PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17120

Public Meeting held October 27, 2022

Commissioners Present:

Gladys Brown Dutrieuille, Chairman
Stephen M. DeFrank, Vice Chairman
Ralph V. Yanora
Kathryn L. Zerfuss
John F. Coleman, Jr.

Letter of Notification of PPL Electric Utilities Corporation for approval to reconstruct a section of the Saegers-Elimsport/Clinton-Elimsport 230 kV Transmission Line and the Saegers-Elimsport/Saegers-Clinton 230 kV Transmission Line located in Brady, Clinton, and Washington Townships, Lycoming County, Pennsylvania	Docket Number: A-2022-3034224

ORDER

BY THE COMMISSION:

On August 2, 2022, PPL Electric Utilities Corporation (PPL Electric), Utility Code 110500, filed a Letter of Notification (LON) 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 LON 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), on the PA Department of Transportation, PA Department of Environmental Protection, PA Historical and Museum Commission,

Lycoming County Commissioners, Brady, Clinton, and Washington Townships, *et al*. No protests were filed. No hearings were held.

PPL Electric requests approval to reconstruct a section of the Saegers-Elimsport/Clinton-Elimsport 230 kV Transmission Line and Saegers-Elimsport/Saegers-Clinton 230 kV Transmission Line located in Brady, Clinton, and Washington Townships, Lycoming County, Pennsylvania. The lines connect the Saegers Substation to the Clinton Substation and Elimsport Substation and similarly the Clinton Substation to the Elimsport Substation. The towers to be replaced extend consecutively from Tower 20938-N-36658 located near the Elimsport Substation to Tower 24971-N-37875 located approximately 1.1 miles north of the Saegers Substation. The lines to be rebuilt will be collectively referred to as the Saegers-Elimsport. Application, page 1 and Attachment 2, page 2.

PPL Electric states that the reconstruction of the Saegers-Elimsport transmission lines is necessary to resolve significant asset health condition concerns across the transmission line associated with the presence of pack-out rust in the existing COR-TEN steel lattice towers. PPL Electric states that the Saegers-Elimsport transmission line was constructed in the 1970s and includes 49 weathering-steel COR-TEN steel lattice structures spanning approximately 8.1 miles of original construction. PPL Electric states that COR-TEN lattice towers were commonly installed by the industry during this time because it was believed that the corrosion-resistant properties of weathering-steel would reduce future maintenance needs and costs. PPL Electric further states that these towers had an expected service life of approximately 75 years at the time they were installed. Application ¶¶9 ,17.

PPL Electric avers that independent field investigations and assessments were conducted in 2013 (2013 Assessment) and 2019 on PPL Electric's 230 kV system and in 2022 on the Saegers-Elimsport line. The investigations and assessments were conducted by separate third party entities and revealed that the aging COR-TEN structures on the

230 kV system including the Saegers-Elimsport transmission line facilities are showing signs of accelerated deterioration. PPL Electric also avers that based on the results of these assessments, the issue with COR-TEN lattice towers has accelerated the deterioration of these structures and has brought the assets to the end of their service life much sooner than would have been anticipated. PPL Electric further avers that at roughly 50 years of age, the COR-TEN lattice towers that comprise the Saegers-Elimsport transmission line have exceeded their useful life and can no longer be relied upon to safely operate as designed. Application ¶¶18, 20, & 25.

PPL Electric submits that the asset health concerns discovered by the 2013 Assessment were heightened by the discovery of pack-out rust in the section joints of the subject COR-TEN lattice towers. PPL Electric also submits that when the presence of pack-out rust becomes too severe, it can deform steel members and connecting hardware, it can also shear off bolts, cause loss of structural integrity, cause members to disconnect from the tower, and even result in tower failure. PPL Electric further submits that this now well-known inherent problem with COR-TEN steel is also being seen in other infrastructure where two pieces of COR-TEN steel overlap at joints, such as those present on lattice towers. Application ¶19.

PPL Electric states that the accelerated deterioration of the asset health of the COR-TEN lattice towers has been further corroborated by a recent study prepared by RTR Energy Solutions, Inc. (RTR), in May 2022. PPL States that RTR was contracted to perform a condition assessment on the Saegers-Elimsport transmission line. The sample set for the assessment consisted of all 49 lattice structures on the line, which would represent a statistically significant sample set. PPL Electric states that of the structures evaluated, approximately 25% were determined to have a condition rating of "severe", which indicates that greater than 50% of the existing structure's joints contain pack-out rust. The remaining structures were classified as a condition rating of "moderate", which indicates that 25% to

50% of the structure's joints contain pack-out rust. PPL Electric further states that the majority of pack rust observed on each structure was found in the lower sections of the post leg where horizontal and diagonal members are bolted to the post leg. Application, Attachment 1, pgs. 10-11.

PPL Electric avers that in order to resolve the identified COR-TEN lattice tower health conditions, it proposes to rebuild the existing Saegers-Elimsport transmission line (Saegers-Elimsport Project). PPL Electric states that the Saegers-Elimsport Project consists of removing the existing COR-TEN transmission structures and existing conductor and rebuilding the Saegers-Elimsport line. PPL Electric avers that it presented its plan to address COR-TEN needs on its 230 kV system at PJM Interconnection, LLC's October 2020, Transmission Expansion Advisory Committee. PPL Electric states that the presentation included the reconstruction of the Saegers-Elimsport line and was subsequently assigned supplemental project number s2368. Application ¶¶29-30.

PPL Electric states that, in addition to rebuilding the Saegers-Elimsport transmission line, it considered two alternative solutions, structure replacement, and structure restoration. PPL Electric states that the estimated total cost of ownership over a 45-year period for the two alternative solutions is approximately $114.0 million and $110 million, respectively. Accordingly, PPL Electric submits that the two alternatives were rejected for a solution which addresses the aging infrastructure in a cost-effective manner. PPL Electric further states that the 45-year cost of the chosen solution is approximately $100.4 million. Application, Attachment 1, Section 5.0.

PPL Electric states that it will remove the 49 existing COR-TEN structures and install 49 new steel monopole structures. The existing structures range from approximately 115 feet in height to 155 feet in height and the new steel structures will range from approximately 120 feet in height to 148 feet in height. The new transmission structures are

anticipated to have a service life of approximately 75 years. Application ¶¶36, 38 and Attachment 1, page 8, footnote 9.

In its filing, PPL Electric states that the Saegers-Elimsport Project has been designed and will be built within the existing right-of-way (ROW) of the Saegers-Elimsport and Saegers-Clinton transmission lines and that the ROW varies from approximately 150 feet in width to 200 feet in width. PPL Electric also states 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 who did not object. Application ¶¶36-37.

PPL Electric asserts that the Saegers-Elimsport 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 ¶34.

PPL Electric states that the total estimated cost for the Saegers-Elimsport Project is approximately $33.2 million and will be paid for by PPL Electric. Construction of the project is anticipated to commence in July 2023 with a proposed in-service date of September 2025. Application, Attachment 1, pg. 2.

Section 57.72 authorizes the abbreviated LON 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 Saegers-Elimsport Project reconstructs the Saegers-Elimsport transmission line in such a manner that it does not substantially alter the existing ROW. 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,**

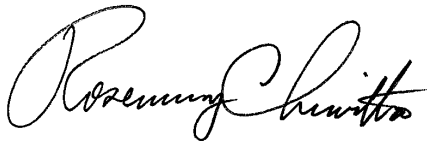
IT IS ORDERED:

1. That the Letter of Notification filed by PPL Electric Utilities Corporation for approval to reconstruct a section of the Saegers-Elimsport/Clinton-Elimsport 230 kV Transmission Line and Saegers-Clinton 230 kV Transmission Line located in Brady, Clinton, and Washington Townships, Lycoming 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-2022-3034224 be closed.

BY THE COMMISSION,



Rosemary Chiavetta
Secretary

ORDER ADOPTED: October 27, 2022

ORDER ENTERED: October 27, 2022