

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Letter of Notification of PPL Electric :  
Utilities Corporation, Filed Pursuant to :  
52 Pa. Code Chapter 57 Subchapter G, : Docket No. A-2017-\_\_\_\_\_  
for Approval to Re-Terminate and :  
Reconductor Approximately 0.3 Miles :  
of 230 kV Transmission Lines in :  
Milton Borough, Northumberland :  
County, Pennsylvania :

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**LETTER OF NOTIFICATION**

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TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation (“PPL Electric”) hereby files, pursuant to 52 Pa. Code § 57.72(d), this Letter of Notification to request approval from the Pennsylvania Public Utility Commission (“Commission”) to re-terminate the existing Montour-Sunbury 230 kV Transmission Line into an upgraded Milton 230-69 kV Substation to resolve reliability and planning violations, and to maintain reliable electric service to approximately 13,000 customers in Northumberland County (the Project). The proposed Project is located in Milton Borough, Northumberland County, Pennsylvania. PPL Electric has provided information regarding this Project to these political subdivisions, which have not objected to the Project.

Subject to the Commission’s approval, construction is scheduled to begin in September 2017, to support the scheduled in-service date of December 2017. In support thereof, PPL Electric states as follows:

**I. INTRODUCTION**

1. This Letter of Notification is filed by PPL Electric, a public utility that provides electric distribution, transmission, and provider of last resort services in Pennsylvania subject to the regulatory jurisdiction of the Commission.

2. PPL Electric’s address is PPL Electric Utilities Corporation, Two North Ninth Street, Allentown, Pennsylvania 18101.

3. PPL Electric’s attorneys are:

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PPL Electric’s attorneys are authorized to receive all notices and communications regarding this Letter of Notification.

4. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania. PPL Electric is a “public utility” and an “electric distribution company” as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa.C.S. §§ 102, 2803.

5. PPL Electric owns approximately 5,000 miles of transmission lines operating at 69 kV (kilovolts) or higher, approximately 375 substations with a capacity of 10 MVA (megavolt amperes) or more, and approximately 43,000 miles of distribution lines operating at less than 69 kV.

6. This Letter of Notification includes the following accompanying attachments:

- Attachment 1 Necessity Statement.
- Attachment 2 Engineering Description.
- Attachment 3 Description of the Right-of-Way.
- Attachment 4 PPL Electric Design Criteria and Safety Practices.

7. This Letter of Notification and accompanying Attachments, which are incorporated herein by reference, contain all the information required by 52 Pa. Code § 57.72(d)(4).

## **II. THE PROJECT**

### **A. NEED FOR THE PROJECT**

8. The Milton 230-69 kV Substation, originally built in 1973, currently serves approximately 13,000 customers in Northumberland County.

9. The Milton 230-69 kV Substation currently has only one source of supply, the Montour-Sunbury 230 kV Transmission Line.

10. The Montour-Sunbury 230 kV Transmission Line extends approximately 22.9 miles between the Montour Substation and the Sunbury Substation. However, near the half-way point, the Montour-Sunbury 230 kV Transmission Line is also connected to the Milton 230-69 kV Substation via a single 300-foot tap line.

11. As explained above, the Montour-Sunbury 230 kV Transmission Line currently terminates and is directly connected to three substations: the Montour, Milton, and Sunbury Substations. This configuration does not comply with PPL Electric's design standards for 230 kV lines, which requires 230 kV line to be interconnected with only two substations (*i.e.*, one on each end).

12. Currently, there is no interrupting device for the Montour-Sunbury 230 kV Transmission Line at the Milton 230-69 kV Substation. If the 230-69 kV transformer at the Milton 230-69 kV Substation were to experience an outage, electrical service would be interrupted for all 13,000 customers currently served by the Milton 230-69 kV Substation. The existing configuration at the Milton 230-69 kV Substation does not comply with PPL Electric's design standard.

13. The Montour-Sunbury 230 kV and Sunbury-Milton 69 kV Transmission Lines occupy common double-circuit structures with the Montour-Sunbury 230 kV Transmission Line on one side of the tower structure and the Sunbury-Milton 69 kV Transmission Line on the other side. A single tower failure at one of these double-circuit structures would cause a voltage violation on the 69 kV bus at the Milton 230-69 kV Substation, which would result in all 13,000 customers served from the Milton 230-69 kV Substation to experience low voltage. In addition, this contingency event would cause the Danville-Milton 69 kV Transmission Line to become loaded to 102% of the emergency rating.

14. Currently, there is a special protection scheme installed at the Milton 230-69 kV Substation that will detect a tower failure at one of the double-circuit structures supporting the Montour-Sunbury 230 kV and Sunbury-Milton 69 kV Transmission Lines. However, if such a contingency event is detected, the special protection scheme will drop approximately 70 MW of load, which will result in approximately 13,000 customers in Northumberland to experience an electrical outage until repairs can be made.

15. The amount of load loss due to the special protection scheme at the Milton 230-69 kV Substation is a violation of PPL Electric's Transmission System Development Standards for maximum load interruption resulting from multiple facility events. Additionally, the use of the

special protective scheme to resolve the low voltage and overload concerns is inconsistent with the design standards set forth in Section 17.2 of the PJM Interconnection, LLC Manual 07.

16. The need for this Project is further explained in Attachment 1 to this Letter of Notification.

**B. THE PROPOSED PROJECT**

17. To resolve the reliability concerns and violations explained above, PPL Electric proposes to upgrade the Milton 230-69 kV Substation to a standard configuration, which will include the installation of an interrupting device, and re-terminate the Montour-Sunbury 230 kV Transmission Line into the upgraded Milton 230-69 kV Substation.

18. To connect the Montour-Sunbury 230 kV Transmission Line with the upgraded Milton 230-69 kV Substation, the existing 300-foot 230 kV single tap line between the 230 kV transmission corridor and the Milton 230-69 kV Substation will be removed.

19. The Montour-Sunbury 230 kV Transmission Line will be split near the Milton 230-69 kV Substation, creating the Montour-Milton 230 kV Transmission Line and the Milton-Sunbury 230 kV Transmission Line.

20. The Montour-Milton 230 kV Transmission Line will be interconnected with the upgraded Milton 230-69 kV Substation by construction of a new approximately 300-foot 230 kV tap line. Additionally, approximately 450 feet of the existing conductor along the first span of the Montour-Milton 230 kV Transmission Line will be reconducted.

21. The Milton-Sunbury 230 kV Transmission Line will be interconnected with the upgraded Milton 230-69 kV Substation by construction of a new approximately 300-foot 230 kV tap line. Additionally, approximately 450 feet of the existing conductor along the first span of the Milton-Sunbury 230 kV Transmission Line will be reconducted.

22. In total, PPL Electric proposes to construct approximately 600 feet of new transmission line and reconductor approximately 900 feet of transmission line within the existing right-of-way (total of approximately 0.3 miles).

23. A description and one-line diagram of the proposed Project is provided in the Necessity Statement included as Attachment 1 to this Letter of Notification.

24. To re-terminate the Montour-Milton and the Milton-Sunbury 230 kV Transmission Line with the upgraded Milton 230-69 kV Substation, PPL Electric proposes to remove one existing 230 kV steel pole structure, and install two new steel monopole dead-end structures. The existing 230 kV tower structure is a steel lattice tower with an average height of 125 feet. The two new steel monopole dead-end structures will be installed on concrete caisson foundations and will have an average height of approximately 115 feet. A depiction of the type of monopoles used for this Project is provided at the end of Attachment 2 to this Letter of Notification.

25. The two new 230 kV tap lines and reconductored segments of the Montour-Milton and Milton-Sunbury 230 kV Transmission Lines will utilize three 230 kV power conductors and one fiber optic ground wire. The power conductors will be 1,590 kcmil<sup>1</sup> ACSR conductors.<sup>2</sup> The overhead ground wire will be 144 count, 0.791-inch diameter fiber optical ground wires and will provide lightning protection and communication between circuit breakers that remove the line from service should a fault on the line be detected. The minimum conductor-to-ground clearance will be 50 feet, which occurs at a maximum conductor

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<sup>1</sup> A kcmil or circular mil is the cross-sectional area of a wire one mil in diameter, where 1 kcmil = 0.5067 mm<sup>2</sup>.

<sup>2</sup> ACSR stands for aluminum conductor steel reinforced.

temperature of 140° C. An engineering description of the Project is provided in Attachment 2 to this Letter of Notification.

26. The total estimated cost of the proposed Project is \$2.2 million.<sup>3</sup>

27. Upon Commission approval, the Project has a scheduled construction start date of September 2017 to support the scheduled in-service date of December 2017.

### **III. HEALTH AND SAFETY**

28. The proposed Project will not create any unreasonable risk of danger to the public health or safety.

29. The Project will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable National Electrical Safety Code (“NESC”) minimum standards and all applicable legal requirements. Descriptions PPL Electric’s design criteria and safety practices are provided in Attachment 4 to this Letter of Notification.

30. Consistent with its Magnetic Field Management Program,<sup>4</sup> PPL Electric will construct the Project for ground clearances that are a minimum of five feet higher than the required NESC minimum ground clearance for 230 kV lines in order to reduce the magnetic field exposure. Because the two new 230 kV tap lines and reconductored segments of the Montour-Milton and Milton-Sunbury 230 kV Transmission Lines will be constructed as a single-circuit lines, they cannot be reversed phased.

### **IV. DESCRIPTION OF RIGHT-OF-WAY**

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<sup>3</sup> The estimated cost for the proposed Project is an order-of-magnitude estimate developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The estimated cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses.

<sup>4</sup> A description of PPL Electric’s Magnetic Field Management Program is provided in Attachment 2 to this Letter of Notification.

31. The proposed two new 230 kV tap lines and reconductored segments of the Montour-Milton and Milton-Sunbury 230 kV Transmission Lines will be located on property owned in fee by PPL Electric for the Milton 230-69 kV Substation and within the existing right-of-way for the Montour-Sunbury 230 kV Transmission line.

32. As described in Attachment 3, no additional rights-of-way or easements are required for the construction and operation of the re-terminated Montour-Milton and Milton-Sunbury 230 kV Transmission Lines.

33. Although the Project requires two new structures, impacts will be minimal because both structures will be located on the property owned in fee by PPL Electric for the Milton 230-69 kV Substation, and in close proximity to the existing structures and the Milton 230-69 kV Substation. In addition, the footprints of the new tower structures will be smaller than the footprints of the exiting lattice towers. Further, no new poles will be placed on any property that currently does not have an existing pole.

34. Land use impacts are anticipated to be minimal due to the fact that the Project will be constructed entirely within the existing right-of-way and on property owned in-fee by PPL Electric for the Milton 230-69 kV Substation. Where practical, PPL Electric will use previously established access roads for construction to further reduce interference with existing land uses.

35. The Project area previously has been cleared of vegetation. As a result, limited vegetation management will be required for this project. In areas where vegetation management is required to complete the project, PPL Electric will apply its "Specifications for Transmission Vegetation Management LA-79827" to mitigate any impacts.

36. No communication towers, pipelines, or other utilities will be affected by the proposed Project.

37. PPL Electric does not anticipate any interference with airport operations because of the distance from the Project area, the presence of existing electrical facilities in the Project area, and the similar height of the new facilities and the existing facilities.

38. The Project area contains no state lands, national parks, state parks, or local parks.

39. The Project will not traverse or affect any unique geological, scenic, or natural areas.

40. The Project will not affect any recreational areas or natural landmarks.

41. The Pennsylvania Historical and Museum Commission (“PHMC”) has advised that there are no cultural resource concerns associated with the Project, and that the Project is cleared for work.

42. PPL Electric obtained General National Pollution Discharge Elimination System (“NPDES”) Permit for Stormwater Discharges Associated with Construction Activities on March 7, 2016. PPL Electric will comply with all of the terms and conditions of this permit.

43. Although wetlands are located near the Project area, PPL Electric obtained PA DEP Chapter 105 Joint Permit for Wetland Encroachment on September 8, 2016. PPL Electric will comply with all of the terms and conditions of this permit.

44. PPL Electric has consulted with state and federal agencies to obtain information regarding endangered and threatened species in close proximity to the Project. PPL Electric has reviewed the Pennsylvania Natural Diversity Inventory records and has conducted all field surveys required. Based on this review, these state and federal agencies have reported that the Project will not impact any threatened and endangered species and/or special concern species and resources.

**V. NOTICE**

45. PPL Electric has provided information regarding the Project to representatives of Milton Borough and Northumberland County. To date, these entities have not objected to the proposed Project.

46. Copies of this Letter of Notification will be served on the governmental agencies, municipalities, and other public entities agencies in accordance with 52 Pa. Code § 57.72(d)(3).

47. Copies of this Letter of Notification will be served on the owners of land subject to the right-of-way and easement in accordance with 52 Pa. Code § 57.72(d)(3).

**VI. LETTER OF NOTIFICATION**

48. PPL Electric is proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission's regulations at 52 Pa. Code § 57.72(d)(1)(vi).

49. The proposed Project qualifies for use of a Letter of Notification because the two new 230 kV tap lines and reconductored segments of the new Montour-Milton and Milton-Sunbury 230 kV Transmission Lines will total less than two miles, *i.e.*, approximately 0.3 miles.<sup>5</sup>

50. This Letter of Notification is filed on the date set forth below. As provided in 52 Pa. Code § 57.72(d)(5), the Commission will review and, by order, approve or disapprove this Letter of Notification. If the Commission approves this Letter of Notification, the proposed Project will be constructed as proposed herein without the formal application process set forth at 52 Pa. Code §§ 57.71, *et seq.*

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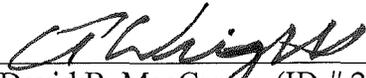
<sup>5</sup> In total, PPL Electric proposes to construct approximately 600 feet of new transmission line and reconductor approximately 900 feet of transmission line within the existing right-of-way (total of approximately 0.3 miles).

**VII. CONCLUSION**

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve the proposed re-termination of the existing Montour-Sunbury 230 kV Transmission Line into an upgraded Milton 230-69 kV Substation in Milton Borough, Northumberland County, Pennsylvania, as explained above and in the Attachments hereto.

Respectfully submitted,

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Date: May 17, 2017

Attorneys for PPL Electric Utilities Corporation

**VERIFICATION**

I, Stephanie Raymond being the Vice President-Transmission and Substations at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date:

8/16/17

Stephanie Raymond