 kV transformers #1 & #2 at Rockhill station.  | AEP      | 6/1/2025  |
| b3273.1 | Rebuild and convert the existing 17.6 miles East Leipsic-New Liberty 34.5 kV circuit to 138 kV using 795 ACSR   | AEP      | 6/1/2025  |
| b3273.2 | Convert the existing 34.5 kV equipment to 138 kV and expanded the existing McComb station to the north and east to allow for new equipment to be installed. Install two new 138 kV box bays to allow for line positions and two new 138/12 kV transformers.                               | AEP      | 6/1/2025  |
| b3273.3 | Expand the existing East Leipsic 138 kV station to the north to allow for another 138 kV line exit to be installed. The new line exit will involve installing a new 138 kV circuit breaker, disconnect switches and new dead end structure along with extending existing 138 kV bus work. | AEP      | 6/1/2025  |
| b3273.4 | Add one 138 kV circuit breaker and disconnect switches in order to add an additional line position at New Liberty 138 kV station. Install line relaying potential devices and retire the 34.5 kV breaker F.   | AEP      | 6/1/2025  |
| b3274   | Rebuild approximately 8.9 miles of 69 kV line between Newcomerstown and Salt Fork Switch with 556 ACSR conductor.   | AEP      | 6/1/2025  |
| b3276.1 | Rebuild the 2/0 Copper section of the Lancaster-South Lancaster 69 kV line, approximately 2.9 miles of the 3.2 mile total length with 556 ACSR conductor. The remaining section has 336 ACSR conductor.   | AEP      | 6/1/2025  |
| b3276.2 | Rebuild the 1/0 Copper section of the line between Lancaster Junction and Ralston station 69 kV, approximately 2.3 miles of the 3.1 mile total length.  | AEP      | 6/1/2025  |
| b3276.3 | Rebuild the 2/0 Copper portion of the line between East Lancaster Tap and Lancaster 69 kV, approximately 0.81 miles.  | AEP      | 6/1/2025  |
| b3278.1 | Saltville Station: Replace H.S. MOAB Switches on the high side of the 138/69/34.5 kV T1 with a H.S. Circuit Switcher.   | AEP      | 12/1/2025 |

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| b3278.3 | Saltville Station: Install two 138 kV breakers and bus diff protection   | AEP | 12/1/2025 |
| b3279   | Install a new 138 kV, 21.6 MVAR cap bank and circuit switcher at Apple Grove Station.  | AEP | 6/1/2025  |
| b3280   | Rebuild the existing Cabin Creek - Kelly Creek 46 kV line (to structure 366-44), approximately 4.4 miles. This section is double circuit with the existing Cabin Creek - London 46 kV line so a double circuit rebuild would be required.  | AEP | 6/1/2025  |
| b3282.1 | Install a second 138 kV circuit utilizing 795 ACSR conductor on the open position of the existing double circuit towers from East Huntington-North Proctorville. Remove the existing 34.5 kV line from East Huntington-North Chesapeake and rebuild this section to 138 kV served from a new PoP switch off the new East Huntington-North Proctorville 138 kV #2 line. | AEP | 6/1/2025  |
| b3282.2 | Install a 138 kV 40 kA circuit breaker at North Proctorville.  | AEP | 6/1/2025  |
| b3282.3 | Install a 138 kV 40 kA circuit breaker at East Huntington.   | AEP | 6/1/2025  |
| b3282.4 | Convert the existing 34/12 kV North Chesapeake to a 138/12 kV station.   | AEP | 6/1/2025  |
| b3284   | Rebuild ~5.44 miles of 69 kV line from Lock Lane to Point Pleasant.  | AEP | 6/1/2025  |
| b3285   | Replace the Meigs 69 kV 4/0 Cu station riser towards Gavin and rebuild the section of the Meigs – Hemlock 69 kV circuit from Meigs to approximately structure #40 (~4 miles) replacing the line conductor 4/0 ACSR with the line conductor size 556.5 ACSR.  | AEP | 6/1/2025  |
| b3288.1 | Construct ~ 2.75 mi Orinoco - Stone 69 kV transmission line in the clear between Orinoco station and Stone station.  | AEP | 12/1/2025 |
| b3288.2 | Construct ~ 3.25 mi Orinoco – New Camp 69 kV transmission line in the clear between Orinoco station and New Camp station.  | AEP | 12/1/2025 |
| b3288.3 | At Stone substation, circuit breaker A to remain in place and be utilized as T1 low side breaker, circuit breaker B to remain in place and be utilized as new Hatfield (via Orinoco and New Camp) 69 kV line breaker. Add new 69 kV circuit breaker E for Coleman Line exit.   | AEP | 12/1/2025 |
| b3288.4 | Reconfigure the New Camp 69 kV tap which includes access road improvements/installation, temporary wire and permanent wire work along with dead end structures installation.   | AEP | 12/1/2025 |
| b3288.5 | At New Camp substation, rebuild the 69 kV bus, add 69 kV MOAB W and replace the 69 kV ground switch Z1 with a 69 kV circuit switcher on the New Camp transformer.  | AEP | 12/1/2025 |
| b3289.1 | Roanoke Station: Install high-side circuit switcher on 138/69/12 kV T5   | AEP | 6/1/2025  |
| b3290.1 | Build 9.4 miles of single circuit 69 kV line from Roselms to near East Ottoville 69 kV Switch.   | AEP | 6/1/2025  |
| b3290.2 | Rebuild 7.5 miles of double circuit 69kV line between East Ottoville Switch and Kalida Station (combining with the new Roselms to Kalida 69 kV circuit).   | AEP | 6/1/2025  |
| b3290.3 | At Roselms Switch, install a new three way 69kV, 1200 A phase-over-phase switch, with sectionalizing capability.   | AEP | 6/1/2025  |
| b3290.4 | At Kalida 69 kV station, terminate the new line from Roselms Switch. Move the CS XT2 from high side of T2 to the high side of T1. Remove existing T2 transformer.  | AEP | 6/1/2025  |

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| b3291   | Replace the Russ St. 34.5 kV Switch  | AEP      | 6/1/2025  |
| b3292   | Replace existing 69 kV capacitor bank at Stuart Station with a 17.2 MVAR capacitor bank  | AEP      | 12/1/2025 |
| b3294   | Replace existing 69 kV disconnect switches for circuit breaker "C" at Walnut Avenue station  | AEP      | 6/1/2025  |
| b3296   | Rebuild the overloaded portion of the Concord-Whitaker 34.5 kV line (1.13 miles). Rebuild is double circuit and will utilize 795 ACSR conductor.   | AEP      | 6/1/2025  |
| b3297.1 | Rebuild 4.23 miles of 69 kV line between Sawmill and Lazelle station, using 795 ACSR 26/7 conductor.   | AEP      | 6/1/2025  |
| b3297.2 | Rebuild 1.94 miles of 69 kV line between Westerville and Genoa stations, using 795 ACSR 26/7 conductor.  | AEP      | 6/1/2025  |
| b3297.3 | Replace risers and switchers at Lazelle, Westerville, and Genoa 69 kV stations. Upgrade associated relaying accordingly.   | AEP      | 6/1/2025  |
| b3298   | Rebuild 0.8 miles of double circuit 69 kV line between South Toronto and West Toronto. Replace 219 kcmil ACSR with 556 ACSR.   | AEP      | 6/1/2025  |
| b3298.1 | Replace the 69 kV breaker D at South Toronto station with 40 kA breaker.   | AEP      | 6/1/2025  |
| b3300   | Reconductor 230kV Line #2172 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA.  | Dominion | 6/1/2025  |
| b3301   | Reconductor 230kV Line #2210 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA.  | Dominion | 6/1/2025  |
| b3302   | Reconductor 230kV Line #2213 from Cabin Run to Yardley Ridge along with upgrading the line leads at Yardley to achieve a summer emergency rating of 1574 MVA.  | Dominion | 6/1/2025  |
| b3303.1 | Extend a new single circuit 230KV line (#9250) from Farmwell Substation to Nimbus Substation.  | Dominion | 6/1/2025  |
| b3304   | Midlothian Area 300 MW Load Drop Relief Area Improvements  | Dominion | 6/1/2025  |
| b3304.1 | Cut 230kV Line #2066 at Trabue junction  | Dominion | 6/1/2025  |
| b3304.2 | Reconductor idle 230kV Line #242 (radial from Midlothian to Trabue junction) to allow a minimum summer rating of 1047 MVA and connect to the section of 230kV Line #2066 between Trabue junction and Winterpock; re-number 230kV Line #242 structures to #2066;      | Dominion | 6/1/2025  |
| b3304.3 | Use the section of idle 115kV Line #153, between Midlothian and Trabue junction to connect to the section of (former) 230kV Line #2066 between Trabue junction and Trabue to create new Midlothian-Trabue lines with new line numbers #2218 and #2219                | Dominion | 6/1/2025  |
| b3304.4 | Create new line terminations at Midlothian for the new Midlothian-Trabue lines.  | Dominion | 6/1/2025  |
| b3306   | Install a second 125 MVAR 345 kV shunt reactor and associated equipment at Pierce Brook Substation. Install a 345 kV breaker on the high side of the #1 345/230 kV transformer   | PENELEC  | 6/1/2025  |
| b3307   | Rebuild Fleming station in the clear; Replace 138/69kV Fleming Transformer #1 with 138/69 kV 130 MVA transformer with high side 138 kV CB; Install a 5 breaker 69 kV ring bus on the low side of the transformer, replace 69 kV circuit switcher AA, replace 69/12kV | AEP      | 12/1/2025 |

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|          | transformer #3 with 69/12 kV 30 MVA transformer, replace 12 kV CB A and D. Retire existing Fleming substation.   |          |          |
| b3308    | Reconductor and rebuild 1 span of T-line on the Fort Steuben-Sunset Blvd 69 kV branch with 556 ACSR.   | AEP      | 6/1/2025 |
| b3312    | Rebuild approximately 4.0 miles of existing 69 kV line between West Mount Vernon and Mount Vernon stations. Replace the existing 138/69 kV transformer at West Mount Vernon with a larger 90 MVA unit along with existing 69 kV breaker 'C'.   | AEP      | 6/1/2025 |
| b3313    | Add 40 kA circuit breakers on the low and high side of East Lima 138/69 kV Transformer   | AEP      | 6/1/2025 |
| b3314.1  | Install a new 138/69 kV 130 MVA transformer and associated protection at Elliot station.   | AEP      | 6/1/2025 |
| b3314.2  | Perform work at Strouds Run station to retire 138/69/13 kV 33.6 MVA transformer #1 and install a dedicated 138/13 KV distribution transformer.   | AEP      | 6/1/2025 |
| b3321    | Rebuild Cranes Corner-Stafford 230 kV line   | Dominion | 6/1/2022 |
| b3333.1  | Rebuild Skeggs Branch substation in the clear as Mount Heron substation. Establish New 138 kV and 69 kV buses. Install 138/69 kV 130 MVA transformer, two 138 kV breakers, 138 kV circuit switcher, two 69 kV breaker. Retire existing Skeggs Branch substation.   | AEP      | 6/1/2023 |
| b3333.2  | New ~1.6 mi double circuit 138 kV extension to new Mount Heron substation location and work required to tap the Clinch River-Garden Creek 138 kV line. Retire the existing Skeggs Branch 138 kV tap.   | AEP      | 6/1/2023 |
| b3333.3  | Install a 57.6 MVAR cap bank at Whitewood substation along with a 138 kV breaker.  | AEP      | 6/1/2023 |
| b3333.4  | Rebuild ~9 mi 69 kV line from Horn Mountain SS to Permac switch. Rebuild from Str. 340-28 to Coal Creek station. 6-wire the short double circuit section between Whetstone Branch and Str. 340-28 to convert the line to single circuit. Retire the Garden Creek to Whetstone Branch 69 kV line section. | AEP      | 6/1/2023 |
| b3333.5  | Retire Knox Creek SS.  | AEP      | 6/1/2023 |
| b3333.6  | At Horn Mountain SS, replace 600 A switch and structure with a 3 way 1200 A POP pole switch and pole.  | AEP      | 6/1/2023 |
| b3333.7  | At Clell SS, replace two 600 A POP switches and poles with single 3 way 1200 A POP switch and pole.  | AEP      | 6/1/2023 |
| b3333.8  | At Permac, replace 600 A switch and structure with 2 Way 1200 A POP pole switch and pole.  | AEP      | 6/1/2023 |
| b3333.9  | At Marvin SS, Replace 600 A Switch and structure with 3 Way 1200 A POP pole switch and pole.   | AEP      | 6/1/2023 |
| b3333.10 | At Whetstone Branch substation, replace 69 KV 600 A 2 way POP switch with 69 KV 1200 A 2 way POP switch. Remove 69 kV to Skeggs Branch (switch "22" POP).  | AEP      | 6/1/2023 |
| b3333.11 | At Garden Creek substation, remove 69 kV Richlands (via Coal Creek) line (circuit breaker F and disconnect switches) and update relay settings.  | AEP      | 6/1/2023 |
| b3333.12 | Remote end work at Clinch River substation.  | AEP      | 6/1/2023 |
| b3333.13 | Remote end work at Clinchfield substation.   | AEP      | 6/1/2023 |

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| b3333.14 | Install ~2.6 mi greenfield 69 kV line from greenfield Mount Heron station to the existing Horn Mountain S.S.   | AEP    | 6/1/2023  |
| b3338    | Replace the two (2) Kenny 138 kV breakers, “102” (SC-3) and “106” (SC-4), each with a 3000 A, 63 kA interrupting breaker.  | AEP    | 6/1/2026  |
| b3341.1  | Marysville Substation: Install two 69 kV 16.6 MVAR cap banks; Install five 69 kV circuit breakers; Upgrade station relaying; Replace 600 A wave trap on the Marysville-Kings Creek 69 kV (6660) circuit  | Dayton | 6/1/2026  |
| b3341.2  | Darby Substation: Upgrade remote end relaying at Darby 69 kV substation  | Dayton | 6/1/2026  |
| b3345.1  | Rebuild ~4.2 miles of overloaded sections of the 69 kV line between Salt Fork Switch and Leatherwood Switch with 556 ACSR.   | AEP    | 6/1/2026  |
| b3345.2  | Update relay settings at Broom Road station.   | AEP    | 6/1/2026  |
| b3346.1  | Rebuild approximately 3.5 miles of overloaded 69 kV line between North Delphos-East Delphos-Elida Road switch. This includes approximately 1.1 miles of double circuit line that makes up a portion of the North Delphos-South Delphos 69 kV line and the North Delphos-East Delphos 69 kV line. Approximately 2.4 miles of single circuit line will also be rebuilt between the double circuit portion to East Delphos station and from East Delphos to Elida Road Switch.    | AEP    | 6/1/2026  |
| b3346.2  | Replace the line entrance spans at South Delphos to eliminate the overloaded 4/0 Copper and 4/0 ACSR conductor.  | AEP    | 6/1/2026  |
| b3347.1  | Rebuild approximately 20 miles of line between Bancroft and Milton stations with 556 ACSR conductor  | AEP    | 11/1/2026 |
| b3347.2  | Replace the jumpers around Hurrican switch with 556 ACSR   | AEP    | 11/1/2026 |
| b3347.3  | Replace the jumpers around Teays switch with 556 ACSR  | AEP    | 11/1/2026 |
| b3347.4  | Winfield Station Relay Settings: Update relay settings to coordinate with remote ends on line rebuild  | AEP    | 11/1/2026 |
| b3347.5  | Bancroft Station Relay Settings: Update relay settings to coordinate with remote ends on line rebuild  | AEP    | 11/1/2026 |
| b3347.6  | Milton Station Relay Settings: Update relay settings to coordinate with remote ends on line rebuild.   | AEP    | 11/1/2026 |
| b3347.7  | Putnam Village Station Relay Settings: Update relay settings to coordinate with remote ends on line rebuild  | AEP    | 11/1/2026 |
| b3348.1  | Construct a 138 kV single bus station (Tin Branch) consisting of a 138 kV box bay with a distribution transformer and 12 kV distribution bay. Two 138 kV lines will feed this station (from Logan and Sprigg stations), and distribution will have one 12 kV feed. Install two 138 kV circuit breakers on the line exits. Install 138 kV circuit switcher for the new transformer.   | AEP    | 11/1/2026 |
| b3348.2  | Construct a new 138/46/12 kV Argyle station to replace Dehue station. Install a 138 kV ring bus using a breaker-and-a-half configuration, with an autotransformer with a 46 kV feed and a distribution transformer with a 12 kV distribution bay. Two 138 kV lines will feed this station (from Logan and Wyoming stations). There will also be a 46 kV feed from this station to Becco station. Distribution will have two 12 kV feeds. Retire Dehue station in its entirety. | AEP    | 11/1/2026 |

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| b3348.3 | Bring the Logan-Sprigg #2 138 kV circuit in and out of Tin Branch station by constructing approximately 1.75 miles of new overhead double circuit 138 kV line. Double circuit T3 series lattice towers will be used along with 795,000 cm ACSR 26/7 conductor. One shield wire will be conventional 7 #8 ALUMOWELD, and one shield wire will be OPGW.  | AEP | 11/1/2026 |
| b3348.4 | Logan-Wyoming No. 1 circuit in and out of the proposed Argyle station. Double circuit T3 series lattice towers will be used along with 795,000 cm ACSR 26/7 conductor. One shield wire will be conventional 7 #8 ALUMOWELD, and one shield wire will be OPGW.  | AEP | 11/1/2026 |
| b3348.5 | Rebuild approximately 10 miles of 46 kV line between Becco and the new Argyle substation. Retire approximately 16 miles of 46 kV line between the new Argyle substation and Chauncey station.  | AEP | 11/1/2026 |
| b3348.6 | Adjust relay settings due to new line terminations and retirements at Logan, Wyoming, Sprigg, Becco and Chauncey stations.   | AEP | 11/1/2026 |
| b3349   | Replace Bellefonte 69 kV risers on the section between Bellefonte TR #3 and 69 kV Bus #2.  | AEP | 6/1/2026  |
| b3350.1 | Replace overdutied 69 kV breakers C, G, I, Z, AB and JJ in place. The new 69 kV breakers to be rated at 3000 A 40 kA breakers.   | AEP | 6/1/2023  |
| b3350.2 | Upgrade remote end relaying at Point Pleasant, Coalton and South Point 69 kV substations.  | AEP | 6/1/2023  |
| b3351   | Replace the 69 kV in-line switches at Monterey 69 kV substation.   | AEP | 6/1/2026  |
| b3353.1 | Allen substation: Rebuild Allen station to the northwest of its current footprint utilizing a standard air-insulated substation with equipment raised by 7' concrete platforms and control house raised by a 10' platform to mitigate flooding concerns. Install five 69 kV 3000A 40 kA circuit breakers in a ring bus (operated at 46 kV) configuration with a 13.2 MVAR capacitor bank. Existing Allen station will be retired (does not include the distribution cost). Distribution scope of work: Install 69/46 kV-12 kV 20 MVA transformer along with 2-12 kV breakers on 7' concrete platforms (conversion of S2405.1). | AEP | 12/1/2026 |
| b3353.2 | Allen-East Prestonsburg: A 0.20 mile segment of this 46 kV line will be relocated to the new station (SN/SE/WN/WE: 53/61/67/73MVA). (Conversion of S2405.2)  | AEP | 12/1/2026 |
| b3353.3 | McKinney-Allen: The new line extension will walk around the south and east sides of the existing Allen station to the new Allen station being built in the clear. A short segment of new single circuit 69 kV line and a short segment of new double circuit 69 kV line (both operated at 46 kV) will be added to the line to tie into the new Allen station bays. (Conversion of S2405.3)   | AEP | 12/1/2026 |
| b3353.4 | Stanville-Allen: A segment of this line will have to be relocated to the new station (SN/SE/WN/WE: 50/50/63/63MVA). (Conversion of S2405.4)  | AEP | 12/1/2026 |
| b3353.5 | Allen-Prestonsburg: 0.25 mile segment of this existing single circuit will be relocated. The relocated line segment will require construction of one custom self-supporting double circuit dead-end structure and single circuit suspension structure. A short segment of new double circuit 69 kV line (energized at 46 kV) will be added to tie into the new Allen station bays, which will carry Allen-   | AEP | 12/1/2026 |

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|         | Prestonsburg 46 kV and Allen-East Prestonsburg 46 kV lines. A temporary 0.15 mile section double circuit line will be constructed to keep Allen-Prestonsburg and Allen-East Prestonsburg 46 kV lines energized during construction. (Conversion of S2405.5)            |         |           |
| b3353.6 | Remote end work will be required at Prestonsburg, Stanville and McKinney stations. (Conversion of S2405.6)   | AEP     | 12/1/2026 |
| b3359   | Rebuild approximately 2.3 miles of the existing North Van Wert Sw-Van Wert 69 kV line utilizing 556 ACSR conductor.  | AEP     | 6/1/2026  |
| b3360   | Replace Thelma Transformer #1 with a 138/69/46 kV 130/130/90 MVA transformer and replace 46 kV risers and relaying toward Kenwood substation. Existing TR#1 to be used as spare.   | AEP     | 12/1/2026 |
| b3361   | Rebuild Prestonsburg - Thelma 46kV circuit connecting though Kenwood station, approximately 12.7 miles. Retire Jenny Wiley SS and Van Lear SS.   | AEP     | 12/1/2026 |
| b3362   | Rebuild approximately 3.1 miles of the overloaded conductor on the existing Oertels Corner-North Portsmouth 69 kV line utilizing 556 ACSR.   | AEP     | 6/1/2026  |
| b3370   | Upgrade terminal equipment on the Loretto - Fruitland 69 kV circuit: Replace the 477 ACSR stranded bus on the 6711 line terminal inside Loretto substation and the 500 SDCU stranded bus on the 6711 line terminal inside Fruitland substation with 954 ACSR conductor | DPL     | 6/1/2026  |
| b3371   | Rebuild approx. 3.6 miles of 875 (N. Boyertown - W. Boyertown). Upgrade terminal equipment (circuit breaker, disconnect switches, substation conductor) and relays at N. Boyertown and W. Boyertown substation   | ME      | 6/1/2026  |
| b3372   | East Towanda – North Meshoppen 115 kV Line: Rebuild 2.5 miles of 636 ACSR with 1113 ACSS conductor using single circuit construction. Upgrade all terminal equipment to the rating of 1113 ACSS  | PENELEC | 6/1/2026  |
| b3373   | Replace the relay panels at Bethlehem 33 46 kV substation on the Cambria Prison line   | PENELEC | 6/1/2026  |
| b3374   | Replace Five Atlantic 34.5 kV breakers (J36, BK1A, BK1B, BK3A and BK3B) with 63kA rated breakers and associated equipment  | JCPL    | 6/1/2026  |
| b3375   | Replace Six Werner 34.5 kV breakers (E31A_Prelim, E31B_Prelim, V48 future, W101, M39 and U99) with 40 kA rated breakers and associated equipment..   | JCPL    | 6/1/2026  |
| b3376   | Replace One Freneau 34.5 kV breaker (BK6) with 63 kA rated breakers and associated equipment   | JCPL    | 6/1/2026  |
| b3666   | Marshall 230 kV Substation: Install dual reactors and expand existing ring bus   | PENELEC | 6/1/2026  |
| b3667   | Pierce Brook Substation: Install second 230/115 kV transformer   | PENELEC | 6/1/2026  |
| b3668   | Upgrade Windy Edge 115 kV substation conductor to increase ratings of the Windy Edge-Chesco Park 110501 circuit.   | BGE     | 6/1/2026  |
| b3669.1 | Replace terminal equipment (stranded bus, disconnect switch and circuit breaker) at Church substation (Townsend-Church 138 kV).  | DPL     | 12/1/2026 |
| b3669.2 | Replace terminal equipment (circuit breaker) at Townsend substation (Townsend-Church 138 kV).  | DPL     | 12/1/2026 |

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| b3670   | Upgrade terminal equipment on the Loretto-Fruitland 69 kV circuit: Replace the 477 ACSR stranded bus on the 6711 line terminal inside Loretto substation and the 500 SDCU stranded bus on the 6711 line terminal inside Fruitland substation with 954 ACSR conductor.  | DPL      | 6/1/2026  |
| b3673   | Replace the relay panels at Bethlehem 33 46 kV substation on the Cambria Prison line.  | PENELEC  | 6/1/2026  |
| b3678   | Expand Galion 138 kV substation; Install 100 MVAR reactor, associated breaker and relaying.  | ATSI     | 11/1/2026 |
| b3679   | Replace West Fremont 138/69 kV TR2 with a transformer having additional high-side taps.  | ATSI     | 11/1/2026 |
| b3681   | Upgrade the Shingletown #82 230-46 kV transformer circuit by installing a 230 kV breaker and disconnect switches, removing existing 230 kV switches, replacing 46 kV disconnect switches, replacing limiting substation conductor, and installing/replacing relays.  | APS      | 6/1/2026  |
| b3682   | Install a second 345/138 kV transformer at Hayes, 448 MVA nameplate rating. Add one 345 kV circuit breaker (3000A) to provide transformer high-side connection between breaker B-18 and the new breaker. Connect the new transformer low side to the 138 kV bus. Add one 138 kV circuit breaker (3000A) at Hayes 138 kV substation between B-42 and the new breaker. Relocate the existing 138 kV No. 1 capacitor bank between B-42 and the new breaker. Protection per FE standard. | ATSI     | 6/1/2026  |
| b3683   | Reconductor the existing 556.5 ACSR line segments (3.49 miles) on the Messick Road-Ridgeley WC4 138 kV line with 954 45/7 ACSR to achieve 308/376 MVA SN/SE and 349/445 MVA WN/WE ratings. Replace the remote end equipment for the Messick Road-Ridgeley WC4 138 kV line. The total length of the line is 5.02 miles.   | APS      | 6/1/2026  |
| b3684   | Rebuild 12.4 miles of 115 line #126 segment from Earleys to Kelford with a summer emergency rating of 262 MVA. Replace structures as needed to support the new conductor. Upgrade breaker switch 13668 at Earleys from 1200 A to 2000 A.   | Dominion | 6/1/2026  |
| b3685   | Install a 33 MVAR cap bank at Cloud 115 kV bus along with a 115 kV breaker. Add 115 kV circuit breaker for 115 kV line #38.  | Dominion | 6/1/2026  |
| b3686   | Purchase land close to the bifurcation point of 115 kV line #4 (where the line is split into two sections) and build a new 115 kV switching station called Duncan Store. The new switching station will require space for an ultimate transmission interconnection consisting of a 115 kV six-breaker ring bus (with three breakers installed initially).  | Dominion | 12/1/2026 |
| b3689.2 | Replace 230 kV breakers SC102, H302, H402 and 218302 at Brambleton substation with 4000A 80 kA breakers and associated equipment including breaker leads as necessary to address breaker duty issues identified in short circuit analysis.   | Dominion | 6/1/2026  |
| b3692   | Rebuild approximately 27.7 miles of 500 kV transmission line from Elmont to Chickahominy with current 500 kV standards construction practices to achieve a summer rating of 4330 MVA. Latest TEAC changes structures from lattice structures to H-frame  | Dominion | 6/1/2026  |
| b3692.2 | Switch to 5/2 H-frame structures and install approximately 27.7 miles of 230kV transmission line (but not be terminated) from  | Dominion | 6/1/2026  |

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|         | Elmont to Chickahominy. String up approximately 8 miles of new 230kV conductor on the open arms of the structures of 230kV Line #2075 that runs parallel to 500kV Line #557.   |          |           |
| b3693   | Expand substation and install approximately 294 MVAR cap bank at 500 kV Lexington substation along with a 500 kV breaker. Adjust the tap positions associated with the two 230/69 kV transformers at Harrisonburg to neutral position and lock them.   | Dominion | 11/1/2026 |
| b3694.1 | Convert line #29 Aquia Harbor to Possum Point to 230 kV (Extended line #2104) and swap line #2104 and converted line #29 at Aquia Harbor backbone termination. Upgrade terminal equipment at Possum Point to terminate converted line 29 (now extended line #2104). (Line #29 from Fredericksburg to Aquia Harbor is being rebuilt under baseline b2981 to 230kV standards.) | Dominion | 6/1/2026  |
| b3694.2 | Upgrade Aquia Harbor terminal equipment to not limit 230 kV line #9281 conductor rating.   | Dominion | 6/1/2026  |
| b3694.3 | Upgrade Fredericksburg terminal equipment by rearranging 230 kV bus configuration to terminate converted line 29 (now becoming 9281). The project will add a new breaker at the 230 kV bay and reconfigure line termination of 230 kV lines #2157, #2090 and #2083.  | Dominion | 6/1/2026  |
| b3694.4 | Reconductor/rebuild approximately 7.6 miles of 230 kV line #2104 Cranes Corner-Stafford to achieve a summer rating of 1047 MVA(1). Reconductor/rebuild approximately 0.34 miles of 230 kV line #2104 Stafford-Aquia Harbor to achieve a summer rating of 1047 MVA. Upgrade terminal equipment at Cranes Corner to not limit the new conductor rating.                        | Dominion | 6/1/2026  |
| b3694.5 | Upgrade wave trap and line leads at 230 kV line #2090 Ladysmith CT terminal to achieve 4000A rating.   | Dominion | 6/1/2026  |
| b3694.6 | Upgrade Fuller Road substation to feed Quantico substation via 115 kV radial line. Install four-breaker ring and break 230 kV line #252 into two new lines: 1) #252 between Aquia Harbor to Fuller Road and 2) #9282 between Fuller Road and Possum Point. Install a 230/115 kV transformer which will serve Quantico substation.  | Dominion | 6/1/2026  |
| b3695   | Terminal upgrades needed at Leroy Center and Perry substations. At Leroy Center substation, replace five 2000 A disconnect switches. At Perry substation, replace substation conductors 954 ACSR and 3500 AL.  | ATSI     | 6/1/2022  |
| b3696   | Terminal upgrades needed at Perry and Eastlake substations. At Perry substation, replace 954 ACSR and 4500 AL substation conductors. At Eastlake substation, replace 3500 SAC TL drop conductors and 3500 SAC substation conductors.   | ATSI     | 6/1/2022  |
| b3708   | Replace the Shawville 230/115/17.2 kV transformer with a new Shawville 230/115 kV transformer and associated facilities. Replace the plant's No. 2B 115/17.2 kV transformer with a larger 230/17.2 kV transformer.   | PENELEC  | 6/1/2026  |
| b3709   | Rebuild the Summer Shade-West Columbia 69 kV 0.19 miles of 266 conductor double circuit to 556 conductor.  | EKPC     | 12/1/2025 |
| b3712   | Install a 28 MVAR cap bank at Liberty Junction 69 kV.  | EKPC     | 12/1/2022 |
| b3715.1 | At the existing PPL Williams Grove substation, install a new 300 MVA 230/115 kV transformer.   | PPL      | 6/1/2026  |

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| b3715.2  | Construct a new ~3.4 mile 115 kV single circuit transmission line from Williams Grove to Allen substation.   | PPL      | 6/1/2026   |
| b3715.3  | Install a new Allen four breaker ring bus within the existing MetEd Allen substation. Terminate the Round Top-Allen and the Allen-PPGI (PPG Industries) 115 kV lines into the new switchyard.  | ME       | 6/1/2026   |
| b3717.1  | Install a series reactor on Cheswick-Springdale 138 kV line  | APS      | 12/31/2024 |
| b3717.3  | Relay work at Springdale 138 kV  | APS      | 12/31/2024 |
| b3718.1  | Install one 500/230kV 1440MVA transformer at a new substation called Wishing Star. Cut and extend 500 kV Line #546 (Brambleton-Mosby) and 500 kV Line #590 (Brambleton-Mosby) to the proposed Wishing Star substation. Lines to terminate in a 500 kV breaker and a half configuration.  | Dominion | 6/1/2025   |
| b3718.2  | Install one 500/230 kV 1440 MVA transformer at a new substation called Mars near Dulles International Airport.   | Dominion | 6/1/2025   |
| b3718.3  | Construct a new 500 kV transmission line for ~ 3.5 miles along with substation upgrades at Wishing Star and Mars. New right-of-way will be needed and will share same structures with the line. New conductor to have a minimum summer normal rating of 4357 MVA.  | Dominion | 6/1/2025   |
| b3718.4  | Reconductor ~0.62 miles of 230 kV line #2214 (Buttermilk-Roundtable) to achieve a summer rating of 1574 MVA.   | Dominion | 6/1/2025   |
| b3718.5  | Reconductor ~1.52 miles of 230 kV line #2031 (Enterprise-Greenway-Roundtable) to achieve a summer rating of 1574 MVA.  | Dominion | 6/1/2025   |
| b3718.8  | Reconductor ~0.84 miles of 230 kV line #2223 (Lockridge-Roundtable) to achieve a summer rating of 1574 MVA.  | Dominion | 6/1/2025   |
| b3718.11 | Upgrade 4-500 kV breakers (total) to 63kA on either end of 500 kV Line #502 (Loudoun-Mosby)  | Dominion | 6/1/2025   |
| b3718.12 | Upgrade 4-500 kV breakers (total) to 63 kA on either end of 500 kV Line #584 (Loudoun-Mosby)   | Dominion | 6/1/2025   |
| b3718.13 | Cut and loop 230 kV Line #2079 (Sterling Park-Dranesville) into Davis Drive substation and install two GIS 230 kV breakers.  | Dominion | 6/1/2025   |
| b3718.14 | Construct a new 230 kV transmission line for ~3.5 miles along with substation upgrades at Wishing Star and Mars. New right-of-way will be needed and will share same structures with the 500 kV line. New conductor to have a minimum summer normal rating of 1573 MVA.  | Dominion | 6/1/2025   |
| b3720    | Rebuild the Abbe-Johnson #2 69 kV line (approx. 4.9 miles) with 556 kcmil ACSR conductor. Replace three disconnect switches (A17, D15 & D16) and line drops and revise relay settings at Abbe. Replace one disconnect switch (A159) and line drops and revise relay settings at Johnson. Replace two MOAB disconnect switches (A4 & A5), one disconnect switch (D9), and line drops at Redman. | ATSI     | 6/1/2027   |
| b3722    | Rebuild the existing Darrah-Barnett 69 kV line, approximately 2.8 miles and replace a riser at Darrah station.   | AEP      | 12/1/2027  |
| b3724    | Install 138 kV circuit switcher on the high-side of Transformer #2 at Roanoke station (previously proposed as a portion of s2469.7, posted in 2021 AEP local plan).  | AEP      | 6/1/2027   |
| b3727    | Rebuild EKPC's Fawkes-Duncannon Lane Tap 556.5 ACSR 69 kV line section (7.2 miles) using 795 ACSR.   | EKPC     | 12/1/2026  |

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| b3729    | To increase the Maximum Operating Temperature of DPL Circuit 22088 (Colara-Conowingo 230 kV), install cable shunts on each phase, on each side of four (4) dead-end structures and replace existing insulator bells.  | DPL  | 6/1/2027  |
| b3730    | Reterminate the Lackawanna T3 and T4 500/230 kV transformers on the 230 kV side to remove them from the 230 kV buses and bring them into dedicated bay positions that are not adjacent to one another.  | PPL  | 6/1/2027  |
| b3731    | Replace 40kV breaker J at McComb station with a new 3000A 40kA breaker  | AEP  | 6/1/2027  |
| b3732    | Install a 6 MVAR, 34.5kV cap bank at Morgan Run station   | AEP  | 6/1/2027  |
| b3733    | Rebuild the 1.8 mile 69kV T-line between Summerhill and Willow Grove Switch. Replace 4/0 ACSR conductor with 556 ACSR.  | AEP  | 6/1/2027  |
| b3734    | Install a 7.7 MVAR, 69kV cap bank at both Otway station and Rosemount station   | AEP  | 6/1/2027  |
| b3735    | Terminate the existing Broadford – Wolf Hills #1 138 kV line into Abingdon 138 kV Station. This line currently bypasses the existing Abingdon 138 kV Station; Install two new 138 kV circuit breakers on each new line exit towards Broadford and towards Wolf Hills #1; Install one new 138 kV circuit breaker on line exit towards South Abingdon for standard bus sectionalizing | AEP  | 6/1/2027  |
| b3736.1  | Establish 69kV bus and new 69 kV line CB at Dorton substation.  | AEP  | 12/1/2027 |
| b3736.2  | At Breaks substation, reuse 72kV breaker A as the new 69kV line breaker.  | AEP  | 12/1/2027 |
| b3736.3  | Rebuild ~16.7 mi Dorton – Breaks 46kV line to 69kV  | AEP  | 12/1/2027 |
| b3736.4  | Retire ~17.2 mi Cedar Creek – Elwood 46kV circuit.  | AEP  | 12/1/2027 |
| b3736.5  | Retire ~ 6.2 mi Henry Clay – Elwood 46kV line section.  | AEP  | 12/1/2027 |
| b3736.6  | Retire Henry Clay 46 kV substation and replace with Poor Bottom 69 kV station. Install a new 0.7 mi double circuit extension to Poor Bottom 69kV.   | AEP  | 12/1/2027 |
| b3736.7  | Retire Draffin substation and replace with a new substation. Install a new 0.25 mi double circuit extension to New Draffin substation.  | AEP  | 12/1/2027 |
| b3736.8  | Remote End work at Jenkins substation   | AEP  | 12/1/2027 |
| b3736.9  | Provide Transition fiber to Dorton, Breaks, Poor Bottom, Jenkins and New Draffin substations  | AEP  | 12/1/2027 |
| b3736.10 | Henry Clay S.S Retirement:  | AEP  | 12/1/2027 |
| b3736.11 | Cedar Creek substation work   | AEP  | 12/1/2027 |
| b3736.12 | Breaks substation retire 46kV equipment:  | AEP  | 12/1/2027 |
| b3736.13 | Retire Pike 29 SS and Rob Fork SS   | AEP  | 12/1/2027 |
| b3736.14 | Serve Pike 29 and Rob Fork customers from nearby 34kV Distribution sources.   | AEP  | 12/1/2027 |
| b3736.15 | Poor Bottom substation install  | AEP  | 12/1/2027 |
| b3736.16 | Henry Clay 46kV substation retirement   | AEP  | 12/1/2027 |
| b3736.17 | New Draffin 69kV substation install   | AEP  | 12/1/2027 |
| b3736.18 | Draffin 46kV substation retirement  | AEP  | 12/1/2027 |
| b3737.2  | Larrabee substation – 230 kV equipment for direct connection.   | JCPL | 6/1/2029  |

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| b3737.3  | Lakewood Generator substation – Update relay settings on the Larrabee 230 kV line.  | JCPL | 6/1/2029   |
| b3737.4  | B54 Larrabee-South Lockwood 34.5 kV line transfer.  | JCPL | 6/1/2029   |
| b3737.5  | Larrabee Collector station-Larrabee 230 kV new line.  | JCPL | 6/1/2029   |
| b3737.6  | Larrabee Collector station-Smithburg No. 1 500 kV line (new asset). New 500 kV line will be built double circuit to accommodate a 500 kV line and a 230 kV line.  | JCPL | 12/31/2027 |
| b3737.7  | Rebuild G1021 Atlantic-Smithburg 230 kV line between the Larrabee and Smithburg substations as a double circuit 500 kV/230 kV line.   | JCPL | 12/31/2027 |
| b3737.8  | Smithburg substation 500 kV expansion to 4-breaker ring.  | JCPL | 12/31/2027 |
| b3737.9  | Larrabee substation upgrades.   | JCPL | 6/1/2030   |
| b3737.10 | Atlantic 230 kV substation – Convert to double-breaker double-bus.  | JCPL | 6/1/2030   |
| b3737.11 | Freneau substation – Update relay settings on the Atlantic 230 kV line.   | JCPL | 6/1/2030   |
| b3737.12 | Smithburg substation – Update relay settings on the Atlantic 230 kV line.   | JCPL | 6/1/2030   |
| b3737.13 | Oceanview substation – Update relay settings on the Atlantic 230 kV lines.  | JCPL | 6/1/2030   |
| b3737.14 | Red Bank substation – Update relay settings on the Atlantic 230 kV lines.   | JCPL | 6/1/2030   |
| b3737.15 | South River substation – Update relay settings on the Atlantic 230 kV line.   | JCPL | 6/1/2030   |
| b3737.16 | Larrabee substation – Update relay settings on the Atlantic 230 kV line.  | JCPL | 6/1/2030   |
| b3737.17 | Atlantic substation – Construct a new 230 kV line terminal position to accept the generator lead line from the offshore wind Larrabee Collector station.  | JCPL | 6/1/2030   |
| b3737.18 | G1021 (Atlantic-Smithburg) 230 kV upgrade.  | JCPL | 6/1/2030   |
| b3737.19 | R1032 (Atlantic-Larrabee) 230 kV upgrade.   | JCPL | 6/1/2030   |
| b3737.20 | New Larrabee Collector station-Atlantic 230 kV line.  | JCPL | 6/1/2030   |
| b3737.21 | Larrabee-Oceanview 230 kV line upgrade.   | JCPL | 6/1/2030   |
| b3737.22 | Construct the Larrabee Collector station AC switchyard, composed of a 230 kV 3 x breaker and a half substation with a nominal current rating of 4000 A and four single phase 500/230 kV 480 MVA autotransformers to step up the voltage for connection to the Smithburg substation. Procure land adjacent to the AC switchyard, and prepare the site for construction of future AC to DC converters for future interconnection of DC circuits from offshore wind generation. Land should be suitable to accommodate installation of four individual converters to accommodate circuits with equivalent rating of 1400 MVA at 400 kV. Additional scope includes three sets of AC collector lines from the LCS to the offshore wind converter station area. | MAOD | 12/31/2027 |
| b3737.24 | Upgrade Cardiff-Lewis 138 kV by replacing 1590 kcmil strand bus inside Lewis substation.  | AEC  | 4/30/2028  |

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| b3737.25 | Upgrade Lewis No. 2-Lewis No. 1 138 kV by replacing its bus tie with 2000 A circuit breaker.  | AEC        | 4/30/2028  |
| b3737.26 | Upgrade Cardiff-New Freedom 230 kV by modifying existing relay setting to increase relay limit.   | AEC        | 6/1/2029   |
| b3737.27 | Rebuild approximately 0.8 miles of the D1018 (Clarksville-Lawrence 230 kV) line between Lawrence substation (PSEG) and structure No. 63.  | JCPL       | 6/1/2029   |
| b3737.28 | Reconductor Kilmer I-Lake Nelson I 230 kV.  | JCPL       | 6/1/2029   |
| b3737.29 | Convert the six-wired East Windsor-Smithburg E2005 230 kV line (9.0 mi.) to two circuits. One a 500 kV line and the other a 230 kV line.  | JCPL       | 12/31/2028 |
| b3737.30 | Add third Smithburg 500/230 kV transformer.   | JCPL       | 12/31/2027 |
| b3737.31 | Additional reconductoring required for Lake Nelson I-Middlesex 230 kV.  | JCPL       | 6/1/2029   |
| b3737.32 | Rebuild Larrabee-Smithburg No. 1 230 kV.  | JCPL       | 12/31/2027 |
| b3737.33 | Reconductor Red Oak A-Raritan River 230 kV.   | JCPL       | 6/1/2029   |
| b3737.34 | Reconductor Red Oak B-Raritan River 230 kV.   | JCPL       | 6/1/2029   |
| b3737.35 | Reconductor small section of Raritan River-Kilmer I 230 kV.   | JCPL       | 6/1/2029   |
| b3737.36 | Replace substation conductor at Kilmer and reconductor Raritan River-Kilmer W 230 kV.   | JCPL       | 6/1/2029   |
| b3737.37 | Add a third set of submarine cables, rerate the overhead segment, and upgrade terminal equipment to achieve a higher rating for the Silver Run-Hope Creek 230 kV line.  | LS POWER   | 6/1/2029   |
| b3737.38 | Linden subproject: Install a new 345/230 kV transformer at the Linden 345 kV Switching station, and relocate the Linden-Tosco 230 kV (B-2254) line from the Linden 230 kV to the existing 345/230 kV transformer at Linden 345 kV.                    | PSEG       | 12/31/2027 |
| b3737.39 | Bergen subproject: Upgrade the Bergen 138 kV ring bus by installing a 80 kA breaker along with the foundation, piles, and relays to the existing ring bus, install breaker isolation switches on existing foundations and modify and extend bus work. | PSEG       | 12/31/2027 |
| b3737.40 | Windsor to Clarksville subproject: Reconductor one span of the C1017 (Clarksville-Windsor) 230kV line from structure #126 to Windsor Substation with double bundled 1590 ACSR conductor, approximately (0.1) mile.                                    | JCPL       | 6/1/2029   |
| b3737.42 | Upgrade inside plant equipment at Lake Nelson I 230 kV.   | PSEG       | 6/1/2029   |
| b3737.43 | Upgrade Kilmer W-Lake Nelson W 230 kV line drop and strain bus connections at Lake Nelson 230 kV.   | PSEG       | 6/1/2029   |
| b3737.44 | Upgrade Lake Nelson-Middlesex-Greenbrook W 230 kV line drop and strain bus connections at Lake Nelson 230 kV.   | PSEG       | 6/1/2029   |
| b3737.47 | Build New North Delta 500 kV substation (four bay breaker and half configuration ) - the substation will include 12 - 500kV breakers and one 500/230 kV transformer, will allow the termination of six - 500 kV lines                                 | Transource | 6/1/2027   |
| b3737.50 | Bring the Peach Bottom-Delta York 500 '5034' kV line "in and out" of Bramah substation by partially demolishing the 5034 line to  | PECO       | 6/1/2029   |

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|          | construct a new Peach Bottom-Bramah-Delta York 500 kV line, with 0.87 miles of cut-in and cut-out lines.  |          |            |
| b3737.53 | Remove the existing E83 line 115 kV (not in-service) to accommodate the new 500 kV/230 kV lines (~ 7.7 miles).  | JCPL     | 12/31/2027 |
| b3737.54 | Remove the existing H2008 Larrabee-Smithburg No. 2 230 kV to accommodate the new 500 kV/230 kV lines.   | JCPL     | 12/31/2027 |
| b3737.55 | Middlesex substation 230 kV – Replace the 2000A circuit switcher at Middlesex switch point for the Lake Nelson I1023 230 kV exit.   | JCPL     | 6/1/2029   |
| b3737.57 | Reconductor one span of the C1017 (Clarksville-Windsor) 230kV line from structure #126 to Windsor Substation with double bundled 1590 ACSR conductor, approximately (0.1) mile.   | JCPL     |            |
| b3737.58 | Upgrade 230kV Clarksville line terminal equipment   | JCPL     |            |
| b3737.59 | Windsor to Clarksville subproject: Upgrade terminal equipment at Windsor 230 kV.  | JCPL     | 6/1/2029   |
| b3738    | Charleroi - Dry Run 138 kV Line: Replace Limiting Terminal Equipment  | APS      | 6/1/2027   |
| b3739    | Dry Run - Mitchell 138 kV Line: Replace Limiting Terminal Equipment   | APS      | 6/1/2027   |
| b3740    | Glen Falls - Bridgeport 138 kV Line: Replace Limiting Terminal Equipment  | APS      | 6/1/2027   |
| b3741    | Yukon - Charleroi No.1 138 kV Line: Replace Limiting Terminal Equipment   | APS      | 6/1/2027   |
| b3745    | Carbon Center Substation - Install Redundant Relaying   | APS      | 6/1/2027   |
| b3746    | Meadow Brook Substation - Install Redundant Relaying  | APS      | 6/1/2027   |
| b3747    | Bedington Substation - Install Redundant Relaying   | APS      | 6/1/2027   |
| b3749    | Rebuild the New Church - Piney Grove 138 kV line  | DPL      | 6/1/2027   |
| b3750    | Upgrade Seward Terminal Equipment of the Seward-Blairsville 115 kV Line to increase the line rating such that the Transmission Line conductor is the limiting component.          | PENELEC  | 6/1/2027   |
| b3751    | Rebuild 6.4 miles of the Roxbury - Shade Gap 115 kV line from Roxbury to the AE1-071 115 kV ring bus with single circuit 115 kV construction                                      | PENELEC  | 6/1/2027   |
| b3752    | Rebuild 7.2 miles of the Shade Gap - AE1-071 115 kV line section of the Roxbury - Shade Gap 115 kV line   | PENELEC  | 6/1/2027   |
| b3753    | Replace the Tyrone North 115 /46 kV transformer with a new standard 75 MVA top rated bank and upgrade the entire terminal to minimum 100 MVA capability for both SN and SE rating | PENELEC  | 6/1/2027   |
| b3754    | At Maclane tap: Construct a new three breaker ring bus to tie into the Warrior Ridge - Belleville 46 kV D line and the 1LK line   | PENELEC  | 6/1/2027   |
| b3755    | Convert Locust Street 69kV from a Straight Bus to a Ring Bus.   | PSEG     | 6/1/2027   |
| b3756    | Convert Maple Shade 69kV from a Straight Bus to a Ring Bus  | PSEG     | 6/1/2027   |
| b3757    | Convert existing Medford 69kV Straight bus to Seven breaker ring bus, , construct a new 230/69kV transformer at Cox's Corner and a new line from Cox's Corner to Medford.         | PSEG     | 6/1/2027   |
| b3758    | Construct a new 69kV line from 14th Street to Harts Lane  | PSEG     | 6/1/2027   |
| b3759    | * Wreck and rebuild approximately 10.5 miles of 115kV Line #23 segment from Oak Ridge to AC2-079 Tap to minimum emergency   | Dominion | 6/1/2027   |

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|         | ratings of 393 MVA Summer / 412 MVA Winter. Structures to be rebuilt to current 115kV standards. Transmission Estimated Cost: \$37.1M<br>* Reconductor 115kV Line #44 segment from Oak Ridge to AC2-079 Tap which also shares the same structures to minimum emergency ratings of 393 MVA Summer / 412 MVA Winter. Existing conductor is about 70 years old. Transmission Estimated Cost: \$3.9M   |         |           |
| b3761   | Install 138 kV Breaker on the Ridgway 138/46 kV #2 Transformer   | APS     | 6/1/2027  |
| b3765   | Purchase one 80 MVAR 345 kV spare reactor, to be located at the Mainesburg station.  | PENELEC | 12/1/2022 |
| b3766.1 | Hayes – New Westville 138 kV line: Build ~0.19 miles of 138 kV line to the Indiana/ Ohio State line to connect to AES’s line portion of the Hayes – New Westville 138 kV line with the conductor size 795 ACSR26/7 Drake. The following cost includes the line construction and ROW.   | AEP     | 6/1/2027  |
| b3766.2 | Hayes – Hodgkin 138 kV line: Build ~0.05 miles of 138 kV line with the conductor size 795 ACSR26/7 Drake. The following cost includes the line construction, ROW, and fiber.   | AEP     | 6/1/2027  |
| b3766.3 | Hayes 138 kV: Build a new 4-138 kV circuit breaker ring bus. The following cost includes the new station construction, property purchase, metering, station fiber and the College Corner –Randolph 138 kV line connection.   | AEP     | 6/1/2027  |
| b3766.4 | New Westville – AEP Hodgkin 138kV Line: Construct a 138kV 1.86-mile single circuit transmission line. This transmission line will help loop the radial load served at New Westville as part of the overall effort to improve reliability in this area. Also, it provides a source to feed New Westville load while the 138kV tie built back into the AES Ohio system   | Dayton  | 6/1/2027  |
| b3766.5 | New Westville – West Manchester 138kV Line: Construct a new approximate 11-mile single circuit 138kV line from New Westville to the Lewisburg tap off 6656. Convert a portion of 6656 West Manchester – Garage Rd 69kV line between West Manchester - Lewisburg to 138kV operation (circuit is built to 138kV). This will utilize part of the line already built to 138kV and will take place of the 3302 that currently feeds New Westville. The 3302 line will be retired as part of this project. | Dayton  | 6/1/2027  |
| b3766.6 | West Manchester Substation: The West Manchester Substation will be expanded to a double bus double breaker design where AES Ohio will install one 138kV circuit breaker, a 138/69kV transformer, and eight new 69kV circuit breakers. These improvements will improve help improve a non-standard bus arrangement where there is only one bus tie today and will improve the switching arrangement for the West Sonora Delivery Point.   | Dayton  | 6/1/2027  |
| b3767   | McConnellsburg 138 kV Susbtation: Install 33 MVAR switched capacitor, 138 kV Breaker, and associated relaying.   | APS     | 6/1/2027  |
| b3769   | Install second TMI 500/230kV Transformer with additional 500 and 230 bus expansions  | ME      | 6/1/2027  |
| b3770   | Rebuild 1.4 miles of existing single circuit 230 kV tower line between BGE's Graceton substation to the Brunner Island PPL tie-line at the   | BGE     | 6/1/2027  |

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|          | MD/PA state line to double circuit steel pole line with one (1) circuit installed to uprate 2303 circuit  |          |           |
| b3771    | Reconductor two (2) 230 kV circuits from Conastone to Northwest #2  | BGE      | 6/1/2027  |
| b3772    | Reconductor 27.3 miles of the Messick Road - Morgan 138 kV Line from 556 ACSR to 954 ACSR. At Messick Road Substation: Replace 138 kV wave trap, circuit breaker, CT's, disconnect switch, and substation conductor and upgrade relaying. At Morgan Substation: Upgrade Relaying  | APS      | 6/1/2027  |
| b3773    | Install (1) 31.7 MVAR switched capacitor, 138 kV breaker, and associated relaying at Warfordsburg Substation  | APS      | 6/1/2027  |
| b3774    | Upgrade terminal equipment at Brunner Island (on the Brunner Island - Yorkana 230 kV circuit)   | PPL      | 6/1/2027  |
| b3775.1  | Outside of the Green Acres substation, swap the NIPSCO Green Acre Tap towers from the St. John-Green Acres-Olive 345 kV line to the University Park N-Olive 345 kV line to create a University Park N-Green Acres-Olive and St. John-Olive 345 kV lines.  | NEET     | 12/1/2026 |
| b3775.3  | Rebuild ComEd's section of 345 kV double circuit in IL from St. John to Crete (5 miles) with twin bundled 1277 ACAR conductor.  | ComEd    | 12/1/2026 |
| b3775.4  | Rebuild 12.7 miles of 345 kV double circuit extending from Crete to E. Frankfort with twin bundled 1277 ACAR conductor.   | ComEd    | 12/1/2026 |
| b3775.6  | Perform sag study mitigation work on the Dumont-Stillwell 345 kV line (remove a center-pivot irrigation system from under the line, allowing for the normal and emergency ratings of the line to increase, replace two structures and modify a third structure).  | AEP      | 12/1/2026 |
| b3775.7  | Upgrade the limiting element at Dumont substation to increase the rating of the Stillwell-Dumont 345 kV line to match conductor rating.   | AEP      | 12/1/2026 |
| b3775.8  | Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing   | NEET     | 12/1/2026 |
| b3775.9  | Upgrade the existing terminal equipment (substation conductor) at Green Acres on the existing St. John to Green Acres 345 kV line with bundled 2x1590 ACSR Lapwing  | NEET     | 12/1/2026 |
| b3775.10 | Perform a sag study on the Olive – University Park 345kV line to increase the operating temperature to 225 F. Remediation work includes two tower replacements on the line.   | AEP      | 12/1/2026 |
| b3775.11 | Upgrade the limiting element at Stillwell substation to increase the rating of the Stillwell-Dumont 345 kV line to match conductor rating.  | AEP      | 12/1/2026 |
| b3779    | Cut existing 230 kV line #2183 and extend from Poland Road substation to Evergreen Mills substation. Approximately 0.59 miles of new line will be built from the cut-in to the Evergreen Mills substation. Cut and extend the existing 230 kV line #2183 creating a new line #2210 from Brambleton substation to be terminated at Evergreen Mills substation. Approximately 0.59 miles of new line will be built from the cut-in to the Evergreen Mills substation. | Dominion | 6/1/2027  |
| b3780.1  | Peach Bottom North upgrades – substation work<br>Add 3x 500 kV breakers to form a breaker-and-a-half bay.   | PECO     | 6/1/2025  |
| b3780.2  | Peach Bottom to Graceton (PECO) – New 500 kV transmission line<br>New rating: 4503 MVA SN/ 5022 MVA SE  | PECO     | 6/1/2025  |

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| b3780.4  | Peach Bottom to Graceton (BGE) – transmission work<br>New rating: 4503 MVA SN/ 5022 MVA SE  | BGE        | 6/1/2025   |
| b3780.5  | Build Solley Road substation + Statcom.<br>New STATCOM rating: 350 MVAR<br>Add 4x 230 kV breakers bays.   | BGE        | 6/1/2025   |
| b3780.6  | Build Granite substation + Statcom.<br>New STATCOM rating: 350 MVAR<br>Add 4x 230 kV breaker bays.  | BGE        | 6/1/2025   |
| b3780.7  | Build Batavia Road substation.<br>Add 4x 230 kV breaker bays.   | BGE        | 6/1/2025   |
| b3780.8  | Graceton 500 kV expansion<br>Add 3x 500 kV breaker bays, 2x 500/230 kV auto transformer, 1x 500 kV caps.<br>New transformer rating: 1559 MVA SN / 1940 MVA SE<br>New capacitor rating: 250 MVAR   | BGE        | 6/1/2025   |
| b3780.9  | Graceton to Batavia Road 230 kV double circuit pole line<br>New rating: 1331 MVA SN/ 1594 MVA SE  | BGE        | 6/1/2025   |
| b3780.10 | Install new Conastone capacitor.<br>New capacitor rating: 350 MVAR  | BGE        | 6/1/2025   |
| b3780.11 | Brighton Statcom and capacitor<br>New STATCOM rating: 350 MVAR<br>New capacitor rating: 350 MVAR  | PEPCO      | 6/1/2025   |
| b3780.12 | Burchess Hill Cap<br>New capacitor rating: 250 MVAR   | PEPCO      | 6/1/2025   |
| b3780.13 | Batavia Road to Riverside 230 kV reconductor<br>New rating: 1941 MVA SN / 2181 MVA SE   | BGE        | 6/1/2025   |
| b3780.14 | Reconfigure Cooper transmission feeds by establishing new Cooper-North Delta 230 kV line and rerouting existing transmissions lines by Cooper.  | PECO       | 6/1/2025   |
| b3780.15 | Cut in 5012 Peach Bottom-Conastone 500 kV line into North Delta 500/230 kV substation by rebuilding 5012 between new terminal at Peach Bottom South and North Delta on single circuit structures and terminating at North Delta.                    | PECO       | 6/1/2025   |
| b3780.16 | Terminate new Cooper-North Delta 230 kV line (Transource Scope) at North Delta 230 kV.  | Transource | 6/1/2025   |
| b3780.17 | Cut in 5012 Peach Bottom-Conastone 500 kV line into North Delta 500/230 kV substation by rebuilding 5012 between new terminal at Peach Bottom South and North Delta on single circuit structures and terminating at North Delta (Transource Scope). | Transource | 6/1/2025   |
| b3781    | Replace line drops to Doubs transformer 3.<br>New transformer rating: 721MVA SN /862 MVA SE   | APS        | 12/31/2025 |
| b3783    | Cut and remove the 345 kV and 230 kV generator lead lines at Homer City. Install new station service supply, separate AC station service, separate protection and controls schemes, and review and adjust relay protection settings                 | PENELEC    | 6/1/2025   |
| b3784.1  | Replace 138kV breaker 5 at Canal St station with a new 3000A 63kA breaker   | AEP        | 6/1/2028   |
| b3785.1  | Replace existing 3000A wave trap at Mountaineer 765 kV, on the Belmont-Mountaineer 765 kV line, with a new 5000 A wave trap.  | AEP        | 6/1/2028   |

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| b3786.1 | Rebuild ~4.5 miles of 69 kV line between Abert and Reusens substations. Update line settings at Reusens and Skimmer.  | AEP      | 6/1/2028  |
| b3787.1 | Install a CCVT on three-phase stand and remove the single phase existing CCVT on the 69 kV Coalton to Bellefonte line exit. The existing CCVT is mounted to lattice on a single-phase CCVT stand, which will be replaced with the three-phase CCVT stand. The line riser between line disconnect and line takeoff is being replaced. This remote end work changes the MLSE of the line section between Coalton-Princess 69 kV line section. | AEP      | 12/1/2028 |
| b3788.1 | Replace AEP-owned station takeoff riser and breaker BB risers at OVEC-owned Kyger Creek station.  | AEP      | 6/1/2028  |
| b3788.2 | Replace OVEC-owned breaker AA risers, bus work, and breaker AA disconnect switches at OVEC-owned Kyger Creek station.   | OVEC     | 6/1/2028  |
| b3789.0 | A 69 kV, 60 MVAR shunt reactor will be installed at the Salt Springs substation. The reactor terminal will be connected to the existing 69 kV bus, and an independent-pole operation, 1200A circuit breaker will be installed for reactor switching.  | ATSI     | 6/1/2028  |
| b3790.0 | Replace the overdutied Olive 345 kV circuit breaker "D" with a 5000A 63 kA circuit breaker. Reuse existing cables and a splice box to support the circuit breaker install.  | AEP      | 6/1/2028  |
| b3791.0 | Rebuild the North Meshoppen-Mehoopany No. 1 115 kV line with 795 ACSR 26/7 STR conductor. Upgrade terminal equipment to exceed transmission line ratings.   | PENELEC  | 6/1/2028  |
| b3792.0 | Rebuild the North Meshoppen-Mehoopany No. 2 115 kV line using 795 ACSR 26/7 STR conductor, and upgrade terminal equipment to exceed the transmission line rating.   | PENELEC  | 6/1/2028  |
| b3793.1 | Reconductor Silver Run-Cedar Creek 230 kV line. Reconductor 8.8 miles of 230 kV circuit with 1594-T11/ACCR "Lapwing" conductor and replace all insulators with high-temp. hardware.   | DPL      | 6/1/2028  |
| b3793.2 | Replace three (3) standalone CTs, disconnect switch, stranded bus and rigid bus to achieve higher rating at Cedar Creek.  | DPL      | 6/1/2028  |
| b3793.4 | Replace three (3) 1-1590 ACSR jumpers and one (1) air disconnect switch at Silver Run 230 kV substation.  | DPL      | 6/1/2028  |
| b3794.1 | Replace existing Waldwick 230 kV 50 MVAR fixed shunt reactor with a 230 kV 150 MVAR variable shunt reactor.   | PSEG     | 6/1/2028  |
| b3794.2 | Replace existing Waldwick 345 kV 100 MVAR fixed shunt reactor with a 345 kV 150 MVAR variable shunt reactor.  | PSEG     | 6/1/2028  |
| b3796.0 | Replace the Belmont 765/500 kV transformer No. 5 with a new transformer bank consisting of three single-phase transformers and an additional single phase spare transformer. The project will also replace 500 kV disconnect switches at the Belmont substation.  | APS      | 6/1/2028  |
| b3797   | Replace Beaumeade 230kV breaker 227T2152 with a breaker rated 80kA  | Dominion |           |
| b3798   | Replace BECO 230kV breakers 215012 and H12T2150 with breakers rated 63kA  | Dominion |           |
| b3799   | Replace Belmont 230kV breaker 227T2180 with a breaker rated 80kA  | Dominion |           |
| b3800.1 | Build New Otter Creek 500 kV (Collinsville) - (switching station -Two bay three breaker configuration).   | PPL      | 6/1/2027  |

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| b3800.2  | Break the existing TMI-Peach Bottom line within the existing right-of-way and install new structures rerouting the line toward Chanceford switchyard taps being constructed by PPL.  | ME   | 6/1/2027 |
| b3800.3  | Build New 500kV AC line from the new Otter Creek (Chanceford) 500 kV switchyard – towards PA/MD border ~12.5 miles<br>Ø Rebuild the existing Otter Creek - Conastone 230 kV line to become a double-circuit 500 kV line, operate Conastone circuit at 230 kV initially | PPL  | 6/1/2027 |
| b3800.4  | New Otter Creek to Doubs 500 kV line (MD Border-PSEG Demarcation Point). Rebuild and expand existing ~1.6 miles of Otter Creek-Conastone 230 kV line to become a double-circuit 500 and 230 kV lines.  | BGE  | 6/1/2027 |
| b3800.5  | Peach Bottom-TMI 500 kV – Replace terminal equipment at Peach Bottom (install new line terminal relays and communication infrastructure within Peach Bottom and along the 5007)  | PECO | 6/1/2027 |
| b3800.7  | Construct 35.8 miles of 500 kV overhead AC line between the Conastone vicinity and the Doubs substations (BGE zone portion).   | PSEG | 6/1/2027 |
| b3800.8  | Reconfigure Doubs 500 kV station and upgrade terminal equipment to terminate new line.   | APS  | 6/1/2027 |
| b3800.10 | Rebuild the Germantown-Lincoln 115 kV line for 230 kV double circuit construction.   | ME   | 6/1/2027 |
| b3800.11 | Rebuild the Hunterstown-Lincoln 115 kV line for 230 kV double circuit construction.  | ME   | 6/1/2027 |
| b3800.12 | Rebuild the Germantown-Carroll 138 kV line for 230 kV double circuit construction (MAIT).  | ME   | 6/1/2027 |
| b3800.13 | Rebuild the Germantown-Carroll 138 kV line to 230 kV double circuit construction (APS-PE Section).   | APS  | 6/1/2027 |
| b3800.14 | Construct New 230 kV Hunterstown-Carroll line (MAIT section).  | ME   | 6/1/2027 |
| b3800.15 | Construct New 230 kV Hunterstown-Carroll line (APS-PE Section).  | APS  | 6/1/2027 |
| b3800.16 | Expand Carroll 230 kV substation to ring bus.  | APS  | 6/1/2027 |
| b3800.17 | Network upgrade at Carroll substation.   | APS  | 6/1/2027 |
| b3800.18 | Add a new 230 kV Breaker at the Hunterstown 230 kV substation for the new Hunterstown-Carroll 230 kV termination.  | ME   | 6/1/2027 |
| b3800.19 | Reconductor Lincoln-Orrtanna 115 kV line.  | ME   | 6/1/2027 |
| b3800.20 | Fayetteville-Grand Point 138 kV – Replace line trap at Grand Point 138 kV.   | APS  | 6/1/2027 |
| b3800.21 | Reid-Ringgold 138 kV – Replace line trap, substation conductor, breaker, relaying and CTs at Ringgold.   | APS  | 6/1/2027 |
| b3800.22 | Install DTT relaying at Straban substation.  | ME   | 6/1/2027 |
| b3800.23 | Revise Relay Settings at Lincoln substation.   | ME   | 6/1/2027 |
| b3800.24 | Revise Relay Settings at Germantown substation.  | ME   | 6/1/2027 |
| b3800.25 | Taneytown substation terminal upgrade.   | APS  | 6/1/2027 |
| b3800.26 | Build High Ridge 500 kV substation - Three bay breaker and half configuration.   | BGE  | 6/1/2027 |

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| b3800.27 | High Ridge 500 kV substation (cut into Brighton-Waugh Chapel 500 kV line) - Waugh Chapel side.   | BGE   | 6/1/2027 |
| b3800.28 | High Ridge 500 kV substation (cut into Brighton-Waugh Chapel 500 kV line) -Brighton side.  | BGE   | 6/1/2027 |
| b3800.29 | High Ridge termination for the North Delta-High Ridge 500 kV line.   | BGE   | 6/1/2027 |
| b3800.30 | High Ridge - Install two 500/230 kV transformers.  | BGE   | 6/1/2027 |
| b3800.31 | Build new North Delta-High Ridge 500 kV line.  | PECO  | 6/1/2027 |
| b3800.32 | Build new North Delta-High Ridge 500 kV line. (~59 miles).   | BGE   | 6/1/2027 |
| b3800.33 | Replace/upgrade terminal limitations and related equipment for Brighton 500 kV - on the existing Brighton-Waugh Chapel 500 kV (5053) or new Brighton-High Ridge 500 kV.  | PEPCO | 6/1/2027 |
| b3800.34 | Rebuild 5012 (existing Peach Bottom-Conastone) (new Gracetone-Conastone) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.                         | BGE   | 6/1/2027 |
| b3800.35 | Rebuild 5012 (existing Peach Bottom-Conastone) (new North Delta-Gracetone PECO) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.                  | PECO  | 6/1/2027 |
| b3800.36 | Rebuild 5012 (existing Peach Bottom-Conastone) (new North Delta-Gracetone BGE) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.                   | BGE   | 6/1/2027 |
| b3800.37 | Replace terminal equipment limitations at Conastone 500 kV - on the (existing Peach Bottom-Conastone) or (new Gracetone-Conastone) 500 kV line.  | BGE   | 6/1/2027 |
| b3800.38 | Chalk Point-Cheltenham 500 kV (5073) - Replace relay at Chalk Point 500 kV.  | PEPCO | 6/1/2027 |
| b3800.39 | Red Lion - Hope Creek 500 kV - Replace four 500kV breakers and the stranded bus at Red Lion 500 kV substation  | DPL   | 6/1/2027 |
| b3800.40 | Conastone-Brighton 500 kV (5011 circuit) - Replace terminal equipment limitations at Brighton 500 kV.  | PEPCO | 6/1/2027 |
| b3800.41 | Conastone-Brighton 500 kV (5011 circuit) - Replace terminal equipment limitations at Conastone 500 kV.   | BGE   | 6/1/2027 |
| b3800.42 | Peach Bottom North bus upgrade - Replace 11 – Instances of strain bus conductor used for breaker drops or CT drops, 7 – 500 kV disconnect switches, 7 – Free Standing CTs, 1 – 500 kV breaker, 2 – Breaker relays or meters. | PECO  | 6/1/2027 |
| b3800.43 | Construct 31.6 miles of 500 kV overhead AC line between the Conastone vicinity and the Doubs substations (APS zone portion).   | PSEG  | 6/1/2027 |
| b3800.44 | North Delta termination for the North Delta-High Ridge 500 line (PECO work).   | PECO  | 6/1/2027 |
| b3800.45 | North Delta 500 kV termination for the Rock Springs 500 kV line (5034/5014 line) (PECO work).  | PECO  | 6/1/2027 |
| b3800.46 | North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line (PECO work).   | PECO  | 6/1/2027 |

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| b3800.47  | Build new Peach Bottom South-North Delta 500 kV line – cut in to Peach Bottom tie No. 1 and extending line to North Delta (~1.25 miles new ROW).   | PECO       | 6/1/2027 |
| b3800.48  | North Delta termination for the North Delta-High Ridge 500 line (Transource work).   | Transource | 6/1/2027 |
| b3800.49  | North Delta 500 kV termination for the Calpine generator (Calpine/Transource work).  | Transource | 6/1/2027 |
| b3800.50  | North Delta 500 kV termination for the Rock Springs 500 kV line (5034/5014 line) (Transource work).  | Transource | 6/1/2027 |
| b3800.51  | North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line (Transource work).   | Transource | 6/1/2027 |
| b3800.52  | Reconfigure Peach Bottom North and South yards to allow for termination of 500 kV lines from Peach Bottom to North Delta. North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line.   | PECO       | 6/1/2027 |
| b3800.53  | Construct a double circuit 500 kV line from the existing TMI-Peach Bottom 500 kV right-of-way to the proposed Chanceford switchyard ~1.0 miles in length.  | PPL        | 6/1/2027 |
| b3800.54  | Perform final tie-ins and commissioning for Chanceford-Doubs 500kV line energization, upon completion of all transmission owner segments within PA & MD  | PPL        | 6/1/2027 |
| b3800.100 | Establish a new 500 kV breaker position for the low-side of the existing 765/500 kV transformer at Cloverdale Station. The new position will be between two new 500 kV circuit breakers located in a new breaker string, electrically converting the 500 kV yard to "double-bus double-breaker" configuration. | AEP        | 6/1/2027 |
| b3800.101 | 502 Junction substation two 500 kV circuit breaker expansion.  | APS        | 6/1/2027 |
| b3800.102 | New 500 kV line from existing 502 Junction substation to the demarcation point between FE/NEET around Gore substation (bypass Black Oak) (NEET Portion).   | NEET       | 6/1/2027 |
| b3800.103 | Rebuild ~16 miles of the Gore-Stonewall 138 kV line with 500 kV overbuild (502 Jct to Woodside 500 kV line section).   | APS        | 6/1/2027 |
| b3800.104 | Rebuild ~15 miles of the Stonewall-Millville 138 kV line with 500 kV overbuild (502 Jct to Woodside 500 kV line section).  | APS        | 6/1/2027 |
| b3800.105 | Rebuild Millville-Doubs 138 kV for ~16 miles from structure MVF1-39 to structure MVF1-101(outside of Doubs Substation) with 500 kV overbuild   | APS        | 6/1/2027 |
| b3800.106 | Woodside 500 kV substation (Except terminations, Transformer, Cap Banks and Statcom).  | NEET       | 6/1/2027 |
| b3800.107 | Line Termination cost at Woodside 500 kV for 502 Jct to Woodside 500 kV line.  | NEET       | 6/1/2027 |
| b3800.108 | Line Termination cost at Woodside 500 kV for Woodside to Aspen 500 kV line.  | NEET       | 6/1/2027 |
| b3800.109 | Termination work for two 500/138 kV transformer at Woodside 500 kV substation  | NEET       | 6/1/2027 |
| b3800.110 | Two 500/138 kV transformers at Woodside 500 kV substation.   | NEET       | 6/1/2027 |

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| b3800.11<br>1 | Construct the Woodside-Stonewall 138 kV No. 1 line.  | APS      | 6/1/2027 |
| b3800.11<br>2 | Construct the Woodside-Stonewall 138 kV No. 2 line.  | APS      | 6/1/2027 |
| b3800.11<br>3 | Two 150 MVAR Cap banks and one +500/-500 MVAR STATCOM at Woodside 500 kV substation.   | NEET     | 6/1/2027 |
| b3800.11<br>4 | Stonewall 138 kV substation two 138kV breaker expansion.   | APS      | 6/1/2027 |
| b3800.11<br>5 | Line work for terminating Doubs to Bismark line for Doubs side for Woodside 500 kV substation. (NEET Portion)  | NEET     | 6/1/2027 |
| b3800.11<br>6 | Line work for terminating Doubs to Bismark line for Doubs side for Woodside 500 kV substation. (FE Portion)  | APS      | 6/1/2027 |
| b3800.11<br>7 | Line work for terminating Doubs to Bismark line for Bismark side for Woodside 500 kV substation. (NEET Portion)  | NEET     | 6/1/2027 |
| b3800.11<br>8 | Line work for terminating Doubs to Bismark line into Woodside 500 kV substation. (DOM Portion)   | Dominion | 6/1/2027 |
| b3800.12<br>0 | Terminate new NextEra 500 kV line from Woodside into Goose Creek substation (instead of termination at the new Aspen substation). The Goose Creek 500 kV cap bank will be moved to Aspen substation  | Dominion | 6/1/2027 |
| b3800.12<br>1 | Kammer to 502 Junction 500 kV line: Conduct LIDAR Sag Study to assess SE rating and needed upgrades.   | AEP      | 6/1/2027 |
| b3800.12<br>2 | Rebuild 500 kV line No. 514 from Doubs-Goose Creek 500 kV line. The Doubs-Goose Creek 500 kV line will be rebuilt (APS Portion)  | APS      | 6/1/2027 |
| b3800.12<br>3 | Doubs substation work - Re-terminate the rebuilt Doubs-Goose Creek 500 kV line in its existing bay, Terminate the new Doubs-Aspen 500 kV line in the open bay at Doubs, Replace three 500 kV breakers, Replace 500 kV terminal equipment including disconnect switches, CTs and substation conductor & Replace relaying. (APS Portion) | APS      | 6/1/2027 |
| b3800.12<br>4 | New Doubs to Aspen 500 kV line - Aspen substation is not yet constructed but is a component in Dominion's proposal 2022-W3-692. (APS Portion)  | APS      | 6/1/2027 |
| b3800.12<br>5 | Rebuild the Doubs-Dickerson 230 kV line. This will be underbuilt on the new Doubs-Goose Creek 500 kV line. (APS Portion)   | APS      | 6/1/2027 |
| b3800.12<br>6 | Rebuild the Doubs-Aqueduct 230 kV line. This will be underbuilt on the new Doubs-Aspen 500 kV line. (APS Portion)  | APS      | 6/1/2027 |
| b3800.12<br>7 | Rebuild the Dickerson-Aqueduct 230 kV line. This will be underbuilt on the new Doubs-Aspen 500 kV line. (APS Portion)  | APS      | 6/1/2027 |
| b3800.12<br>8 | Construct new Woodside-Goose Creek 500 kV line for ~15 miles on single circuit monopole structures within the Doubs-Goose Creek Corridor. (FE Portion)   | APS      | 6/1/2027 |
| b3800.12<br>9 | Construct 500 kV line from existing structure MVF1-101 on the Doubs-Millville 138 kV line around Doubs substation and into the entrance of the Doubs-Goose Creek corridor. (~2 miles)  | APS      | 6/1/2027 |
| b3800.20<br>0 | Build a new 500kV line from Aspen - Golden on 500/230kV double circuit structures with substation upgrades at Aspen and Golden.  | Dominion | 6/1/2027 |

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|               | New conductor to have a minimum summer normal rating of 4357MVA.  |          |          |
| b3800.20<br>1 | Install (2) 500-230kV transformer banks at Golden substation  | Dominion | 6/1/2027 |
| b3800.20<br>2 | Install (1) 500-230kV transformer bank at Aspen substation  | Dominion | 6/1/2027 |
| b3800.20<br>3 | Install a 2nd 500-230 kV 1440MVA transformer at Mars substation   | Dominion | 6/1/2027 |
| b3800.20<br>4 | Reconductor 0.5 mile section of 230kV Line #2150 Golden - Paragon Park Circuit 1 to achieve a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.20<br>5 | Reconductor 0.5 mile section of 230kV Line #2081 Golden - Paragon Park Circuit 2 to achieve a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.20<br>6 | Upgrade Paragon Park substation line conductors to 4000A continuous current rating for 230kV Lines #2081 & Line #2150.  | Dominion | 6/1/2027 |
| b3800.20<br>7 | Reconductor 230kV Line #2207 Paragon Park - Beco to achieve a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.20<br>8 | Upgrade Paragon Park substation conductor and line leads to 4000A continuous current rating for 230kV Line #2207.   | Dominion | 6/1/2027 |
| b3800.20<br>9 | Upgrade BECO substation equipment to 4000A continuous current rating for 230kV Line #2207.  | Dominion | 6/1/2027 |
| b3800.21<br>0 | Build a new 230kV line from Mars - Prentice Drive on 500/230kV double circuit structures to achieve a summer rating of 1573 MVA. Install 230kV equipment at Mars and Prentice Drive. Remove 230 kV line No. 2095 Mars-Shellhorn and 230 kV line No. 2292 Mars-Sojourner in the existing transmission corridor between Sojourner and Mars substations so that they can be rerouted to the south side of Mars substation, adding approximately 2 miles of new conductor. This is to allow for termination of the line No.2413 and 5003 Golden-Mars 230 and 500 kV circuits into Mars substation. Cut 230 kV line No. 2095 Mars-Shellhorn into Sojourner substation, creating 230 kV line No. 2427 (Mars-Sojourner) and 230 kV line No. 2095 (Sojourner-Shellhorn). Upgrade 4 230 kV breakers at Sojourner substation from 63 kA to 80 kA. | Dominion | 6/1/2027 |
| b3800.21<br>1 | Build a new 230kV line from Prentice Drive - Golden on 500/230kV double circuit structures to achieve a summer rating of 1573 MVA. Install 230kV equipment at Golden and Prentice.  | Dominion | 6/1/2027 |
| b3800.21<br>2 | Build a new 500kV Line from Mars-Golden on 500/230kV double circuit structures with substation upgrades at Golden and Mars. New conductor to have a minimum summer normal rating of 4357 MVA.   | Dominion | 6/1/2027 |
| b3800.21<br>3 | Cut 500kV Line # 558 Brambleton - Goose Creek into Aspen substation. Upgrade 500kV terminal equipment at Aspen and Goose Creek to 5000A continuous rating current. At Goose Creek, replace circuit breakers 59582 and 55882, and associated disconnect switches, breaker leads, bus, and line risers to accommodate 5000A rating.   | Dominion | 6/1/2027 |
| b3800.21<br>4 | Build a new 500kV Line from Aspen - Goose Creek to achieve a summer rating of 4357 MVA. Install new 500kV terminal equipment at Aspen.  | Dominion | 6/1/2027 |
| b3800.21<br>5 | Cut 230kV Line #2150 Sterling Park - Paragon Park Circuit 1 into Golden substation and install 230kV equipment at Golden. Upgrade   | Dominion | 6/1/2027 |

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|           | relay settings at Golden substation for upgrading 230kV Line #2150 to 4000A continuous current rating.   |          |          |
| b3800.216 | Cut 230kV Line #2081 Sterling Park - Paragon Park Circuit 2 into Golden substation and install 230kV equipment at Golden. Upgrade relay settings at Golden substation for upgrading 230kV Line #2081 to 4000A continuous current rating.   | Dominion | 6/1/2027 |
| b3800.217 | Build a new 230kV line from Aspen - Sycolin Creek on 500/230kV double circuit structures to achieve a summer rating of 1573 MVA. Install 230kV equipment at Golden and Sycolin Creek.  | Dominion | 6/1/2027 |
| b3800.218 | Build a new 230kV line from Sycolin Creek - Golden on 500/230kV double circuit structures to achieve a summer rating of 1573 MVA. Install 230kV equipment at Golden and Sycolin Creek.   | Dominion | 6/1/2027 |
| b3800.219 | Replace 7 overdutied 230kV breakers at Beaumeade substation with 80kA breakers   | Dominion | 6/1/2027 |
| b3800.220 | Replace 4 overdutied 230kV breakers at BECO substation with 80kA breakers  | Dominion | 6/1/2027 |
| b3800.221 | Replace 4 overdutied 230kV breakers at Belmont substation with 80kA breakers   | Dominion | 6/1/2027 |
| b3800.222 | Replace 1 overdutied 230kV breaker at Discovery substation with 80kA breaker   | Dominion | 6/1/2027 |
| b3800.223 | Replace 1 overdutied 230kV breaker at Pleasant View substation with 80kA breaker   | Dominion | 6/1/2027 |
| b3800.224 | Replace 2 overdutied 230kV breakers at Shellhorn substation with 80kA breakers   | Dominion | 6/1/2027 |
| b3800.225 | Change 500kV Line #558 destination at Brambleton to Aspen Substation and upgrade line protection relays  | Dominion | 6/1/2027 |
| b3800.226 | Change 230kV Lines # 2081 and 2150 at Paragon Park substation destination to Golden Substation and upgrade line protection relays  | Dominion | 6/1/2027 |
| b3800.227 | Change 230kV Lines # 2081 and 2150 at Sterling Park substation destination to Golden Substation and upgrade line protection relays   | Dominion | 6/1/2027 |
| b3800.228 | Reconductor 1.47 miles of 230kV circuits 2081 and 2150 from Sterling Park to Golden substation. Upgrade terminal equipment at Sterling Park to 4000A continuous current  | Dominion | 6/1/2027 |
| b3800.229 | Reconductor 0.67 miles of 230kV circuits 2194 and 9231 from Davis Drive to Sterling Park substation. Terminal equipment at remote end substations will be installed or upgraded to 4000A continuous current rating to support new conductor ratings                                  | Dominion | 6/1/2027 |
| b3800.230 | Reset relays at Breezy Knoll for the revised current rating of 230kV Line #2098 Pleasant View - Hamilton   | Dominion | 6/1/2027 |
| b3800.231 | Reset relays at Dry Mill for the revised current rating of 230kV Line #2098 Pleasant View - Hamilton   | Dominion | 6/1/2027 |
| b3800.232 | Reset relays at Hamilton for the revised current rating of 230kV Line #2098 Pleasant View - Hamilton   | Dominion | 6/1/2027 |
| b3800.233 | Upgrade equipment to 4000A continuous current rating at Pleasant View substation in support of 230kV Line #2098 wreck and rebuild. Replace circuit breakers 274T2098 & 2098T2180 and associated disconnect switches, breaker leads, bus, and line risers to accommodate 4000A rating | Dominion | 6/1/2027 |

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| b3800.234 | Wreck and rebuild approximately one (1) mile of 230kV Line #2098 between Pleasant View and structure 2098/9, where Line #2098 turn towards Hamilton substation   | Dominion | 6/1/2027 |
| b3800.235 | Replace 5 overdutied 230kV breakers at Loudoun substation with 80kA breakers   | Dominion | 6/1/2027 |
| b3800.236 | Replace 2 overdutied 500kV breakers at Ox substation with 63kA breakers  | Dominion | 6/1/2027 |
| b3800.237 | Replace 1 overdutied 500kV breaker at Pleasant View substation with a 63kA breaker   | Dominion | 6/1/2027 |
| b3800.238 | Upgrade equipment to 4000A continuous current rating at Pleasant View substation in support of 230kV Line #203 rebuild. Replace circuit breakers 203T274 & L3T203 and associated disconnect switches, breaker leads, bus, and line risers to accommodate 4000A rating  | Dominion | 6/1/2027 |
| b3800.239 | Wreck and rebuild 230kV Line #203 between Pleasant View and structure 203/15 using double circuit 500/230kV structures. The 500kV line is from Aspen - Doubs.  | Dominion | 6/1/2027 |
| b3800.240 | Build a new 500kV line from Aspen - Doubs using double circuit 500/230kV structures. The 230kV line is from Pleasant View - structure 203/15.<br>Install terminal equipment at Aspen for a 5000A line to Doubs (First Energy). This includes GIS breakers, GIS-to-AIS transition equipment, and metering CCVTs and CTs for the tie line.   | Dominion | 6/1/2027 |
| b3800.241 | Rebuild 500kV Line #514 from Goose Creek - Doubs using 500/230kV double circuit structures. The new double circuit towers will accommodate 230kV Line #2098 between Pleasant View substation and structure 2098/9.<br>Upgrade equipment at Goose Creek to 5000A continuous current rating in support of Line #514 wreck and rebuild. Replace circuit breakers 514T595 & 51482 and associated disconnect switches, breaker leads, bus, and line risers to accommodate 5000A rating. | Dominion | 6/1/2027 |
| b3800.242 | Upgrading switches 20366M and 20369M and line leads to 4000A continuous current rating of 230kV Line #203 at Edwards Ferry substation  | Dominion | 6/1/2027 |
| b3800.243 | Rebuild 7.26 miles of existing 500 kV circuit from Dickerson Station H to Ed's Ferry area to accommodate the new 500 kV circuit between Doubs and Aspen. (The 500 kV portion of the work)  | PEPCO    | 6/1/2027 |
| b3800.244 | Rebuild 7.26 miles of existing 230 kV circuit from Dickerson Station H to Ed's Ferry area to accommodate the new 500 kV circuit between Doubs and Aspen. (The 230kV portion of the project)  | PEPCO    | 6/1/2027 |
| b3800.245 | Reconfigure Dickerson H 230 kV Substation and upgrade terminal equipment.  | PEPCO    | 6/1/2027 |
| b3800.300 | Wreck/Rebuild 230kV Line #2135 segment Hollymeade Junction – Cash's Corner using double-circuit capable 230 kV poles. (The second 230kV circuit will be wired but not have terminal ends.)   | Dominion | 6/1/2027 |
| b3800.301 | Wreck/Rebuild 230kV Line #2135 Cash's Corner – Gordonsville using double-circuit capable 230 kV poles. (The second 230kV circuit will be wired but not have terminal ends.)  | Dominion | 6/1/2027 |
| b3800.302 | Upgrade Cash's Corner switches 213576 and 213579 and line leads to 4000A continuous current rating of 230kV Line #2135.  | Dominion | 6/1/2027 |

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| b3800.303 | Upgrade Gordonsville substation line leads to 4000A continuous current rating of 230kV Line #2135.  | Dominion | 6/1/2027 |
| b3800.304 | Upgrade Charlottesville substation switch 205415 and line leads to 4000A continuous current rating of 230 kV line No. 2054  | Dominion | 6/1/2027 |
| b3800.305 | Install one (1) 300 MVAR Static synchronous Compensator (STATCOM) & associated equipment at Beaumeade substation.   | Dominion | 6/1/2027 |
| b3800.306 | Install one (1) 500KV, 150 MVA Shunt Capacitor Bank & associated equipment at Morrisville substation. This addition will require a control house expansion to accommodate for two new panels.   | Dominion | 6/1/2027 |
| b3800.307 | Install one (1) 500kV, 300 MVAR Static synchronous Compensator (STATCOM) & associated equipment at Mars substation.   | Dominion | 6/1/2027 |
| b3800.308 | Install one (1) 230kV, 150MVA Shunt Capacitor Bank & associated equipment at Mars substation.   | Dominion | 6/1/2027 |
| b3800.309 | Install one (1) 230kV, 150MVA Shunt Capacitor Bank & associated equipment at Wishing Star Substation.   | Dominion | 6/1/2027 |
| b3800.310 | install one (1) 500kV, 293.8MVA Shunt Capacitor Bank & associated equipment at Wishing Star Substation.   | Dominion | 6/1/2027 |
| b3800.311 | Rebuild 500kV Line #545 Bristers - Morrisville as a single circuit monopole line to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 4357 MVA.   | Dominion | 6/1/2027 |
| b3800.312 | Rebuild 500kV Line #569 Loudoun - Morrisville to accommodate the new 500 kV line in the existing right-of-way. New conductor to have a summer rating of 4357 MVA.   | Dominion | 6/1/2027 |
| b3800.313 | Rebuild approximately 10.29 miles line segment of Line #535 (Meadow Brook to Loudoun) to accommodate the new 500 kV line in the existing ROW.   | Dominion | 6/1/2027 |
| b3800.314 | Rebuild approximately 4.83 miles of 500kV Line #546 Mosby - Wishing Star to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 4357 MVA. Upgrade and install equipment at Mosby substation to upgrade terminal equipment to be rated for 5000A for 500kV Lines #546. | Dominion | 6/1/2027 |
| b3800.315 | Rebuild approximately 4.59 miles of 500kV Line #590 Mosby - Wishing Star to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 4357 MVA. Upgrade and install equipment at Mosby substation to upgrade terminal equipment to be rated for 5000A for 500kV Lines #590. | Dominion | 6/1/2027 |
| b3800.316 | Rebuild approximately 6.17 miles of 230kV Line #2030 Gainesville - Mint Springs to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.317 | Rebuild approximately 1.58 miles of 230kV Line #2030 Mint Springs - Loudoun to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.318 | Rebuild approximately 4.2 miles of 230kV Line #2045 Loudoun - North Star to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.   | Dominion | 6/1/2027 |
| b3800.319 | Rebuild approximately 0.88 miles of 230kV Line #2045 North Star - Brambleton to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.   | Dominion | 6/1/2027 |

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| b3800.320 | Rebuild approximately 1.22 miles of 230kV Line #2227 Brambleton - Racefield to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.    | Dominion | 6/1/2027 |
| b3800.321 | Rebuild approximately 3.69 miles of 230kV Line #2094 Racefield - Loudoun to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.       | Dominion | 6/1/2027 |
| b3800.322 | Rebuild approximately 9.16 miles of 230kV Line #2101 Bristers - Nokesville to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.     | Dominion | 6/1/2027 |
| b3800.323 | Rebuild approximately 2.89 miles of 230kV Line #2101 Nokesville - Vint Hill TP to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA. | Dominion | 6/1/2027 |
| b3800.324 | Rebuild approximately 0.33 miles of 230kV Line #2101 Vint Hill TP - Vint Hill to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.325 | Rebuild approximately 3.32 miles of 230kV Line #2114 Rollins Ford - Vint Hill to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.  | Dominion | 6/1/2027 |
| b3800.326 | Rebuild approximately 10.09 miles of 230kV Line #2114 Vint Hill - Elk Run to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.      | Dominion | 6/1/2027 |
| b3800.327 | Rebuild approximately 4.43 miles of 230kV Line #2140 Heathcote - Catharpin to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.     | Dominion | 6/1/2027 |
| b3800.328 | Rebuild approximately 2.88 miles of 230kV Line #2140 Catharpin - Loudoun to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.       | Dominion | 6/1/2027 |
| b3800.329 | Rebuild approximately 0.25 miles of 230kV Line #2151 Railroad DP - Gainesville to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA. | Dominion | 6/1/2027 |
| b3800.330 | Rebuild approximately 4.14 miles of 230kV Line #2163 Vint Hill - Liberty to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.       | Dominion | 6/1/2027 |
| b3800.331 | Rebuild approximately 0.48 miles of Line #2176 Heathcote - Gainesville to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.         | Dominion | 6/1/2027 |
| b3800.332 | Rebuild approximately 1.11 miles of Line #2222 Rollins Ford - Gainesville to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.      | Dominion | 6/1/2027 |
| b3800.333 | Rebuild approximately 1.65 miles of Line #183 Bristers - Ox to accommodate the new 500 kV line in the existing ROW. New conductor to have a summer rating of 1573 MVA.                    | Dominion | 6/1/2027 |
| b3800.334 | Replace 4 overdutied 230kV breakers at Loudoun Substation with 80kA breakers  | Dominion | 6/1/2027 |
| b3800.335 | Replace 1 overdutied 500kV breaker at Ox Substation with a 63kA breaker   | Dominion | 6/1/2027 |
| b3800.336 | Upgrade and install equipment at Bristers substation to support the new conductor 5000A rating for 500kV Line #545.   | Dominion | 6/1/2027 |

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| b3800.337 | Upgrade and install equipment at Brambleton substation to support the new conductor termination. All terminal equipment for 230kV Lines #2045 & #2094 to be rated for 4000A continuous current rating.            | Dominion | 6/1/2027 |
| b3800.338 | Revise relay settings at Dawkins Branch   | Dominion | 6/1/2027 |
| b3800.339 | Upgrade and install equipment at Gainesville substation to support the new conductor termination. All terminal equipment for 230kV Line #2030 to be rated for 4000A continuous current rating.                    | Dominion | 6/1/2027 |
| b3800.340 | Revise relay settings at Heathcote  | Dominion | 6/1/2027 |
| b3800.341 | Upgrade and install equipment at Loudoun substation for 230kV Line #2094 Loudoun - Racefield to be rated for 4000A continuous current rating.   | Dominion | 6/1/2027 |
| b3800.342 | Upgrade and install equipment at Loudoun substation for 230kV Line #2045 Loudoun - North Star to be rated for 4000A continuous current rating.  | Dominion | 6/1/2027 |
| b3800.343 | Upgrade and install equipment at Loudoun substation for 230kV Line #2030 Loudoun - Mint Springs to be rated for 4000A continuous current rating.  | Dominion | 6/1/2027 |
| b3800.344 | Upgrade and install equipment at Loudoun substation to support the new conductor 5000A rating for 500kV Line #569 Loudoun - Morrisville.  | Dominion | 6/1/2027 |
| b3800.345 | Revise relay settings at Mint Springs   | Dominion | 6/1/2027 |
| b3800.346 | Upgrade and install equipment at Morrisville substation to support the new 500kV conductor termination. All terminal equipment to be rated for 5000 A for 500kV Line #545 & #569. Upgrade 500 kV bus 2 to 5000 A. | Dominion | 6/1/2027 |
| b3800.347 | Revise relay settings at North Star   | Dominion | 6/1/2027 |
| b3800.348 | Revise relay settings at Racefield  | Dominion | 6/1/2027 |
| b3800.349 | Revise relay settings at Railroad   | Dominion | 6/1/2027 |
| b3800.350 | Install terminal equipment at Vint Hill substation to support a 5000A line to Morrisville. Update relay settings for 230kV Lines #2101, #2163, and 500kV Line #535.   | Dominion | 6/1/2027 |
| b3800.351 | Update relay settings at Vint Hill for 230kV Line #2101 Vint Hill - Bristers  | Dominion | 6/1/2027 |
| b3800.352 | Update relay settings at Vint Hill for 230kV Line #2163 Vint Hill - Liberty   | Dominion | 6/1/2027 |
| b3800.353 | Update relay settings at Vint Hill for 500kV Line #535 Vint Hill - Loudoun  | Dominion | 6/1/2027 |
| b3800.354 | Install terminal equipment at Wishing Star substation to support a 5000A line to Vint Hill. Update relay settings for 500kV Lines #546 and #590.  | Dominion | 6/1/2027 |
| b3800.355 | Revise relay settings at Youngs Branch  | Dominion | 6/1/2027 |

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| b3800.356 | Build a new 500kV line from Vint Hill to Wishing Star. The line will be supported on single circuit monopoles. New conductor to have a summer rating of 4357 MVA. Line length is approximately 16.59 miles.  | Dominion | 6/1/2027 |
| b3800.357 | Build a new 500kV line from Morrisville to Vint Hill. New conductor to have a summer rating of 4357 MVA. Line length is approximately 19.71 miles.   | Dominion | 6/1/2027 |
| b3800.358 | Replace single unit Locks 230/115 kV 168MVA transformer TX #7 with new single unit transformer with a rating of 224 MVA. Lead lines at the 115 kV level will be upgraded to 2000 A.  | Dominion | 6/1/2027 |
| b3800.359 | Wreck and rebuild Line #2090 Ladysmith CT – Summit D.P. segment as a double circuit 230kV line to achieve a summer rating of 1573 MVA. Only one circuit will be wired at this stage. Upgrade circuit breaker leads, switches and line leads at Ladysmith CT to 4000A | Dominion | 6/1/2027 |
| b3800.360 | Wreck/Rebuild 230kV Line #2054 segment Charlottesville – Hollymeade Junction using double-circuit capable 230 kV poles. (The second 230kV circuit will be wired but not have terminal ends.)   | Dominion | 6/1/2027 |
| b3800.361 | Rebuild 230kV Line #233 Charlottesville – Hydraulic Rd – Barracks Road – Crozet – Dooms  | Dominion | 6/1/2027 |
| b3800.362 | Rebuild 230kV Line #291 segment from Charlottesville – Barracks Road   | Dominion | 6/1/2027 |
| b3800.363 | Rebuild 230kV Line #291 segment from Barracks Road – Crozet  | Dominion | 6/1/2027 |
| b3800.364 | Rebuild 230kV Line #291 segment Crozet – Dooms   | Dominion | 6/1/2027 |
| b3800.365 | Hollymeade Substation Relay Revision for 230kV Line #2054 Charlottesville - Hollymeade   | Dominion | 6/1/2027 |
| b3800.366 | Upgrade the terminal equipment at Charlottesville to 4000A for 230kV Line #2054 (Charlottesville – Hollymeade).  | Dominion | 6/1/2027 |
| b3800.367 | Proffit DP Substation Relay Revision for 230kV Line #2054 Charlottesville - Hollymeade   | Dominion | 6/1/2027 |
| b3800.368 | Barracks Rd Substation Relay Reset to accommodate the rebuilt line 230kV Lines #233 and #291.  | Dominion | 6/1/2027 |
| b3800.369 | Crozet Substation Relay Reset to accommodate the rebuilt line 230kV Lines #233 and #291.   | Dominion | 6/1/2027 |
| b3800.370 | Charlottesville Substation Terminal Equipment Upgrade for 230kV Lines #233 & #291 Rebuild  | Dominion | 6/1/2027 |
| b3800.371 | Upgrade Hydraulic Rd Substation Equipment for 230kV Line #233 & #291 Rebuild   | Dominion | 6/1/2027 |
| b3800.372 | Dooms Substation Terminal Equipment Upgrade for 230kV Line #233 & #291 Rebuild   | Dominion | 6/1/2027 |
| b3800.373 | Wreck and rebuild approximately 7.14 miles of 230kV line #256 from St. Johns to structure 256/108 to achieve a summer rating of 1573 MVA. Line switch 25666 at St. Johns to be upgraded to 4000A.  | Dominion | 6/1/2028 |

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| b3800.374 | Reconductor approximately 5.30 miles of 230kV line #256 from Ladysmith CT to structure 256/107 to achieve a summer rating of 1573 MVA. Terminal equipment at remote end substations will be upgraded to 4000A. | Dominion | 6/1/2028 |
| b3800.375 | Construct new Woodside-Goose Creek 500 kV line for ~3 miles on single circuit monopole structures within the Doubs-Goose Creek Corridor. (DOM Portion)   | Dominion | 6/1/2029 |
| b3800.401 | Replace Ashburn 230 kV breaker SC432 with a breaker rated 63 kA.   | Dominion | 6/1/2027 |
| b3800.402 | Replace Beaumeade 230 kV breaker 227T2152 with a breaker rated 80 kA.  | Dominion | 6/1/2027 |
| b3800.403 | Replace BECO 230 kV breakers 215012 and H12T2150 with breakers rated 63kA.   | Dominion | 6/1/2027 |
| b3800.404 | Replace Belmont 230 kV breaker 227T2180 with a breaker rated 80 kA.  | Dominion | 6/1/2027 |
| b3800.405 | Replace Brambleton 230 kV breakers 20102, 20602, 204502, 209402, 201T2045, 206T2094 with breakers rated 80 kA.   | Dominion | 6/1/2027 |
| b3800.406 | Replace Gainesville 230 kV breaker 216192 with a breaker rated 80 kA.  | Dominion | 6/1/2027 |
| b3800.407 | Replace Loudoun 230 kV breakers 204552, 217352 with breakers rated 80 kA.  | Dominion | 6/1/2027 |
| b3800.408 | Replace Ox 230 kV breakers 22042, 24342, 24842, 220T2063, 243T2097, 248T2013, H342 with breakers rated 80 kA.  | Dominion | 6/1/2027 |
| b3800.409 | Replace Paragon Park 230 kV breakers 208132, 215032, 2081T2206, 2150T2207 with breakers rated 80 kA.   | Dominion | 6/1/2027 |
| b3800.410 | Replace Reston 230 kV breaker 264T2015 with a breaker rated 63 kA.   | Dominion | 6/1/2027 |
| b3800.411 | Replace Stonewater 230 kV breakers 20662-1, 20662-2, 217862-1, 217862-2 with breakers rated 80 kA.   | Dominion | 6/1/2027 |
| b3800.412 | Replace Waxpool 230 kV breakers 214922-5, 214922-6, 216622-5, 216622-6 with breakers rated 63 kA.  | Dominion | 6/1/2027 |
| b3800.413 | Replace Double Toll Gate 138 kV breaker MDT 138 OCB with a breaker rated 40 kA.  | APS      | 6/1/2027 |
| b3800.414 | Replace Doubs 500 kV breaker DL-55 522LIN with a breaker rated 60 kA.  | APS      | 6/1/2027 |
| b3801     | Replace Gainesville 230kV breaker 216192 with a breaker rated 80kA   | Dominion |          |
| b3802     | Replace Loudoun 230kV breakers 204552, 217352 with a breakers rated 80kA   | Dominion |          |
| b3803     | Replace Ox 230kV breakers 22042, 24342, 24842, 220T2063, 243T2097, 248T2013, H342 with a breakers rated 80kA   | Dominion |          |
| b3804     | Replace Paragon Park 230kV breakers 208132, 215032, 2081T2206, 2150T2207 with a breakers rated 80kA  | Dominion |          |
| b3805     | Replace Reston 230kV breaker 264T2015 with a breaker rated 63kA  | Dominion |          |
| b3806     | Replace Stonewater 230kV breakers 20662-1, 20662-2, 217862-1, 217862-2 with a breakers rated 80kA  | Dominion |          |
| b3807     | Replace Waxpool 230kV breakers 214922-5, 214922-6, 216622-5, 216622-6 with a breakers rated 63kA   | Dominion |          |

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| b3808   | Replace Double Toll Gate 138kV breaker MDT 138 OCB with a breaker rated 80kA  | APS   |            |
| b3809   | Replace Doubs 500kV breaker DL-55 522LIN with a breaker rated 80kA  | APS   |            |
| b3810.0 | Add three 345 kV circuit breakers to Cherry Valley substation.  | ComEd | 6/1/2028   |
| b3811.1 | Expand Haumesser Road 138 kV substation as a four-circuit breaker ring bus.   | ComEd | 12/1/2028  |
| b3811.2 | Add one 138 kV circuit breaker at H-452 to complete a three-circuit breaker ring bus.   | ComEd | 12/1/2028  |
| b3811.3 | Rebuild 3 miles of 138 kV line 11323 from Haumesser Road to the H-452 tap with double circuit towers. Cut the H-452 tap over to the second circuit from Haumesser Road. Both circuits to use twisted pair 556 ACSR Parakeet conductor.  | ComEd | 12/1/2028  |
| b3836.1 | Rebuild approximately 1.7 miles of line on the Chemical-Washington Street 46 kV circuit.  | AEP   | 6/1/2028   |
| b3837.1 | Replace existing 34.5 kV, 25 kA circuit breaker B at West Huntington station with new 69 kV, 40 kA circuit breaker.   | AEP   | 6/1/2028   |
| b3838.1 | Replace breaker A and B at Timken station with 40 kA breakers.  | AEP   | 6/1/2028   |
| b3839.1 | Replace 69 kV breaker C at Haviland station with a new 3000A 40 kA breaker.   | AEP   | 6/1/2028   |
| b3841.1 | A 69 kV, 60 MVAR Shunt Reactor will be installed at the Salt Springs Substation. The reactor terminal will be connected to the existing 69 kV bus and an independent-pole operation, 1200 A circuit breaker will be installed for reactor switching. FirstEnergy owns the property around the substation where the substation yard will be expanded for the reactor installation. |       | 6/1/2028   |
| b3843.1 | Rebuild the underground portion of the Ohio University-West Clark 69 kV line, approximately 0.65 miles.   | AEP   | 6/1/2028   |
| b3844.1 | Replacement of relays at Macdade, Printz and Morton to increase rating limits of transmission relay equipment. Line protection relays will be upgraded with latest standard relays used across the PECO system.   | PECO  | 12/31/2026 |
| b3845.1 | Add a second breaker next to Nottingham 895 circuit breaker to eliminate stuck breaker contingency.   | PECO  | 5/31/2028  |
| b3846.1 | Rebuild 6.25 miles of 69 kV circuit 6708 (Vienna-Mardela) with new single pole steel structures and with 954.0 45/7 "Rail" conductor. This new rebuild will be from the dead-end structure on the east side of the Nanticoke River to the Mardela tap.  | DPL   | 6/1/2028   |
| b3846.2 | Upgrade disconnect switch at Vienna to increase ratings of existing Vienna-Mardela transmission facility.   | DPL   | 6/1/2028   |
| b3846.3 | Upgrade three disconnect switches at Mardela to increase ratings of existing Vienna-Mardela transmission facility.  | DPL   | 6/1/2028   |
| b3847.1 | Add a 765 kV breaker at Baker station for the reactor on the Broadford 765 kV line.   | AEP   | 6/1/2024   |
| b3847.2 | Add two 765 kV breakers to the reactors at Broadford station on the Baker and Jacksons Ferry 765 kV lines.  | AEP   | 6/1/2024   |
| b3847.3 | Add a 765 kV breaker to the reactor at Jefferson station on the Greentown 765 kV line.  | AEP   | 6/1/2024   |
| b3848.1 | Open East Rutherford 69kV Tie Breaker [26K]   | PSEG  | 6/1/2028   |

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| b3848.2 | Move line U-775 [ East Rutherford to Hasbrouck Heights] currently on section 2 to section 7 of the ring bus.   | PSEG     | 6/1/2028  |
| b3850.1 | Rebuild approximately 13.51 miles of 500 kV line #588 from structure 588/184 inside Yadkin substation to structure 588/254 outside of Fentress substation.   | Dominion | 6/1/2028  |
| b3850.2 | Line #588 terminal equipment at Yadkin substation will be upgraded to a rating of 5000A. Since the new 500kV line will be using fiber, the wave trap will be removed and the line protection scheme will be updated. | Dominion | 6/1/2028  |
| b3850.3 | At Fentress substation, since the new 500kV line will be using fiber, the wave trap will be removed and the line protection scheme will be updated.  | Dominion | 6/1/2028  |
| b3851.1 | Rebuild Allen –R.P. Mone 345kV line (18.6 miles).  | AEP      | 6/1/2027  |
| b3851.2 | Rebuild R.P. Mone – Maddox Creek 345kV line (9.4 miles).   | AEP      | 6/1/2027  |
| b3851.3 | Replace breakers 'B1' and 'B' at Maddox Creek.   | AEP      | 6/1/2027  |
| b3851.4 | Replace two 345kV breakers 'M' and 'M2' at East Lima Station.  | AEP      | 6/1/2027  |
| b3852.1 | Connect and energize a second 765/345 kV bank at Vassell station.  | AEP      | 6/1/2027  |
| b3852.2 | Replace 765 kV breaker D at Maliszewski station.   | AEP      | 6/1/2027  |
| b3853.1 | Replace over duty Ladysmith CT 230kV circuit breakers SX1272 and SX3472 with an interrupting rating of 63 kA   | Dominion | 6/1/2025  |
| b3855.1 | Build 4 miles new 230 kV XLPE circuit using (345 kV rated 5000 kcmil cable) from Jackson Road 230 kV station to Cedar Grove 230 kV station.  | PSEG     | 6/1/2028  |
| b3855.2 | Expand a new 230 kV bay at the existing Cedar Grove station with one line position by adding two 230 kV circuit breakers and associated disconnect switches.   | PSEG     | 6/1/2028  |
| b3855.3 | Replace the existing HPFF termination structure with a new XLPE termination structure to connect to spare GIS bay position at Jackson 230 kV.  | PSEG     | 6/1/2028  |
| b3857.1 | Conastone 230kV Breaker #5   | BGE      | 6/1/2029  |
| b3858.1 | Rebuild the Windsor Substation 115 kV yard to convert from a straight bus configuration into a six-breaker ring bus configuration. Install two (2) 21.62 MVAR, 115 kV capacitor banks.                               | ME       | 6/1/2028  |
| b3858.2 | Rebuild the Yorkana Substation 115 kV yard converting from a straight bus configuration to a (9) breaker, breaker-and-a-half configuration.  | ME       | 6/1/2028  |
| b3860.1 | Replace the 34.5 kV bus tie breaker at Chester Substation with a new 34.5 kV breaker that has an interruption capability of 40 kA.   | JCPL     | 6/1/2029  |
| b3861.1 | Replace the W101 34.5 kV breaker at Werner Substation with a new 34.5 kV breaker that has an interruption capability of 40 kA.   | JCPL     | 6/1/2029  |
| b3862.1 | Upgrade two (2) 500kV free standing CTs, one (1) disconnect switch, and four (4) sections of tube bus at Elroy 500kV Substation.   | PECO     | 6/1/2029  |
| b3863.1 | Change tap ratios on two (2) CTs at Schuylkill 230kV Substation  | PECO     | 12/1/2029 |
| b3864.1 | Replace station cable at Tacony 69kv Station   | PECO     | 6/1/2029  |
| b3864.2 | Replace station cable at Richmond 230kV Station  | PECO     | 6/1/2029  |

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| b3865.1 | Upgrade 138/69kV autotransformer, a 69kV breaker, two disconnects and move a takeoff structure at Reybold Substation. These upgrades will require a substation expansion to move the takeoff structure and a control house expansion to move the 69kV breaker relays from the Delaware City control house to the Reybold control house. | DPL  | 12/1/2029 |
| b3867.1 | Upgrade a circuit switcher at Mickleton substation.   | ACE  | 6/1/2029  |
| b3868.1 | Cut existing Carlstadt to River Road 69kV line and extend Carlstadt line side to Penhorn 69kV. Extend the other end of the line by constructing a new portion and connecting it to Kingsland 69kV Switch.   | PSEG | 6/1/2029  |
| b3868.2 | Extend the other end of L-636 to Kingsland Switch by constructing new 5.5 miles portion utilizing existing I-2314 Transmission towers from H-A 5/4 to H-A 2/3. New 69kV line to be routed along County Ave pass Secaucus Rd in Secaucus NJ.   | PSEG | 6/1/2029  |
| b3868.3 | Reconfigure former River Road to Carlstadt 69kV and Tonnelle Ave to Union City 69kV lines at the intersection Tonnelle Ave and Granton Ave in North Bergen, NJ. by connecting Union City to River Road and Tonnelle Ave to Kingsland.   | PSEG | 6/1/2029  |
| b3869.3 | Replace the two Bergen 138 kV series reactors with two new dry type 138 kV series reactors.   | PSEG | 12/1/2029 |
| b3870.1 | At Federal Street Substation:<br>- Install (3) 138 kV CCVTs on the 138 kV bus.<br>- Remove the Transformer 1 CO-6 138 kV Phase relay Overcurrent Relays.<br>- Install (1) SEL-421 relay on the high side of Transformer 1.<br>- Install foundations, conduit, and grounding for new CCVTs. - Install cables between CCVTs and relay.    | APS  | 6/1/2028  |
| b3871.1 | Replace two 138 kV disconnect switches with 3000 amp disconnect switches and replace a portion of the stranded conductor on the #2 138 kV Bus with aluminum pipe bus.   | DL   | 6/1/2029  |
| b3872.1 | Adjust the tertiary tap on the Hartford 138/69/34.5 kV transformer 1 and on Hartford 138/69/12 kV transformer 4 to eliminate the high voltage issues and avoid circulating current.   | AEP  | 4/15/2029 |
| b3873.1 | Install 12 MVAR 34.5 kV cap bank at Greenleaf   | AEP  | 6/1/2029  |
| b3875.1 | Reconductor ~3.95 miles of ACSR 6/1 Penguin (4/0) on the Firebrick-Jefferson Switch 69 kV branch with ACSR 556.6 26/7. Remote End (Line setting) would need to be updated at Firebrick and Lick. Replace 600A Switches at Jefferson and replace 477 AA 19 sub conductor at Firebrick.   | AEP  | 6/1/2029  |
| b3876.1 | Install a 69kV 11.5MVar capacitor bank at Richlands station with a circuit switcher.  | AEP  | 12/1/2029 |
| b3877.1 | Project will replace station conductor and switches in the 345 kV yard at Beatty that are currently limiting the 345 kV lines to Adkins and Chenoweth   | AEP  | 6/1/2029  |
| b3877.2 | Project will upgrade 345 kV circuit breakers 'A' and 'A1' to 4000A 63 kA breakers at Adkins station along with some station conductor that is currently limiting the 345 kV line to Beatty.   | AEP  | 6/1/2029  |

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| b3878.1 | Proposal will upgrade 765 kV circuit breakers 'B' and 'B2' to 5000A 50 kA breakers at Marysville station. In addition, the project will upgrade the existing wavetraps towards Sorenson.          | AEP   | 6/1/2029  |
| b3879.1 | Replace line conductor, ~0.11 miles of 4/0 ACSR 6/1 conductor with 556.5 26/7 between South Toronto and the South Toronto Tap.  | AEP   | 6/1/2029  |
| b3879.2 | Upgrade the wave trap, CCVTs, switches, and station conductor at South Toronto station currently limiting the line to South Toronto Tap.  | AEP   | 6/1/2029  |
| b3880.1 | At Beatty Road substation, install a 69 kV 23 MVAR capacitor bank along with the 69kV Cap bank breaker.   | AEP   | 6/1/2029  |
| b3882.1 | Replace 138 kV circuit breaker BB with higher fault current capable counterpart.  | AEP   | 6/1/2026  |
| b3883.1 | 69 kV station equipment, including relays, conductor, and switches, will be replaced at Haviland station in order to address identified overloads on the lines to North Van Wert and Cavett.      | AEP   | 12/1/2029 |
| b3884.1 | Replace the 69 kV circuit breaker D at Van Wert with a 40 kA breaker.   | AEP   | 6/1/2026  |
| b3885.1 | Replace 69 kV circuit breakers N and M at Schroyer Avenue station with higher fault current capable counterparts.   | AEP   | 6/1/2026  |
| b3886.1 | Replace 69 kV circuit breaker 'A' along with disconnect switches at Benwood substation with a 40 kA Circuit Breaker.  | AEP   | 6/1/2026  |
| b3887.1 | Replace Greentown 138kV circuit switcher for Transformer #5 with a 138kV 63kA Circuit Breaker   | AEP   | 6/1/2026  |
| b3888.1 | Perform sag study and complete mitigations on the 138 kV line between East Leipsic and the AE2-072 tap (Lammer) to allow line's conductor to operate to its maximum operating temperature (MOT).  | AEP   | 6/1/2029  |
| b3889.1 | Project will replace limiting station equipment at Tiltonsville station to increase the rating on the branch to Windsor   | AEP   | 6/1/2029  |
| b3890.1 | Replace station conductor at South Coshocton station currently limiting the branch to Ohio Central  | AEP   | 6/1/2029  |
| b3891.1 | Project will perform relay upgrades at Kenny 138 kV to raise the CT & Relay thermal limits that are currently limiting the line to Roberts.   | AEP   | 6/1/2029  |
| b3894.1 | Replace limiting station conductor at Tidd on the line to Carnegie (FE).  | AEP   | 6/1/2029  |
| b3895.1 | Replace existing 138 kV, 40 kA Circuit Switcher L at Jacksons Ferry Station with new 138 kV, 63 kA Circuit Breaker  | AEP   | 6/1/2026  |
| b3896.1 | Adjust the capacitor bank voltage settings to allow the cap bank to operate as needed under N-1-1 scenarios.  | AEP   | 12/1/2029 |
| b3897.1 | Replace the 138 kV 40kA circuit switcher XT8 with a 63 kA circuit breaker.  | AEP   | 6/1/2026  |
| b3898.1 | Upgrade the CT thermal limit at Buchanan station on the Buchanan-Keen Mountain 138 kV line.   | AEP   | 12/1/2029 |
| b3899.1 | Replace OVEC owned station equipment at Kyger Creek to raise the rating of the Kyger Creek-Sporn 345 kV line. Equipment to be replaced includes station conductor and a wavetraps at Kyger Creek. | OVEC  | 6/1/2029  |
| b3900.1 | Replace 300 copper conductor with 1113 kcmil ACSR conductor on Kewanee 138 kV Bus No. 1.  | ComEd | 4/1/2029  |
| b3901.1 | Reconductor 138 kV line from Electric Junction to W541.   | ComEd | 6/1/2029  |

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| b3901.2 | Replace 2" tubular bus, 2-500 KCMIL Cu and 1113 KCMIL ACSR/AA on bus 2 and line terminal of 138kV L11106 at TSS 111 Electric Junction with bus that meets or exceeds a minimum thermal capability of 2036/2236/2690A (487/534/643MVA) SN/SE/SLD.   | ComEd  | 6/1/2029  |
| b3903.1 | Replace the Kewanee 138 kV L7411 circuit breaker with a SF6 63 kA circuit breaker.   | ComEd  | 6/1/2026  |
| b3904.1 | Rebuild and reconductor 7.7 miles of 69kV line with our standard 1351 AAC conductor from Rockford substation to the POI.   | Dayton | 4/15/2029 |
| b3905.1 | Tune Darby CTs excitation system   | LGE    |           |
| b3905.2 | Upgrade Darby CTs excitation system to EX2100e with Power System Stabilizer.   | LGE    |           |
| b3906.1 | Construct new Marley Neck 115 kV substation. Marley Neck 115kV portion will accommodate 10 breaker-and-a-half bays, with only 6 bays planned for initial service while accommodating 4 future bays. Two Standard 230/115kV transformers will be connected between the 230 and 115 kV equipment with appropriate isolation methods. | BGE    | 6/1/2029  |
| b3907.1 | Reconductor entire 2.5 miles of North Philadelphia to Master 230 kV line   | PECO   | 6/1/2029  |
| b3907.2 | Richmond to Waneeta 230kV Line: Rebuild entire 0.95 miles of existing UGT, and rebuild entire 2.23 miles of existing OHT   | PECO   | 6/1/2028  |
| b3907.3 | Reconductor 2.12 miles of North Philadelphia to Waneeta 230 kV line  | PECO   | 6/1/2028  |
| b3908.1 | Install one 80 MVar 230 kV capacitor bank at Pocono 230kV Substation   | PPL    | 6/1/2029  |
| b3909.1 | Juniata 500 kV yard expansion/reconfiguration to include one new bay and eliminate the line fault stuck breaker  | PPL    | 6/1/2028  |
| b3910.1 | Susquehanna T10 230 kV Station Reconfiguration. Break the existing Susquehanna - Glen Brook 230 kV line and loop it 0.2 miles in and out of the Susquehanna T10 230 kV Station.  | PPL    | 6/1/2029  |
| b3911.1 | Rebuild the existing 1.1 mile Canal - Gay 138 kV oil filled pipe-type underground line to address overloads on the existing cable utilizing 5000 MCM XLPE cable.   | AEP    | 6/1/2029  |
| b3912.1 | Rebuild the existing 2.2-mile Canal-Mound St 138 kV oil filled pipe-type underground line to address overloads on the existing cable utilizing 5000 MCM XLPE cable.  | AEP    | 6/1/2029  |
| b3913.1 | Rebuild 138 kV line section between Beatty and White Road stations (approximately 4.5 miles). Update remote end relay settings as needed.  | AEP    | 6/1/2029  |
| b3913.2 | Rebuild 138 kV line section between White Road and Cyprus stations (approximately 3.34 miles). Update remote end relay settings as needed.   | AEP    | 6/1/2029  |
| b3914.1 | Change No-load Tap of 2 Autotransformers at Fisk from 338.25 kV to 346.5 kV.   | ComEd  | 4/15/2029 |
| b3914.2 | Change No-load Tap of 4 Autotransformers at Crawford from 338.25 kV to 346.5 kV.   | ComEd  | 4/15/2029 |
| b3914.3 | Change No-load Tap of 3 Autotransformers at Elmhurst from 338.25kV to 346.5 kV.  | ComEd  | 4/15/2029 |
| b3914.4 | Change No-load Tap of 2 Autotransformers at West Loop from 338.25kV to 346.5kV.  | ComEd  | 4/15/2029 |

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| b3914.5  | Change No-load Tap of 2 Autotransformers at Taylor from 338.25kV to 346.5kV.  | ComEd    | 4/15/2029 |
| b3914.6  | Change No-load Tap of 4 Autotransformers at Skokie from 338.25 kV to 345.65 kV.   | ComEd    | 4/15/2029 |
| b3915.1  | Reconductor 1.5 miles of 345 kV lines 1202 and 1227 from Dresden to Mulberry with two conductor bundled 1033.5 ACSS conductor. Modify and replace towers as necessary to accommodate the higher mechanical loads of the bundled conductor.  | ComEd    | 6/1/2029  |
| b3915.2  | Install 345 kV circuit breaker on line 1202 (Dresden-Mulberry 345 kV) and upgrade disconnects and associated equipment at Dresden 345 kV substation.  | ComEd    | 6/1/2029  |
| b3915.3  | Upgrade disconnects and associated equipment at Mulberry 345 kV substation.   | ComEd    | 6/1/2029  |
| b3916.1  | Install a new 420 MVA 345/138 kV autotransformer and associated 345 kV and 138 kV circuit breakers at Itasca substation.  | ComEd    | 6/1/2029  |
| b3918.1  | Add one additional breaker, a 2nd 138/69kV transformer, replace five 69kV breakers & four 138kV breakers at the Miami substation.   | Dayton   | 6/1/2029  |
| b3919.1  | Reconfigure Maliszewski 765 kV station from 2 breakers to a 6 breaker ring bus. Install a new 765/345 kV transformer. Establish new 345 kV breaker yard with 3 string breaker and a half to include a line exit to Hyatt and a line exit to Corridor. Loop the existing Hyatt - West Millersport 345 kV line into the new established 345 kV yard at the Maliszewski station.                   | AEP      | 6/1/2029  |
| b3919.2  | Establish a 0.18 mile double circuit 345 kV line extension to cut the existing Hyatt – West Millersport 345 kV line in and out of Corridor station.   | AEP      | 6/1/2029  |
| b3919.3  | Install three new 345 kV breakers at Corridor station in order to accommodate the cut in of the Hyatt- West Millersport 345 kV line.  | AEP      | 6/1/2029  |
| b3919.4  | Reconductor 10.2-mile of Maliszewski-Corridor 345 kV line.  | AEP      | 6/1/2029  |
| b3919.5  | Reconductor 4.75-miles of the existing Bokes Creek-Marysville 345 kV circuit. Update the associated relay settings.   | AEP      | 6/1/2029  |
| b3919.6  | Rebuild 4.4-miles of the existing Marysville - Hyatt 345 kV double circuit line where it extends into Marysville station.   | AEP      | 6/1/2029  |
| b3919.7  | Upgrade 345 kV breakers K & K1 along with associated switches and conductor to 5000A at Hyatt Station.  | AEP      | 6/1/2029  |
| b3919.8  | Upgrade the relaying and associated equipment at West Millersport station to coordinate with the cut in work to Corridor station.   | AEP      | 6/1/2029  |
| b3919.9  | Upgrade 3000A 345 kV breaker 'L2' along with associated terminal elements to 5000A at Marysville.   | AEP      | 6/1/2029  |
| b3919.10 | Rebuild ~19.0 miles of Hyatt - Marysville 345 kV line using 4-bundled 795 ACSR conductor Bold construction (This is an EOL rebuild)   | AEP      | 6/1/2029  |
| b3921.1  | Wreck and rebuild 115kV line 119 from structure 119/305 (Merck #5 substation) to 119/411A (Port Republic Substation). The existing structures shall be replaced one for one within the existing ROW using primarily custom engineered double circuit 115kV steel structures on concrete foundations. The line will be rebuilt with 3-phase 1-768.2 ACSS/TW/HS (20/7) 250 MOT "Maumee" conductor | Dominion | 6/1/2029  |

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|         | and two (2) DNO-11410 OPGW. The rebuild includes the installation of double circuit structures but assumes the second circuit will not be installed as part of this project, and that the vacant conductor arms should not be utilized without acquiring additional ROW. This scope assumes project GITAE2029C will be completed prior to the construction of this project. Project GITAE2029C serves to install Port Republic Substation, which will split Line 119 in between existing Structures 119/411 and 119/412.  |          |          |
| b3921.2 | Uprate the 397.5 ACSR jumpers and associated equipment to meet the line conductor rating of 393MVA.   | Dominion | 6/1/2029 |
| b3922.1 | This project serves to wreck and rebuild 115kV line 1031 from structure 1031/220 to structure 1031/329. The existing structures to be removed are primarily single circuit wood, steel or concrete monopoles. The existing structures to be removed were primarily constructed in 1993 with the weathering steel structures being constructed in 2011. See Figure 1 for the project location. The existing structures shall be replaced one for one within the existing ROW using single circuit steel monopoles on foundations. The line will be rebuilt with single circuit 3-phase 768.2 ACSS/TW/HS (20/7) "Maumee" conductor and single (1) DNO-11410 OPGW, respectively. | Dominion | 6/1/2029 |
| b3925.1 | Rebuild the 7.46 miles of Avery - Shinrock 138 kV Line with 795 kcmil 26/7 ACSS (7.46 miles)  | ATSI     | 6/1/2029 |
| b3925.2 | Rebuild the 13.45 miles of Greenfield - Lakeview 138 kV Line from 2 x 336.4 kcmil 26/7 ACSR to 1 x 795 kcmil 26/7 ACSS  | ATSI     | 6/1/2029 |
| b3925.3 | Rebuild the 6.5 miles of Avery-Hayes 138 kV Line with 795 kcmil 26/7 ACSS conductor   | ATSI     | 6/1/2027 |
| b3925.4 | Rebuild the Greenfield - Beaver 138 kV corridor (32 miles) with 795 kcmil 26/7 ACSS. This corridor encompasses multiple 138 kV lines that are constructed on common towers.   | ATSI     | 6/1/2029 |
| b3928.1 | Install (1) 230kV, 50 MVA Shunt Capacitor Bank & associated equipment including breaker at Navy North substation.   | Dominion | 6/1/2029 |
| b3929.1 | Rebuild approximately 33.09 miles of 500 kV line #579 from structure 579/1 inside Septa substation to structure 579/193 inside Yadkin substation.   | Dominion | 6/1/2029 |
| b3929.2 | At Septa substation, upgrade CB (579T586), breaker switches (56288, 57985, 58688 & 57988), and line leads to 5000A rating to support Line #579 rebuild.   | Dominion | 6/1/2029 |
| b3929.3 | At Yadkin substation, upgrade line leads to 5000A rating to support Line #579 rebuild.  | Dominion | 6/1/2029 |
| b3929.4 | Rebuild approximately 7.7 miles of 230kV Line #2110 Suffolk – Thrasher that share the double circuit towers under Line #579.  | Dominion | 6/1/2029 |
| b3936.1 | AEP Zone 2024W1 P5 Solution #1: Install battery chargers & associated equipment at AEP substation. Addresses the following FGs: 2024-P5-AEP07, 2024-P5-AEP08.   | AEP      | 6/1/2029 |
| b3936.2 | AEP Zone 2024W1 P5 Solution #2: Install battery chargers & associated equipment at AEP substation. Addresses the following FG's: 2024-P5-AEP03, 2024-P5-AEP04   | AEP      | 6/1/2029 |

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| b3936.3  | AEP Zone 2024W1 P5 Solution #3: Install battery chargers & associated equipment at AEP substation. Addresses the following FG's: 2024-P5-AEP09, 2024-P5-AEP10, 2024-P5-AEP11, 2024-P5-AEP12. | AEP      | 6/1/2029 |
| b3936.4  | AEP Zone 2024W1 P5 Solution #4: Install battery chargers & associated equipment at AEP substation. Addresses the following FG's: 2024-P5-AEP05.  | AEP      | 6/1/2029 |
| b3936.5  | AEP Zone 2024W1 P5 Solution #5: Install battery chargers & associated equipment at AEP substation. Addresses the following FG's: 2024-P5-AEP01.  | AEP      | 6/1/2029 |
| b3936.6  | OVEC Zone 2024W1 P5 Solution #6: Install battery chargers & associated equipment and upgrade protection equipment at OVEC substation. Addresses the following FG's: 2024-P5-AEP02.           | OVEC     | 6/1/2029 |
| b3936.7  | AEP Zone 2024W1 P5 Solution #7: Install battery chargers & associated equipment at AEP substation. Addresses the following FG's: 2024-P5-AEP06.  | AEP      | 6/1/2029 |
| b3937.1  | 2024W1 DVP P5 Solution #1 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP01  | Dominion | 6/1/2029 |
| b3937.2  | 2024W1 DVP P5 Solution #2 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP02  | Dominion | 6/1/2029 |
| b3937.3  | 2024W1 DVP P5 Solution #3 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP03  | Dominion | 6/1/2029 |
| b3937.4  | 2024W1 DVP P5 Solution #4 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP04  | Dominion | 6/1/2029 |
| b3937.5  | 2024W1 DVP P5 Solution #5 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP05  | Dominion | 6/1/2029 |
| b3937.6  | 2024W1 DVP P5 Solution #6 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP06  | Dominion | 6/1/2029 |
| b3937.7  | 2024W1 DVP P5 Solution #7 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP07  | Dominion | 6/1/2029 |
| b3937.8  | 2024W1 DVP P5 Solution #8 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP08  | Dominion | 6/1/2029 |
| b3937.9  | 2024W1 DVP P5 Solution #9 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP09  | Dominion | 6/1/2029 |
| b3937.10 | 2024W1 DVP P5 Solution #10 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP10   | Dominion | 6/1/2029 |
| b3937.11 | 2024W1 DVP P5 Solution #11 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP11   | Dominion | 6/1/2029 |
| b3937.12 | 2024W1 DVP P5 Solution #12 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP12   | Dominion | 6/1/2029 |
| b3937.13 | 2024W1 DVP P5 Solution #13 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP13   | Dominion | 6/1/2029 |
| b3937.14 | 2024W1 DVP P5 Solution #14 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP14   | Dominion | 6/1/2029 |
| b3937.15 | 2024W1 DVP P5 Solution #15 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP15   | Dominion | 6/1/2029 |
| b3937.16 | 2024W1 DVP P5 Solution #16 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP16   | Dominion | 6/1/2029 |

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| b3937.17 | 2024W1 DVP P5 Solution #17 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP17   | Dominion | 6/1/2029 |
| b3937.18 | 2024W1 DVP P5 Solution #18 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP18   | Dominion | 6/1/2029 |
| b3937.19 | 2024W1 DVP P5 Solution #19 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP19   | Dominion | 6/1/2029 |
| b3937.20 | 2024W1 DVP P5 Solution #20 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP20   | Dominion | 6/1/2029 |
| b3937.21 | 2024W1 DVP P5 Solution #21 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP21   | Dominion | 6/1/2029 |
| b3937.22 | 2024W1 DVP P5 Solution #22 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP23   | Dominion | 6/1/2029 |
| b3937.23 | 2024W1 DVP P5 Solution #23 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP24   | Dominion | 6/1/2029 |
| b3937.24 | 2024W1 DVP P5 Solution #24 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP26   | Dominion | 6/1/2029 |
| b3937.25 | 2024W1 DVP P5 Solution #25 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP27   | Dominion | 6/1/2029 |
| b3937.26 | 2024W1 DVP P5 Solution #26 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP28   | Dominion | 6/1/2029 |
| b3937.27 | 2024W1 DVP P5 Solution #27 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP29   | Dominion | 6/1/2029 |
| b3937.28 | 2024W1 DVP P5 Solution #28 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP30   | Dominion | 6/1/2029 |
| b3937.29 | 2024W1 DVP P5 Solution #29 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP31   | Dominion | 6/1/2029 |
| b3937.30 | 2024W1 DVP P5 Solution #30 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP32   | Dominion | 6/1/2029 |
| b3937.31 | 2024W1 DVP P5 Solution #31 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP33   | Dominion | 6/1/2029 |
| b3937.32 | 2024W1 DVP P5 Solution #32 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP34   | Dominion | 6/1/2029 |
| b3937.33 | 2024W1 DVP P5 Solution #33 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP35   | Dominion | 6/1/2029 |
| b3937.34 | 2024W1 DVP P5 Solution #34 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP36   | Dominion | 6/1/2029 |
| b3937.35 | 2024W1 DVP P5 Solution #35 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP37   | Dominion | 6/1/2029 |
| b3937.36 | 2024W1 DVP P5 Solution #36 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP38   | Dominion | 6/1/2029 |
| b3937.37 | 2024W1 DVP P5 Solution #37 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP39   | Dominion | 6/1/2029 |
| b3937.38 | 2024W1 DVP P5 Solution #38 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP40   | Dominion | 6/1/2029 |
| b3937.39 | 2024W1 DVP P5 Solution #39 - DC Supply Monitoring: Addressing FG # 2024-P5-DVP41   | Dominion | 6/1/2029 |
| b3938.1  | 2024W1 DVP P5 Solution No. 40 – Replace and upgrade relay and associated equipment at DVP substation, addressing FG No. 2024-P5-DVP16. | Dominion | 6/1/2029 |

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| b3938.2  | 2024W1 DVP P5 Solution No. 41 – Replace and upgrade relay and associated equipment at DVP substation, addressing FG No. 2024-P5-DVP23.   | Dominion | 6/1/2029 |
| b3938.3  | 2024W1 DVP P5 Solution No. 42 – Replace and upgrade relay and associated equipment at DVP substation, addressing FG No. 2024-P5-DVP14.   | Dominion | 6/1/2029 |
| b3938.6  | 2024W1 DVP P5 Solution No. 45 – Replace and upgrade relay and associated equipment at DVP substation, addressing FG No. 2024-P5-DVP03.   | Dominion | 6/1/2029 |
| b3939.1  | 2024W1 PSEG P5 Solution #1 - Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG01  | PSEG     | 6/1/2029 |
| b3939.2  | 2024W1 PSEG P5 Solution #2 - Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG02  | PSEG     | 6/1/2029 |
| b3939.3  | 2024W1 PSEG P5 Solution #3 - Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5-PSEG03  | PSEG     | 6/1/2029 |
| b3939.4  | 2024W1 PSEG P5 Solution #4 - Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5DYN-PSEG01   | PSEG     | 6/1/2029 |
| b3939.5  | 2024W1 PSEG P5 Solution #5 - Battery monitoring upgrades at PSEG substation. Addresses FG #2024-P5DYN-PSEG02   | PSEG     | 6/1/2029 |
| b4000.1  | Add two 765 kV breakers at Amos Substation to expand the breaker and a half scheme to accommodate the new Amos-Welton Spring 765 kV line.  | AEP      | 6/1/2029 |
| b4000.2  | Construct a new 175 miles Amos to Welton Spring 765 kV line. (AEP Section of the line is 30 miles)   | APS      | 6/1/2029 |
| b4000.3  | Construct a new 175 miles Amos to Welton Spring 765 kV line. (APS/FE Section of the line is 145 miles)   | APS      | 6/1/2029 |
| b4000.4  | Construct a new 765 kV switchyard (Welton Spring)  | APS      | 6/1/2029 |
| b4000.5  | Install four 250 MVAR shunt capacitors, and a +/-500 MVAR STATCOM at Welton Spring 765 kV substation   | APS      | 6/1/2029 |
| b4000.6  | Construct a new 86 miles Welton Spring to Rocky Point 765 kV line (Welton Spring to DVP local area, roughly 21 miles) (VA Portion)   | APS      | 6/1/2029 |
| b4000.7  | Construct a new 86 miles Welton Spring to Rocky Point 765 kV line (in DVP local area/Millville to Lovettsville section, roughly 10.5 miles)  | APS      | 6/1/2029 |
| b4000.8  | Construct a new 86 miles Welton Spring to Rocky Point 765 kV line (DVP local area to Rocky Point, roughly 4.8 miles)   | APS      | 6/1/2029 |
| b4000.9  | Construct a new substation called Rocky Point with a 765 kV and a 500 kV yard. Loop in the Doubs-Goose Creek 500 kV line, the Doubs-Aspen 500 kV line, and the Woodside-Goose Creek 500 kV line. Install two 765/500 kV transformer at Rocky Point substation    | APS      | 6/1/2029 |
| b4000.10 | Install four 250 MVAR cap banks (two on 765 and two on 500 kV side) and a +/-500 MVAR STATCOM on the 765 kV Rocky Point yard   | APS      | 6/1/2029 |
| b4000.11 | Expand Black Oak Substation to accommodate the connection of the 502 Jct-Woodside 500 kV line and loop the 502 Jct-Woodside 500 kV line into the Black Oak substation by constructing ~0.85 miles of new 500 kV line into and out of Black Oak 500 kV substation | APS      | 6/1/2029 |

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| b4000.12      | Upgrade the terminal equipment on the Doubs No. 1 500/230 kV transformer.  | APS      | 6/1/2029 |
| b4000.13      | Terminate the Woodside - Goose Creek 500 kV Line into Doubs Substation, creating the Woodside - Doubs #2 500 kV Line<br>Remove the Chanceford-Doubs and Rocky Point-Doubs line terminations at the Doubs substation and connects the two lines through a 0.6 mile 500 kV bypass line around the Doubs substation | APS      | 6/1/2032 |
| b4000.14      | Install two new 500 kV dead-end structures near Black Oak substation to interconnect the 502 Junction – Woodside 500 kV transmission line. Adjust Woodside protection scheme for Black Oak loop-in and remove 502 Junction tie. (NEET Scope)   | NEET     | 6/1/2029 |
| b4000.15      | Construct a new 86 miles Welton Spring to Rocky Point 765 kV line (Welton Spring to DVP local area, roughly 50 miles) (WV Portion)   | APS      | 6/1/2029 |
| b4000.10<br>0 | Ashburn Sub 230kV - replace 50kA breaker SC332 with 63kA   | Dominion | 6/1/2029 |
| b4000.10<br>1 | Beaumeade Sub 230kV - replace 63kA breaker 274T2206 with 80kA  | Dominion | 6/1/2029 |
| b4000.10<br>2 | Braddock Sub 230kV - replace 40kA breakers 207T294, 237T294, 237T297, 281T297 with 63kA  | Dominion | 6/1/2029 |
| b4000.10<br>3 | Brambleton Sub 230kV - replace 63kA breakers 217202, 2172T2183, L102, L202 with 80kA   | Dominion | 6/1/2029 |
| b4000.10<br>4 | Bristers Sub 230kV - replace 40kA and 50kA breakers H1TH2, H2TH3, L1T2101 with 63kA  | Dominion | 6/1/2029 |
| b4000.10<br>5 | Bull Run Sub 230kV - replace 50kA breaker H362 with 63kA   | Dominion | 6/1/2029 |
| b4000.10<br>6 | Buttermilk Sub 230kV - replace 63kA breakers 215212, 217012, 220312, 221412, 2152T2203 with 80kA   | Dominion | 6/1/2029 |
| b4000.10<br>7 | Cabin Run Sub 230kV - replace 63kA breakers 209512, 221312, T122 with 80kA   | Dominion | 6/1/2029 |
| b4000.10<br>8 | Carson Sub 230kV - replace 40kA breaker 23872 with 63kA  | Dominion | 6/1/2029 |
| b4000.10<br>9 | Clifton Sub 230kV - replace 63kA breakers 201182, SR182, XT2011 with 80kA  | Dominion | 6/1/2029 |
| b4000.11<br>0 | Doubs Sub 500kV - replace 50kA breaker DL-59 #2CAP with 63kA   | APS      | 6/1/2029 |
| b4000.11<br>1 | Evergreen Mills Sub 230kV - replace 63kA breakers H132, H232 with 80kA   | Dominion | 6/1/2029 |
| b4000.11<br>2 | Goose Creek Sub 230kV - replace 63kA breaker L1T227 with 80kA  | Dominion | 6/1/2029 |
| b4000.11<br>3 | Goose Creek Sub 500kV - replace 50kA breaker SC182 with 63kA   | Dominion | 6/1/2029 |
| b4000.11<br>4 | Ladysmith S1 Sub 230kV - replace 40kA breakers 25672, 209072, 256T2090, GT172, GT272, GT372, GT472, GT572 with 63kA  | Dominion | 6/1/2029 |
| b4000.11<br>5 | Ladysmith Sub 500kV - replace 40kA breaker 574T581 with 63kA   | Dominion | 6/1/2029 |
| b4000.11<br>6 | Liberty Sub 230kV - replace 50kA breaker SC112 with 63kA   | Dominion | 6/1/2029 |
| b4000.11<br>7 | Lockridge Sub 230kV - replace 63kA breakers 218872, H12T2188, 222372, H12T2223 with 80kA   | Dominion | 6/1/2029 |

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| b4000.118 | Loudoun Sub 230kV - replace 63kA breakers 209452, L152, L252 with 80kA   | Dominion | 6/1/2029 |
| b4000.119 | Loudoun Cap Sub 230kV - replace 50kA breaker SC352 with 63kA   | Dominion | 6/1/2029 |
| b4000.120 | Loudoun Sub 500kV - replace 50kA breakers 502T535, 569T584, H1T569, H2T502, H2T584, SC152 with 63kA                                | Dominion | 6/1/2029 |
| b4000.121 | Marsh Run Sub 230kV - replace 50kA breaker 28002, 29902, 280T2039, 299T2040, 203902, 204002 with 63kA                              | Dominion | 6/1/2029 |
| b4000.122 | Morrisville Sub 230kV - replace 50kA breaker L1T2039, L1T2040, L2T2039, L2T2040 with 63kA  | Dominion | 6/1/2029 |
| b4000.123 | Morrisville Sub 500kV - replace 50kA breakers H1T541, H1T594, H2T545, H2T569, SC122 with 63kA                                      | Dominion | 6/1/2029 |
| b4000.124 | Mosby Sub 500kV - replace 50kA breakers 50272, 54672, 55972, 58472, 59072, 502T546, 559T584, SC172, SV172, SV272, XT590 with 63kA  | Dominion | 6/1/2029 |
| b4000.125 | Mt Storm Sub 500kV - replace 40kA breaker G3T572X with 63kA  | Dominion | 6/1/2029 |
| b4000.126 | Nimbus Sub 230kV - replace 63kA breakers 215282, 225532-5, 225532-6, 226034 with 80kA  | Dominion | 6/1/2029 |
| b4000.127 | NIVO 1 Sub 230kV - replace 63kA breaker 2116T2130 with 80kA (4-breaker ring bus)   | Dominion | 6/1/2029 |
| b4000.128 | North Anna Sub 500kV - replace 40kA breakers 57502, G102-1, G102-2, G202, G2T575, XT573 with 63kA                                  | Dominion | 6/1/2029 |
| b4000.129 | Ox Sub 230kV - replace 50kA and 63kA breakers 201342, 209742, 206342, SC242 with 80kA  | Dominion | 6/1/2029 |
| b4000.131 | Paragon Park Sub 230kV - replace 63kA breakers 220632, 220732 with 80kA  | Dominion | 6/1/2029 |
| b4000.132 | Pleasantview Sub 230kV - replace 63kA breakers 203T274, 274T2098 with 80kA   | Dominion | 6/1/2029 |
| b4000.133 | Pleasantview Sub 500kV - replace 40kA breaker H322 with 63kA   | Dominion | 6/1/2029 |
| b4000.134 | Remington Sub 230kV - replace 40kA and 50kA breakers 211462, GT162, GT262, GT362, GT462, 2077T2086, 208662, H962, H9T299 with 63kA | Dominion | 6/1/2029 |
| b4000.135 | Roundtable Sub 230kV - replace 63kA breakers 203102, 214902, 221402, 222302, 2031T2223, 2149T2214 with 80kA                        | Dominion | 6/1/2029 |
| b4000.136 | Vint Hill Sub 230kV - replace 63kA breakers 2101T2174, 2163T2174, 2101T2163 with 80kA  | Dominion | 6/1/2029 |
| b4000.137 | Yardley Sub 230kV - replace 63kA breakers WT2209, WT2213, XT2209, XT2213 with 80kA   | Dominion | 6/1/2029 |
| b4000.201 | Smith Mountain 138 kV Upgrade:<br>Replace 795 KCM AAC, 37-Str. 795 KCM AAC, 37-Str. PH A B2S1 B2S2 BS1 BS2                         | AEP      | 6/1/2029 |
| b4000.202 | Rebuild 12.5 miles of Smith Mountain - Redeye 138 kV line  | AEP      | 6/1/2029 |
| b4000.203 | Rebuild 17.5 miles of Redeye - Candler's Mountain 138 kV line  | AEP      | 6/1/2029 |
| b4000.204 | Rebuild 4 miles of Candler's Mountain - Opossum Creek 138 kV line  | AEP      | 6/1/2029 |

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| b4000.205 | Candler's Mountain 138 kV:<br>Replace 1590 KCM AAC, 61-Str. Replace MOAB "Y" SMITH MTN LINE  | AEP      | 6/1/2029 |
| b4000.206 | Opossum Creek 138 kV:<br>Replace Opossum Creek Switch  | AEP      | 6/1/2029 |
| b4000.207 | Leesville Station Upgrade 138 kV:<br>Replace 795 KCM AAC, 37-Str. IPS Sch. 40 1272 KCM AAC, 61-Str. 1272 KCM AAC, 61-Str. PH A,B,C ALTA VISTA CB-A BUS DISC ALTA VISTA CB-A LINE DISC Wavetrap (1200A) Relay Thermal Limit 1356 Amps | AEP      | 6/1/2029 |
| b4000.208 | Otter 138 kV Station Upgrade:<br>Replace 795 KCM AAC, 37-Str.  | AEP      | 6/1/2029 |
| b4000.210 | Rebuild 7 miles of Otter - Johnson Mountain 138 kV line  | AEP      | 6/1/2029 |
| b4000.211 | Rebuild 6.5 miles of Johnson Mountain - New London 138 kV line   | AEP      | 6/1/2029 |
| b4000.251 | Replace the wave trap and upgrade the relay at Cloverdale 765kV substation   | AEP      | 6/1/2029 |
| b4000.252 | Replace the wave trap and upgrade the relay at Joshua Falls 765kV substation   | AEP      | 6/1/2029 |
| b4000.300 | Rebuild approximately 1.71 miles of 230kV line 299 from the Marsh Run substation to the Remington CT substation. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.301 | Reconductor approximately 1.24 miles of 230kV line 280 from Remington - the Marsh Run CT substation to the Remington substation. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.302 | Uprate line #299 terminal equipment, line leads, and bus at Marsh Run substation to be rated to 4000A.   | Dominion | 6/1/2029 |
| b4000.303 | Uprate line #299 terminal equipment, line leads, and bus at Remington CT substation to be rated to 4000A.  | Dominion | 6/1/2029 |
| b4000.304 | Partial reconductor/partial wreck & rebuild of 230kV Line #2161 Gainesville – Wheeler. New conductor has a summer rating of 1573 MVA. (Wheeler - Linton Tap segment)   | Dominion | 6/1/2029 |
| b4000.305 | Partial reconductor/partial wreck & rebuild of 230kV Line #2161 Gainesville – Wheeler. New conductor has a summer rating of 1573 MVA. (Linton Tap - Atlantic segment)  | Dominion | 6/1/2029 |
| b4000.306 | Partial reconductor/partial wreck & rebuild of 230kV Line #2161 Gainesville – Wheeler. New conductor has a summer rating of 1573 MVA. (Atlantic - Trident segment)   | Dominion | 6/1/2029 |
| b4000.307 | Partial reconductor/partial wreck & rebuild of 230kV Line #2161 Gainesville – Wheeler. New conductor has a summer rating of 1573 MVA. (Trident - Gainesville segment)  | Dominion | 6/1/2029 |
| b4000.308 | Upgrade all line #2161 terminal equipment at Gainesville to 4000A. A CCVT will also be replaced due to aging.  | Dominion | 6/1/2029 |
| b4000.309 | Upgrade all line #2161 terminal equipment Wheeler substation to 4000A.   | Dominion | 6/1/2029 |
| b4000.310 | Revise relay settings at Trident substation.   | Dominion | 6/1/2029 |

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| b4000.31<br>1 | Rebuild 230kV Line #213 and #225 from Thelma – Lakeview. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.31<br>2 | At Thelma substation, upgrade line lead, wave traps (213WT & 225WT), circuit breaker leads to 4000A. CB switches 22535, 23235, 23238 and 21335 will also be upgrade to 4000A DEB switches. CCVTs 213P1, 213P2 and 213P3 will be replaced due to aging. | Dominion | 6/1/2029 |
| b4000.31<br>3 | At Lakeview substation, upgrade wave traps 213WT and 225WT, line leads, and circuit breaker leads to 4000A. Upgrade CB switches 22565 and 22564 to 4000A double-end break switches. Replace CCVTs 225P1, 225P2, and 225P3 due to aging.                | Dominion | 6/1/2029 |
| b4000.31<br>4 | Reconductor 230kV Line #2003 Chesterfield – Tyler segment. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.31<br>5 | Reconductor 230kV Line #2003 Tyler – Poe segment. New conductor has a summer rating of 1573 MVA.   | Dominion | 6/1/2029 |
| b4000.31<br>6 | At Poe substation, uprate all Line #2003 terminal equipment, line leads, and bus to be rated to 4000A.   | Dominion | 6/1/2029 |
| b4000.31<br>7 | At Tyler substation, upgrade the necessary line terminal equipment to maintain 4000A at Tyler substation.  | Dominion | 6/1/2029 |
| b4000.31<br>8 | Revise relay settings at Chesterfield substation.  | Dominion | 6/1/2029 |
| b4000.31<br>9 | Reconductor 230kV Line #2002 Carson – Poe. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.32<br>0 | At Carson substation, upgrade all line #2002 terminal equipment at Carson to 4000A. CCVTs will also be replaced due to aging.  | Dominion | 6/1/2029 |
| b4000.32<br>1 | At Poe substation, upgrade all line #2002 terminal equipment at Carson to 4000A. CCVTs will also be replaced due to aging.   | Dominion | 6/1/2029 |
| b4000.32<br>2 | Build a new 230kV Line from Nokesville – Hornbaker using the vacant arms of the double circuit monopole structures installed as part of previous project 993027. New conductor has a summer rating of 1573 MVA.  | Dominion | 6/1/2029 |
| b4000.32<br>3 | Upgrade terminal equipment at Nokesville substation. The project adds one more line to Nokesville, including the installation of one 230kV breaker and two 230kV switches.   | Dominion | 6/1/2029 |
| b4000.32<br>4 | Upgrade terminal equipment at Hornbaker substation. This project provides for installing a new 230kV 4000A rated line terminal at Hornbaker to accommodate the new line to Nokesville.   | Dominion | 6/1/2029 |
| b4000.32<br>5 | Build a new 26.38mi 230kV Line from Elmont – Ladysmith on the existing 5-2 structures between the two stations. New conductor has a summer rating of 1573 MVA.   | Dominion | 6/1/2029 |
| b4000.32<br>6 | At Elmont substation, install/upgrade associated equipment to accommodate a 4000A line rating for the new 230kV line between Elmont - Ladysmith.   | Dominion | 6/1/2029 |
| b4000.32<br>7 | Upgrade/install equipment at Ladysmith substation to 4000A. Expansion will be required to accommodate a total of three (3) new 230kV strings of breaker and a half scheme.   | Dominion | 6/1/2029 |
| b4000.32<br>8 | Construct a new 24.5-mile 230 kV line 9482 from Cloverhill substation to Ox substation.  | Dominion | 6/1/2029 |
| b4000.32<br>9 | At Ox substation, install the necessary associated equipment to accomdate the new line between Cloverhill - Ox. This project also  | Dominion | 6/1/2029 |

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|           | includes expanding the substation with associated security level 1 fencing and super post structure needed.   |          |          |
| b4000.330 | At Cloverhill substation, install the necessary associated equipment to accomodate the new line between Cloverhill - Ox. This project also includes demolishing and reconstructing the existing bus system and roadway.   | Dominion | 6/1/2029 |
| b4000.331 | Construct a new 230kV single circuit line from Raines substation to Cloud substation to solve electrical violations cause by the significant load growth in South Hill, Virginia. The scope also includes an idle 230kV circuit being installed between these stations.   | Dominion | 6/1/2029 |
| b4000.332 | At Cloud substation, upgrade substation terminal equipment to 4000A.  | Dominion | 6/1/2029 |
| b4000.333 | At Raines substation, upgrade substation terminal equipment to 4000A.   | Dominion | 6/1/2029 |
| b4000.334 | Reconductor 115kV line #121 from Poe - Prince George. Specifically, line #121 will be reconducted and converted to 230kV from Poe substation to Prince George substation.   | Dominion | 6/1/2029 |
| b4000.335 | At Poe substation, install a new 230kV six breaker ultimate ring bus which will fit the station to current 230kV standards. The substation scope includes the installation of 230kV breaker and half GIS bus. Work at Poe subsation is associated with line #121 reconductor.   | Dominion | 6/1/2029 |
| b4000.336 | Build a new 230-115kV Prince George substation along the existing 115 or 230kV corridor. The substation scope includes the installation of 230kV breakers & 1-115kV breaker along with its associated terminal equipment initially but will have provision for making it a 6-breaker ring (both 230 & 115kV) in future. The existing 230-115kV transformer at Prince George will be relocated to serve this new substation. | Dominion | 6/1/2029 |
| b4000.337 | Extend a new 230 kV line approximately 7.85 miles between the existing Morrisville and Anderson Branch substations. The existing tower structures currently supporting the Bristers to Morrisville 500 kV Line #545 will be used to support this new line as shared tower structures.   | Dominion | 6/1/2029 |
| b4000.338 | At Morrisville substation, install/upgrade substation terminal equipment to 4000A.  | Dominion | 6/1/2029 |
| b4000.339 | At Anderson Branch substation, install/upgrade substation terminal equipment to 4000A.  | Dominion | 6/1/2029 |
| b4000.340 | Uprate existing Goose Creek 500/230kV transformer to 1440 MVA.  | Dominion | 6/1/2029 |
| b4000.341 | Remove the 500 kV conductor previously planned to terminate into the Vint Hill 500 kV substation and extend approximately 0.2 miles of conductor to fly-over the site.  | Dominion | 6/1/2029 |
| b4000.342 | Remove the terminal equipment and substation work required for the termination of the Morrisville – Wishing Star 500 kV line into Vint Hill.  | Dominion | 6/1/2029 |
| b4000.343 | Uprate bus at Brambleton to support 500kV Line #558 (Aspen to Brambleton) uprate.   | Dominion | 6/1/2029 |

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| b4000.34<br>4 | Build a 500kV line from North Anna substation (bypassing Ladysmith Substation) to a new substation called Kraken. New conductor to have a minimum summer normal rating of 4357MVA.   | Dominion | 6/1/2029 |
| b4000.34<br>5 | Build a 500kV line from a new substatoon called Kraken to a new substation called Yeat. New conductor to have a minimum summer normal rating of 4357MVA.   | Dominion | 6/1/2029 |
| b4000.34<br>6 | Cut-in 500kV line from Kraken substation into Yeat substation  | Dominion | 6/1/2029 |
| b4000.34<br>7 | Upgrade/install equipment at North Anna substation to 5000A to support the new conductor rating.   | Dominion | 6/1/2029 |
| b4000.34<br>8 | Build a new 500/230kV substation called Kraken. The 500kV, 5000A ring bus will be set up for a redundant breaker configuration. Install (2) 1400MVA 500/230 kV transformers. A new redundant breaker ring will be added at Kraken to accommodate the new 500kV line from North Anna to Kraken. | Dominion | 6/1/2029 |
| b4000.34<br>9 | Update relay settings at Ladysmith to change the destination of 500kV line #568 from Possum Point to Kraken.   | Dominion | 6/1/2029 |
| b4000.35<br>0 | Update relay settings at Possum Point to change the destination of 500kV line #568 from Ladysmith to Kraken.   | Dominion | 6/1/2029 |
| b4000.35<br>1 | Cut in Line #568 Ladysmith - Possum Point into Kraken, creating Line #9517 Ladysmith to Kraken.  | Dominion | 6/1/2029 |
| b4000.35<br>2 | Cut in Line #568 Ladysmith - Possum Point into Kraken, creating new Line #568 Kraken to Possum Point.  | Dominion | 6/1/2029 |
| b4000.35<br>3 | Upgrade 500kV terminal equipment at Elmont substation.   | Dominion | 6/1/2029 |
| b4000.35<br>4 | Expand Ladysmith substation to a add redundant circuit breakers to the middle breakers on both 500kV strings (574T575 and 568T581). The equipment including switches 57518, 57515, H115 will be replaced with 5000A equipment.   | Dominion | 6/1/2029 |
| b4000.35<br>5 | Build a new 156 mile 765kV line from Joshua Falls – Yeat. (Roughly 69.3 miles in AEP section).   | AEP      | 6/1/2029 |
| b4000.35<br>6 | Build a new 156 mile 765kV line from Joshua Falls – Yeat. (Roughly 86.7 miles in Dominion section).  | Dominion | 6/1/2029 |
| b4000.35<br>7 | Build a new 765/500/230kV substation called Yeat. Install (2) 765/500 kV transformers. Cut in 500kV line Bristers – Ox and 500kV line Meadowbrook – Vint Hill into Yeat.   | Dominion | 6/1/2029 |
| b4000.35<br>8 | Build a new 765/500/230kV substation called Yeat. Install (1) 500/230kV transformer. Cut in 230kV line Vint Hill – Elk Run into Yeat substation.   | Dominion | 6/1/2029 |
| b4000.35<br>9 | Add (2) 765kV breakers at Joshua Falls substation. Substation expansion is required to add the additional breakers.  | AEP      | 6/1/2029 |
| b4000.36<br>0 | Replace two switches, a wave trap and leads to upgrade all related substation equipment to 2000A at Altavista 138 kV substation.   | Dominion | 6/1/2029 |
| b4007.1       | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE03  | BGE      | 6/1/2029 |
| b4007.2       | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE07  | BGE      | 6/1/2029 |
| b4007.3       | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE11  | BGE      | 6/1/2029 |

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| b4007.4 | 2024W1 P5: Install trip coil monitors: Addressing FG No. 2024-P5-BGE14   | BGE     | 6/1/2029 |
| b4007.5 | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE05  | BGE     | 6/1/2029 |
| b4007.6 | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE04  | BGE     | 6/1/2029 |
| b4007.7 | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-BGE13  | BGE     | 6/1/2029 |
| b4008.1 | 2024W1 P5: Install open-battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-PN01  | PENELEC | 6/1/2029 |
| b4009.1 | 2024W1 P5: Modify relay wiring: Addressing FG No. 2024-P5-PN03   | PENELEC | 6/1/2029 |
| b4010.1 | 2024W1 P5: Install open-battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-PN05  | PENELEC | 6/1/2029 |
| b4037.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-APS25.   | APS     | 6/1/2029 |
| b4038.1 | 2024W1 P5: Modify relay wiring: Addressing FG No. 2024-P5-APS02  | APS     | 6/1/2029 |
| b4039.1 | 2024W1 P5: Replace three relay panels and modify relay wiring. Addresses FG No. 2024-P5-APS24.   | APS     | 6/1/2029 |
| b4039.2 | 2024W1 P5: Replace one relay panel at a confidential substation connected to the substation associated with b4039.1. Addresses FG No. 2024-P5-APS24. | APS     | 6/1/2029 |
| b4039.3 | 2024W1 P5: Replace one relay panel at a confidential substation connected to the substation associated with b4039.1. Addresses FG No. 2024-P5-APS24. | APS     | 6/1/2029 |
| b4039.4 | 2024W1 P5: Replace one relay panel at a confidential substation connected to the substation associated with b4039.1. Addresses FG No. 2024-P5-APS24. | APS     | 6/1/2029 |
| b4040.1 | 2024W1 P5: Install battery monitoring, DC panel and modify relay wiring: Addressing FG No. 2024-P5-APS03   | APS     | 6/1/2029 |
| b4041.1 | 2024W1 P5: Install battery monitoring, DC panel, line panel and modify relay wiring: Addressing FG No. 2024-P5-ATSI15                                | ATSI    | 6/1/2029 |
| b4042.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-JCPL03  | JCPL    | 6/1/2029 |
| b4043.1 | 2024W1 P5: Modify relay wiring: Addressing FG No. 2024-P5-JCPL06   | JCPL    | 6/1/2029 |
| b4044.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-ME04  | ME      | 6/1/2029 |
| b4045.1 | 2024W1 P5: Install relay panel and modify relay wiring: Addressing FG No. 2024-P5-JCPL01   | JCPL    | 6/1/2029 |
| b4046.1 | 2024W1 P5: Install battery monitoring, DC panel and modify relay wiring: Addressing FG No. 2024-P5DYN-JCPL04   | JCPL    | 6/1/2029 |
| b4047.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-JCPL03   | JCPL    | 6/1/2029 |
| b4048.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-ME02  | ME      | 6/1/2029 |
| b4049.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-JCPL02  | JCPL    | 6/1/2029 |

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| b4050.1 | 2024W1 P5: Modify relay wiring: Addressing FG No. 2024-P5-ATSI05   | ATSI     | 6/1/2029 |
| b4051.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-ATSI09   | ATSI     | 6/1/2029 |
| b4053.9 | Construct one new 500 kV line terminal position at the existing Elmont substation.   | Dominion | 6/1/2032 |
| b4054.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-ME03  | ME       | 6/1/2029 |
| b4055.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5DYN-PN04  | PENELEC  | 6/1/2029 |
| b4056.1 | 2024W1 P5: Move backup relaying DC supply to separate battery and modify relay wiring Addresses FG No. 2024-P5DYN-PN02                             | PENELEC  | 6/1/2029 |
| b4057.1 | 2024W1 P5: Install relay panel and modify relay wiring: Addressing FG No. 2024-P5-APS06  | APS      | 6/1/2029 |
| b4058.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-ME04   | ME       | 6/1/2029 |
| b4059.1 | 2024W1 P5: Install open battery monitoring, install relay panel, modify relay wiring: Addressing FG No. 2024-P5-ME05                               | ME       | 6/1/2029 |
| b4060.1 | 2024W1 P5: Install open battery monitoring, install relay panel, modify relay wiring: Addressing FG No. 2024-P5-APS01                              | APS      | 6/1/2029 |
| b4061.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-APS05  | APS      | 6/1/2029 |
| b4062.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-APS08  | APS      | 6/1/2029 |
| b4063.1 | 2024W1 P5: Install battery monitoring, DC panel(s); replace bus differential scheme and modify relay wiring: Addressing FG No. 2024-P5-APS22       | APS      | 6/1/2029 |
| b4064.1 | 2024W1 P5: Install battery monitoring, relay panels; modify relay wiring: Addressing FG No. 2024-P5-APS23  | APS      | 6/1/2029 |
| b4065.1 | 2024W1 P5: Install battery monitoring system and replace two 115 kV line protection schemes. Addresses FG No. 2024-P5-PN04                         | PENELEC  | 6/1/2029 |
| b4065.2 | 2024W1 P5: Install one relay panel at a confidential substation connected to the substation associated with b4065.1. Addresses FG No. 2024-P5-PN04 | PENELEC  | 6/1/2029 |
| b4066.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-PN05   | PENELEC  | 6/1/2029 |
| b4067.1 | 2024W1 P5: Install battery monitoring, DC panel and modify relay wiring: Addressing FG No. 2024-P5DYN-JCPL01                                       | JCPL     | 6/1/2029 |
| b4070.1 | 2024W1 P5: Modify relay wiring: Addressing FG No. 2024-P5DYN-ME01  | ME       | 6/1/2029 |
| b4071.1 | 2024W1 P5: Separate DC supply to backup relaying and the second trip coils; modify relay wiring: Addressing FG No. 2024-P5DYN-PN03                 | PENELEC  | 6/1/2029 |
| b4072.1 | 2024W1 P5: Install open battery monitoring and modify relay wiring: Addressing FG No. 2024-P5-ME02   | ME       | 6/1/2029 |
| b4073.1 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED01   | ComEd    | 6/1/2029 |
| b4073.2 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED30   | ComEd    | 6/1/2029 |

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| b4073.3 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED28   | ComEd | 6/1/2029 |
| b4073.4 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED31   | ComEd | 6/1/2029 |
| b4073.5 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED29   | ComEd | 6/1/2029 |
| b4073.6 | 2024W1 P5: Install battery monitoring: Addressing FG No. 2024-P5-COMED14   | ComEd | 6/1/2029 |
| b4074.1 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the control center: Addressing FG No. 2024-P5-PECO01  | PECO  | 6/1/2029 |
| b4074.2 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO02  | PECO  | 6/1/2029 |
| b4074.3 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO03  | PECO  | 6/1/2029 |
| b4074.4 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO04  | PECO  | 6/1/2029 |
| b4074.5 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO05  | PECO  | 6/1/2029 |
| b4074.6 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install Shunt enclosure; and connect alarm points to SCADA to monitor and report low voltage and open circuit conditions on the station DC supply to the Control Center.: Addressing FG No. 2024-P5-PECO06 | PECO  | 6/1/2029 |
| b4074.7 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO07  | PECO  | 6/1/2029 |
| b4074.8 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5-PECO08  | PECO  | 6/1/2029 |
| b4074.9 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to   | PECO  | 6/1/2029 |

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|          | SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO09  |      |          |
| b4074.10 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO10 | PECO | 6/1/2029 |
| b4074.11 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO11 | PECO | 6/1/2029 |
| b4074.12 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO12 | PECO | 6/1/2029 |
| b4074.13 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO13 | PECO | 6/1/2029 |
| b4074.14 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO14 | PECO | 6/1/2029 |
| b4074.15 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO15 | PECO | 6/1/2029 |
| b4074.16 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO16 | PECO | 6/1/2029 |
| b4074.17 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO17 | PECO | 6/1/2029 |
| b4074.18 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center:<br>Addressing FG No. 2024-P5-PECO18 | PECO | 6/1/2029 |
| b4074.19 | 2024W1 P5: Replace existing battery charger; install auxiliary alarm relay board; install shunt enclosure; and connect alarm points to   | PECO | 6/1/2029 |

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|          | SCADA to monitor and report low-voltage and open-circuit conditions on the station DC supply to the Control Center: Addressing FG No. 2024-P5DYN-PECO01 |     |          |
| b4075.1  | 2024W1 P5: Install open circuit battery monitoring: Addressing FG No. 2024-P5-AEC01   | ACE | 6/1/2029 |
| b4075.2  | 2024W1 P5: Install open circuit battery monitoring: Addressing FG No. 2024-P5-AEC02   | ACE | 6/1/2029 |
| b4075.3  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC03   | ACE | 6/1/2029 |
| b4075.4  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC04   | ACE | 6/1/2029 |
| b4075.5  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC05   | ACE | 6/1/2029 |
| b4075.6  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC06   | ACE | 6/1/2029 |
| b4075.7  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC07   | ACE | 6/1/2029 |
| b4075.8  | 2024W1 P5: Install open-circuit battery monitoring: Addressing FG No. 2024-P5-AEC08   | ACE | 6/1/2029 |
| b4076.1  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL01  | DPL | 6/1/2029 |
| b4076.2  | 2024W1 P5: Install open circuit monitoring. Addresses FG No. 2024-P5-DPL02  | DPL | 6/1/2029 |
| b4076.3  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL03  | DPL | 6/1/2029 |
| b4076.4  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL04  | DPL | 6/1/2029 |
| b4076.5  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL05  | DPL | 6/1/2029 |
| b4076.6  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL07  | DPL | 6/1/2029 |
| b4076.7  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL08  | DPL | 6/1/2029 |
| b4076.8  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL09  | DPL | 6/1/2029 |
| b4076.9  | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5-DPL10, 2024-P5DYN-DPL02  | DPL | 6/1/2029 |
| b4076.10 | 2024W1 P5: Install open-circuit monitoring. Addresses FG No. 2024-P5DYN-DPL01   | DPL | 6/1/2029 |

***Revision History:***

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