

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Public Meeting held August 28, 2025

Commissioners Present:

Stephen M. DeFrank, Chairman
Kimberly Barrow, Vice Chair, Statement
Kathryn L. Zerfuss
John F. Coleman, Jr.
Ralph V. Yanora

Application of PECO Energy Company for Approval to Site and Construct the transmission lines associated with the Proposed PJM 2022 Reliability Window #3 Project in Peach Bottom Township, York County, Pennsylvania

Docket Number:
A-2024-3051463
P-2025-3053955

Petition of PECO Energy Company for Waiver of Certain Requirements at 52 Pa. Code § 57.72(c)(10) and 52 Pa. Code § 69.3105

ORDER

BY THE COMMISSION:

History of the Proceeding

On September 30, 2024, PECO Energy Company (PECO), Utility Code 110550, filed an Application to site and construct the transmission lines associated with the proposed PJM 2022 Reliability Window #3 Project, pursuant to the regulations of the Pennsylvania Public Utility Commission (Commission) at 52 Pa. Code Chapter 57,

Subchapter G. The Application seeks siting approval for PECO to construct six 500 kV transmission lines associated with the above project in Peach Bottom Township, York County, Pennsylvania. In addition to the Application, PECO also filed a Petition for Waiver of certain requirements at 52 Pa. Code § 57.72(c)(10) and 52 Pa. Code § 69.3105. For the reasons expressed in this Order, the filing is approved.

PECO served copies of its Application on all affected governmental agencies and municipalities as required by 52 Pa. Code §57.74. PECO also served notice of its Application and relevant supporting maps and documents on all affected property owners as required by 52 Pa. Code §57.74. Notice of the Application was published in the October 19, 2024, issue of the *Pennsylvania Bulletin*. The notice informed interested parties of the date and time of the Prehearing Conference. Protests and Petitions to Intervene were due on or before December 3, 2024.

On December 3, 2024, Transource Pennsylvania, LLC, (Transource PA) Utility Code 1119559, filed a Petition to Intervene stating that its intervention in the proceeding is not to object to PECO's Application but to ensure there is timely coordination and approval of the Application and no confusion or inconsistency between the ownership and location of the transmission lines PECO proposes to site and construct.

On December 18, 2024, PECO filed revised attachments 10, 12, 18, 19, and 20 to the Application. PECO advised that each revised attachment reflects minor design changes. PECO served this filing on the Commission's Bureau of Investigation and Enforcement, the Office of Consumer Advocate, the Office of Small Business Advocate, and Transource PA.

On December 19, 2024, the Commission held a Prehearing Conference for the filings.

In an Order dated January 14, 2025, Administrative Law Judge Christopher P. Pell provided that PECO Energy Company's Petition for Waiver of the requirements in 52 Pa. Code § 57.72(c)(10) to provide alternative routes and of the Commission's interim guidelines at 52 Pa. Code § 69.3105, being unopposed, is granted. The January 14, 2025 Order also granted Transource PA's Petition to Intervene.

On February 5, 2025, a second Prehearing Conference was held to allow PECO and Transource PA additional time to address and resolve Transource PA's concerns. No other Petitions to Intervene or protests were filed and no hearings were held.

In an Order dated February 13, 2025, the ALJ determined that because Transource PA confirmed its support of the Application, the Application and Petition for Waiver were unopposed and reassigned them to the Bureau of Technical Utility Services for appropriate action.

PECO states that the PJM 2022 Reliability Window #3 Project consists of constructing two new 500 kV single-circuit transmission lines, modifying three existing 500 kV circuits with partial new construction, and connecting two existing 500 kV lines together to create a new 500 kV line. PECO also states that the new transmission lines consist of the Graceton – Bramah 500kV Transmission Line (5042 Line) which extends from the Pennsylvania Maryland border to an existing transmission structure on the 5012 Line and the new High Ridge – Bramah 500 kV Transmission Line (5047 Line) which extends from the Pennsylvania Maryland border to the future Bramah Substation to be owned by Transource PA. PECO states that the transmission line modifications will create the Bramah – Peach Bottom South Tie-in #2 500 kV Transmission Line (5041 Line), Bramah – Rock Springs 500 kV Transmission Line (5014 Line), Bramah – Peach Bottom South Tie-in #1 500 kV Transmission Line (5012 Line), and the

Peach Bottom North – Peach Bottom South 500 kV Transmission Line (5056 Line).
Application ¶26 and pages 1-2.

Project Need

PECO submits that on January 10, 2023, PJM Interconnection, LLC (PJM) announced the need for a competitive solicitation process, referred to as an RTEP Reliability Window, to address the projected growth of significant load concentrated primarily in northern Virginia, but also in parts of Maryland, primarily from the development of data centers in that region. PECO also submits that PJM forecasted between 4.2% and 5.0% annual load growth in the Dominion Energy service territory over the next 10 to 15-year time frame as well as significant annual load growth in the adjacent FirstEnergy territory in Maryland. PECO submits that overall, PJM forecasted at least 7,500 MW of new load growth in the Dominion and FirstEnergy zones by 2027-2028, primarily associated with new data center loads. Application ¶17.

PECO states that the anticipated increase in power flows within the northern Virginia transmission system into the data center concentrated load pocket would cause widespread voltage and thermal violations requiring system reinforcements within PJM to support the regional transfer of power. PECO also states that from the issues identified above, PJM determined that the power systems of PECO, Baltimore Gas and Electric Company, Potomac Electric Power Company, and Delmarva Power would be impacted by thermal and voltage violations and regional constraints along the Peach Bottom – Conastone – Brighton – Doubs 500 kV Transmission Line, and that these systems would need substantial reactive power reinforcements. Application ¶18.

PECO submits that during the 2022 RTEP Window #3 competitive process, Talen Energy Corporation announced the planned deactivation of the Brandon Shores

Generating Station Unit 1 and Unit 2. PECO also submits that in addition to the forecasted data center load growth, described above, PJM identified reliability concerns resulting from the planned deactivation of Brandon Shores' 1,282 MW of generation, located in Anne Arundel County, Maryland. PECO further submits that equivalent capacity would have to be transferred through the PJM system to replace this loss of generation. Lastly, PECO submits in its Brandon Shores Project filing that the deactivation date is currently set for December 2028 and that PECO continues to execute the project timeline based on the PJM stated date. Application ¶¶19 & 21.

PECO states that in order to address the identified reliability issues PECO proposes to upgrade and replace equipment at the Peach Bottom North and Peach Bottom South Substations and expand, improve, and construct certain 500 kV transmission lines. PECO also states that the subject project was presented at PJM's Transmission Expansion Advisory Committee meetings in October 2023, December 2023, January 2024, and May 2024 and subsequently assigned baseline project numbers b3800.31, b3800.35, b3800.42, b3800.44, b3800.45, b3800.46, b3800.47, b3800.5, and b3800.52. Lastly, PECO submits that the PJM generator deactivation process for Brandon Shores resulted in PJM designating PECO to construct the transmission facilities of the Brandon Shores Retirement Mitigation Project, at Docket No. A-2024-3051467, and that the PJM 2022 Reliability Window #3 Project is designed to accommodate construction of the Brandon Shores Project. Application ¶¶21 & 25 and PECO Data Request Response No. 12.

PECO submits that the subject project will extend from the Pennsylvania and Maryland border to the Peach Bottom North and South Substations, reinforcing the transfer of power from east of Peach Bottom Atomic Power Station to the Graceton Substation area in Maryland and interconnecting new and upgraded 500 kV transmission lines along this route. PECO also submits that the subject project will support the mitigation of thermal and voltage issues in the Mid-Atlantic, Dominion, and FirstEnergy

regions, allow for the supply of load to the growing data center load pocket in the northern Virginia area, increase transmission capacity within PECO's service territory, and remove congestion on existing facilities in the 5012 Transmission Line corridor. Application ¶¶23-24.

Proposed Route

PECO states that construction of the subject project will take place primarily within PECO's existing rights-of-way, with the majority of the project to be located within PECO's existing transmission right-of-way for the 230 kV 220-08 Line and 500 kV 5012 Line that and approximately 6 miles from the Pennsylvania and Maryland border to Peach Bottom North and Peach Bottom South Substations. Application ¶32 and Attachment 20.

Construction and Engineering

PECO submits that the subject project consists of constructing six new 500 kV transmission lines to alleviate the impacts of load growth. PECO also submits that its ownership of the 5042 Line and 5047 Line ends at the Pennsylvania and Maryland border. PECO submits that the new lines will consist of nine 959.6 kcmil 22/7 aluminum conductor steel supported (ACSS)/TW HS Type 16 conductors and that the wires on the 5014 Line consist of six 2493 kcmil 54/37 aluminum conductor alloy reinforced (ACAR) conductors. PECO further submits that the average span distance on the lines ranges from approximately 300 feet between structures to approximately 796 feet between structures. Finally, PECO submits that the subject project removes 24 existing transmission structures and in instances where structures are replaced PECO will not reuse the existing conductor because it is over 50 years old and designed for a lesser load projected in the late 1960s. Application ¶¶26-27, Statement No. 4, and PECO Data

Request Response No. 19.

PECO states that it will construct the 500 kV 5042 Line which extends approximately 4.0 miles from the Pennsylvania and Maryland border to the existing Structure 2-3 of the 5012 Line. PECO also states that to construct this transmission line, the existing 500 kV 5012 Line supported by lattice towers will be removed and replaced with 26 new steel monopole structures. PECO states that the new structures will range from approximately 150 feet in height to approximately 200 feet in height. PECO further states that the construction of the 5042 Line requires Calpine Mid Merrit, LLC's existing 5034 Line to be demolished and relocated. Finally, PECO states that the work on the 5034 Line is the subject of PECO's Letter of Notification at Docket No. A-2025-3056499. Application ¶26 and PECO Data Request Response No. 14.

PECO submits that it will construct the 5047 Line which extends approximately 4.6 miles from the Pennsylvania and Maryland border to the Bramah Substation and will be located parallel to the new 5042 Line. PECO also submits that the 5047 Line will be constructed with 30 new steel monopole structures and that the new structures will range from approximately 150 feet in height to 200 feet in height. Application, Statement No. 4.

PECO states that it will construct two separate scopes of work for the new 5041 Line extending from Bramah Substation to Peach Bottom South Substation. PECO also states that these two scopes of work will be connected by reusing existing structures of the #1 Tie Line from existing structures 1T-3 to 1T-6, which will be disconnected from the Peach Bottom North Substation. Application, Statement No. 4.

PECO submits that the first scope of work will be an approximately 0.95-mile tie-in to the Bramah Substation traveling east and north. PECO also submits that of this

first scope of work, approximately 0.4 miles of transmission line will be constructed in a new right-of-way and that the remaining approximately 0.64 miles of the first scope of work will be constructed in PECO's existing right-of-way for the 220-08 Line in the location of the 220-08 Line. PECO submits that the height of the nine new steel structures will range from approximately 95 feet in height to 190 feet in height and that PECO will replace existing lattice structures from the 220-08 Line with steel pole structures. Application, Statement No. 4.

PECO states that for the second scope of work for the 5041 Line, PECO will construct a new tie-in to the Peach Bottom South Substation approximately 0.19 miles in length which will require one new H-frame structure that will replace an equivalent sized existing structure approximately 105 feet in height and be located in new right-of-way. PECO also states that the new 5041 Line will connect to the Peach Bottom South Substation at a new A-frame takeoff tower located entirely inside the substation fence. Application, Statement No. 4.

PECO submits that for the 5014 Line it will construct a new transmission line approximately 710 feet in length to tie the existing 5034 Line to the existing 5014 Line. PECO also submits that as a result, the existing 5014 Line will no longer be connected to the Peach Bottom South Substation. Finally, PECO submits that this new line will connect the Bramah Substation and Rock Springs Substations, will use existing structures already part of the 5014 Line, will require the demolition of existing lattice tower structure 1-2, and additional structures to be constructed by an unaffiliated company. Application, Statement No. 4.

PECO states that it will construct approximately 0.1 mile of the 500 kV Peach Bottom North Substation #2 Tie Line to Peach Bottom South Substation tie-in to the Peach Bottom North Substation. PECO also states that the construction will be within

the new right-of-way and will require only one new H-frame structure which will replace an equivalent sized existing lattice structure approximately 175 feet in height. Lastly, PECO states that it will reuse the existing structures of the #2 Tie Line from existing structure 2T-3 to the Peach Bottom South Substation, and those structures in conjunction with the new 0.1 mile of construction will collectively be designated the 5056 Line. Application, Statement No. 4.

PECO submits that for the 5012 Line it will construct an approximately 600-foot extension of the existing 500 kV 5012 Line that will connect the Bramah Substation to Peach Bottom South Substation. PECO also submits that this new construction will extend the 5012 Line to a new position in the Peach Bottom South Substation, which will require one new monopole approximately 150 feet in height. Finally, PECO submits that the segment will also use existing structures located inside the substation fence. Application, Statement No. 4.

PECO asserts that the subject project will be designed, constructed, operated and maintained in a manner that meets or exceeds the requirements specified in the National Electrical Safety Code, Occupational Safety and Health Administration safety standards, and all applicable legal requirements. Application ¶30.

PECO states that the estimated cost for the construction of the subject project is approximately \$73 million in transmission work and an additional \$21 million in substation work. PECO also states that it will fund the upfront construction costs for the subject project and that the costs for the project will then be recovered through PECO's transmission rates based on PJM's allocation rules. Finally, PECO states that it proposes to start construction in March 2026, to meet an in-service date of December 2030. Application ¶¶6-7 and PECO Data Request Response No. 1.

Protection of Natural Resources

PECO submits that a Pennsylvania Natural Diversity Inventory (PNDI) review of the subject project was conducted in March 2024, and the results indicated that further coordination with the Pennsylvania Department of Conservation and Natural Resources (DCNR), Pennsylvania Fish and Boat Commission (PFBC), and United States Fish and Wildlife Service (USFWS) is needed. Application ¶41.

PECO states that the DCNR provided a list of twelve threatened and endangered plant species for which botanical surveys need to be conducted. PECO also states that the DCNR provided a letter dated January 30, 2025, indicating no impacts are anticipated per the survey results as long as the conservation measures provided in the letter are followed and that no further coordination with the DCNR is needed. Application ¶42 and PECO Data Request Response No. 8.

PECO submits that the PFBC identified habitats in the project area that support the broad-headed skink. PECO also submits that the PFBC provided a letter which sets forth minimization and management strategies to meet the needs of the subject project and additionally provides that these mitigation techniques should avoid unnecessary impacts to the skink and its habitat during construction. Application ¶43 and PECO Data Request Response No. 9.

PECO states that a delineation of streams and wetlands within the subject project corridor was completed in March and April 2024 and that this survey noted the presence of 24 perennial or intermittent streams. PECO also states that most of these are classified as wild trout streams. PECO states that the survey also identified 21 wetlands and that due to their location adjacent to the wild trout streams, these wetlands are considered exceptional value. Finally, PECO states that wetlands that are deemed exceptional value

are provided additional protection by the Pennsylvania Department of Environmental Protection (PADEP) and that impacts to these regulated features will be incorporated into the environmental permitting process that will be coordinated with the PADEP and the U.S. Army Corps of Engineers. Application ¶40.

PECO submits that delineated wetlands have been assessed by qualified bog turtle surveyors for potential habitat, which was noted at several of the wetlands in the subject project area. PECO also submits USFWS provided that the results of the surveys indicate that no bog turtles or evidence of bog turtles were found on any of the survey dates suggesting the probable absence of the species. Application ¶44 and PECO Data Request Response No. 10.

PECO states that it will continue to consult with the jurisdictional agencies as required regarding potential impacts to protected species, complete all required surveys, obtain all necessary approvals and permits for construction of the subject project, and comply with conditions placed on those permits. Application ¶54.

Assignment of Easements and Rights-of-Way

PECO submits that the majority of the transmission construction will occur in PECO's existing transmission corridor rights-of-way which includes the 220-08 Line and 5012 Line and that the right-of-way is approximately 300 feet in width. PECO also submits that the additional transmission construction that will require new rights-of-way will be located adjacent to PECO's existing rights of-way and that of the approximately 329.6 acres required for the subject project, PECO only needs to acquire land rights for approximately 29.5 acres. Finally, PECO submits that these property rights need to be acquired from five entities consisting of two farms, Calpine Mid Merrit, LLC, Constellation Energy Generation, LLC, and Transource PA. Application ¶25, Statement

No. 5, and Attachment 20 and PECO Data Request Response No. 14.

Disposition

The Commission will grant an application for approval of the siting and construction of a high voltage transmission line if it finds and determines, pursuant to 52 Pa. Code §57.76(a), the following:

- (1) That there is a need for the high voltage transmission line.
- (2) That the high voltage transmission line will not create an unreasonable risk of danger to the health and safety of the public.
- (3) That the high voltage transmission line is in compliance with applicable statutes and regulations providing for the protection of the natural resources of the Commonwealth.
- (4) That the high voltage transmission line will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.

PECO has met its burden to prove that its Application requesting approval to site and construct the proposed PJM 2022 Reliability Window #3 Project is necessary or proper for the accommodation, convenience and safety of its patrons, employees and the public.

PECO has met its burden to prove that the location and construction of the 500 kV transmission lines would not create an unreasonable risk of danger to the health and

safety of the public.

PECO has met its burden to prove that the siting and construction of the 500 kV transmission lines is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.

PECO has met its burden to prove that construction of the 500 kV transmission lines would have a minimum adverse environmental impact, considering the electric power needs of the public and the available alternatives. Additionally, PECO's Petition for Waiver of the requirements in 52 Pa. Code § 57.72(c)(10) to provide alternative routes and of the Commission's interim guidelines at 52 Pa. Code § 69.3105, was previously granted.

The formal PECO Energy Company Application and manner in which it was filed conforms to the requirements of 52 Pa. Code § 57.72. Moreover, the Commission has reviewed the filing and does not find it to be inconsistent with the applicable law or Commission policy regarding transmission line siting; **THEREFORE,**

IT IS ORDERED:

1. That the Application filed by PECO Energy Company to site and construct the transmission lines associated with the proposed PJM 2022 Reliability Window #3 Project in Peach Bottom Township, York County, Pennsylvania, is hereby approved.
2. That upon completion of the subject project, PECO Energy Company shall file the final project cost with the Commission.

3. That this proceeding at Docket No. P-2025-3053955 be marked closed consistent with the January 14, 2025 Order.

4. That upon completion of Ordering Paragraph 2, this proceeding at Docket No. A-2024-3051463 be marked closed.

BY THE COMMISSION,

A handwritten signature in black ink, appearing to read "Matthew L. Homsher". The signature is written in a cursive style with a large, stylized initial "M".

Matthew L. Homsher
Secretary

(SEAL)

ORDER ADOPTED: August 28, 2025

ORDER ENTERED: August 28, 2025