

**PENNSYLVANIA  
PUBLIC UTILITY COMMISSION  
Harrisburg, PA 17120**

Public Meeting held July 24, 2025

Commissioners Present:

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

Letter of Notification of PPL Electric Utilities Corporation for approval to reconstruct the Fox Hill – Shawnee 230 kV Transmission Line and Shawnee – Bushkill 230 kV Transmission Line located in Smithfield Township, Monroe County, Pennsylvania

Docket Number:  
A-2025-3054291

**ORDER**

**BY THE COMMISSION:**

On March 28, 2025, PPL Electric Utilities Corporation (PPL Electric), Utility Code 110500, filed a Letter of Notification pursuant to 52 Pa. Code § 57.72(d)(1)(i) of the Pennsylvania Public Utility Commission’s (Commission) transmission line siting regulation. For the reasons expressed in this Order, the Letter of Notification is approved.

Copies of the Letter of Notification were served in accordance with Section 57.72(d)(3) and 57.74(b) & (c), 52 Pa. Code §§ 57.72(d)(3), 57.74(b) & (c).

No protests were filed. No hearings were held.

PPL Electric requests approval to reconstruct the Fox Hill – Shawnee 230 kV Transmission Line and Shawnee – Bushkill 230 kV Transmission Line located in Smithfield Township, Monroe County, Pennsylvania. The portion of the lines to be rebuilt span approximately 10.1 miles and connect the Fox Hill 230 kV Substation, Shawnee 230 kV Substation, and Bushkill 230 kV Switchyard. Application, page 1.

PPL Electric submits that the reconstruction of the two lines is necessary to resolve significant asset health condition concerns associated with the transmission lines. According to PPL Electric, the Fox Hill – Shawnee 230 kV Transmission Line and Shawnee – Bushkill 230 kV Transmission Line were constructed in the mid-1920s and include 44 lattice structures and 11 steel pole structures spanning 10.5 miles. With an average age of 94 years these lattice towers have exceeded their anticipated service life of approximately 80 years. Given the age and degree of deterioration, the lattice towers and conductors are at a heightened risk for failure. Application ¶¶9 & 22 and Attachment 1, page 6 and PPL Electric Response to Data Request No. 16.

Standard tower foundations use concrete footers that extend above and below the groundline. PPL Electric states that the lattice towers on the Fox Hill – Shawnee and Shawnee – Bushkill 230 kV Transmission Lines utilize grillage foundations, which do not have concrete footings. Instead, they have a concrete slab buried eight feet below the ground level. As a result of this design, a significant amount of tower steel is buried and in direct contact with the soil. This direct contact significantly increases the risk of corrosion, and reduces structure integrity, due to the moisture held in the soil. Corrosion below the groundline is not easily visible through inspections. Finally, PPL Electric states that the structures have deteriorated and will continue to deteriorate and that attempting to maintain the lattice structures presents substantial uncertainties regarding the immediate and

long-term effectiveness to address structural issues and could result in catastrophic failure of the lines. Application, page 2 and ¶24 and PPL Electric Response to Data Request No. 13.

PPL Electric submits that inspections were conducted on the lines in 2012 and 2023 by a third-party. PPL Electric also submits that the 2012 inspection revealed that of the 33 structures, 12 were rated Condition D (very poor). PPL Electric submits that Condition D indicates that the steel is heavily corroded in many large areas. PPL Electric also submits that there were also large areas of significant thinning of 20% or greater loss of section. PPL Electric submits that there were also areas where the steel is completely rusted through. PPL Electric further submits that while the twelve critical structures were repaired, the remainder that were not yet critical had coatings re-applied and were re-buried to reestablish structural stability of the tower. PPL Electric submits that while the coatings discussed above maintained the integrity of the towers over their 10-year life expectancy, the 2023 visual inspection found that they had begun to deteriorate. Lastly, PPL Electric submits that of the 44 vintage towers on the lines, moderate conditions were found on the coatings of 32 towers, meaning coatings were peeling, bubbling, and the steel was experiencing corrosion. Application ¶¶25-27.

PPL Electric states that similar to the structures, the 795 kcmil Aluminum Conductor Steel Reinforced (ACSR) conductor on the lines is also in poor condition and has exceeded its life expectancy, as it was installed between 1926 and 1929. According to the Institute of Electrical and Electronics Engineers (IEEE), the main concern for the ACSR conductor is the end of life of the galvanization on the steel core and subsequent corrosion. Importantly, 40% of the inspected spans across the Fox Hill – Shawnee and Shawnee – Bushkill lines were classified as marginal and 20.83% are classified as poor, which indicates that the steel core's Rated Tensile Strength (RTS) has greatly diminished due to deterioration. The inspection results also revealed that all marginal and poor spans are experiencing heavy surface rust with mild to medium or medium to heavy pitting. Additionally, the spans were

also categorized by the extent of corrosion on the outer surface of the steel wires. One span showed a loss between 33% and 60% of the zinc galvanizing layer in some sections of the conductor, exposing the base metal. The remaining 17 spans had a loss of up to 33% in some sections of the conductor. Application ¶¶28-29.

PPL Electric states that in order to resolve the identified asset health conditions, it proposes to rebuild the existing Fox Hill – Shawnee and Shawnee – Bushkill lines. PPL Electric states that the reconstruction project consists of removing 48 of the 55 existing transmission structures and existing conductor and rebuilding the Fox Hill – Shawnee and Shawnee – Bushkill transmission lines. PPL Electric also states that it presented its plan to address the needs on its Fox Hill – Shawnee and Shawnee – Bushkill lines at PJM’s January 2016, Transmission Expansion Advisory Committee and was subsequently assigned supplemental project numbers s1100 and s1101, respectively. Application ¶¶35-36; Attachment 2, page 3; and PPL Electric Data Request Response No. 5.

PPL Electric submits that, in addition to rebuilding the Fox Hill – Shawnee and Shawnee – Bushkill transmission lines, it considered one alternative solution, continued maintenance. PPL Electric also submits that the estimated total cost of ownership over a 45-year period for the alternative solution is approximately \$140.2 million. Accordingly, PPL Electric submits that the alternative was rejected for a solution which addresses the aging infrastructure in a cost-effective manner. Finally, PPL Electric submits that the 45-year cost of the chosen solution is approximately \$100.7 million and that the initial cost of constructing the project is approximately \$32.6 million. Application, Attachment 1, pages 13 and 15.

PPL Electric states that it will remove 48 of the existing transmission structures and conductor and install 48 new steel pole structures, new conductors, and new optical ground wires. PPL Electric also states that the existing structures range from approximately

80 feet-in-height to 120 feet-in-height and the new steel structures will range from approximately 125 feet-in-height to 190 feet-in-height. PPL Electric states that the proposed new conductors will consist of three 1590 kcmil, 54/19 stranding “Falcon” high strength aluminum conductor steel supported (ACSS) conductors. Application, Attachment 2, pages 2-4.

In its filing, PPL Electric submits that the reconstruction project has been designed and will be built within the existing right-of-way of the Fox Hill – Shawnee and Shawnee – Bushkill lines. PPL Electric also submits that the right-of-way generally varies from approximately 100 feet-in-width to 200 feet-in-width. PPL Electric submits that the new structures will be located near the existing structures and that in instances where the structures will be relocated, the proposed locations have been discussed with the property owners and no new structures will be added to properties that do not currently have a structure. Application ¶¶42-43, 45.

PPL Electric asserts that the reconstruction project will be designed, constructed, operated and maintained in a manner that meets or surpasses all applicable PPL Electric and National Electrical Safety Code minimum standards and all applicable legal requirements. Application ¶40.

PPL Electric states that the total estimated cost for the reconstruction project is approximately \$32.6 million and will be paid for by PPL Electric. Lastly, PPL Electric states that construction of the project is anticipated to commence in August 2025 with a proposed in-service date of December 2026. Application, Attachment 1, page 2.

Section 57.72 authorizes the abbreviated Letter of Notification siting application process in lieu of an application for the following:

- (i) An HV line which is proposed to be located entirely on an existing transmission line right-of-way, so long as the size, character, design, or configuration of the proposed HV line does not substantially alter the right-of-way.
- (ii) An HV line which is proposed to be located entirely within a public road.
- (iii) An HV line which is proposed to be located entirely within applicant's existing transmission line right-of-way and the property of the sole customer to be served by the line, so long as the size, character, design, or configuration of the proposed HV line does not substantially alter the right-of-way.
- (iv) A line for which the voltage is proposed to be increased above its present levels so long as the size, character, design, or configuration of the proposed HV line does not substantially alter the right-of-way.
- (v) An HV line which is to be reconductored or reconstructed so long as the size, character, design, or configuration of the proposed HV line does not substantially alter the right-of-way.
- (vi) An HV line having a proposed route of 2 miles or less.

52 Pa. Code § 57.72(d).

We agree with PPL Electric that the formal PPL Electric Letter of Notification and manner in which it was filed conforms to the requirements of 52 Pa. Code § 57.72(d)(1)(i) because the project reconstructs the Fox Hill – Shawnee 230 kV Transmission Line and Shawnee – Bushkill 230 kV Transmission Line in such a manner that it does not

substantially alter the existing right-of-way. 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 and, therefore, to be in the public interest.

We also note that our approval of the Letter of Notification does not address the issues of accounting treatment, and cost recovery; **THEREFORE,**

**IT IS ORDERED:**

1. That the Letter of Notification filed by PPL Electric Utilities Corporation for approval to reconstruct the Fox Hill – Shawnee 230 kV Transmission Line and Shawnee – Bushkill 230 kV Transmission Line located in Smithfield Township, Monroe County, Pennsylvania, is hereby approved.

2. That upon completion of the subject project, PPL Electric Utilities Corporation shall file the final project cost with the Commission.

3. That upon completion of Ordering Paragraph 2, this proceeding at Docket No. A-2025-3054291 be closed.

**BY THE COMMISSION,**



Matthew L. Homsher  
Secretary

ORDER ADOPTED: July 24, 2025

ORDER ENTERED: July 24, 2025