

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of PPL Electric Utilities :  
Corporation, Filed Pursuant to 52 Pa. :  
Code Chapter 57 Subchapter G, for : Docket No. A-2019-\_\_\_\_\_  
Approval to Rebuild the Existing :  
Breinigsville-Alburtis 500 kV :  
Transmission Line in Lehigh County, :  
Pennsylvania :

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**JOINT APPLICATION AND PETITION FOR WAIVER OF  
PPL ELECTRIC UTILITIES CORPORATION**

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TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation (“PPL Electric”) hereby files, pursuant to 52 Pa. Code §§ 5.43 and 57.72, this Joint Application and Petition for Waiver requesting the Pennsylvania Public Utility Commission’s (“Commission”) approval to rebuild the existing single circuit Breinigsville-Alburtis 500 kV Transmission Line to a double-circuit configuration (the “Breinigsville-Alburtis Project” or the “Project”) and for waiver of certain of the Commission’s regulations governing review and approval of the siting and construction of high voltage electric transmission lines set forth at 52 Pa. Code §§ 57.71 *et seq.* The Breinigsville-Alburtis 500 kV Transmission Line extends approximately six miles from the existing Breinigsville 500-138-69 kV Substation in Upper Macungie Township, Lehigh County, to the existing Alburtis 500-230 kV Substation in Lower Macungie Township, Lehigh County. The Project is required to improve reliability and operational performance, reduce the potential for and duration of outages, and increase system operability in Lehigh County. Specifically, the Project will allow PPL Electric to comply with its transmission planning criteria and avoid an identified reliability violation of North American Electric Reliability Corporation (“NERC”) standard TPL-001-4.

Construction is scheduled to begin upon Commission approval of the Application to support the in-service date of April 2021. As explained herein, waiver of certain of the Commission's regulations governing review and approval of the siting and construction of high voltage electric transmission lines is appropriate in this case because the Breinigsville-Alburtis Project consists of rebuilding an existing line and does not involve the siting of any new facilities outside of the existing right-of-way. In support thereof, PPL Electric states as follows:

**I. INTRODUCTION AND OVERVIEW**

1. This Joint Application and Petition for Waiver 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 Joint Application and Petition for Waiver.

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. PPL Electric is also a “public utility” as defined by the Federal Power Act, 16 U.S.C. § 824(e), a transmission owner, and a member of PJM Interconnection, L.L.C. (“PJM”).

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. The Project consists of rebuilding the existing single circuit Breinigsville-Alburtis 500 kV Transmission Line to a double-circuit configuration. As explained in this Application and accompanying Attachments, the Breinigsville-Alburtis Project is needed to resolve unacceptable low voltage and voltage drop in the event of an N-1-1 contingency, which violates PPL Electric’s Transmission Owner Criteria (“TO Criteria”) and NERC Standard TPL-001-4. PPL Electric has determined that rebuilding the existing line to a double-circuit configuration is the optimal solution to address these reliability problems. The rebuild will be located entirely within PPL’s existing right-of-way. Therefore, any impacts on the surrounding land are expected to be minimal.

7. This Application includes the following accompanying attachments:

- Attachment 1 Necessity Statement.
- Attachment 2 Design & Engineering Description.
- Attachment 3 Description of Right-of-Way.
- Attachment 4 Design Criteria and Safety.

8. This Application and accompanying Attachments, which are incorporated herein by reference, contain all the information required by 52 Pa. Code §§ 57.72(c), 69.3101, and

69.3107, except for the information required by subsections (4), (7), (8), (10), and (11) of Section 57.72(e) and the information required by Sections 69.3102 through 69.3106, which are inapplicable to the Breinigsville-Alburtis Project. As fully explained in Section VIII of this Application, the information required by these Sections of the Commission's regulations is inapplicable to the Breinigsville-Alburtis Project because the Project is limited to rebuilding an existing line and does not involve the siting of any new facilities outside of the existing right-of-way. PPL Electric therefore seeks waiver of these requirements pursuant to 52 Pa. Code §§ 5.43 and 57.72(e). PPL Electric also seeks waiver of the notice and publication required set forth in 52 Pa. Code §§ 57.75(a) and 5.14(a),(b).

## **II. PROCEDURAL BACKGROUND**

9. PPL Electric previously sought Commission approval to rebuild the existing single circuit Breinigsville-Alburtis 500 kV Transmission Line to a double-circuit configuration in a Letter of Notification ("LON") filed on November 27, 2017 at Docket No. A-2017-2635709.

10. By Order entered August 3, 2018, the Commission denied PPL's LON but stated that the Commission was open to reconsideration to the extent PPL Electric modifies its LON or files a siting application. Order, p. 8. The Commission's Order does not contest that the proposed Project qualifies for LON procedure pursuant to 52 Pa. Code § 57.72(d)(1)(i).

11. On August 31, 2018, PPL Electric filed a Petition for Review of the Commission's August 3, 2018 Order in the Commonwealth Court, Docket No. 1194 CD 2018.

12. On October 3, 2018, the Commission filed a Motion to Quash the Petition for Review and an Application to Stay the Briefing Schedule.

13. On October 17, 2018, PPL Electric filed an Answer to the Commission's Motion to Quash and Application to Stay the Briefing Schedule, along with a supporting brief.

14. The parties subsequently reached an agreement under which PPL Electric would file a full siting application (“FSA”) for the Project and a concurrent petition for waiver of certain FSA requirements with the Commission at a new docket number. If PPL Electric’s Application and Petition for Waiver are granted, the August 3, 2018 Order denying the LON would become moot. If PPL Electric’s Application and Petition for Waiver are denied on the merits, PPL Electric may appeal that denial.

15. Based on this agreement, the parties filed a Joint Application for Stay requesting that the Commonwealth Court stay the appeal pending the Commission’s disposition of PPL Electric’s Application and Petition for Waiver.

16. On December 14, 2018, the Commonwealth Court issued an Order staying the appeal pending further proceedings before the Commission and directing the parties to file a joint status report on or before February 12, 2019 and every 60 days thereafter as may be necessary.

17. PPL Electric is filing this Joint Application and Petition for Waiver pursuant to the parties’ agreement, the Commonwealth Court’s December 14, 2018 Order, and the Commission’s August 3, 2018 Order inviting PPL Electric to file a modified LON or siting application. As evidenced by the Commission’s August 3, 2018 Order, the Commission has already determined that, in accordance with Section 57.72 of the Commission’s regulations, the Project qualifies for use of the LON procedure as opposed to an application. The Commission’s basis for denying the LON was that PPL Electric did not demonstrate sufficient need for the Project as required by 52 Pa. Code § 57.72(c)(5), not that the Project fails to meet the requirements for a LON.

### **III. NEED FOR THE PROJECT**

#### **A. TRANSMISSION PLANNING**

18. System Planning is the process which assures that transmission systems can supply electricity to all customer loads reliably and economically. The reliable and economical operation of transmission systems requires planning criteria for system expansion and reinforcement. The PPL Electric reliability and planning criteria are outlined in PPL Electric's Reliability Principles and Practices ("RP&P"), which were developed to ensure adequate and appropriate levels of electric service to its customers consistent with good utility practice.

19. PPL Electric engages in proactive planning and action to ensure that its system operates safely and reliably. This allows PPL Electric to identify future reliability problems and correct them before they occur. The system planning process is not designed to wait until a violation actually occurs before taking measures to resolve it. Rather, the system planning process is designed to prevent violations from occurring in the first place.

20. In accordance with the RP&P criteria, PPL Electric's transmission system is planned so that it can be operated at all projected load levels and during normal scheduled outages to withstand specific unscheduled contingencies without exceeding the equipment capability, causing system instability or cascade tripping, or exceeding voltage tolerances. The transmission system is required to have adequate capability so that it can be operated normally and can withstand unscheduled contingencies and other system conditions. A further description of PPL Electric's system planning process is provided in Attachment 1 to this Application.

21. PJM is a Federal Energy Regulatory Commission ("FERC") approved Regional Transmission Organization charged with ensuring the reliability of the electric transmission system under its functional control and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including most of Pennsylvania. PPL Electric, an

owner of transmission facilities in Pennsylvania, is a member of PJM and actively participates in the PJM transmission planning process.

22. In order to ensure reliable transmission service, PJM prepares an annual Regional Transmission Expansion Plan (“RTEP”) to ensure power continues to flow reliably to customers. The NERC, PJM, and transmission owner reliability criteria are used by PJM and the transmission owners to analyze the system and determine if specific transmission upgrade projects are needed to ensure long-term reliable electric service to customers. Attachment 1 to this Application contains a detailed description of PJM’s RTEP transmission planning process.

23. For non-bulk electric system (“non-BES”) reliability violations, the local transmission operator, in this case PPL Electric, is responsible for identifying the reliability violations and correcting any violations to meet its own reliability and planning guidelines. PPL Electric’s TO Criteria address thermal, voltage, short circuit, and stability limits specific to the PPL Electric zone and also ensure compliance with NERC and PJM reliability criteria.

24. PPL Electric undertakes an independent analysis of both its bulk electric system (“BES”) transmission facilities, which include transmission facilities operated at voltages of 100 kV or higher, and its non-BES transmission system facilities to ensure that these facilities meet the planning guidelines set forth in the RP&P. Based upon this analysis, PPL Electric determined that the proposed Project is necessary to avoid violations of PPL Electric’s planning standards and NERC standard TPL-001-4.

## **B. EXISTING SYSTEM**

25. The existing Wescosville 500-138-69 kV Substation serves customers in parts of Lehigh County, Pennsylvania. The Wescosville 500-138-69 kV Substation is currently supplied by a single 500 kV tap off the existing single-circuit Susquehanna-Wescosville 500 kV Transmission Line.

26. The Susquehanna-Wescosville 500 kV Transmission Line extends from the Susquehanna 500-230 kV Substation<sup>1</sup> to the tap point with the Wescosville 500-138-69 kV Substation. From the tap point, the 500 kV line continues to the Breinigsville 500-138-69 kV Substation (this segment is referred to as the Wescosville-Breinigsville 500 kV Transmission Line).

27. The Breinigsville 500-138-69 kV Substation is also interconnected with the existing single-circuit Breinigsville-Alburtis 500 kV Transmission Line that extends approximately 6 miles from the Breinigsville 500-138-69 kV Substation located in Upper Macungie Township, Lehigh County, to the existing Alburtis 500-230 kV Substation in Lower Macungie Township, Lehigh County.

28. A description, aerial map, and one-line diagram of the existing system are provided in the Necessity Statement included as Attachment 1 to this Application.

**C. DEFINITION OF THE PROBLEM**

29. The existing Wescosville 500-138-69 kV Substation is part of the bulk power transmission system. The existing Wescosville 500-138-69 kV Substation serves customers in parts of Lehigh County, Pennsylvania and is powered by a single 500 kV tap, the Susquehanna-Wescosville 500 kV Transmission Line, which limits PPL Electric's ability to restore customers for various reliability and resiliency events.

30. The 500 kV yard at the Wescosville 500-138-69 kV Substation is directly tapped off the Susquehanna-Wescosville 500 kV Transmission Line. The Susquehanna-Wescosville 500 kV Transmission Line is approximately 67 miles long, which puts the line at high risk of

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<sup>1</sup> The Susquehanna 500-230 kV Substation is also interconnected with the Susquehanna-Lackawanna 500 kV Transmission Line, which is part of PPL Electric's Susquehanna-Roseland 500 kV Transmission Line.

exposure to faults. A fault on the Susquehanna-Wescosville 500 kV Transmission Line would trip the 500-138 kV transformer, which is the single 500 kV source for the Wescosville 500-138-69 kV Substation. Additionally, a fault on the Susquehanna-Wescosville 500 kV Transmission Line would remove one of the 500 kV sources to the Breinigsville 500-138-69 kV Substation.

31. PPL Electric's system planning studies have determined that loss of the Susquehanna-Lackawanna 500 kV Transmission Line followed by loss of the Susquehanna-Wescosville 500 kV Transmission Line, an N-1-1 contingency, creates an unacceptable voltage drop and low voltage on the 138 kV and 69 kV transmission lines supplied by the Wescosville 500-138-69 kV Substation and the Breinigsville 500-138-69 kV Substation.<sup>2</sup> As per PPL Electric's TO Criteria, voltage drop in excess of 8% is not allowed on the 138 kV Transmission System post an N-1-1 contingency event.<sup>3</sup> In this case, the N-1-1 contingency would result in a 13.8% voltage drop and therefore violates PPL Electric's TO criteria. For example, if the Susquehanna-Lackawanna 500 kV Transmission Line was undergoing a scheduled maintenance outage followed by an unplanned outage on the Susquehanna-Wescosville 500 kV Transmission Line, unacceptable voltage drop and low voltage conditions would occur on the 138 kV and 69 kV systems. If this were to occur, PPL Electric would need to drop 10,000 customers from service to resolve the low voltage issues.

32. The Commission's regulations set forth requirements for an acceptable voltage range, as well as voltage deviation for the distribution system. When developing acceptable voltage levels for the transmission system, PPL Electric determined the required voltage

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<sup>2</sup> An N-1-1 contingency involves the loss of one system element followed by manual system readjustments, and then the loss of a second system element, e.g., outage of one transmission line followed by switching moves and then the loss of a second transmission line. These contingencies are referred to as the "N minus 1 minus 1" or "N-1-1" criteria.

<sup>3</sup> Similarly, more than 7.5% voltage drop is not allowed on the 69 kV system post N-1-1 contingency event.

necessary on the transmission system to maintain the required voltage on the distribution system, which is based on the voltage range for distribution customers set forth in the Commission's regulations. *See* 52 Pa. Code § 57.14. Section 57.14 of the Commission's regulations provides:

(a) Standard voltage. A public utility shall adopt a standard nominal service voltage for the entire territory served by the public utility, and shall file with the Commission data on such standard service voltage or voltages as part of its officially filed tariff. The suitability and adequacy of the standard nominal service voltage or voltages adopted may be determined at any time by the Commission.

(b) Allowable voltage variation (primarily lighting). For service rendered primarily for lighting purposes, the allowable variation in voltage measured at the service terminals of the customer may not exceed, for a longer period than 1 minute in each instance, 5% above or below the standard nominal service voltage and a total variation from minimum to maximum of 8% during normal system operation.

(c) Allowable voltage variation (primarily power). For service rendered primarily for power purposes, the allowable variation in voltage measured at the service terminals of the customer may not exceed, for a longer period than 1 minute in each instance, 10% above or below the standard nominal service voltage during normal system operation.

The voltage level on the transmission system has a direct correlation to the distribution system as voltage deviations on the transmission system cascade down with impacts to customers on the distribution system. PPL Electric's planning standards do not permit lower than 0.92 and 0.90 per unit voltage on 138 kV and 69 kV systems, respectively, post a N-1-1 contingency event. Thus, the voltage range in PPL Electric's TO Criteria is set to ensure that PPL Electric distribution customers have acceptable voltage as defined by the Commission. The TO Criteria has been filed with the FERC and PJM under Form 715. Voltage drops larger than 8% on the transmission system would result in voltages on the distribution system below the Commission's acceptable range. As a result of the N-1-1 contingency, the corresponding voltage drop is 13.8%. Such a voltage drop could damage customer equipment and lead to rolling blackouts if not controlled or isolated.

33. In addition to the PPL Electric TO criteria, NERC standard TPL-001-4 requires that PPL Electric, through proper design of its transmission system, remove the possibility that unacceptable voltage conditions could occur. Thus, in order to avoid a NERC violation, PPL Electric must plan its system to avoid the occurrence of a N-1-1 contingency and resulting need to drop 10,000 customers.

34. As described in Attachment 1, PPL Electric has also identified safety concerns with the existing line. Specifically, twelve of the twenty-eight spans on the line do not meet the National Electric Safety Code (“NESC”) 5mA rule. The 5mA rule caps at 5mA the maximum induced current a transmission facility can cause on a large metal object, such as a tractor trailer, parked under the line. Induced current in excess of 5mA creates the potential for individuals to be shocked. The Commission requires that PPL Electric install and maintain its transmission and distribution facilities in conformity with established industry standards and practices, including NESC standards. *See* 66 Pa. C.S. § 2804(1). Thus, PPL Electric must comply with the NESC’s 5mA rule for any new or rebuilt transmission lines. PPL Electric has also learned of an increased safety clearance risk with the existing line due to the operation of agricultural equipment under the line. Rebuilding and raising the height of the transmission line will eliminate these safety concerns.

**D. PROJECT IS NEEDED TO RESOLVE THE RELIABILITY PROBLEM**

35. The proposed Project will resolve the low voltage and unacceptable voltage drop issues at the Breinigsville 500-138-69 kV Substation by adding a second source of power to the Breinigsville 500-138-69 kV Substation. The need for the Breinigsville-Alburtis Project is further explained in Attachment 1 to this Application and contains the analysis supporting the determination that the Project is necessary to avoid violations of PPL Electric’s TO Criteria, NERC standards, and reinforce the 138/69 kV systems in Lehigh County by resolving the low

voltage and voltage drop concerns caused by a N-1-1 contingency. The proposed Project also will provide a third 500 kV source to the Breinigsville 500-138-69 kV Substation, which will avoid any interruptions in service during maintenance of or outages on the 500 kV transmission lines.

36. PPL analyzed six alternatives to resolve the transmission criteria violation and the health and public safety requirement (NESC 5mA rule) described above. PPL concluded that rebuilding the existing single-circuit Breinigsville-Alburtis 500kV transmission line provided the best solution to prevent the NERC violation from occurring as well as addressing the safety concern. The six alternatives included:

- 1) Rebuilding the Breinigsville-Alburtis Transmission line to double circuit
- 2) Installation of capacitor banks at Wescosville and Breinigsville substations
- 3) Installation of a Special Protection Scheme (“SPS”) or Remedial Action Scheme (“RAS”)
- 4) Rebuilding the Susquehanna-Wescosville 500kV Transmission line to double circuit
- 5) Addition of a new 500kV green field circuit
- 6) Addition of a new 138kV green field circuit

As fully explained in Attachment 1, PPL Electric has determined rebuilding the existing Breinigsville-Alburtis 500kV Transmission line to double-circuit is the most effective solution to resolve the NERC violation as well as the NESC safety violation.

#### **IV. DESCRIPTION OF THE PROPOSED TRANSMISSION LINE**

##### **A. OVERVIEW OF THE PROPOSED PROJECT**

37. To resolve the unacceptable low voltage and voltage drop on the 138 kV and 69 kV systems caused by the N-1-1 contingency described above, PPL Electric proposes to build a more reliable double bus double breaker 500 kV yard at the Wescosville 500-138-69 kV

Substation and to rebuild the existing single-circuit Breinigsville-Alburtis 500 kV Transmission Line to a double-circuit configuration.

38. The Breinigsville-Alburtis Project will extend approximately 6 miles from the existing Breinigsville 500-138-69 kV Substation in Upper Macungie Township, Lehigh County, to the existing Alburtis 500-230 kV Substation in Lower Macungie Township, Lehigh County. Upon completion, the 500 kV circuit from Breinigsville 500-138-69 kV Substation to the Alburtis 500-230 kV Substation will be renamed to the Breinigsville-Alburtis #1 & #2 500 kV Transmission Line.

39. A detailed map of the proposed Project, including the structure locations, is provided in Figure 3.1.

40. The proposed Project has been presented at the PJM Mid-Atlantic Sub-Regional RTEP meeting on April 9, 2015 and has been assigned supplemental project s0864 in the PJM RTEP.

41. There is currently no pending litigation regarding the right-of-way route or environmental matters related to the Project.

## **B. ENGINEERING DESCRIPTION**

42. The Breinigsville-Alburtis Project will use a combination of conductor and ground wire types due to audible noise constraints and the varying fiber path taken along the circuit. The double-circuit double bundle design between the Alburtis 500-230 kV Substation and Structure 1 and between the Breinigsville 500-138-69 kV Substation and Structure 27 will utilize six (6) conductors that make up three (3) double bundle phases and two (2) overhead ground wires per circuit. The double-circuit triple bundle design between Structure 1 and Structure 27 will utilize nine (9) conductors that make up three (3) triple bundle phases and one

(1) optical ground wire per circuit. A description of the conductor and ground wire types used for the proposed Project is provided in Attachment 2 to this Application.

43. To rebuild the existing single-circuit Breinigsville-Alburtis 500 kV Transmission Line to a double-circuit configuration, PPL Electric will: (i) replace 21 existing H-frame structures with 21 new H-frame structures; (ii) replace 2 H-frame structures with new two-pole structures; (iii) install 2 new H-frame structures at the Breinigsville 500-138-69 kV Substation; (iv) replace 3 two-pole structures with 3 new two-pole structures; and (v) replace 1 monopole at the Alburtis 500-230 kV Substation with a new two-pole structure. In total, the Project will require the replacement of 23 existing structures within the right-of-way, and the replacement of 4 existing structures and the installation of 2 new structures on PPL Electric's substation properties as further described in Section V below.

44. A detailed engineering description is provided in Attachment 2.

## V. HEALTH AND SAFETY

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

46. 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 Application.

47. PPL Electric will adhere to its Magnetic Field Management Program for the Project. Upon completion of the project, the Breinigsville-Alburtis 500 kV Transmission Line will be double-circuit lines that will be reverse phased. This measure will further reduce the potential for exposure to magnetic fields. A description of PPL Electric's Magnetic Field Management Program is provided in Attachment 4 to this Application.

## **VI. DESCRIPTION OF THE RIGHT-OF-WAY**

48. The entire Project will be constructed entirely within the existing Breinigsville-Alburtis 500 kV Transmission Line rights-of-way and on PPL Electric's property for the Breinigsville 500-138-69 kV and Alburtis 500-230 kV Substations.

49. The Breinigsville-Alburtis 500 kV Transmission Line extends approximately six miles from the existing Breinigsville 500-138-69 kV Substation in Upper Macungie Township, Lehigh County, to the existing Alburtis 500-230 kV Substation in Lower Macungie Township, Lehigh County. From the Breinigsville Substation, the line travels in a southwesterly direction through agricultural fields before turning sharply to the southeast and proceeding primarily across agricultural fields and adjacent to forested lands, but also extending through several residential areas before reaching the Alburtis Substation. A description of the existing right-of-way is provided in Attachment 3.

50. Two new and four replacement structures will be located entirely on the PPL Electric-owned properties for the Breinigsville 500-138-69 kV Substation or Alburtis 500-230 kV Substation. The remaining 23 replacement structures will be located in close proximity to and have heights similar to the existing structures as explained in Attachment 2.

51. As explained in Attachment 3 to this Application, land use and environmental impacts are anticipated to be minimal due to the fact that the Breinigsville-Alburtis Project will be constructed entirely within the existing right-of-way for the Breinigsville-Alburtis 500 kV Transmission Line and on PPL Electric's substation properties. Where practical, PPL Electric will use previously established access roads for construction to further reduce interference with existing land uses.

52. 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.*”

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

54. The closest airport is the Lehigh Valley International Airport; which is located approximately 12.5 miles northeast of the Breinigsville 500-138-69 kV Substation. 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 new/replacement tower structures will be similar height to the existing facilities. However, PPL Electric will file any required documentation with the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

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

56. The existing Breinigsville-Alburtis 500 kV Transmission Line currently traverses one farm preserved through the Lehigh County Farmland Preservation Program. No new or replacement structures will be installed on this preserved farmland.

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

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

59. PPL Electric will coordinate with the Pennsylvania Historical and Museum Commission (“PHMC”) regarding any potential impacts the proposed Project may have on cultural and archaeological resources.

60. The existing Breinigsville-Alburtis 500 kV Transmission Line currently crosses four waterways. These streams currently are spanned by the existing single-circuit Breinigsville-

Alburtis 500 kV Transmission Line and will be spanned by the proposed second 500 kV circuit (three conductor wires). No permanent impacts to these streams are anticipated.

61. The existing Breinigsville-Alburtis 500 kV Transmission Line right-of-way crosses several wetland systems. PPL Electric will avoid impacts to wetlands and streams where possible by aerially spanning these features.

62. The existing Breinigsville-Alburtis 500 kV Transmission Line currently spans a 100-year floodplain. No new or replacement structures will be installed in the 100-year floodplain.

63. PPL Electric will obtain permits and other authorizations from the County Conservation District, Pennsylvania Department of Environmental Protection and the United States Army Corps of Engineers, as needed, and will comply with all of the terms and conditions placed on those permits or authorizations.

64. PPL Electric will acquire any required soil erosion and sedimentation control permits and will comply with any conditions placed on those permits.

65. PPL Electric has consulted with state and federal agencies to obtain information regarding endangered and threatened species in close proximity to the Breinigsville-Alburtis Project. The Pennsylvania Department of Conservation and Natural Resources responded that there was no known impact to species under their jurisdiction, and no further review by their agency was required.

66. The Pennsylvania Game Commission noted that species or resources of concern may be located in the vicinity of the Breinigsville-Alburtis Project, but determined that no impact is likely and no further coordination is necessary.

67. The Pennsylvania Fish and Boat Commission noted the potential for the State-threatened Eastern Spadefoot Toad (*Scaphiopus holbrookii*) within the Project area. PPL Electric has conducted the required habitat survey and will coordinate with Pennsylvania Fish and Boat Commission to incorporate acceptable avoidance measures into the Breinigsville-Alburtis Project.

68. The U.S. Fish and Wildlife Service noted that the proposed Project is located within the known range of the federally threatened Bog Turtle (*Clemmys muhlenbergii*). Based on PPL Electric's habitat assessment of the wetlands within the Project area, the U.S. Fish and Wildlife Service determined that a qualified biologist will need to be on-site during work that is being conducted within 300-feet of the identified potential habitat areas.

69. PPL Electric will continue to consult with the jurisdictional agencies regarding potential impacts to protected species. PPL Electric will obtain all approvals and permits necessary for the construction of the Breinigsville-Alburtis Project, and will comply with any conditions placed on those permits.

## **VII. COST AND COMPLETION DATE**

70. The total estimated cost of the Breinigsville-Alburtis Project is approximately \$33 million.

71. Construction will begin upon receipt of Commission approval to support the in-service date of April 2021.

## **VIII. PETITION FOR WAIVER**

### **A. LEGAL STANDARD FOR WAIVER**

72. Section 5.43 of the Commission's regulations allows a party to petition for waiver of the Commission's regulations. Pursuant to Section 57.72(e) of the Commission's regulations,

one or more of the Commission's siting requirements may be waived. Section 57.72(e) provides as follows:

The Commission or the presiding officer may -- upon the petition of any party, upon the Commission's own motion, or upon the presiding officer's own motion -- waive one or more or all of the requirements in this subchapter. The petition shall clearly state the requirement sought to be waived and the reasons therefor.

52 Pa. Code § 57.72(e). Additionally, Section 35.8 of the General Rules of Administrative Practice and Procedure allows a concerned party to petition an agency for waiver of a regulation. 1 Pa. Code § 35.18.

73. The Commission has granted requests for waivers of its siting regulations in similar circumstances where the project being proposed would be located within the existing right-of-way. *See Re Pennsylvania Power and Light Company*, Docket No. E-81768002, 1981 Pa. PUC LEXIS 39 (August 21, 1981) (granting waiver of the Commission's siting regulations for construction of transmission line that would be located within existing right-of-way and on property of customer to be served where there would be minimal environmental impact and no substantial risk to public health or safety); *Re Metropolitan Edison Company*, Docket No. P-80070232, 1981 Pa. PUC LEXIS 56 (June 19, 1981) (granting waiver of the Commission's siting regulations for construction of a second transmission line that would be located within an existing right-of-way where transmission line was already present and construction of the new line would not substantially alter the right-of-way); *Petition of Philadelphia Electric Company for waiver of siting application requirements under 52 Pa. Code § 57.71 for the proposed Middletown-Morton 230 kV line*, Docket No. P-880293, 1988 Pa. PUC LEXIS 383 (April 20, 1988) (granting waiver of the siting regulations where use of established railroad right-of-way eliminated the need to acquire and clear new right-of-way and, thus, eliminated potential adverse

environmental impacts and significantly reduced costs); *Letter of Notification of Pennsylvania Electric Company pursuant to 52 Pa. Code § 57.72(d) to install the East-Towanda Mansfield 115 kV Transmission Line Tap to the Tennessee Gas Pipeline Substation located in Troy Township, Bradford County, Pennsylvania*, Docket No. A-110400F0045 (February 6, 2006) (granting request for waiver of Commission's siting regulations because the proposed project was 2.6 miles long and was located along the rights-of-way of an existing line and across the property of the sole customer to be served by the line); *cf. Petition for Waiver of Certain Provisions of the Pennsylvania Public Utility Commission's Regulations for Commission Review of Siting and Construction of Electric Transmission Lines Set Forth at 52 Pa. code § 57.71 et seq.*, Docket No. P-2012-228393, 2012 Pa. PUC LEXIS 566 (April 12, 2012) (denying request for waiver of the Commission's siting regulations where proposed transmission line would parallel existing right-of-way but would require an additional 100 feet of width thereby altering the existing right-of-way).

74. The Commission has also waived the provisions of 52 Pa. Code § 57.75 (requiring hearing and notice) for an application that was simply a rebuild of an existing line. *Petition of West Penn for Waiver in connection with its Moshannon-Milesburg 230 kV transmission line*, Docket No. A-00103909 (April 30, 1982); *Re Pennsylvania Electric Company*, Docket No. A-00104088, 1982 Pa. PUC LEXIS 90 (June 10, 1982) (waiving hearing requirement for proposed line that would be located within the existing right-of-way and would not substantially alter the right-of-way thereby limiting impact of line on the environment).

**B. WAIVER OF CERTAIN SITING REGULATIONS IS APPROPRIATE IN THIS CASE**

75. Unlike many siting applications before the Commission, the Breinigsville-Alburtis Project involves rebuilding an existing line in place and does not require the acquisition

of any new right-of-way. Thus, it is to be expected that some of the information required by the Commission's comprehensive siting regulations, in particular information pertaining to route selection, environmental analysis, and affected landowners, will be inapplicable to the Breinigsville-Alburtis Project. As explained herein, the information required by 52 Pa. Code §§ 57.72(c)(4), (7), (8), (10), and (11) and 69.3102 through 69.3106 is inapplicable to the Breinigsville-Alburtis Project. It is not in the public interest for PPL Electric to incur the time and expense of providing the information required by these Sections that are unrelated to the Project being proposed. Therefore, waiver of these regulations is appropriate and consistent with prior Commission decisions granting waiver of certain siting regulations for projects that will be built entirely within the existing right-of-way and will not substantially alter the right-of-way. Additionally, waiver of 52 Pa. Code § 57.75, which requires hearing on the Application, is appropriate in this case because the Project is simply a rebuild of an existing line and does not involve the filing of any eminent domain applications. The Commission effectively granted the requested waivers in its August 3, 2018 Order when it considered the Project pursuant to an abbreviated LON procedure without requiring PPL Electric to provide all of the information set forth in the Commission's siting regulations, albeit denying the Project on the basis of need.

76. Section 57.72(c)(4) requires that the applicant provide:

(4) The names and addresses of known persons, corporations and other entities of record owning property within the proposed right-of-way, together with an indication of HV line rights-of-way acquired by the applicant.

The information required by this Section is inapplicable to the Breinigsville-Alburtis Project because the Project does not require the acquisition of new rights-of-way, and PPL Electric has not previously acquired any new rights-of-way for the Project. There are no additional persons, corporations, or other entities owning land within the right-of-way that will

be affected by the Project. Because there is no “proposed” right-of-way, the requirement is inapplicable on its face. Therefore, PPL Electric requests that the Commission waive the information required by Section 57.72(c)(4).

77. Section 57.72(c)(7) requires the applicant to provide:

(7) A description of studies which had been made as to the projected environmental impact of the HV line as proposed and of the efforts which have been and which will be made to minimize the impact of the HV line upon the environment and upon scenic and historic areas, including but not limited to impacts, where applicable, upon land use, soil and sedimentation, plant and wildlife habitats, terrain, hydrology and landscape.

As explained in the Application, the Breinigsville-Alburtis Project is limited to rebuilding a line located entirely within the existing right-of-way, which is currently dedicated to utility use. No portion of the Project will be located outside of the existing right-of-way, nor will the Project substantially alter the existing right-of-way. All replacement structures will be located in close proximity to and have heights similar to the existing structures. Where practical, PPL Electric will use previously established access roads for construction to further reduce interference with existing land uses. For these reasons, any environmental impact is expected to be minimal and no environmental impact studies have been conducted. There is a presumption that high voltage transmission lines of two miles or less have minimal adverse environmental impact. *See Energy Conservation Council of Pennsylvania v. Pub. Util. Comm’n.*, 995 A.2d 465, 478-83 (Pa. Cmwlth. 2010). It is also reasonable to presume that a project limited to rebuilding a line within the existing right-of-way will have minimal adverse impact because the line will not cross any new property that is not already traversed by an existing transmission line.

PPL Electric has conducted environmental studies within the existing corridor to support construction permitting. However, to undertake any further environmental studies for a Project

of this nature that is expected to have very little environmental impact would be an unnecessary expenditure of resources. PPL Electric has not undertaken a siting analysis identifying alternative routes for this Project, nor has PPL Electric filed any eminent domain applications related to the Project. Because the rebuilt line will be located entirely within the existing right-of-way and any land use and/or environmental impact is expected to be minimal, the time and expense of proceeding further under the siting regulations by undertaking additional environmental studies and evaluating alternative routes is not in the public interest. Therefore, PPL Electric requests that the information required by Section 57.72(c)(7) be waived.

Further, the environmental considerations listed in Section 57.72(c)(7) were presumably evaluated when certification for the original line was granted by Order entered November 29, 1979. The route remains unchanged for the rebuilt line.

78. Section 57.72(c)(8) requires that the applicant provide:

(8) A description of the efforts of the applicant to locate and identify archaeologic, geologic, historic, scenic or wilderness areas of significance within 2 miles of the proposed right-of-way and the location and identity of the areas discovered by the applicant.

This Section relates to identification of certain resources that exist within two miles of the proposed right-of-way. Because there is no new “proposed” right-of-way, the requirement is inapplicable on its face. Further, efforts to locate and identify these resources are not necessary in this case because the Breinigsville-Alburtis Project will not expand upon the existing right-of-way. For this reason, it is expected that there would be no new archaeologic, geologic, historic, scenic or wilderness areas of significance within two miles of the right-of-way. PPL Electric has determined that the Project area contains no state lands, national parks, state parks, or local parks. PPL Electric has also determined that the Project will not traverse or affect any unique geological, scenic, or natural areas, nor will the Project affect any recreational areas or natural

landmarks. However, PPL Electric notes that it will coordinate with the PHMC regarding any potential impacts (although expected to be minimal or none) that the proposed Project may have on cultural and archaeological resources. Therefore, PPL Electric requests that the Commission waive the information required by Section 57.72(c)(8) because the Breinigsville-Alburtis Project will be located entirely within the existing right-of-way.

79. Section 57.72(c)(10) requires that the applicant provide:

(10) A general description of reasonable alternative routes to the proposed HV line, including a description of the corridor planning methodology, a comparison of the merits and detriments of each route, and a statement of the reasons for selecting the proposed HV line route

Unlike many transmission line siting applications before the Commission, siting and route selection is not required for the Breinigsville-Alburtis Project. Aside from the functional alternatives identified in Attachment 1, no alternative routes were considered for the Breinigsville-Alburtis Project because the Project involves rebuilding an existing line. Thus, the route is already established, and siting is not an issue in this case. This Project does not involve constructing a new transmission line where multiple routes could be considered. Because the route has already been determined in projects involving the rebuild of an existing line, consideration of alternative routes is unnecessary. The rebuild of the existing line will not substantially alter the existing right-of-way. Therefore, PPL Electric requests that the Commission waive the information required by Section 57.72(c)(10). As explained in Section II of this Application, PPL Electric did consider alternative solutions to address the identified reliability problem that the Breinigsville-Alburtis Project is designed to resolve and determined that the proposed Project is the optimal solution.

80. Section 57.72(c)(11) requires that an applicant provide:

(11) A list of the local, State and Federal governmental agencies which have requirements which shall be met in connection with the construction or maintenance of the proposed HV line and a list of documents which have been or are required to be filed with those agencies in connection with the siting and construction of the proposed HV line.

Due to the nature of the Breinigsville-Alburtis Project as a rebuild project with minimal expected impacts to the surrounding environment and land use, PPL Electric expects that any new local, state, and federal agency requirements will be limited. While the information required by 57.72(c)(11) may be useful for evaluating the construction of new lines involving numerous agency requirements, such a requirement is unnecessary when the project being proposed does not involve acquisition of new rights-of-way and will not substantially alter the existing right-of-way. Therefore, PPL Electric requests the Commission waive Section 57.72(c)(11)'s requirement to provide a list of all agency requirements that must be met in connection with the project and related documentation.

However, PPL Electric notes that it has coordinated with local, state, and federal agencies when necessary for the Breinigsville-Alburtis Project. Specifically, PPL Electric has consulted with state and federal agencies to obtain information regarding endangered and threatened species in close proximity to the Project and will continue to consult with the jurisdictional agencies regarding potential impacts to protected species. PPL Electric will obtain all approvals and permits necessary for the construction of the Project, and will comply with any conditions placed on those permits.

81. The Commission has published interim guidelines for the filing of electric transmission line siting applications. *See* 52 Pa. Code §§ 69.3101—69.3107. Sections 69.3102 through 69.3106 of the Commission's regulations require information related to the utility's interactions with and notice to landowners (69.3102), applications for eminent domain authority

(69.3103), applications for exemption from municipal zoning standards (69.3104), route evaluation and siting (69.105), and 69.3106 (environmental filing requirements). None of the information required by these Sections pertains to the Breinigsville-Alburtis Project because the Project does not require acquisition of new rights-of-way. Because the rebuilt line will be constructed entirely within the existing right-of-way, no new property rights are required and no landowners will be affected. PPL Electric has not filed any eminent domain applications associated with this Project, nor is seeking exemption from municipal zoning standards.<sup>4</sup> As explained above, no route selection or siting study was needed for the Project. Therefore, PPL Electric requests that the Commission waive the information required by Sections 69.3102 through 69.3105 of the Commission's regulations as inapplicable to the proposed Project.

82. Section 69.3106 of the Commission's regulations requires the following:

Applications for siting of electric transmission lines should include as part of the filing requirement under § 57.72(e)(7) the following information: A matrix or list showing all expected Federal, state and local government regulatory permitting or licensing approvals that may be required for the project at the time the application is filed, the issuing agency, approximate timeline for approval and current status. The applicant should provide an update on the status of the regulatory permitting/licensing approvals as the case progresses.

Because the Project consists of rebuilding a line within the existing right-of-way, PPL Electric expects that any new local, state, and federal government regulatory permitting or licensing approvals will be limited. PPL Electric believes that the permit matrix required by Section 69.3106 is unnecessary for this Project due to the anticipated permits required being minimal as compared to the construction of a line involving new rights-of-way. Therefore, PPL

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<sup>4</sup> PPL Electric submits that this Project will not adversely impact local comprehensive plans and zoning ordinances. *See* 52 Pa. Code § 69.1101.

Electric requests that the Commission waive the information required by Section 69.3106 of the Commission's regulations.

83. Finally, PPL Electric requests waiver of the notice and publication requirements as set forth in 52 Pa. Code § 57.75(a) (requiring the applicant publish notice of hearing) and Section 5.14(a),(b). PPL Electric previously served the LON for this Project on all landowners within the existing right-of-way. No protests or petitions to intervene were filed. PPL Electric is not proposing to modify the right-of-way from the previously-filed LON. The time and expense involved in hearings is not warranted in this situation and is not in the public interest because the proposed Project is limited to rebuilding a line within the existing right-of-way. As such, any environmental impacts are expected to be minimal and would be far less than if the line were to be constructed along a new route. No new landowners will be affected by the Project, and siting is not an issue in this case. The items set forth in Section 57.75(e) to be addressed at a hearing in this matter involve items which are inapplicable to this Project as explained above. Waiving the hearing notice requirement in this instance is consistent with Commission precedent involving similar cases where the proposed line did not involve acquisition of new right-of-way. *See, e.g., Re Pennsylvania Electric Company*, Docket No. A-00104088, 1982 Pa. PUC LEXIS 90 (June 10, 1982). Further, § 57.75(h) allows for waiver of the hearing requirement if no protests or petitions to intervene are filed. Therefore, PPL Electric requests that the Commission waive the notice and publication requirement as set forth in 52 Pa. Code § 57.75 and Section 5.14(a),(b).

#### **IX. NOTICE**

84. PPL Electric has provided information regarding the Breinigsville-Alburtis Project to representatives of Upper and Lower Macungie Townships, and Lehigh County. These entities have not objected to the proposed Project.

85. Copies of this Application are being served on the entities identified in Section 57.74 of the Commission's regulations. 52 Pa. Code § 57.74.

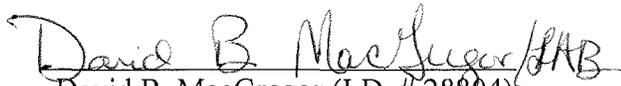
86. As explained in Section VII of this Application, PPL Electric is requesting waiver of 52 Pa. Code § 69.3102, which requires the utility to notify affected landowners, because the Breinigsville-Alburtis Project will not require acquisition of any new rights-of-way. Therefore, no new landowners will be affected by the Project.

**X. CONCLUSION**

WHEREFORE, PPL Electric Utilities Corporation respectfully requests (1) Pennsylvania Public Utility Commission approval to install the second, 6-mile 500 kV circuit to the existing Breinigsville-Alburtis 500 kV Transmission Line in Upper and Lower Macungie Townships, Lehigh County, Pennsylvania, as explained above and in the Attachments hereto, and (2) Pennsylvania Public Utility Commission permission to waive information required by certain of the Commission's siting regulations as explained above.

Respectfully submitted,

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Date: February 15, 2019

Attorneys for PPL Electric Utilities Corporation

**VERIFICATION**

I, DAVID GLADEY being the DIRECTOR OF ASSET MANAGEMENT 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: 2/14/19

A handwritten signature in cursive script, appearing to read "David Gladey", written over a horizontal line.