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

Public Meeting held November 7, 2024

Commissioners Present:

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

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| Letter of Notification of PPL Electric Utilities Corporation for Approval to Reconstruct sections of existing 230 kV transmission lines at the expanded Cumberland Substation located in Silver Spring Township, Cumberland Pennsylvania | Docket Number: A-2024-3050132 |

**ORDER**

**BY THE COMMISSION:**

On July 16, 2024, PPL Electric Utilities Corporation (PPL Electric), Utility Code 110500, filed a Letter of Notification (LON) pursuant to 52 Pa. Code § 57.72(d)(1)(vi) 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 LON 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 sections of existing 230 kV transmission lines at the expanded Cumberland Substation in Silver Spring Township, Cumberland County, Pennsylvania. PPL Electric states that the line sections to be reconstructed consist of approximately 0.09 miles of the existing Juniata – Cumberland 230 kV Transmission Line and approximately 0.42 miles of the existing Williams Grove – Cumberland 230 kV Transmission Line. The Juniata – Cumberland line will be modified from existing structure #18098S33039 to the Cumberland Substation. Similarly, the Williams Grove – Cumberland transmission line will be modified from existing structure #18173S32826 to the Cumberland Substation. PPL Electric Data Request Response Nos. 9 & 13.

PPL Electric submits that maintaining the current 230 kV arrangement at the existing Cumberland Substation will result in a thermal overload violation due to a NERC standard TPL-001-4, P4 contingency on either of the substation's two 230 kV breakers. PPL Electric also submits that a fault on either 230 kV line, bus, or transformer coupled with a breaker failing to clear the fault results in the loss of two 230-69 kV transformers. PPL Electric submits that the loss of two transformers results in the 69 kV load at the Cumberland Substation being served from the remaining in-service transformer, which exceeds the emergency rating of the transformer. Finally, PPL Electric states that the transformer thermal overload was identified in the PJM RTEP 2026 Summer Peak base case. Application ¶¶18-19.

PPL Electric states that the existing Cumberland Substation was built in 1974 as a 230-69 kV substation with a straight bus design for both the 230 kV and 69 kV yards. PPL Electric also states that the use of such configurations is discouraged in new Bulk Electric System substation construction because of the considerable potential for detrimental effects on transmission system reliability. PPL Electric states that PJM standards dictate that two circuits that feed a common location should not be supplied from a common breaker-and-a-half bay or a common bus such that a single stuck breaker operation would trip both circuits.

Since the existing Cumberland Substation's 230 kV and 69 kV yards were originally constructed before the PJM minimum planning and standards were implemented, the existing layout does not adhere to these standards. Finally, PPL Electric states that the issue has been exacerbated by recent load growth. Application ¶¶12,14, & 22.

PPL Electric submits that to address these issues it will expand and reconfigure the 230 kV yard at the existing Cumberland Substation to a breaker and a half arrangement. PPL Electric also submits that the breaker and a half arrangement is the preferred solution to solve the operational and contingency issues at the Cumberland Substation. PPL Electric submits that the rebuild of the Cumberland Substation was proposed as a supplemental project in the July 2015 TEAC meeting and assigned supplemental number s0945.4. PPL Electric submits that the project was proposed prior to the violation being seen in the PJM RTEP case to improve operational flexibility. Finally, PPL Electric submits that the violation now shows up in the PJM RTEP because the total load at the Cumberland Substation has increased since the project was initiated. PPL Electric Response to TUS Data Request No. 1.

PPL Electric states that to facilitate reconfiguration of the 230 kV yard it will remove approximately 0.09 miles of the existing Juniata – Cumberland line and extend it approximately 0.21 miles to the rebuilt substation bay. PPL Electric also states that it will remove approximately 0.42 miles of the existing Williams Grove – Cumberland transmission line and extend the section approximately 0.31 miles to the appropriate substation bay. PPL Electric states that to support the reconstructed lines it will remove six existing structures, of which three will be reused, and install four additional new structures. PPL Electric also states that the existing structures to be removed range from approximately 145 feet in height to approximately 165 feet in height and that the new transmission structures will range from approximately 121 feet in height to approximately 136 feet in height. Finally, PPL Electric states that the project will be located entirely on PPL Electric owned property or on existing transmission right-of-way and that no new right-of-way is

required. Lastly, PPL Electric states that the right-of-way is approximately 150 feet in width. Application ¶¶35, 37, & Attachment 1, Section 2.0 and PPL Electric Data Request Response Nos. 6 & 13.

PPL Electric submits that in addition to the proposed solution it considered two alternative solutions. PPL Electric also submits that the first solution was to rebuild the Cumberland Substation to a double-bus double-breaker configuration, but this was not feasible due to the existing substation arrangement, property boundaries and constraints, and proximity to the Appalachian Trail. PPL Electric also submits that the second solution was to rebuild the Williams Grove – Cumberland line to double circuit 230 kV operation and install supporting facilities at the Williams Grove Substation and Cumberland Substation. Finally, PPL Electric submits that the second solution would not meet PPL Electric's current design standards and would result in the same poor level of operational flexibility as the existing Cumberland Substation. Application, Attachment 1, Section 5.0.

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 ¶31.

PPL Electric states that the total estimated cost to reconstruct the sections of 230 kV line is approximately $2.64 million and will be assumed by PPL Electric. PPL Electric also states that typically, cost will be allocated to the local zone if no new transmission line or transformer is added into the solution-based DFAX analysis. PPL Electric states that since the project does not add a new line or transformer, it can be assumed that the cost would be applied to PPL Electric customers regardless of whether the project is supplemental or baseline. PPL Electric further states that it will continue to own, operate, and maintain the transmission lines. Lastly, PPL Electric states that construction is anticipated to commence in January 2025, with an expected in-service date of May 2026. Application pages 2 & 3

and PPL Electric Data Request Response No. 11.

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.

(iii) An HV line which is proposed to be located entirely within a public road.

(iv) 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.

(v) 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)(vi) because the project reconstructs sections of existing 230 kV transmission lines which are less than two miles in length. 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,**

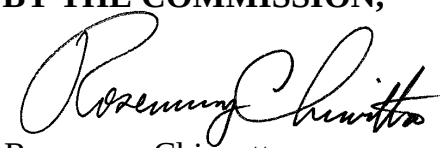
**IT IS ORDERED:**

1. That the Letter of Notification of PPL Electric Utilities Corporation for approval to reconstruct sections of existing 230 kV transmission lines at the expanded Cumberland Substation, located in Silver Spring Township, Cumberland 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-2024-3050132 be closed.

**BY THE COMMISSION,**



Rosemary Chiavetta
Secretary

ORDER ADOPTED: November 7, 2024
ORDER ENTERED: November 7, 2024