

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

Public Meeting held August 28, 2025

Commissioners Present:

Stephen M. DeFrank, Chairman  
Kimberly Barrow, Vice Chair  
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 Brandon Shores Retirement Mitigation Project in Peach Bottom Township, York County, Pennsylvania

Docket Number:  
A-2024-3051467  
P-2025-3053944

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 Brandon Shores Retirement Mitigation 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 five 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 submits that the Brandon Shores Retirement Mitigation Project involves expansion of the existing Peach Bottom North Substation and that the transmission line work includes constructing one new 500 kV single-circuit transmission line and one new 230 kV single-circuit transmission line, bifurcating an existing 500 kV circuit into two new circuits at a new substation, and modifying and rerouting one existing 230 kV circuit with partial new construction. PECO also submits that the new lines consist of the Cooper – Bramah 230kV Transmission Line (220-93 Line) which extends from the existing Cooper Substation to Transource PA's proposed Bramah Substation and the Graceton – Peach Bottom North 500 kV Transmission Line (5040 Line) which extends from the Pennsylvania Maryland border to the existing Peach Bottom North Substation. PECO submits that the lines to be rerouted or resulting from modifying existing lines consist of the Nottingham – Cooper 230 kV Transmission Line (220-08 Line), Graceton – Bramah Tie-in 500 kV Transmission Line (5042 Line), and Bramah – Peach

Bottom South Tie-in #1 500 kV Transmission Line (5012 Line). Application ¶29 and page 2.

## **Project Need**

PECO states that on April 6, 2023, Talen Energy Corporation notified PJM Interconnection LLC of the planned deactivation of Brandon Shores Generating Station Unit 1 and Unit 2 on June 1, 2025. PECO also states that PJM analyzed the effects of the planned deactivation of Brandon Shores' 1,273 MW (summer rating) and determined that the retirement would have multiple widespread reliability impacts. PECO states that PJM identified N-1, N-1-1, load deliverability, and voltage deviation violations on transmission facilities due to Brandon Shores' deactivation in various transmission owners' service territory, including PECO, as well as thermal violations affecting several other transmission owners. PECO further states that PJM identified voltage violations due to Brandon Shores deactivation in PECO, Baltimore Gas and Electric Company (BGE), Potomac Electric Power Company (PEPCO), Dominion Energy, First Energy (APS), Metropolitan Edison, and PPL Electric Utilities Corporation service territories for N-1 and N-1-1 outages. Finally, PECO states that PJM also identified multiple 115 kV, 138 kV, 230 kV, and 500/230 kV thermal overloads on transmission facilities in BGE, APS, and PEPCO service territories due to the deactivation of Brandon Shores. Application ¶18.

PECO submits that as a result of PJM's analysis of the Brandon Shores deactivation showing the potential for voltage collapse on the grid in Baltimore and surrounding areas, including southeastern Pennsylvania, PJM identified the need to develop immediate-need reliability projects. PECO also submits that PJM did not develop solutions through a competitive process because Talen requested deactivation to occur in a little over one year. Finally, PECO submits that PJM identified that the

deactivation of Brandon Shores would compound other reliability concerns identified by PJM in the then-ongoing 2022 RTEP Window 3 process. Application ¶19.

PECO states that PJM recognized that system upgrades could not be completed prior to the retirement of Brandon Shores on June 1, 2025, and therefore requested Talen to continue to operate Brandon Shores beyond this date. PECO also states that Talen and PJM agreed to Talen continuing to operate Brandon Shores under a Reliability Must-Run (RMR) arrangement, and that FERC approved an RMR Agreement for Brandon Shores with a monthly fixed cost charge of \$14,619,407 from June 1, 2025, through May 31, 2029, five months longer than initially proposed. PECO further states that the cost for the continued operation of Brandon Shores under the RMR Agreement will be borne by various customers within the PJM footprint, including Pennsylvania customers. PECO states that if system upgrades are not completed, PJM may request Brandon Shores continue operating under an extended RMR arrangement, further increasing these costs. Finally, PECO states that it will continue to adhere to the construction schedule in its Application and does not intend to make changes as a result of the May 31, 2029, deactivation date. Application ¶20 and PECO Letter Dated June 25, 2025.

PECO submits that in May 2023, while PECO was determining the scope of work to mitigate the Brandon Shores deactivation reliability issues, PECO was also participating in PJM's 2022 RTEP Window 3 process to develop proposals to address the reliability issues stemming from significant load growth in the northern Virginia area. PECO also submits that it recognized that its 2022 RTEP Window 3 proposals would provide a holistic solution to not only address this load growth but that physical location and construction timing of PECO's PJM 2022 RTEP Reliability Window # 3 Project, at Docket No. A-2024-3051463, could also be leveraged to facilitate a project to mitigate the reliability issues associated with the loss of generation from the Brandon Shores deactivation. PECO submits that the subject project and the PJM 2022 Reliability

Window # 3 Project are designed to be constructed in conjunction with each other. Finally, PECO submits that the 2022 RTEP Window 3 requires the approval and construction of both the PECO Brandon Shores Retirement Mitigation Project and PECO's PJM 2022 Reliability Window # 3 Project. Application ¶¶23 and PECO Data Request Response Nos. 9 & 17.

PECO states that in order to address the identified reliability issues PECO proposes to expand and upgrade the existing Peach Bottom North Substation and construct certain 230kV and 500 kV transmission lines. PECO also states that the subject project was presented at PJM's Transmission Expansion Advisory Committee meetings in June 2023, December 2023, and January 2024 and subsequently assigned baseline project numbers b3780.1, b3780.14, b3780.15, and b3780.2. Application ¶¶27 and PECO Response to Data Request No. 7.

PECO submits that the subject project will extend from the Pennsylvania and Maryland border to the Peach Bottom North and Peach Bottom 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 project will support the mitigation of thermal and voltage issues in the Mid-Atlantic region of the PJM footprint and increase transmission capacity within PECO's service territory. Finally, PECO submits that the project, together with projects of other utilities designated by PJM to address the retirement of Brandon Shores, will mitigate the potential need for Brandon Shores to continue to operate beyond December 31, 2028, and prevent Pennsylvania customers from having to pay additional costs for a potentially extended RMR arrangement for Brandon Shores. Application ¶¶25-26.

## **Proposed Route**

PECO states that construction of the subject project will take place primarily within PECO's existing transmission rights-of-way which include the 220-08 Line and 5012 Line and extends approximately 6 miles from the Pennsylvania and Maryland border to Peach Bottom North and Peach Bottom South Substations. PECO further states that it will remove the existing 230 kV and 500 kV transmission lines from most of the corridor to allow for construction of the subject project as well as the PJM 2022 RTEP Window #3 Project. Application ¶35 and Attachment 20.

## **Construction and Engineering**

PECO submits that the subject project consists of constructing or modifying five 230 kV and 500 kV transmission lines to mitigate the impact of Brandon Shores retirement. PECO also submits that it will remove 29 existing transmission structures, and where the subject project replaces existing 230 kV or 500 kV structures, PECO will not reuse the existing conductors because that equipment is over 50 years old and was designed for a lesser load projected in the late 1960s. PECO submits that the average span distance on the lines ranges from approximately 442 feet between structures to approximately 771 feet between structures. PECO further submits that in order to utilize Calpine Mid Merrit LLC's (Calpine) existing transmission corridor, a segment of the existing 5034 Line is required to be demolished and relocated. The work on the 5034 Line is the subject of PECO's Letter of Notification at Docket No. A-2025-3056499. Application ¶¶27 & 29 and PECO Statement No. 4 and PECO Response to Data Request No. 4.

PECO states that it will construct the 500 kV 5040 Line which extends approximately 5.5 miles from the Pennsylvania and Maryland border to the Peach

Bottom North Substation and that PECO's ownership of the line ends at the Pennsylvania and Maryland border. PECO also states that to construct this transmission line, approximately 4.0 miles of the existing 230 kV 220-93 Line supported by lattice towers will be removed and replaced with new steel monopole structures. PECO further states that the new 5040 Line will consist of nine 959.6 kcmil 22/7 aluminum conductor steel supported (ACSS)/TW HS Type 16 conductors supported on 39 new transmission structures. Finally, PECO states that the new structures will range from approximately 150 feet in height to approximately 200 feet in height. Application ¶29 and Statement No. 4.

PECO submits that the existing 5012 Line extending from the Pennsylvania and Maryland border to Peach Bottom South Substation will be connected to the Bramah Substation and as a result the existing line will be segmented into two lines described below. PECO also submits that the section from the Bramah Substation to the Peach Bottom South Substation will retain the 5012 Line designation and that the segment between the Pennsylvania and Maryland border and the Bramah Substation will be designated as the 500 kV 5042 Line. PECO Statement No. 4.

PECO states that for the 5042 Line it will construct approximately 0.44 miles of new 500 kV line extending from existing structure 2-3 on the 5012 Line to the Bramah Substation. PECO also states that existing 500 kV lattice structures within PECO's right-of-way will be replaced and that the new segment of the 5042 Line will consist of nine 959.6 kcmil 22/7 ACSS/TW HS Type 16 conductors supported on four new steel monopole structures. Lastly, PECO states that the new structures will range from approximately 150 feet in height to 200 feet in height. Application, Statement No. 4.

PECO submits that for the 500 kV 5012 Line it will construct a new section of transmission line extending approximately 0.43 miles from the Bramah Substation to

proposed structure 2/3 on the 5012 Line, connecting the 5012 Line to Bramah Substation and Peach Bottom South Substation. PECO submits that the new section of line will consist of nine 959.6 kcmil 22/7 ACSS/TW HS Type 16 conductors supported on four new steel structures. Finally, PECO submits that the new structures will range from approximately 80 feet in height to 185 feet in height. Application, Statement No. 4, Attachment 19, and Attachment 20.

PECO states that for the 230 kV 220-08 Line approximately 1.1 miles of the line will be rerouted around the Peach Bottom North Substation to accommodate the substation expansion. PECO also states that the line will be rerouted on new and existing right-of-way and that the subject section will be supported on nine new transmission structures. PECO further states that the structures will range from approximately 70 feet in height to approximately 110 feet in height. Finally, PECO states that the new section of the 220-08 Line will consist of three 795 kcmil 30/19 aluminum conductor steel reinforced (ACSR) conductors. Application, Statement No. 4.

PECO submits that for the 230 kV 220-93 Line it will construct an approximately 0.47-mile line from Cooper Substation to Bramah Substation and that to facilitate construction PECO will demolish a portion of the existing 5012 Line. PECO further submits that the new line will consist of three 959.6 kcmil 22/7 ACSS/TW HS Type 16 conductors supported on six new steel monopole structures. Finally, PECO submits that the new structures will range from approximately 75 feet in height to approximately 135 feet in height. Application, Statement No. 4.

PECO asserts 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 ¶33.

PECO states that the estimated cost for the construction of the subject project is approximately \$65 million in transmission work and an additional \$53 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 2028. Application ¶¶6-7 and PECO Data Request Response No. 2.

### **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 ¶45.

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 ¶46 and PECO Response to TUS Data Request No. 11.

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 includes 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 ¶47 and PECO

Response to Data Request No. 12.

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 ¶44.

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 ¶48 and PECO Response to Data Request No. 13.

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 ¶57.

### **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 averages 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 359.7 acres required for the subject project, PECO needs to acquire land rights for approximately 59.8 acres. Finally, PECO submits that these property rights need to be acquired from five entities consisting of two farms, Calpine Mid Merrit, LLC (Calpine), Constellation Energy Generation, LLC, and Transource PA. Application ¶¶27 & 29, Statement No. 5, and Attachment 20 and PECO Response to Data Request No. 10.

### **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 Brandon Shores Retirement Mitigation 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 230 kV and 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 230 kV and 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 230 kV and 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 Brandon Shores Retirement Mitigation 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-2025-3053944 be marked closed consistent with the January 14, 2025 Order.
4. That upon completion of Ordering Paragraph 2, this proceeding at Docket No. A-2024-3051467 be marked closed.

**BY THE COMMISSION,**



Matthew L. Homsher  
Secretary

(SEAL)

ORDER ADOPTED: August 28, 2025

ORDER ENTERED: August 28, 2025