

Kentucky Power Company  
KPSC Case No. 2026-00208  
Commission Staff's First Set of Data Requests  
Dated September 16, 2026  
Page 1 of 2

**DATA REQUEST**

**KPSC 1\_1** Refer to the Application, page 6, paragraph 18, which states: “The total estimated cost for Alternative Solution is \$49.7 million, which is more expensive than the Proposed Project.” Refer also to the Direct Testimony of Tyler M. Benedum (Benedum Direct Testimony), page 5, which states: “The estimated total cost of the Alternative Project is \$52.4 million compared to the current estimate of the Proposed Project of \$49.7 million.”

- a. Provide the correct estimated cost of the Alternative Solution.
- b. Explain the apparent cost estimate inconsistencies between the two referenced portions of the Application that identify the estimated cost of the Alternative Solution as either \$49.7 million or \$52.4 million.
- c. Provide an explanation for how Kentucky Power estimated the transmission expense for the Alternative Solution.
- d. Provide full cost workpapers for the Proposed Project and the Alternative Solution with a breakdown for all cost components of the correct amount.

**RESPONSE**

a. and b. This was a scrivener’s error. The correct estimated cost of the Alternative Solution is approximately \$52.4M. The correct estimated cost of the Proposed Project is approximately \$49.7M.

**c. Proposed Project**

To arrive at the final transmission expense estimate, the Proposed Project was moved through the Company’s standard revision process. This process includes: a) gathering all information for costs that have actualized on the Proposed Project at the start of the revision process; b) forecasting all remaining costs for the Proposed Project which includes current open contracts for external labor and materials, future contracts/change orders for external labor and materials, and forecasted remaining costs for internal labor; and c) applying contingency (both general and risk-based) costs to the forecasted costs. The revision process arrives at a final estimate by combining actualized costs and forecasted costs that are based on clearly defined bids provided by vendors.

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**Alternative Solution**

The Estimating department's Cost Analyst team maintains historical data for inflation by year which dates back to 2015. The historical data is broken down into construction labor, equipment, and professional services. The original estimate for the Alternative Solution (New Station Installation) was completed in 2020. Inflation data was applied to the original estimate to arrive at an updated estimate for the Alternative Solution in 2026 dollars.

d. Please see KPCO\_R\_KPSC\_1\_1\_Attachment1. Please note that due to cost component rounding the total estimated cost for both the Proposed Project and Alternative Solution is slightly different in subparts (a) and (b) than in the attachment.

Witness: Tyler M. Benedum

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**DATA REQUEST**

**KPSC 1\_2** Refer to the Application, page 4, paragraph 10. Provide a copy of the PJM report issued in the 2026 RTEP-Winter case.

**RESPONSE**

Please see KPCO\_R\_KPSC\_1\_2\_Attachment1.

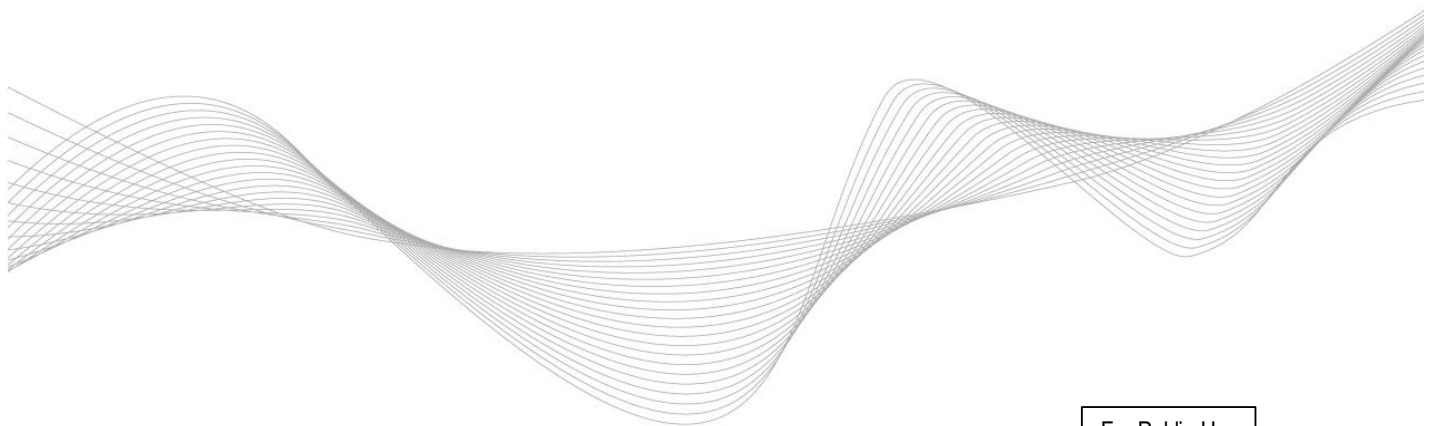
Witness: Nicolas C. Koehler



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

PJM Staff White Paper

PJM Interconnection  
February 2022



For Public Use



## TEAC Recommendations to the PJM Board – February 2022

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## I. Executive Summary

On December 8, 2021, the PJM Board of Managers approved changes to the Regional Transmission Expansion Plan (RTEP), totaling a net increase of \$95.65 million for baseline projects, to resolve baseline reliability criteria violations and address changes to existing projects. The PJM Board of Managers also approved a net increase of \$39.14 million for network upgrades to address new projects with signed ISAs, project scope changes and project cancellations.

Since then, PJM has identified additional baseline reliability criteria violations, and the transmission system enhancements needed to solve them, at an estimated cost of \$519.37 million. Scope/cost changes to an existing project will result in a net increase of \$3.54 million, and cancellation to an existing project will result in a net decrease of \$7.5 million. This yields an overall RTEP net increase of \$515.41 million, for which PJM recommended Board approval. With these changes, RTEP projects will total approximately \$39,448.9 million since the first Board approvals in 2000.

PJM sought Reliability and Security Committee consideration and full Board approval of the RTEP baseline projects summarized in this white paper. On February 16, 2022, the Board approved the addition of RTEP baseline projects as well as other changes to the RTEP as summarized in this paper.

## II. Baseline Project Recommendations

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

## III. Baseline Reliability Projects Summary

A summary of baseline projects with estimated costs equal to or greater than \$10 million, as well as one operational performance driven project, is provided below. A complete listing of all recommended projects and their associated cost allocations is included in Attachment A (allocations to a single zone) and Attachment B (allocations to multiple zones). Projects with estimated costs less than \$10 million typically include, by way of example, transformer replacements, line reconductoring, breaker replacements and upgrades to terminal equipment, including relay and wave trap replacements.

### A. AEP Transmission Zone

- Baseline project b3353 – Allen 46 kV Station Rebuild Baseline Conversion: \$16 million
- Baseline project b3348 – Dehue Area Improvements: \$65.8 million
- Baseline project b3361 – Prestonsburg-Thelma 46 kV Rebuild: \$33.01 million



***B. APS Transmission Zone***

- Baseline project b3683 – Messick Road-Ridgeley 138 kV Upgrades: \$11.2 million

***C. ComEd Transmission Zone***

- Baseline project b3677 – LaSalle-Mazon 138 kV Rebuild: \$42.06 million

***D. Dominion Transmission Zone***

- Baseline project b3686 – Bremo-Columbia D.P. 115 kV Switching Station: \$16 million
- Baseline project b3687 – Bristers-Minnieville D.P. 115 kV Rebuild: \$30 million
- Baseline project b3684 – Earleys-Kelford 115 kV Rebuild: \$18.75 million
- Baseline project b3692 – Elmont-Chickahominy 500 kV Rebuild: \$58.16 million
- Baseline project b3694 – Fredericksburg/Carson/Hopewell Area Improvements: \$93.41 million
- Baseline project b3689 – Remington CT-Gainesville 230 kV Reconnector: \$30.68 million

PJM also recommended projects totaling \$79.53 million, which include a 115 kV and multiple 69 kV line rebuilds, 230 kV line reconnector, a 345/138 kV transformer installation, 138/69/46 kV and 138/69 kV transformer replacements, capacitor bank installations, a reactor installation, circuit breaker and disconnect switch installations/replacements, and other substation and terminal equipment upgrades/replacements, whose individual cost estimates are less than \$10 million.

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

***E. Baseline Reliability Project Details***

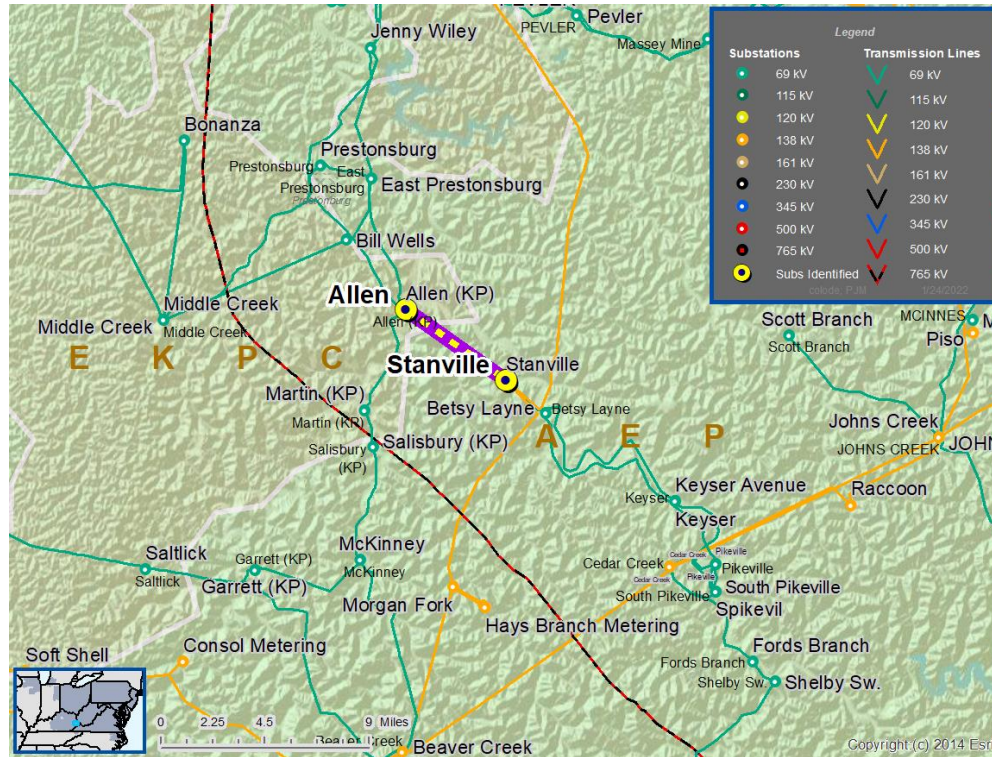
**Baseline Project b3353: Allen 46 kV Station Rebuild Baseline Conversion**

**AEP Transmission Zone**

In the 2026 RTEP winter case, the Stanville-Allen 46 kV line section is overloaded for multiple N-1 outage combination.



Map 1. b3353: Allen 46 kV Area



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is an existing supplemental project that has been converted to a baseline. The supplemental project scope, slated to be in service by the end of 2023, addresses the severe flooding issue and obsolete equipment at the existing Allen station. The supplemental project was converted to a baseline as it addresses both the supplemental needs identified through the M-3 process and the identified reliability needs in the 2026 RTEP winter case. The proposed conversion of the supplemental project to a baseline does not add any cost to the RTEP. The solution is to rebuild the Allen 46 kV station to the northwest of its current footprint utilizing a standard air-insulated substation with equipment raised by 7-foot concrete platforms and a control house raised by a 10-foot platform to mitigate flooding concerns. Five 69 kV 3000 A 40 kA circuit breakers in a ring bus (operated at 46 kV) configuration will be installed with a 13.2 MVAR capacitor bank. The existing Allen station will be retired. A 0.20 mile segment of the Allen-East Prestonsburg 46 kV line will be relocated to the new station. The new McKinney-Allen line extension will extend 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. A segment of the Stanville-Allen line will also have to be relocated to the new station. A 0.25 mile segment of the existing Allen-Prestonsburg single circuit will be relocated, and 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-Prestonsburg and Allen-East Prestonsburg 46 kV lines. A temporary 0.15 mile section double circuit line will be constructed to



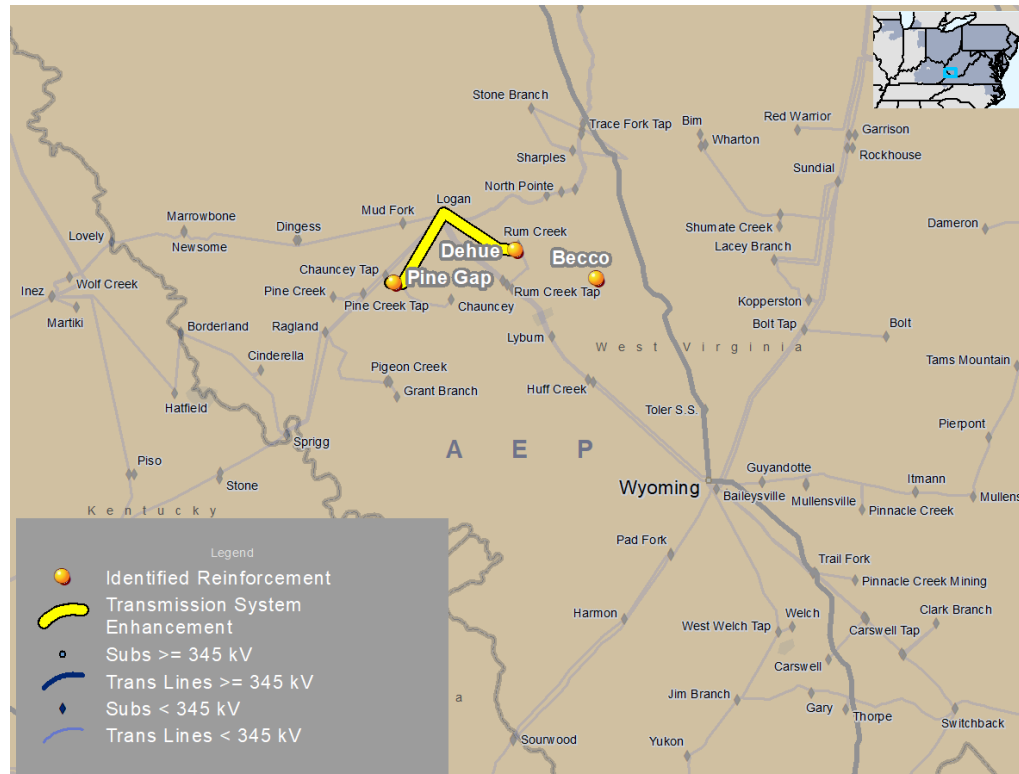
keep both lines energized during construction. Remote end work will also be required at Prestonsburg, Stanville and McKinney 46 kV stations. The estimated cost for this project is \$16 million, with a required in-service date of December 2026. The projected in-service date is December 2023, and the local transmission owner, AEP, will be designated to complete this work.

## Baseline Project b3348: Dehue Area Improvements

### AEP Transmission Zone

In the 2026 RTEP light load case, the Becco-Slagle, Dehue-Pine Gap and Dehue-Slagle 46 kV lines are overloaded for an N-1 outage combination. There are also low voltage and voltage drop violations at Three Fork, Toney Fork, Cyclone, Pardee, Crane, Latrobe, Becco, Slagle and Dehue 46 kV buses for an N-1 outage combination.

**Map 2. b3348: Dehue Area**



The recommended solution, solicited through the 2021 Window 1 competitive proposal process, is to construct a new 138 kV Tin Branch single bus station to replace Pine Gap station, 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. The project installs two 138 kV circuit breakers on the line exits and a 138 kV circuit switcher for the new transformer. A new 138/46/12 kV Argyle station will be constructed to replace the Dehue station, with a 138 kV ring bus using a breaker-and-a-half configuration, an autotransformer (46 kV feed) and a distribution transformer (12 kV distribution bay). Two 138 kV lines will feed the Argyle station (from



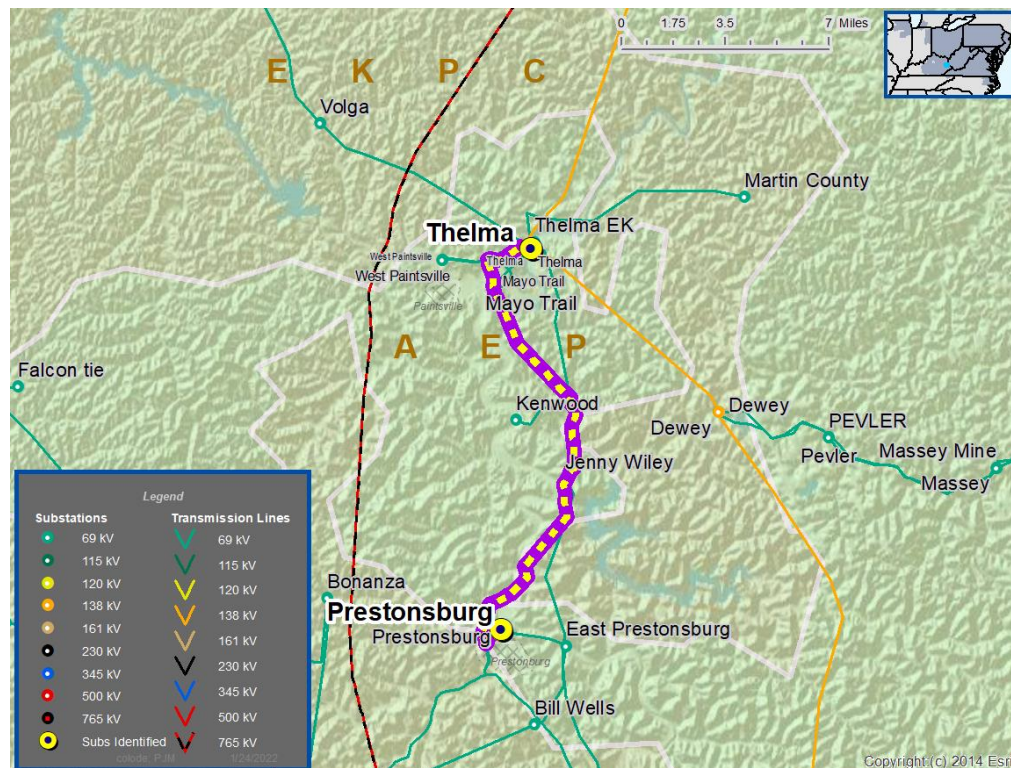
Logan and Wyoming stations), and there will also be a 46 kV feed from this station to Becco station (distribution will have two 12 kV feeds). The project retires the Dehue station in its entirety, and brings the Logan-Sprigg No. 2 138 kV circuit in and out of Tin Branch station by constructing approximately 1.75 miles of new overhead double circuit 138 kV line. The Logan-Wyoming No. 1 138 kV circuit will be brought in and out of the new Argyle substation. 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 No. 8 ALUMOWELD, and one shield wire will be optical ground wire (OPGW). Approximately 10 miles of the 46 kV line between Becco and the new Argyle substation will be rebuilt, and approximately 16 miles of 46 kV line between the new Argyle substation and Chauncey substation will be retired. Relay settings need to be adjusted due to new line terminations and retirements at Logan, Wyoming, Sprigg, Becco and Chauncey substations. The estimated cost for this project is \$65.8 million, with a required in-service of November 2026. The projected in-service date is June 2026, and the local transmission owner, AEP, will be designated to complete this work.

### Baseline Project b3361: Prestonsburg-Thelma 46 kV Rebuild

#### AEP Transmission Zone

In the 2026 RTEP winter case, there are voltage magnitude and voltage drop violations at McKinney, Salsbury, Allen, East Prestonsburg, Prestonsburg, Middle Creek and Kenwood 46 kV buses for multiple N-1 outage combinations.

**Map 3. b3361: Prestonsburg-Thelma 46 kV**





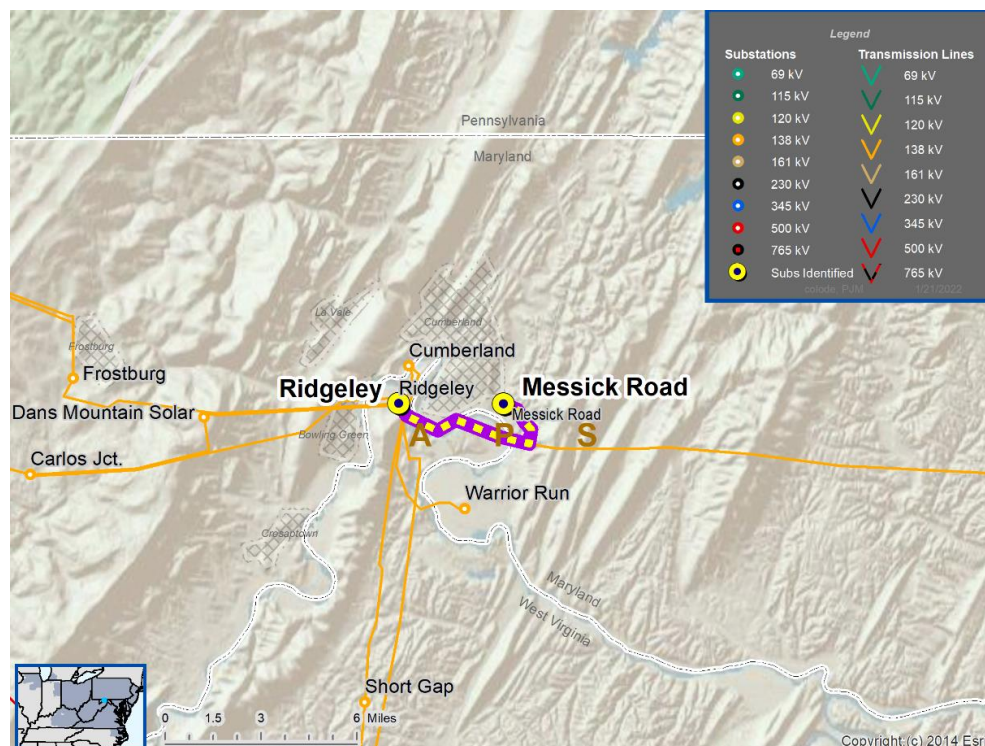
The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, addresses both the identified reliability needs and a supplemental need identified through the M-3 process. There are equipment condition issues with structures that make up the Prestonsburg-Thelma 46 kV line. These conditions include damaged/rotted poles, guy wires and cross arms. The majority of this line utilizes 1960s wood structures and 336.4 ACSR conductor. The solution is to rebuild the Prestonsburg-Thelma 46 kV line (approximately 14 miles) and retire Jenny Wiley 46 kV switching station. The estimated cost for this project is \$33.01 million, with a required in-service date of December 2026. The projected in-service date is October 2025, and the local transmission owner, AEP, will be designated to complete this work.

### Baseline Project b3683: Messick Road-Ridgeley 138 kV Upgrades

#### APS Transmission Zone

In the 2026 RTEP summer case, the Messick Road-Ridgeley 138 kV line is overloaded for multiple N-2 outage combinations.

**Map 4. b3683: Messick Road-Ridgeley 138 kV**



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is to reconductor the existing 556.5 ACSR line segments on the Messick Road-Ridgeley WC4 138 kV line with 954 45/7 ACSR. The remote end equipment for the Messick Road-Ridgeley WC4 138 kV line will also be replaced. The estimated cost for this project is \$11.2 million, with a required and projected in-service date of June 2026. The local transmission owner, APS, will be designated to complete this work.

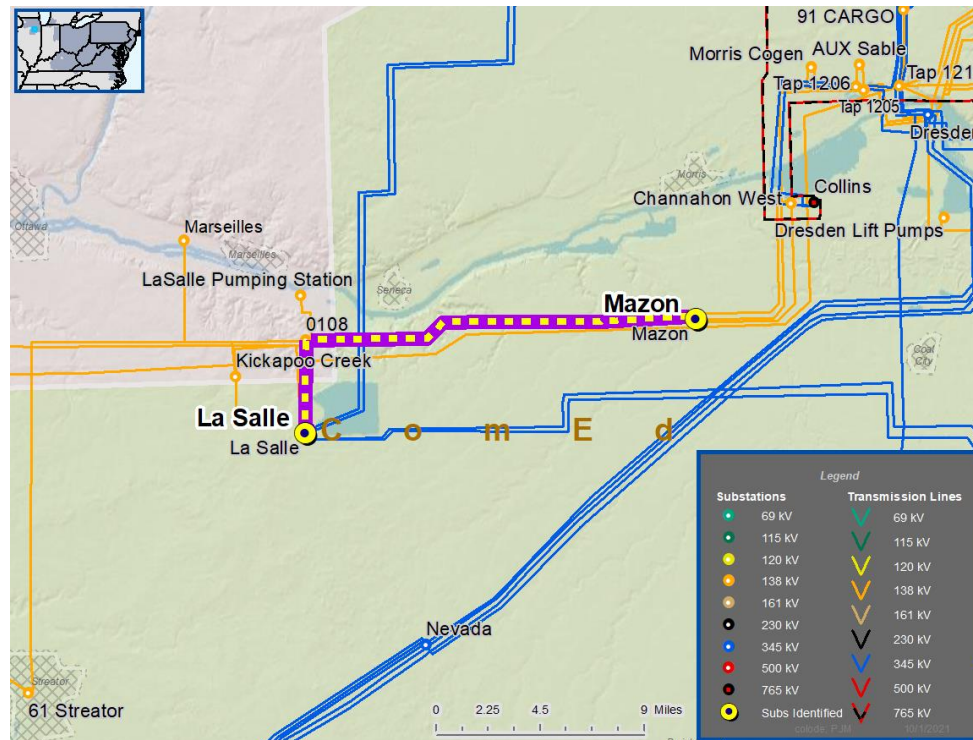


## Baseline Project b3677: LaSalle-Mazon 138 kV Rebuild

### ComEd Transmission Zone

In the 2026 RTEP light load case, the LaSalle-Mazon 138 kV line is overloaded for an N-2 outage.

#### Map 5. b3677: LaSalle-Mazon 138 kV



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is to rebuild a 13 mile section of 138 kV line 0108 between LaSalle and Mazon with 1113 ACSR or higher rated conductor. The estimated cost for this project is \$42.06 million, with a required in-service date of November 2026. The projected in-service date is December 2024, and the local transmission owner, ComEd, will be designated to complete this work.

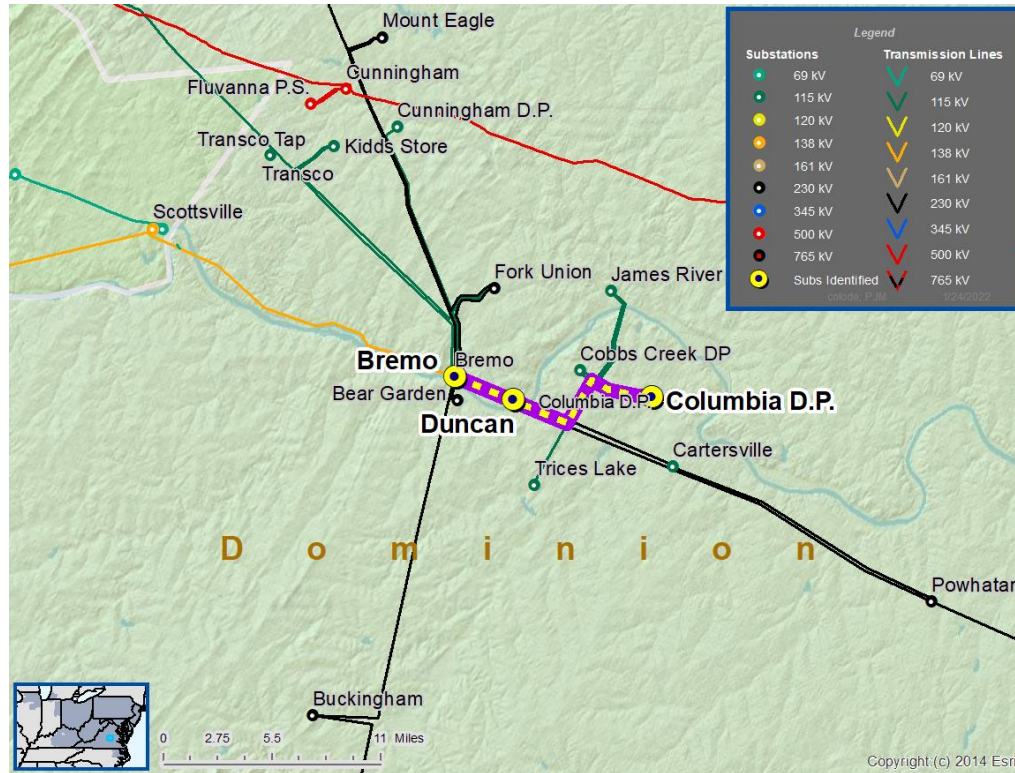
## Baseline Project b3686: Breomo-Columbia D.P. 115 kV Switching Station

### Dominion Transmission Zone

In the 2026 RTEP winter case, the Breomo-Columbia D.P. 115 kV line (No. 4) is a radial transmission line and exceeds the 700 MW-Mile threshold under Dominion's FERC 715 Planning Criteria.



**Map 6. b3686: Bremo-Columbia D.P. 115 kV**



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is to purchase land close to the bifurcation point of line No. 4 (where the line is split into two sections) and build a new 115 kV switching station called Duncan Store 115 kV. 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). The estimated cost for this project is \$16 million, with a required and projected in-service date of December 2026. The local transmission owner, Dominion, will be designated to complete this work.

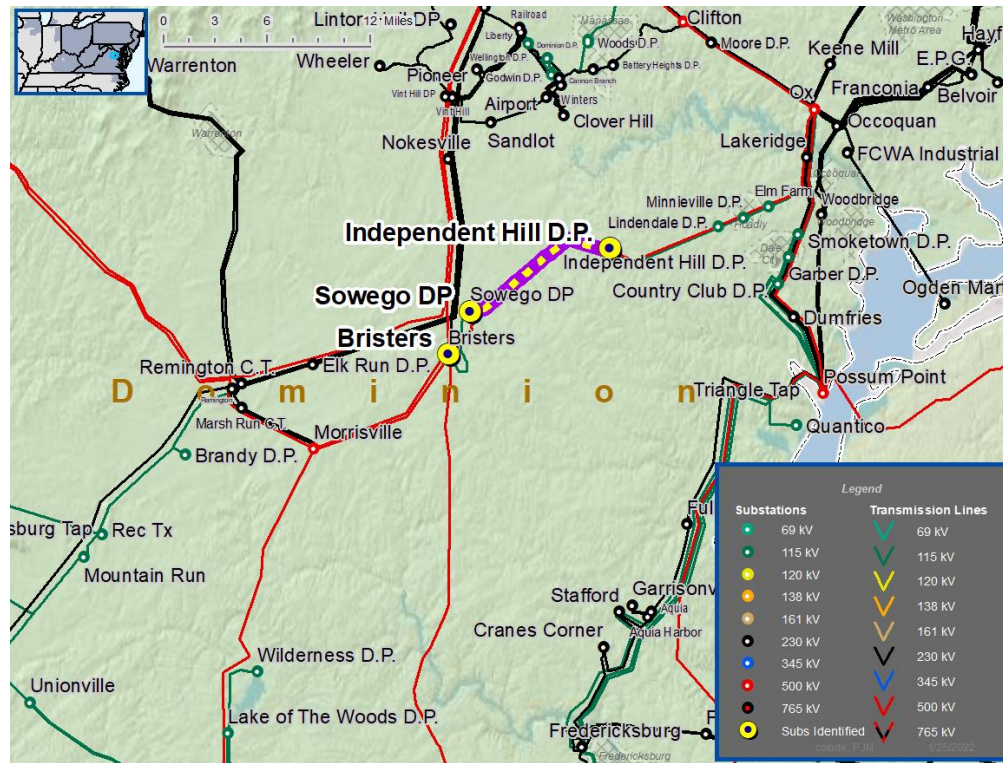
### Baseline Project b3687: Bristers-Minnieville D.P. 115 kV Rebuild

#### Dominion Transmission Zone

In the 2026 RTEP summer case, the Bristers 230/115 kV transformer is overloaded for an N-1 outage under the generator deliverability study and for Dominion's Stress Case (FERC 715 Planning Criteria). The 115 kV line No. 183 (Sowego-Independent Hill segment) is overloaded for N-1 and N-2 outages, along with multiple N-1 outage combinations under PJM reliability studies and Dominion's Stress Case.



**Map 7. b3687: Bristers-Minnieville D.P. 115 kV Area**



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is to rebuild of the approximately 15.1-mile-long line segment between Bristers and Minnieville D.P. with 2-768 ACSS and 4000 A supporting equipment from Bristers to Ox to allow for future 230 kV capability of 115 kV line No. 183 (Sowego-Independent Hill segment). The estimated cost for this project is \$30 million, with a required and projected in-service date of June 2026. The local transmission owner, Dominion, will be designated to complete this work.

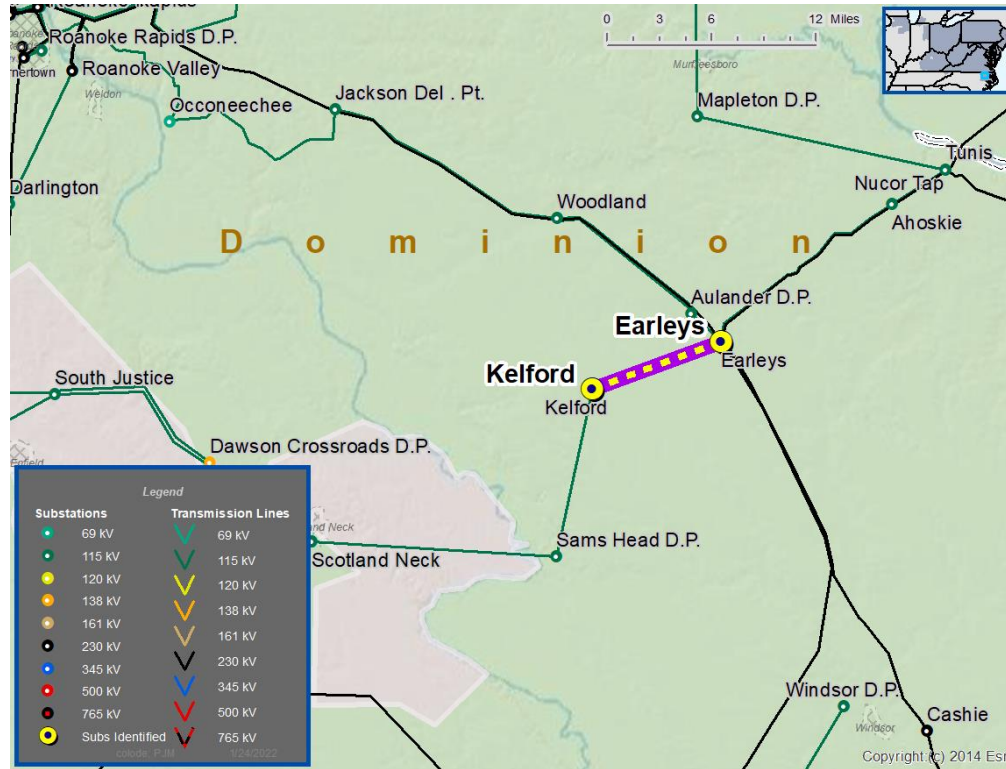
### Baseline Project b3684: Earleys-Kelford 115 kV Rebuild

#### Dominion Transmission Zone

In the 2026 RTEP summer case, the 115 kV line No. 126 segment from Earleys to Kelford is overloaded for an N-2 outage.



**Map 8. b3684: Earleys-Kelford 115 kV**



The recommended solution, which was excluded from the competitive proposal process for the below 200 kV exclusion, is to rebuild 12.4 miles of 115 kV line No. 126 segment from Earleys to Kelford line with a summer emergency rating of 262 MVA and replace structures as needed to support the new conductor. The breaker switch 13668 at Earleys will also be upgraded from 1200 A to 2000 A. The estimated cost for this project is \$18.75 million, with a required and projected in-service date of June 2026. The local transmission owner, Dominion, will be designated to complete this work.

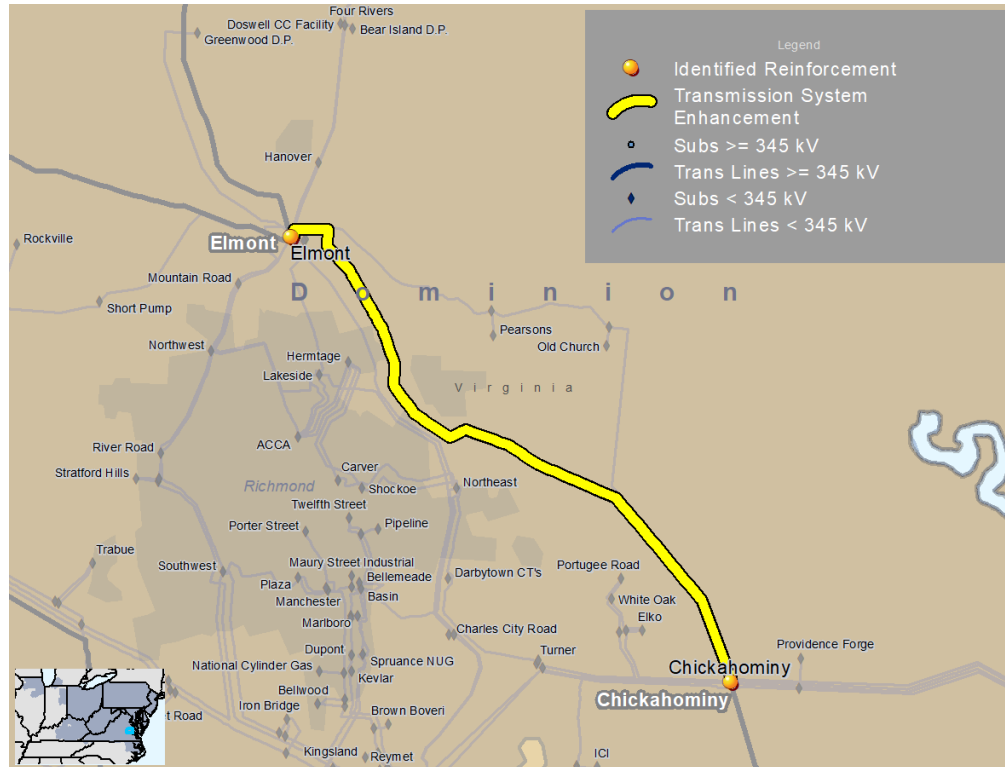
### Baseline Project b3692: Elmont-Chickahominy 500 kV Rebuild

#### Dominion Transmission Zone

The Elmont-Chickahominy 500 kV line (No. 557) was constructed in 1971 with 2500 ACAR conductor and 5-series Corten towers that need to be rebuilt to current standards based on Dominion's End-of-Life Criteria.



**Map 9. b3692: Elmont-Chickahominy 500 kV**



The recommended solution, solicited through the 2021 Window 1 competitive proposal process, is to 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. The estimated cost for this project is \$58.16 million, with a required and projected in-service date of June 2026. The local transmission owner, Dominion, will be designated to complete this work.

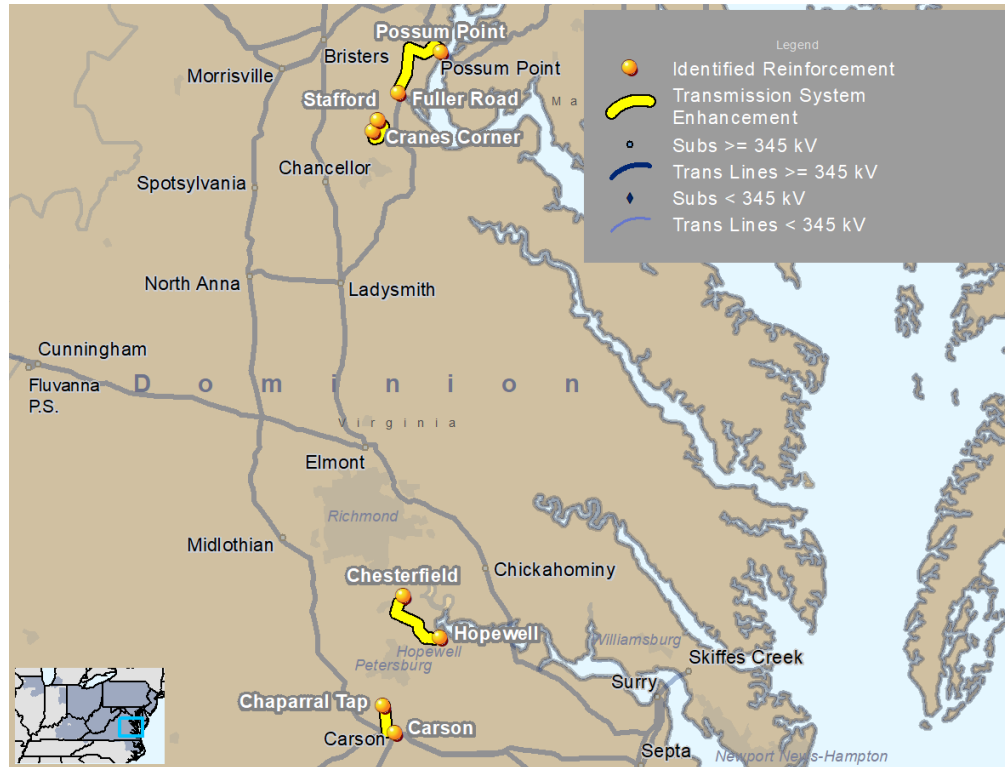
### Baseline Project b3694: Fredericksburg/Carson/Hopewell Area Improvements

#### Dominion Transmission Zone

In the 2026 RTEP summer case, in the Fredericksburg area, the Cranes Corner-Stafford 230 kV line (No. 2104) is overloaded for an N-1 and N-2 outage as well as under Dominion stress case criteria, and there is load loss of 307 MW for N-1 outage combinations. In the Carson area, the Carson 500/230 kV transformer No. 2 is overloaded for an N-2 outage, and the Carson-Chaparral 230 kV line (No. 249) is overloaded for an N-1 outage. In the Hopewell area, the Chesterfield-Hopewell 230 kV line (No. 211) is overloaded for an N-1 outage, and the Chesterfield-Hopewell 230 kV line (No. 228) is overloaded for an N-1 and N-2 outage.



**Map 10. b3694: Fredericksburg/Carson/Hopewell Area Improvements**



The recommended solution, solicited through the 2021 Window 1 competitive proposal process, is a comprehensive project that addresses all three areas.

In the Fredericksburg area, the project will convert 115 kV line No. 29 (Aquia Harbor-Possum Point) to 230 kV (extended line No. 2104) and swap line No. 2104 (Cranes Corner-Stafford 230 kV) and converted line No. 29 at Aquia Harbor backbone termination. The project will also upgrade terminal equipment at Possum Point, Aquia Harbor and Fredericksburg 230 kV. The project will add a new breaker at the Fredericksburg 230 kV bay and reconfigure 230 kV line terminations. Approximately 7.6 miles of 230 kV line No. 2104 (Cranes Corner-Stafford) and approximately 0.34 miles of 230 kV line No. 2104 (Stafford-Aquia Harbor) will be reconducted/rebuilt to achieve a summer rating of 1047 MVA (terminal equipment at Cranes Corner will be upgraded to not limit the new conductor rating). The project will upgrade the wave trap and line leads at 230 kV line No. 2090 Ladysmith CT terminal to achieve 4000 A rating. The Fuller Road substation will be upgraded to feed the Quantico substation via a 115 kV radial line, and a four-breaker ring will be installed to break 230 kV line No. 252 into two new lines: 1) No. 252 between Aquia Harbor to Fuller Road, and 2) No. 9282 between Fuller Road and Possum Point. A 230/115 kV transformer will also be installed, which will serve Quantico substation.

In the Carson area, the project will energize the in-service spare 500/230 kV Carson No. 1 transformer, and partially wreck and rebuild 10.34 miles of 230 kV line No. 249 (Carson-Locks) to achieve a minimum summer emergency rating of 1047 MVA (terminal equipment at Carson and Locks will be upgraded to not limit the new conductor rating). The project includes the wreck and rebuild of 5.4 miles of 115 kV line No. 100 (Locks-Harrowgate) to achieve a



minimum summer emergency rating of 393 MVA (terminal equipment at Locks and Harrowgate will be upgraded to not limit the new conductor rating), and will perform line No. 100 Chesterfield terminal relay work.

In the Hopewell area, the project will reconductor approximately 2.9 miles each of 230 kV lines No. 211 (Chesterfield-Hopewell) and No. 228 (Chesterfield-Hopewell) to achieve a minimum summer emergency rating of 1046 MVA (equipment at Chesterfield and Hopewell substations will be upgraded to not limit ratings on lines No. 211 and No. 228).

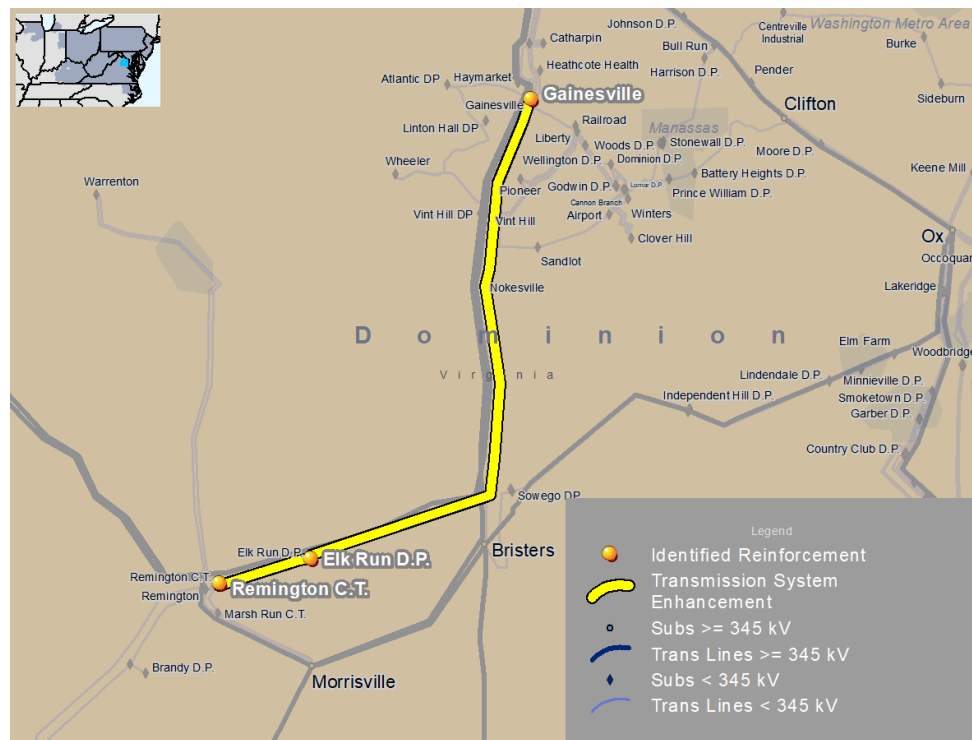
The total estimated cost for this project is \$93.41 million, with a required and projected in-service date of June 2026. The local transmission owner, Dominion, will be designated to complete this work.

### Baseline Project b3689: Remington CT-Gainesville 230 kV Reconductor

#### Dominion Transmission Zone

In the 2026 RTEP summer case, the Remington CT-Gainesville 230 kV line (No. 2114) is overloaded for multiple N-1 and N-2 outages.

**Map 11. b3689: Remington CT-Gainesville 230 kV**



The recommended solution, solicited through the 2021 Window 1 competitive proposal process, is to reconductor approximately 24.42 miles of Remington CT-Elk Run-Gainesville 230 kV line (No. 2114) to achieve a summer rating of 1574 MVA (by fully reconductoring the line and upgrading the wave trap and substation conductor at Remington CT and Gainesville 230 kV). The project will replace 230 kV breakers SC102, H302, H402 and 218302 at



Brambleton substation with 4000 A 80 kA breakers and associated equipment, including breaker leads as necessary, to address breaker duty issues identified in short circuit analysis. The estimated cost for this project is \$30.68 million, with a required and projected in-service date of June 2026. The local transmission owner, Dominion, will be designated to complete this work.

#### **IV. Baseline Market Efficiency Projects Summary**

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

##### ***A. Dominion Transmission Zone***

- Baseline project b3702 – Charlottesville-Proffit D.P. 230 kV Series Reactor: \$11.38 million

PJM also recommended projects totaling \$10.39 million, which include 230 kV line reconductoring and terminal equipment replacements, whose individual cost estimates are less than \$10 million.

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

##### ***B. Baseline Market Efficiency Project Details***

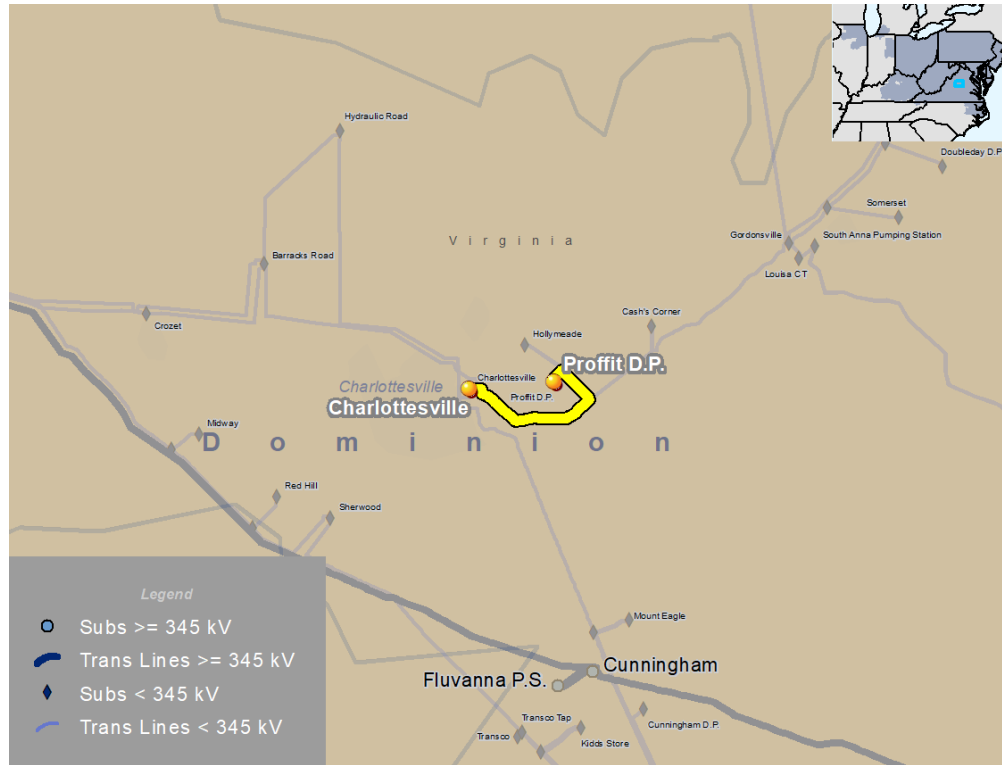
##### **Baseline Project b3702: Charlottesville-Proffit D.P. 230 kV Series Reactor**

###### **Dominion Transmission Zone**

In the 2020 market efficiency economic models, used to simulate the 2025 and 2028 study years, there is market efficiency eligible congestion on the Charlottesville-Proffit D.P. 230 kV line.



**Map 12. b3702: Charlottesville-Proffit D.P. 230 kV**



The recommended solution, solicited through the 2020/21 Long-Term Window 1 competitive proposal process, is to install a series reactor on the Charlottesville-Proffit D.P. 230 kV line. The project has a B/C ratio of 16.05 and alleviates 99.52% of congestion. The estimated cost for this project is \$11.38 million, with a projected in-service date of June 2023. The local transmission owner, Dominion, will be designated to complete this work.

## V. Baseline Operational Performance Projects Summary

A complete listing of all recommended projects and their associated cost allocations is included in Attachment A (allocations to a single zone) and Attachment B (allocations to multiple zones). A more detailed description of the project that PJM recommended to the Board is provided below.

### A. Baseline Operational Performance Project Details

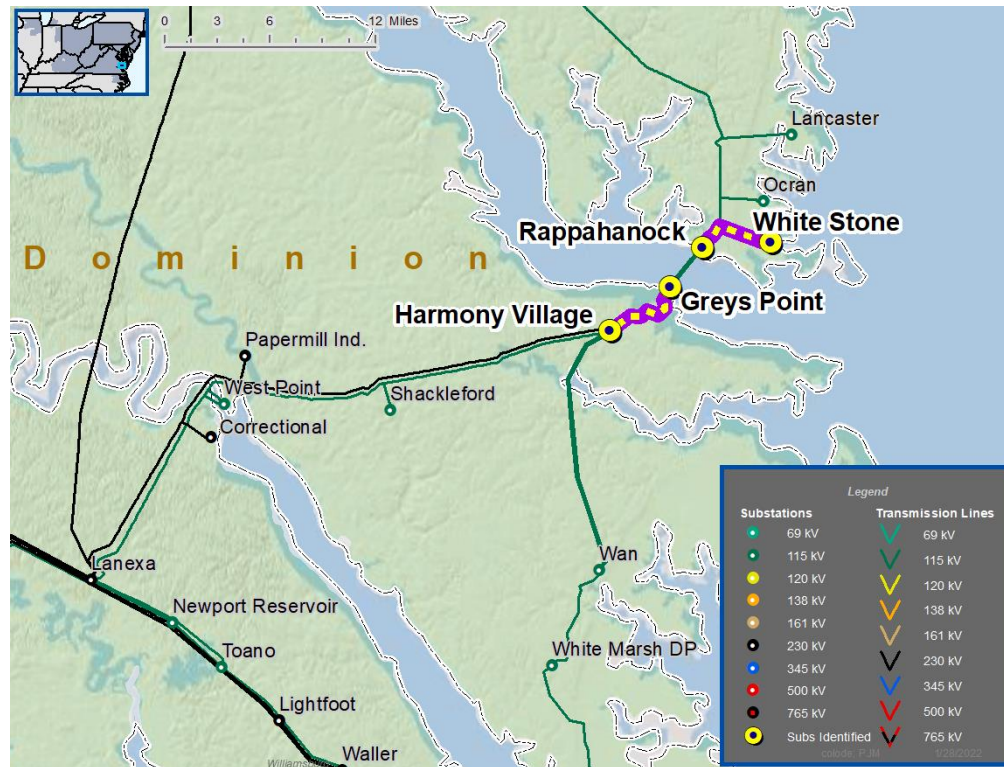
#### Baseline Project b3707: Harmony Village/White Stone Area Improvements

##### Dominion Transmission Zone

The Harmony Village-Greys Point (line No. 1021) and Rappahannock-White Stone (line No. 65) 115 kV line segments are experiencing significant thermal overloads requiring Emergency Procedures during the current outage of Lanexa-Northern Neck 230 kV (line No. 224) that is being rebuilt as an End-of-Life project (baseline project b3089). The outage is expected to continue through December 2023.



**Map 13. b3707: Harmony Village/White Stone Area**



The recommended solution is an immediate need project, and will reconductor approximately 0.57mi of the Harmony Village-Greys Point and approximately 0.97mi of the Rappahannock-White Stone 115 kV line segments with 768 ACSS conductor. The estimated cost for this project is \$3 million, and has a projected in-service date of May 2022. The local transmission owner, Dominion, will be designated to complete this work.

## VI. Transmission Owner Criteria Projects

Of the \$519.37 million of new recommended baseline transmission system enhancements, approximately \$240.56 million is driven by transmission owner planning criteria, which makes up approximately 46.3% of the new project cost estimates.

## VII. Changes to Previously Approved Projects

### A. Cancellations

The following cancellation was recommended:



### **AMPT Project in ATSI Transmission Zone**

- Baseline project b3153 (Amherst area improvements, including construction of a greenfield 0.3 mile 138 kV double circuit line tapping the Beaver-Black River 138 kV line) is no longer needed because the single-point radial exposure criteria has been removed from the AMPT's FERC 715 Planning Criteria. Instead, the project is being resubmitted as a supplemental project. The project had an estimated cost of \$7.5 million.

This change yields a net RTEP decrease of \$7.5 million.

### **B. Scope/Cost Changes**

The following scope/cost modification was recommended:

### **Dominion Transmission Zone**

- Baseline project b2443.6 (installation of second Possum Point 500/230 kV transformer) has undergone a scope change and cost increase. The b2443.6 project was initially slated to be cancelled in 2021, as it was determined that the deficiencies were no longer present in the updated summer 2023 & 2025 RTEP cases. However, the cancellation was placed on hold due to an issue identified in the 2021 RTEP and potential for the project to be brought back if the proposal was provided to mitigate the violation. Based on what was previously submitted for b2443.6 back in 2019, there was a modest change in scope to include a wreck and rebuild of an existing line that connects the 500 kV and 230 kV Possum Point substations. Double circuit structures will be installed to carry both the new and old lines, and there is some rearrangement work in the 230 kV substation. The total cost of the project has increased from \$21 million to \$24.54 million, yielding an RTEP increase of \$3.54 million.

This change yields a net RTEP increase of \$3.54 million.

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

Project needs and recommended solutions as discussed in this report were reviewed with stakeholders during 2021 and 2022, most recently at the January 2022 TEAC meeting. Written comments were requested to be submitted to PJM to communicate any concerns with project recommendations. No comments have been received as of this white paper publication date.

## **IX. Cost Allocation**

Cost allocations for recommended projects are shown in Attachment A (for allocation to a single zone) and Attachment B (for allocation to multiple zones).

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



## **X. Board Approval**

The PJM Reliability and Security Committee is requested to endorse the changes to the RTEP proposed in this white paper, and recommended to the full Board for approval the changes to existing RTEP projects as detailed in this white paper to be included in PJM's RTEP. On February 16, 2022, the Board approved the addition of RTEP baseline projects as well as other changes to the RTEP as summarized in this paper. The RTEP is published annually on PJM's website.



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## Attachment A – Reliability Project Single-Zone Allocations

| Upgrade ID | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| 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.    | \$8.43              | AEP                | 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.                                                                                                                                                                                                                                                                                                                                                                | \$0.44              | AEP                | AEP                 | 6/1/2026                 |
| 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.                                                                                             | \$5.58              | AEP                | 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. | \$10.00             | AEP                | AEP                 | 11/1/2026                |
| 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.                                                                                                                          | \$8.58              | AEP                | AEP                 | 11/1/2026                |



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| Upgrade ID     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3348.4</b> | 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.                                                                                                                                                                                                                                                                                                                                                                  | \$7.70              | AEP                | AEP                 | 11/1/2026                |
| <b>b3348.5</b> | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$33.71             | AEP                | AEP                 | 11/1/2026                |
| <b>b3348.6</b> | Adjust relay settings due to new line terminations and retirements at Logan, Wyoming, Sprigg, Becco and Chauncey stations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$0.23              | AEP                | AEP                 | 11/1/2026                |
| <b>b3349</b>   | Replace Bellefonte 69 kV risers on the section between Bellefonte TR #3 and 69 kV Bus #2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$0.54              | AEP                | AEP                 | 6/1/2026                 |
| <b>b3351</b>   | Replace the 69 kV in-line switches at Monterey 69 kV substation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$0.00              | AEP                | AEP                 | 6/1/2026                 |
| <b>b3352</b>   | Replace MOAB W, MOAB Y, line and bus side jumpers of both W and Y at 47th Street 69 kV station. Upgrade the 69 kV strain bus between MOABs W and Y to 795 KCM AAC. Change the connectors on the tap to MOAB X1 to accommodate the larger 795 KCM AAC.                                                                                                                                                                                                                                                                                                                                                                          | \$0.00              | AEP                | AEP                 | 6/1/2026                 |
| <b>b3353.1</b> | 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). | \$10.55             | AEP                | AEP                 | 12/1/2026                |
| <b>b3353.2</b> | 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$0.33              | AEP                | AEP                 | 12/1/2026                |



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| Upgrade ID     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3353.3</b> | 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)                                                                                                                                                                                                                                                                            | \$1.95              | AEP                | AEP                 | 12/1/2026                |
| <b>b3353.4</b> | 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | \$0.17              | AEP                | AEP                 | 12/1/2026                |
| <b>b3353.5</b> | 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-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) | \$2.66              | AEP                | AEP                 | 12/1/2026                |
| <b>b3353.6</b> | Remote end work will be required at Prestonsburg, Stanville and McKinney stations. (Conversion of S2405.6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \$0.34              | AEP                | AEP                 | 12/1/2026                |
| <b>b3358</b>   | Install a 69 kV 11.5 MVAR capacitor at Biers Run station.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \$0.85              | AEP                | AEP                 | 6/1/2026                 |
| <b>b3359</b>   | Rebuild approximately 2.3 miles of the existing North Van Wert Sw-Van Wert 69 kV line utilizing 556 ACSR conductor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$6.20              | AEP                | AEP                 | 6/1/2026                 |
| <b>b3360</b>   | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$3.54              | AEP                | AEP                 | 12/1/2026                |
| <b>b3361</b>   | Rebuild Prestonsburg-Thelma 46 kV circuit, approximately 14 miles. Retire Jenny Wiley SS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \$33.01             | AEP                | AEP                 | 12/1/2026                |
| <b>b3362</b>   | Rebuild approximately 3.1 miles of the overloaded conductor on the existing Oertels Corner-North Portsmouth 69 kV line utilizing 556 ACSR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \$8.00              | AEP                | AEP                 | 6/1/2026                 |



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| Upgrade ID     | Description                                                                                                                                                                                                                                                           | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3668</b>   | Upgrade Windy Edge 115 kV substation conductor to increase ratings of the Windy Edge-Chesco Park 110501 circuit.                                                                                                                                                      | \$0.50              | BGE                | BGE                 | 6/1/2026                 |
| <b>b3669.1</b> | Replace terminal equipment (stranded bus, disconnect switch and circuit breaker) at Church substation (Townsend-Church 138 kV).                                                                                                                                       | \$1.00              | DPL                | DPL                 | 12/1/2026                |
| <b>b3669.2</b> | Replace terminal equipment (circuit breaker) at Townsend substation (Townsend-Church 138 kV).                                                                                                                                                                         | \$0.45              | DPL                | DPL                 | 12/1/2026                |
| <b>b3670</b>   | 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. | \$0.80              | DPL                | DPL                 | 6/1/2026                 |
| <b>b3671</b>   | 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.                                                         | \$8.79              | ME                 | ME                  | 6/1/2026                 |
| <b>b3672</b>   | 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.                                                                        | \$6.66              | PENELEC            | PENELEC             | 6/1/2026                 |
| <b>b3673</b>   | Replace the relay panels at Bethlehem 33 46 kV substation on the Cambria Prison line.                                                                                                                                                                                 | \$0.30              | PENELEC            | PENELEC             | 6/1/2026                 |
| <b>b3674</b>   | Replace five Atlantic 34.5 kV breakers (J36, BK1A, BK1B, BK3A and BK3B) with 63 kA rated breakers and associated equipment.                                                                                                                                           | \$3.50              | JCPL               | JCPL                | 6/1/2026                 |
| <b>b3675</b>   | 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.                                                                                                                     | \$4.20              | JCPL               | JCPL                | 6/1/2026                 |
| <b>b3676</b>   | Replace one Freneau 34.5 kV breaker (BK6) with 63 kA rated breakers and associated equipment.                                                                                                                                                                         | \$0.70              | JCPL               | JCPL                | 6/1/2026                 |
| <b>b3677</b>   | Rebuild a 13 mile section of 138 kV line 0108 between LaSalle and Mazon with 1113 ACSR or higher rated conductor.                                                                                                                                                     | \$42.06             | ComEd              | ComEd               | 11/1/2026                |
| <b>b3678</b>   | Expand 138 kV substation; Install 100 MVAR reactor, associated breaker and relaying.                                                                                                                                                                                  | \$1.70              | ATSI               | ATSI                | 11/1/2026                |
| <b>b3679</b>   | Replace West Fremont 138/69 kV TR2 with a transformer having additional high-side taps.                                                                                                                                                                               | \$2.90              | ATSI               | ATSI                | 11/1/2026                |
| <b>b3680</b>   | At Sanborn, replace limiting substation conductors on Ashtabula 138 kV exit to make transmission line conductor the limiting element.                                                                                                                                 | \$0.30              | ATSI               | ATSI                | 6/1/2026                 |



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| Upgrade ID   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3681</b> | 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.                                                                                                                                                                                                                  | \$1.66              | APS                | APS                 | 6/1/2026                 |
| <b>b3682</b> | 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. | \$7.59              | ATSI               | ATSI                | 6/1/2026                 |
| <b>b3683</b> | Reconductor the existing 556.5 ACSR line segments 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.                                                                                                                                                                            | \$11.20             | APS                | APS                 | 6/1/2026                 |
| <b>b3684</b> | 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.                                                                                                                                                                                                                                             | \$18.75             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3685</b> | 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.                                                                                                                                                                                                                                                                                                                                                          | \$1.50              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3686</b> | 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).                                                                                                                            | \$16.00             | Dominion           | Dominion            | 12/1/2026                |



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| Upgrade ID      | Description                                                                                                                                                                                                                                                                                                                                                                                     | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3687</b>    | Rebuild approximately 15.1-mile-long line segment between 115 kV line #183 Bristers and Minnieville D.P. with 2-768 ACSS and 4000 A supporting equipment from Bristers to Ox to allow for future 230 kV capability of 115 kV line #183. The continuous summer normal rating will be 523 MVA from Ox-Minnieville. The continuous summer normal rating will be 786 MVA from Minnieville-Bristers. | \$30.00             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3689.1</b>  | Reconductor approximately 24.42 miles of 230 kV line #2114 Remington CT-Elk Run-Gainesville to achieve a summer rating of 1574 MVA by fully reconductoring the line and upgrading the wave trap and substation conductor at Remington CT and Gainesville.                                                                                                                                       | \$28.99             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3689.2</b>  | 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.                                                                                                                                                      | \$1.69              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3690</b>    | Reconductor approximately 1.07 miles of 230 kV line #2008 segment from Cub Run-Walney to achieve a summer rating of 1574 MVA. Replace line switch 200826 with a 4000A switch.                                                                                                                                                                                                                   | \$1.93              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3691</b>    | Reconductor approximately 1.4 miles of 230 kV line #2141 from Lakeview-Carolina to achieve a summer rating of 1047 MVA.                                                                                                                                                                                                                                                                         | \$1.19              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.1</b>  | 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.)                    | \$9.39              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.10</b> | Reconductor approximately 2.9 miles of 230 kV line #211 Chesterfield-Hopewell to achieve a minimum summer emergency rating of 1046 MVA.                                                                                                                                                                                                                                                         | \$4.91              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.11</b> | Reconductor approximately 2.9 miles of 230 kV line #228 Chesterfield-Hopewell to achieve a minimum summer emergency rating of 1046 MVA.                                                                                                                                                                                                                                                         | \$4.91              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.12</b> | Upgrade equipment at Chesterfield substation to not limit ratings on lines 211 and 228.                                                                                                                                                                                                                                                                                                         | \$0.76              | Dominion           | Dominion            | 6/1/2026                 |



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| Upgrade ID      | Description                                                                                                                                                                                                                                                                                                                                              | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3694.13</b> | Upgrade equipment at Hopewell substation to not limit ratings on lines 211 and 228.                                                                                                                                                                                                                                                                      | \$1.71              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.2</b>  | Upgrade Aquia Harbor terminal equipment to not limit 230 kV line #9281 conductor rating.                                                                                                                                                                                                                                                                 | \$0.63              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.3</b>  | 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.                                                                                      | \$2.73              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.4</b>  | Reconductor/rebuild approximately 7.6 miles of 230 kV line #2104 Cranes Corner-Stafford to achieve a summer rating of 1047 MVA(1).<br>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. | \$19.60             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.5</b>  | Upgrade wave trap and line leads at 230 kV line #2090 Ladysmith CT terminal to achieve 4000A rating.                                                                                                                                                                                                                                                     | \$0.15              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.6</b>  | 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.                        | \$24.16             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.7</b>  | Energize in-service spare 500/230 kV Carson Tx#1.                                                                                                                                                                                                                                                                                                        | \$0.00              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.8</b>  | Partial wreck and rebuild 10.34 miles of 230 kV line #249 Carson-Locks to achieve a minimum summer emergency rating of 1047 MVA. Upgrade terminal equipment at Carson and Locks to not limit the new conductor rating.                                                                                                                                   | \$15.37             | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3694.9</b>  | Wreck and rebuild 5.4 miles of 115 kV line #100 Locks-Harrowgate to achieve a minimum summer emergency rating of 393 MVA. Upgrade terminal equipment at Locks and Harrowgate to not limit the new conductor rating and perform line #100 Chesterfield terminal relay work.                                                                               | \$9.10              | Dominion           | Dominion            | 6/1/2026                 |
| <b>b3697</b>    | Replace station conductor and metering inside Whipain and Plymouth substations to increase the ratings of the 220-13/220-14 Whipain-Plymouth 230 kV line facilities.                                                                                                                                                                                     | \$0.62              | PECO               | PECO                | 6/1/2025                 |



TEAC Recommendations to the PJM Board – February 2022

| Upgrade ID     | Description                                                                                                                                                                               | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility | Required In-Service Date |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------------|
| <b>b3701</b>   | Replace terminal equipment on the French's Mill-Junction JST1 138 kV line.                                                                                                                | \$0.77              | APS                | APS                 | 4/1/2022                 |
| <b>b3707.1</b> | Reconductor approximately 0.57mi of 115kV Line #1021 from Harmony Village to Greys Point with 768 ACSS to achieve a summer emergency rating of 237MVA. The current conductor is 477 ACSR. | \$1.11              | Dominion           | Dominion            | 6/1/2022                 |
| <b>b3707.2</b> | Reconductor approximately 0.97mi of 115 kV Line #65 from Rappahanock to White Stone with 768 ACSS to achieve a summer emergency rating of 237MVA. The current conductor is 477 ACSR.      | \$1.89              | Dominion           | Dominion            | 6/1/2022                 |



TEAC Recommendations to the PJM Board – February 2022

## Attachment B – Reliability Project Multi-Zone Allocations

| Upgrade ID   | Description                                                                                                                                                                                                                                          | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility                                                                                                                                                                                                                                                                                                                        | Required In-Service Date |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>b3692</b> | 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.                                                                | \$58.16             | Dominion           | AEC (0.84%) / AEP (6.97%) / APS (2.82%) / ATSI (4.01%) / BGE (2.06%) / ComEd (6.73%) / Dayton (1.06%) / DEOK (1.69%) / DL (0.88%) / DPL (1.27%) / Dominion (56.49%) / EKPC (0.90%) / JCPL (1.96%) / ME (0.97%) / Neptune (0.12%) / OVEC (0.03%) / PECO (2.70%) / PENELEC (0.92%) / PEPCO (1.86%) / PPL (2.39%) / PSEG (3.20%) / RE (0.13%) | 6/1/2026                 |
| <b>b3693</b> | 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. | \$5.86              | Dominion           | AEC (0.84%) / AEP (6.97%) / APS (2.82%) / ATSI (4.01%) / BGE (2.06%) / ComEd (6.73%) / Dayton (1.06%) / DEOK (1.69%) / DL (0.88%) / DPL (1.27%) / Dominion (56.49%) / EKPC (0.90%) / JCPL (1.96%) / ME (0.97%) / Neptune (0.12%) / OVEC (0.03%) / PECO (2.70%) / PENELEC (0.92%) / PEPCO (1.86%) / PPL (2.39%) / PSEG (3.20%) / RE (0.13%) | 11/1/2026                |
| <b>b3698</b> | Reconductor the 14.2 miles of the existing Juniata-Cumberland 230 kV line with 1272 ACSS/TW HS285 "Pheasant" conductor.                                                                                                                              | \$9.00              | PPL                | AEC (4.17%) / BGE (13.18%) / DEOK (1.22%) / Dominion (3.25%) / DPL (9.14%) / EKPC (0.22%) / HTP (0.20%) / JCPL (1.15%) / ME (27.02%) / NEPTUNE (0.64%) / PECO (18.88%) / PEPCO (4.68%) / PSEG (16.14%) / VFT (0.11%)                                                                                                                       | 12/1/2023                |



TEAC Recommendations to the PJM Board – February 2022

| Upgrade ID | Description                                                                                                                                       | Cost Estimate (\$M) | Transmission Owner | Cost Responsibility                                                                                                                                                                                                                                                                                     | Required In-Service Date |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| b3702      | Install one 13.5 Ohm series reactor to control the power flow on the 230 kV line #2054 from Charlottesville substation to Proffit Rd 230 kV line. | \$11.38             | Dominion           | AEC (1.59%) /APS (8.85%) /ATSI (5.54%) /BGE (10.79%) /ComEd (1.86%) /Dayton (0.21%) /DEOK (1.16%) /Dominion (18.99%) /DPL (3.68%) /DL (1.16%) /HTP (0.22%) /JCPL (4.53%) /ME (1.73%) /NEPTUNE (0.68%) /PECO (6.95%) /PENELEC (4.75%) /PEPCO (9.69%) /PPL (9.78%) /PSEG (7.28%) /RE (0.29%) /NFT (0.27%) | 6/1/2023                 |

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KPSC Case No. 2026-00208  
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**DATA REQUEST**

**KPSC 1\_3** Refer to the Application, Exhibit 10, PDF pages 94-95 (October 16, 2020), which states: "Total Estimated Transmission Cost: \$16 M." Refer also to the Application, Exhibit 10, PDF pages 98 and 102 (October 15, 2021 (page 19), and November 19, 2021 (page 10), baseline slides, respectively), which each state: "Total Transmission Estimated Cost: \$16M." Refer also to the Application, page 4, paragraph 12, which states: "The total detailed estimate of the Proposed Project cost is approximately \$49.7 million." As stated above, the transmission cost estimate was approximately \$16 million.

a. Provide a line-item cost reconciliation explaining every component of cost that brings the total from \$16 million to \$49.7 million today, including scope changes, design changes, inflation factors, distribution component additions, and contingency changes.

b. Provide the distribution-component cost separately to understand the split between transmission-allocated costs and distribution costs.

**RESPONSE**

a. and b. Please see KPCO\_R\_KPSC\_1\_3\_Attachment1.

Witness: Tyler M. Benedum

| Component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Original Cost | Increase | Updated Cost |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|--------------|
| Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$4.3M        | \$10.7M  | \$15M        |
| <ul style="list-style-type: none"> <li>The cost increases for material are attributed to escalation and changes in design from what was initially estimated. The listed pieces of equipment were subject to these increases once final quantities and delivery dates were determined.</li> <li>Allen Station (Dist) \$3.045M <ul style="list-style-type: none"> <li>Station Steel (price and scope escalation)</li> <li>Transformers</li> <li>Station Equipment – upgraded rural bay and addition of three voltage regulators</li> <li>Actualized Material from original scope</li> <li>Sales Tax and Stores Loading</li> </ul> </li> <li>Allen Trans Install \$6.225M <ul style="list-style-type: none"> <li>Station Steel</li> <li>Circuit Breakers</li> <li>Actualized Material from original scope</li> <li>Sales Tax and Stores Loading</li> </ul> </li> <li>Allen-East Prestonsburg T-Line \$301K <ul style="list-style-type: none"> <li>Poles/Structures</li> <li>Actualized Material from original scope</li> </ul> </li> <li>McKinney-Allen Reconfigure \$521K <ul style="list-style-type: none"> <li>Poles/Structures</li> <li>Actualized Material from original scope</li> </ul> </li> <li>Betsy Layne-Allen Reconfigure \$226K <ul style="list-style-type: none"> <li>Poles/Structures</li> </ul> </li> <li>Allen-Prestonsburg T-Line \$377K <ul style="list-style-type: none"> <li>Poles/Structures</li> <li>Insulators and Assemblies</li> <li>Actualized Material from original scope</li> </ul> </li> </ul> |               |          |              |
| Indirects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$3.2M        | \$6.1M   | \$9.3M       |
| <ul style="list-style-type: none"> <li>Indirect costs increased due to the schedule extending from 2023 to 2028 for project completion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |          |              |
| Contingency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$0.3M        | \$4.9M   | \$5.2M       |
| <ul style="list-style-type: none"> <li>Allen Station (Dist) \$1.163M</li> <li>Allen Trans Install \$2.040M</li> <li>Allen-East Prestonsburg T-Line \$314K</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |          |              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |        |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---------|
| <ul style="list-style-type: none"> <li>• McKinney-Allen Reconfigure \$549K</li> <li>• Betsy Layne-Allen Reconfigure \$292K</li> <li>• Allen-Prestonsburg T-Line \$544M</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |        |         |
| Outside Services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \$10.2M | \$4.7M | \$14.9M |
| <ul style="list-style-type: none"> <li>• Allen Station (Dist) \$524K <ul style="list-style-type: none"> <li>○ External Engineering Labor increased to include civil drawing packages, soil resistivity, and actualized costs from original scope.</li> <li>○ External Construction Labor increased for environmental consultant, testing and checkout, construction oversight, and actualized costs from original scope</li> </ul> </li> <li>• Allen Trans Install -\$2.407M <ul style="list-style-type: none"> <li>○ This bucket saw a decrease because of the overall lessened scope of the project from an expansion to rebuilding on existing footprint.</li> </ul> </li> <li>• Allen-East Prestonsburg T-Line \$1.604M <ul style="list-style-type: none"> <li>○ External Engineering Labor increased for OEC costs. Environmental Support increased for long T-line access road that will need SWPPP installation and maintenance as well as additional cultural and environmental studies. This increase captures the inclusion of actualized costs from original scope.</li> <li>○ External Construction Labor increased mainly due to foundation quantity and sizing changes.</li> </ul> </li> <li>• McKinney-Allen Reconfigure \$1.838M <ul style="list-style-type: none"> <li>○ External Engineering Labor increased for OEC costs. Environmental support increased for T-line access road that will need SWPPP installation and maintenance as well as additional cultural and environmental studies. This increase captures the inclusion of actualized costs from original scope.</li> <li>○ External Construction Labor increased for foundation quantity and sizing changes, new larger poles for line structures, additional conductor stringing, and distribution underbuild requirements.</li> </ul> </li> <li>• Betsy Layne-Allen Reconfigure \$1.628M <ul style="list-style-type: none"> <li>○ External Engineering Labor increased for OEC costs, additional ROW support for railroad permitting and crossing gate, environmental support for additional cultural and environmental studies, and actualized costs from original scope.</li> <li>○ External Construction Labor increased for ROW clearing, addition of two new structures and foundations, and construction oversight.</li> </ul> </li> <li>• Allen-Prestonsburg T-Line \$1.527M <ul style="list-style-type: none"> <li>○ External Engineering Labor increased for OEC costs, environmental support for additional cultural and environmental studies, pipeline mitigation study, and actualized costs from original scope.</li> </ul> </li> </ul> |         |        |         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |         |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |         |                      |
| Risk-Based Contingency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$0                | \$2M    | \$2M                 |
| <ul style="list-style-type: none"> <li>Allen-Prestonsburg T-Line <ul style="list-style-type: none"> <li>Added in \$2M for risk-based contingency to account for landslides on the longer access road associated with this project.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |         |                      |
| Removal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$0                | \$1.3M  | \$1.3M               |
| <ul style="list-style-type: none"> <li>Allen Station (Dist) \$1.254M <ul style="list-style-type: none"> <li>The original project scope involved the retirement of the existing equipment related to distribution work at Allen Station. With the new scope to rebuild on the existing footprint, the existing structures and equipment will need to be removed. Previously, the station expansion would have allowed for the existing equipment to remain in place.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                |                    |         |                      |
| Internal Labor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \$1.0M             | \$898K  | \$1.9M               |
| <ul style="list-style-type: none"> <li>Allen Station (Dist) \$273K <ul style="list-style-type: none"> <li>Internal Engineering Labor hours increased for PMT, Station Engineer and Designer, and Transformer Specialist.</li> </ul> </li> <li>Allen Trans Install \$284K <ul style="list-style-type: none"> <li>Internal Engineering Labor hours increased for PMT, Station Designer, and PCE Engineer and Designer.</li> </ul> </li> <li>McKinney-Allen Reconfigure \$102K <ul style="list-style-type: none"> <li>Internal Engineering Labor increased for environmental support and actualized costs from original scope.</li> </ul> </li> <li>Allen-Prestonsburg T-Line \$129K <ul style="list-style-type: none"> <li>Internal Engineering Labor increased to account for actualized costs from original scope.</li> </ul> </li> </ul> |                    |         |                      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$19M <sup>1</sup> | \$30.7M | \$49.7M <sup>2</sup> |

<sup>1</sup> Note that this is the total amount of the original project estimate, ~\$16M for transmission and ~\$3M for distribution.

<sup>2</sup> Note that the totals in each column may not add up to the result at the bottom due to rounding.

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**DATA REQUEST**

**KPSC 1\_4** Refer to the Application, Exhibit 10, PDF page 99 (October 15, 2021 Reliability Analysis Update (page 20)) and PDF page 103 (November 19, 2021 PJM slide (page 11)), both of which state: "Required In-Service date: 12/1/2026." Refer also to the Application, page 7, paragraph 28, which states that construction is anticipated to begin in Q2 2027 and the planned in-service date is Q2 2028. The proposed in-service date is approximately 18 months after PJM's required in-service date of December 1, 2026. Identify every financial penalty, liquidated damages provision, or compliance obligation that Kentucky Power has incurred or may incur under PJM's tariff for failing to meet the 12/1/2026 required in-service date.

a. Describe the reliability measures Kentucky Power has implemented to maintain system compliance with FERC 715 standards during the delay period, and the costs of those interim measures.

b. Provide all correspondence between American Electric Power (AEP)/Kentucky Power and PJM regarding the delay and any approved modification to the required in-service date.

**RESPONSE**

To date, no penalties or damages have been assessed against the Company by PJM, nor does the Company anticipate to receive any penalties related to the Proposed Project. Any fines, damages, or other penalties would be under the discretion of PJM. The Company works closely with PJM on necessary extension dates and current tracking of projects. For more information regarding project updates, please see subpart b of this response.

a. Transmission Operations would utilize real time switching orders to eliminate any potential overloads that would be experienced under peak conditions for the outages identified in the RTEP study. To the Company's knowledge, the outages that caused the overload in the 2026 RTEP cases have not occurred on the system during peak conditions and, therefore, no actions have been required by FERC 715 standards.

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b. The in-service date is reflected in the PJM Construction Tracker<sup>1</sup> as 6/5/2028. The later date was communicated to PJM through typical, regular updates for on-going projects. Please see KPCO\_R\_KPSC\_1\_4\_Attachment1 for email correspondence with PJM and KPCO\_R\_KPSC\_1\_4\_Attachment2 for the spreadsheet attached to the August 1, 2025 email with the Subject "RE: AEP Fall 2025 Baseline Upgrade Status Check, and KPCO\_R\_KPSC\_1\_4\_Attachment3 for the spreadsheet attached to the January 21, 2026 email with the Subject "RE: AEP Spring 2026 Baseline Upgrade Status Check".

Witness: Nicolas C. Koehler

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<sup>1</sup> Please see <https://www.pjm.com/planning/m/project-construction> for the PJM Construction Tracker.

**From:** [Deidra R Tose](#)  
**To:** ["Falciani, Jeff"; Becky Naugle](#)  
**Subject:** RE: AEP Fall 2025 Baseline Upgrade Status Check  
**Date:** Friday, August 1, 2025 2:08:44 PM  
**Attachments:** [2025Q3-AEP.xlsx](#)  
[image001.png](#)

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Hello Jeff,

I hope all is well. I've attached the latest updates and wanted to note that I didn't see b3333 in the list. Was it maybe cancelled?

Thanks,



**DEIDRA R TOSE** | COORDINATOR

[DTOSE@AEP.COM](mailto:DTOSE@AEP.COM) |

---

**From:** Falciani, Jeff  
**Sent:** Thursday, June 12, 2025 8:53 AM  
**To:** Deidra R Tose ; Becky Naugle  
**Cc:** Falciani, Jeff  
**Subject:** [EXTERNAL] AEP Fall 2025 Baseline Upgrade Status Check

Deidra,

As preparation for the Fall operational season, please find the latest list of system upgrades for review attached.

In accordance with Section 6 of PJM's Manual 14C, I request that you please update all appropriate information as applicable in the highlighted (beige) fields. Please leave fields blank if there is no adjustment required and I will continue to use the previously supplied value.

If a project is at risk in any manner, I ask that you highlight the Upgrade ID with one of the three applicable ratings, Watch, At Risk, or Off Track using the formatting style provided within excel. Any project that is not highlighted as such will be treated as On Track.

Please return the updated document by August 1, 2025.

Below is a reference for the various column definitions:

- TOID – TO's internal tracking ID.
- TO Projected IS Date – the target date when the project is expected to be considered in-service.
- Actual IS Date – the date when the system sees the benefit of the project/increased system capability.
- Status Code – Engineering Procurement (EP) (0-25% overall project complete), Under Construction (UC) (26-99% overall project complete), In-Service (IS) (100% overall project complete), On-hold (for projects which is under special planning review or suspended by PJM) .
- Cost Estimation – latest project cost estimate, not the TEAC approved cost.
- TO Project Manager – Optional. TO's project manager.
- eDart ticket - Optional. eDart outage or cut-in ticket IDs.

TO Notes – Optional. Used by the TO to provide comments to PJM's Project Coordinator regarding details on a project. This information will be treated as internal to PJM only unless otherwise noted by the TO.

If you have any comments or questions, please reach out to me directly.

**From:** [Deidra R Tose](#)  
**To:** [Falciani, Jeff](#)  
**Cc:** [Becky Naugle](#); [Meseret W Gebremariam](#); [Jomar Perez-Ramos](#)  
**Subject:** RE: AEP Spring 2026 Baseline Upgrade Status Check  
**Date:** Wednesday, January 21, 2026 5:45:21 PM  
**Attachments:** [2026Q1-AEP.xlsx](#)  
[image001.png](#)

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Hello Jeff,

I hope you're doing well. I'm returning this quarter's updated spreadsheet a bit early because I will be out on medical leave for the next three to four weeks.

During that time, if you have any follow-up questions or separate inquiries, please continue to send those my way but add Meseret Gebremariam and Jomar Perez-Ramos. Becky, Jomar, and Meseret will be happy to assist you as needed.

Please also note that I will not be able to make our next monthly meeting on February 9th. I will leave it up to you and Becky to decide if you would still like to meet.

Thanks,



**DEIDRA R TOSE** | COORDINATOR  
[DTOSE@AEP.COM](mailto:DTOSE@AEP.COM) |

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**From:** Falciani, Jeff <Jeffrey.Falciani@pjm.com>  
**Sent:** Monday, December 15, 2025 10:47 AM  
**To:** Deidra R Tose <dtose@aep.com>  
**Cc:** Becky Naugle <lrnaugle@aep.com>; Falciani, Jeff <Jeffrey.Falciani@pjm.com>  
**Subject:** [EXTERNAL] AEP Spring 2026 Baseline Upgrade Status Check

Deidra,

As preparation for the Spring operational season, please find the latest list of system upgrades for review attached.

In accordance with Section 6 of PJM's [Manual 14C](#), I request that you please update all appropriate information as applicable in the highlighted (beige) fields. Please leave fields blank if there is no adjustment required, and I will continue to use the previously supplied value.

Since many projects now fall under PJM's Competitive Planning Process, and are governed by a Designated Entity Agreement (DEA), an additional field has been added to this form, DEA, that indicates a TRUE or FALSE value if the project meets is associated with a DEA. In addition,

this column and the upgrade ID will appear with a blue background to help better identify these upgrades. **Please note**, these projects have additional reporting requirements compared to non-competitive projects and modification of the in-service date is tied to an explicit DEA contract. Modification of this information will trigger the terms of Section 6.1.9.5 DEA Upgrade Project Modification Process of [Manual 14C](#). Changes that fall under these terms should be discussed with your PJM Transmission Coordinator in a timely manner, as they may require the completion of a modification form or possibly amendment of the agreement and refiling with FERC.

If a project is at risk in any manner, I ask that you highlight the Upgrade ID with one of the three applicable ratings, Watch, At Risk, or Off Track using the formatting style provided within excel. Any project that is not highlighted as such will be treated as On Track.

Please return the updated document by **February 1, 2026**.

Below is a reference for the various column definitions:

- TOID – TO's internal tracking ID.
- TO Projected IS Date – the target date when the project is expected to be considered in-service.
- Actual IS Date – the date when the system sees the benefit of the project/increased system capability.
- Status Code – Engineering Procurement (EP) (0-25% overall project complete), Under Construction (UC) (26-99% overall project complete), In-Service (IS) (100% overall project complete), On-hold (for projects which is under special planning review or suspended by PJM) .
- Cost Estimation – latest project cost estimate, not the TEAC approved cost.
- TO Project Manager – Optional. TO's project manager.
- eDart ticket - Optional. eDart outage or cut-in ticket IDs.
- TO Notes – Optional. Used by the TO to provide comments to PJM's Project Coordinator regarding details on a project. This information will be treated as internal to PJM only unless otherwise noted by the TO.

If you have any comments or questions, please reach out to me directly.

Jeff Falciani

Lead Engineer, Transmission Policy & Project Management

| [Jeffrey.Falciani@pjm.com](mailto:Jeffrey.Falciani@pjm.com)

PJM Interconnection |



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**DATA REQUEST**

**KPSC 1\_5** Refer to the Application, Exhibit 10, PDF page 94 (October 16, 2020 Slides (page 25)), which states the proposed solution would rebuild Allen Station "to the northwest of its current footprint utilizing a standard air-insulated substation with equipment raised by 7 feet concrete platforms and control house raised by a 10 feet platform . . . Install five 69 kV 3000A 40 kA circuit breakers in a ring bus (operated at 46kV) configuration with a 13.2 MVAR capacitor bank." Refer also to the Direct Testimony of Jasmine L. Moore (Moore Direct Testimony), page 6. Refer also to the Application, page 3, paragraph 5, which states the Proposed Project will rebuild the Allen Substation "as a straight bus station with four 69kV circuit breakers (operating at 46kV) and a 17.2 MVAR capacitor bank" at "its current location."

a. Confirm that the solution PJM designated and the solution now proposed in this application differ in four material respects: bus configuration (ring vs. straight); number of circuit breakers (5 vs. 4); capacitor bank rating (13.2 vs. 17.2 MVAR); and substation location (northwest of footprint vs. current location). If unable to confirm, explain why not.

b. Provide PJM's written concurrence that the revised design — straight bus, four breakers, current location — satisfies the baseline reliability requirements originally identified as requiring the ring bus solution.

c. If PJM has not formally approved the design change, identify the steps Kentucky Power will take to obtain such approval before construction begins.

d. Explain when and why the design was changed from the PJM-approved bus/five-breaker configuration.

**RESPONSE**

a. Confirmed.

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b. This has not yet been completed. PJM will re-analyze the configuration changes when AEP updates the solution slides. However, there are no changes expected to the baseline results as the overloaded equipment located within Allen Substation will still be replaced, eliminating the overloads identified in the 2021 study.

c. AEP will redline the PJM slides and re-submit to PJM. PJM will run an analysis to determine if the new scope still addresses the overload conditions. PJM will then re-post the red-lined slides and scope change in a future SRRTEP meeting.

d. Please see the direct testimony of Company Witness Tyler Benedum. The Company determined that the relocation of the station was not feasible due to wetland issues and lack of environmental credits in the County and the proposed ring bus would not fit in the existing Substation footprint in May 2025. Therefore, the decision was made to keep the current straight bus configuration and to resubmit the project to PJM once detailed estimates were complete.

Witness: Nicolas C. Koehler

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**DATA REQUEST**

- KPSC 1\_6** Refer to the Application, Exhibit 7. Refer also to the Application, page 2, paragraph 4, which describes the existing Allen Substation as “a 46kV Substation consisting of four 46kV breakers, a 46kV 17.2 MVAR capacitor bank, two 46kV circuit switchers, a 20 MVA 46/12kV distribution transformer, and three 12kV circuit breakers.” Exhibit 7 references a “138 kV substation” that “would be named the Dwale 138 kV Substation” if relocated, with “three existing 46 kV transmission lines and one existing 138 kV transmission line” to be routed into the new site; a materially different scope than the current 46kV rebuild. Exhibit 7, PDF page 42, further states that “approximately 13 feet of fill would be required to raise the existing substation out of the 500-year floodplain,” while the Proposed Project elevates equipment only approximately 8–10 feet.
- a. Explain whether Exhibit 7 was prepared for the same substation and project scope as the current Application or for a different planning study.
  - b. Identify the 138 kV substation referenced in Exhibit 7 and its relationship to the 46 kV substation that is the subject of this Application.
  - c. If the Proposed Project raises equipment only 8–10 feet, yet the siting study states 13 feet of fill is required to clear the 500-year floodplain, confirm whether the elevated substation equipment will be above or below the 100-year and 500-year floodplain elevations.

**RESPONSE**

- a. Exhibit 7 was prepared for the same Allen Substation and documents an earlier phase of due diligence. The study evaluated potential off-site locations and the feasibility of rebuilding the substation immediately adjacent to the existing site. Based on its evaluation of engineering, environmental, construction, transmission access, and relative site-development and construction costs, the study recommended rebuilding at the Allen Station location. The Proposed Project was subsequently refined into the existing site rebuild described in the Application.
- b. The designation was taken from the Betsy Layne-Allen 138kV line, which was designed to 138kV standards but operates at 46kV. It does not describe the operating voltage of the Allen Substation or the conceptual Dwale Station.

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c. The Substation equipment will be outside the 100-year floodplain. Most equipment will be within the 500-year floodplain. The control building will also be outside the 500-year floodplain.

Witness: Nicolas C. Koehler

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**DATA REQUEST**

**KPSC 1\_9** Refer to the Moore Direct Testimony, page 6, which describes the first rejected alternative as including “five 69kV 3000A 40kA circuit breakers in a ring bus (operated at 46kV) configuration with a 13.2 MVAR capacitor bank.” Refer also to the Application, page 5, paragraph 16, and the Benedum Direct Testimony, page 4, which both describe the same dismissed alternative as installing “six 69kV circuit breakers.” Kentucky Power’s Witnesses Moore and Benedum testify to different numbers of circuit breakers (five vs. six) in describing the identical Dismissed Alternative. Clarify the correct number of circuit breakers that would have been installed under the Dismissed Alternative.

**RESPONSE**

The Dismissed Alternative consists of five 69kV breakers, which is the same number of circuit breakers currently proposed at PJM.

Witness: Nicolas C. Koehler

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**DATA REQUEST**

**KPSC 1\_10** Provide the complete engineering specifications for the Dismissed Alternative that evaluates the cost and technical differences between it and the Proposed Project.

**RESPONSE**

Due to the early dismissal of the Dismissed Alternative, a full cost breakdown was not completed. Please see Application Exhibit 13 for a technical breakdown of the Dismissed Alternative compared to the Proposed Project. Please also see the Application at Page 5, Paragraph 16 for discussion on why the Dismissed Alternative was removed from further consideration.

Witness: Tyler M. Benedum

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**DATA REQUEST**

- KPSC 1\_11** Refer to the Direct Testimony of Lerah M. Kahn (Kahn Direct Testimony), page 6, which states: "Kentucky Power estimates the annual operating cost will be approximately \$20,500 for general maintenance and inspection."
- a. Provide a detailed line-item breakdown of the \$20,500 annual operating and maintenance (O&M) estimate, specifying labor hours, inspection frequency, materials, and any contracted service costs.
  - b. Provide the current annual O&M expenditure for the existing Allen Substation for comparison.
  - c. Explain if the \$20,500 estimate includes the cost of maintaining the elevated platforms and flood-control structures, or are those costs captured elsewhere.
  - d. Provide actual O&M cost data for at least three comparable AEP/Kentucky Power substations rebuilt in the past ten years, by year and substation.

**RESPONSE**

- a. The \$20,500 figure is incorrect. The correct amount is approximately \$12,988. Please see KPCO\_R\_KPSC\_1\_11\_Attachment1 for the detailed breakdown.
- b. Allen Substation's current O&M costs are approximately \$12,788 annually.
- c. Yes. The O&M estimate includes the cost of maintaining the elevated platforms and flood-control structures.
- d. Please see KPCO\_R\_KPSC\_1\_11\_Attachment2.

Witness: Lerah M. Kahn

| Annual Operating and Maintenance Estimate |                  |                                 |                            |                                                |                      |                                                                                     |
|-------------------------------------------|------------------|---------------------------------|----------------------------|------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|
| Item                                      | Yearly Frequency | Estimated Labor Hours per Event | Total Labor Hours per Year | Time/Cost for Each Event                       | Additional Item Cost | Additional Comments                                                                 |
| Routine Station Inspections               | 6                | 3                               | 18                         | \$462.15 PU                                    | \$2,772.90           | Performed on bi-monthly schedule                                                    |
| Annual DC Supply Testing                  | 1                | 6                               | 6                          | \$593.17 PU                                    | \$593.17             |                                                                                     |
| Annual Lawn Cutting around Station        | 8                | Contractor                      | Contractor                 | Contractor                                     | \$1,676.64           | \$209.58 per cut                                                                    |
| Annual Weed Spraying                      | 1                | Contractor                      | Contractor                 | ~\$252 per acre                                | \$320                | Station is 1.27 acres.                                                              |
| Annual PDM Scan of Station                | 0.05             | 5                               | 2.5                        | 5                                              | \$250                | For existing station, would assume ~5 hours equating to ~\$500 every other year.    |
| External CB Inspections                   | 0.417            | 20                              | 8.34                       | \$6773.52 PU                                   | \$2,822.30           | Five 46KV CBs 12-year cycle                                                         |
| Complete CB Inspections                   | 0.083            | 20                              | 1.66                       | \$3500.65 PU                                   | \$291.72             | One 12KV VCB 12-year cycle                                                          |
| Transformer Minor Maintenance             | 0.125            | 160                             | 20                         | \$33,457.57 PU (TMMR)<br>\$10,894.14 PU (TMMN) | \$1,361              | One station transformer, non LTC. Assuming eight year time based maintenance cycle. |
| Yearly Misc Corrective Call Outs          | 1                | 4                               | 4                          | 4 hr                                           | \$400                | For just the assets in this project, (1) 4 hr call out is a conservative number.    |
| Yearly Misc Station Repairs               | 2                | 6                               | 12                         |                                                | \$2,500              | Just related to assets in this project, but \$2,500 would be a conservative number. |
|                                           |                  | Total Labor Hrs                 | 72.5                       | Total Cost                                     | \$12,987.73          |                                                                                     |

| Raccoon Station - New Station, In-Service 2021 |                  |                                 |                            |                                                |                      |                                                                                     |
|------------------------------------------------|------------------|---------------------------------|----------------------------|------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|
| Item                                           | Yearly Frequency | Estimated Labor Hours per Event | Total Labor Hours per Year | Time/Cost for Each Event                       | Additional Item Cost | Additional Comments                                                                 |
| Routine Station Inspections                    | 6                | 3                               | 18                         | \$462.15 PU                                    | \$2,772.90           | Performed on bi-monthly schedule                                                    |
| Annual DC Supply Testing                       | 1                | 6                               | 6                          | \$593.17 PU                                    | \$593.17             |                                                                                     |
| Annual Lawn Cutting around Station             | N/A              | Contractor                      | Contractor                 | Contractor                                     | \$0.00               | No cutting at this location                                                         |
| Annual Weed Spraying                           | 1                | Contractor                      | Contractor                 | ~\$252 per acre                                | \$231                | Station is approximately 1 acre                                                     |
| Annual PDM Scan of Station                     | 0.5              | 5                               | 2.5                        | 5                                              | \$250                | For existing station, would assume ~5 hours equating to ~\$500 every other year.    |
| External CB Inspections                        | 0.083            | 20                              | 1.67                       | \$6773.52 PU                                   | \$562.20             | 1 - 138KV CKT Swr 12-year schedule                                                  |
| Complete CB Inspections                        | 0.375            | 20                              | 7.5                        | \$3500.65 PU                                   | \$1,312.74           | 3 - 12KV VCB 8-year schedule                                                        |
| Transformer Minor Maintenance                  | 0.1              | 160                             | 16                         | \$33,457.57 PU (TMMR)<br>\$10,894.14 PU (TMMN) | \$1,089              | One station transformer, non LTC. Assuming ten year time based maintenance cycle.   |
| Yearly Misc Corrective Call Outs               | 1                | 4                               | 4                          | 4 hr                                           | \$400                | For just the assets in this project, (1) 4 hr call out is a conservative number.    |
| Yearly Misc Station Repairs                    | 2                | 6                               | 12                         |                                                | \$2,500              | Just related to assets in this project, but \$2,500 would be a conservative number. |
|                                                |                  | Total Labor Hrs                 | 67.67                      | Total Cost                                     | \$9,711.42           |                                                                                     |

| Leslie Station - Upgrade 2024      |                  |                                 |                            |                                                |                      |                                                                                     |
|------------------------------------|------------------|---------------------------------|----------------------------|------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|
| Item                               | Yearly Frequency | Estimated Labor Hours per Event | Total Labor Hours per Year | Time/Cost for Each Event                       | Additional Item Cost | Additional Comments                                                                 |
| Routine Station Inspections        | 6                | 3                               | 18                         | \$462.15 PU                                    | \$2,772.90           | Performed on bi-monthly schedule                                                    |
| Annual DC Supply Testing           | 1                | 6                               | 6                          | \$593.17 PU                                    | \$593.17             |                                                                                     |
| Annual Lawn Cutting around Station | 8                | Contractor                      | Contractor                 | \$78.32                                        | \$624.00             |                                                                                     |
| Annual Weed Spraying               | 1                | Contractor                      | Contractor                 | ~\$252 per acre                                | \$497                | Station is approximately 2.179 acre                                                 |
| Annual PDM Scan of Station         | 0.5              | 5                               | 2.5                        | 5                                              | \$250                | For existing station, would assume ~5 hours equating to ~\$500 every other year.    |
| External CB Inspections            | 0.083            | 30                              | 2.49                       | \$6773.52 PU                                   | \$562.20             | 1-161kv SF6 CB 12-year schedule                                                     |
| Complete CB Inspections            | 0.083            | 30                              | 2.49                       | \$3500.65 PU                                   | \$290.55             | 1-161kv CKT SWR 12-year schedule                                                    |
| Complete CB Inspections            | 0.2              | 20                              | 4                          | \$3500.65 PU                                   | \$700.13             | 3 - 34kv VCBs 15-year schedule                                                      |
| Complete CB Inspections            | 0.25             | 20                              | 5                          | \$3500.65 PU                                   | \$875.16             | 3 - 69KV CKT SWR 12-year schedule                                                   |
| External CB Inspections            | 0.25             | 20                              | 5                          | \$6773.52 PU                                   | \$875.16             | 3 - 69KV CB 12-year schedule                                                        |
| Transformer Minor Maintenance      | 0.2              | 160                             | 32                         | \$33,457.57 PU (TMMR)<br>\$10,894.14 PU (TMMN) | \$2,179              | 2 station transformer, non LTC. Assuming 10 year time based maintenance cycle.      |
| Yearly Misc Corrective Call Outs   | 1                | 4                               | 4                          | 4 hr                                           | \$400                | For just the assets in this project, (1) 4 hr call out is a conservative number.    |
| Yearly Misc Station Repairs        | 2                | 6                               | 12                         |                                                | \$2,500              | Just related to assets in this project, but \$2,500 would be a conservative number. |
|                                    |                  | Total Labor Hrs                 | 93.48                      | Total Cost                                     | \$13,119.09          |                                                                                     |

| Princess Station - Upgrade 2019    |                  |                                 |                            |                                                |                      |                                                                                     |
|------------------------------------|------------------|---------------------------------|----------------------------|------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|
| Item                               | Yearly Frequency | Estimated Labor Hours per Event | Total Labor Hours per Year | Time/Cost for Each Event                       | Additional Item Cost | Additional Comments                                                                 |
| Routine Station Inspections        | 6                | 3                               | 18                         | \$462.15 PU                                    | \$2,772.90           | Performed on bi-monthly schedule                                                    |
| Annual DC Supply Testing           | 1                | 6                               | 6                          | \$593.17 PU                                    | \$593.17             |                                                                                     |
| Annual Lawn Cutting around Station | N/A              | Contractor                      | Contractor                 | N/A                                            | \$0.00               | No cutting at this location                                                         |
| Annual Weed Spraying               | 1                | Contractor                      | Contractor                 | ~\$252 per acre                                | \$244                | Station is approximately 1.07 acres                                                 |
| Annual PDM Scan of Station         | 0.5              | 5                               | 2.5                        | 5                                              | \$250                | For existing station, would assume ~5 hours equating to ~\$500 every other year.    |
| Complete CB Inspections            | 0.125            | 20                              | 2.5                        | \$3500.65 PU                                   | \$437.58             | 1 - 69kv CKT SWR 8-year schedule                                                    |
| Complete CB Inspections            | 0.167            | 20                              | 3.34                       | \$3500.65 PU                                   | \$584.60             | 2 - 69kv CKT SWR 12-year schedule                                                   |
| Complete CB Inspections            | 0.467            | 20                              | 9.34                       | \$3500.65 PU                                   | \$1,634.80           | 7 - 34.5KV VCB 15-year schedule                                                     |
| Transformer Minor Maintenance      | 0.2              | 160                             | 32                         | \$33,457.57 PU (TMMR)<br>\$10,894.14 PU (TMMN) | \$2,179              | 2 station transformer, non LTC. Assuming 10 year time based maintenance cycle.      |
| Yearly Misc Corrective Call Outs   | 1                | 4                               | 4                          | 4 hr                                           | \$400                | For just the assets in this project, (1) 4 hr call out is a conservative number.    |
| Yearly Misc Station Repairs        | 2                | 6                               | 12                         |                                                | \$2,500              | Just related to assets in this project, but \$2,500 would be a conservative number. |
|                                    |                  | Total Labor Hrs                 | 89.68                      | Total Cost                                     | \$11,595.83          |                                                                                     |

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**DATA REQUEST**

**KPSC 1\_12** Refer to Kahn Direct Testimony, page 6, which states: “The projected additional annual ad valorem taxes resulting from the Proposed Project are expected to total approximately \$953,000.”

a. Provide the detailed calculation of the \$953,000 annual ad valorem tax estimate, including the assessed value of the rebuilt substation, the applicable Floyd County property tax millage rate, and whether any state taxes are included.

b. State the 2026 year-to-date and projected total annual ad valorem taxes on the existing Allen Substation and explain the net change.

c. Identify whether these taxes will be recovered through transmission rates (shared across the AEP East zone) or through Kentucky Power distribution rates charged to local customers.

d. Provide the estimated annual ad valorem tax impact per Kentucky Power customer.

**RESPONSE**

a. The amount stated was inaccurate. The projected additional annual ad valorem tax amount resulting from the Proposed Project is expected to total approximately \$350,600. An updated calculation of the projected additional annual ad valorem tax amount is included in KPCO\_R\_KPSC\_1\_12 Attachment1.

b. Aside from the real estate taxes, which will remain unchanged, the estimated 2026 taxes on the Allen Substation assets are approximately \$1,400. The net book value of the equipment at this location is less than \$1,000,000. Manufacturing equipment is subject to taxation at the state level only and is not subject to local taxation.

c. and d. These taxes are recovered through transmission rates as the tax impact is included within the Net Plant Carrying Charge applied to the capital plant addition. Accordingly, please see KPCO\_R\_KPSC\_1\_13\_Attachment1 “Res Impact” tab for the requested information. Please note this amount encompasses both capital and tax impact.

Witness: Lerah M. Kahn

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**DATA REQUEST**

- KPSC 1\_13** Refer to the Application, page 4, paragraph 13, which states: “The Proposed Project will be allocated to the AEP East PJM zone based on a 12 CP allocation.” Refer also to Kahn Direct Testimony, page 6, which states the same. The 12 CP (12 Coincident Peak) method allocates baseline project costs across the AEP East zone based on each utility's share of peak load.
- a. Provide the most recent 12 CP load shares for each utility in the AEP East PJM zone and show the percentage of the \$49.7 million that will be allocated to Kentucky Power versus other utilities.
  - b. Provide the dollar amount of the \$49.7 million that Kentucky Power's customers will ultimately bear versus what is passed on to other AEP East utilities.
  - c. Explain how and when the Kentucky Power-allocated share will appear in customer rates.
  - d. Estimate the monthly bill impact on an average residential Kentucky Power customer.

**RESPONSE**

- a. and b. Please see KPCO\_R\_KPSC\_1\_13\_Attachment1 for the requested information.
  - Tab “AEP 12 CP” provides the most recent 12 CP allocation percentage for each AEP East operating company.
  - Tab “Summary” provides the allocation of the \$49.7 million to the AEP zone and then the AEP East operating companies using 2025 Actuals as the baseline. Cells M28 through N40 provide the estimated allocated costs for the Proposed Project. Notably, the amount ultimately born by Kentucky Power customers will be dependent on when project costs go into service, the allocations in effect at those times, and when such costs are included within customer rates.

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c. PJM LSE OATT expenses are currently recovered through the Company's base rates. Assuming continued recovery through base rates, costs associated with the Proposed Project will be included in customer rates following their inclusion within a future test year and the associated rates going into effect.

d. Please see KPCO\_R\_KPSC\_1\_13\_Attachment1, tab "Res Impact" for the requested estimate utilizing the most current billed and accrued revenues and allocation factors from the Company's most recent base rate case.

Witness: Lerah M. Kahn

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**DATA REQUEST**

**KPSC 1\_14** Refer to the Application, page 8, paragraph 28, which states: “The Company anticipates beginning construction on the Proposed Project during the second quarter of 2027, depending on the outcome and timing of this proceeding.” Refer also to Kahn Direct Testimony, page 5, which states: “Q1 2027: Start of construction.” Explain the apparent inconsistency between the Application indication that construction will begin in Q2 2027, while Kahn's testimony states Q1 2027. Provide the correct anticipated construction start date.

**RESPONSE**

The anticipated start of construction is Q1 2027. The discrepancy is a scrivener’s error.

Witness: Lerah M. Kahn

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**DATA REQUEST**

**KPSC 1\_15** Refer to the Application, Exhibit 10, PDF page 91 (July 24, 2019 Slides page 5) which states that circuit breaker CB A has experienced 27 fault operations, circuit breaker CB C has experienced 20 fault operations, circuit breaker CB D has experienced 17 fault operations, and that “the manufacturer recommendation is 10 fault operations during its in-service life.” Refer also to the Application, page 8, paragraph 28, which anticipates construction beginning in Q1/Q2 2027 — approximately 8 years after the safety risk was first identified.

- a. Provide the number of fault operations for each circuit breaker by year since 2019.
- b. List every interim maintenance action, inspection, or emergency repair performed on circuit breakers A, B, C, and D at Allen Substation between July 2019 and the filing date of this Application, with associated costs.
- c. Quantify the financial exposure to Kentucky Power and its customers if one or more of these breakers fails catastrophically before the rebuild is completed in Q4 2028.
- d. Explain why the circuit breakers were not replaced on an emergency basis given that all three have operated at more than double the manufacturer's recommended maximum fault operations since at least 2019.

**RESPONSE**

a. and b. Please see KPCO\_R\_KPSC\_1\_15\_Attachment1.

c. The Company performs monthly inspections on these breakers to help prevent any failure of the units. If a failure were to occur, the failed breaker would be replaced and switching operations would be performed to isolate the failed breaker to help return service to customers out of Allen Substation. Due to the hypothetical and variable nature of a failure, the Company cannot determine the financial exposure. However, the cost of a breaker is approximately \$127,000.

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d. The number of fault operations is not the sole indicator of a unit requiring an emergency replacement. Instead, field conditions of the breaker, including oil, contacts, and bushings, are used to determine if the breaker is still capable of interrupting a fault. If those indicators are showing operational deterioration during one of the monthly inspections, that unit would be replaced to prevent a failure from occurring.

Witness: Nicolas C. Koehler

## VERIFICATION

The undersigned, Tyler M. Benedum, being duly sworn, deposes and says he is a Transmission Station Engineer for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Signed by:

*Tyler M. Benedum*

FA69D32ADEFF8408

Tyler M. Benedum

KY

Kentucky

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Case No. 2026-00208

Subscribed and sworn to before me, a Notary Public in and before said County  
and State, by Tyler M. Benedum, on 9/24/2026 | 10:35 AM EDT.

Signed by:

*Michelle Caldwell*

E9B1BC7AC31F421...

Notary Public

My Commission Expires 05/05/2027

Notary ID Number KYNP71841

MARILYN MICHELLE CALDWELL  
ONLINE NOTARY PUBLIC  
COMMONWEALTH OF KENTUCKY  
Commission #KYNP71841  
My Commission Expires 5/5/2027

## VERIFICATION

The undersigned, Lerah M. Kahn, being duly sworn, deposes and says she is the Director of Regulatory Services for Kentucky Power, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Lerah M. Kahn  
Lerah M. Kahn

Commonwealth of Kentucky )  
County of Boyd )

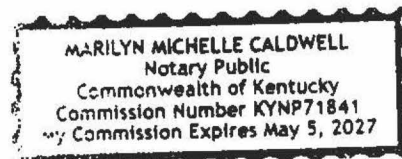
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Subscribed and sworn to before me, a Notary Public in and before said County and State, by Lerah M. Kahn, on September 30, 2026

Marilyn Michelle Caldwell  
Notary Public

My Commission Expires May 5, 2027

Notary ID Number KYNP71841



## VERIFICATION

The undersigned, Nicolas C. Koehler, being duly sworn, deposes and says he is the Managing Director of Transmission Planning for American Electric Power, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Signed by:

*Nicolas C. Koehler*

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Nicolas C. Koehler

Commonwealth of Kentucky )  
 )  
County of Boyd )

Case No. 2026-00208

Subscribed and sworn to before me, a Notary Public in and before said County  
and State, by Nicolas C. Koehler, on 9/22/2026 | 3:10 PM EDT.

Signed by:

*Michelle Caldwell*

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Notary Public

MARILYN MICHELLE CALDWELL  
ONLINE NOTARY PUBLIC  
COMMONWEALTH OF KENTUCKY  
Commission #KYNP71841  
My Commission Expires 5/5/2027

My Commission Expires May 5, 2027

Notary ID Number KYNP71841