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File #: 215703

May 1, 2026

VIA ELECTRONIC FILING

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Build Approximately 0.25 Miles Of New Double Circuit 138 kV Transmission Tap Lines To Connect The Existing Akron – Prince #1 & #2 138 kV Transmission Lines To The New Pitney 138 kV Switchyard And To Build Two Double Circuit 0.1-Mile-Long 138 kV Transmission Lines From The Pitney 138 kV Switchyard To A New Customer-Owned 138-34 kV Substation Located In East Lampeter Township, Lancaster County, Pennsylvania
Docket No. A-2026-_____

Dear Secretary Homsher:

Attached for filing is the Letter of Notification of PPL Electric Utilities Corporation ("PPL Electric") for Approval To Build Approximately 0.25 Miles Of New Double Circuit 138 kV Transmission Tap Lines To Connect The Existing Akron – Prince #1 & #2 138 kV Transmission Lines To The New Pitney 138 kV Switchyard And To Build Two Double Circuit 0.1-Mile-Long 138 kV Transmission Lines From The Pitney 138 kV Switchyard To A New Customer-Owned 138-34 kV Substation Located In East Lampeter Township, Lancaster County, Pennsylvania.

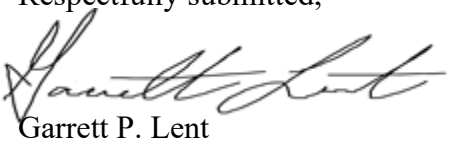
As indicated on the Certificate of Service, copies of the Letter of Notification are being served by certified mail, return receipt requested, upon the involved governmental agencies, municipalities, and property owners. Construction of the Project will commence upon the Commission's approval of this filing, with an estimated construction start date of September 2026, with an anticipated in-service date of May 2027. To facilitate this construction date, PPL Electric requests that the

Commission issue an order approving the Project by no later than the Public Meeting currently scheduled for August 6, 2026.

The associated $350.00 filing fee has been paid by Post & Schell, P.C. as of the time of filing.

If you have any questions concerning this matter, please contact me at the address or telephone numbers provided above.

Respectfully submitted,



Garrett P. Lent

GPL/sll
Attachment

cc: Deb Backer (*via email; w/attachment*)
Jordan Van Order (*via email; w/attachment*)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Application has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 57.74(b).

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

PA Bureau of Investigation and Enforcement
Attn: Allison Kaster
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, PA 17120

PA Department of Environmental Protection
Attn: Regional Permit Coordination Office
Rachel Carson State Office Building
400 Market Street, 10th Floor
Harrisburg, PA 17101

PA Department of Environmental Protection
Attn: Waterways Engineering and Wetlands Department
909 Elmerton Avenue
Harrisburg, PA 17110

Pennsylvania Department of Transportation
Attn: Jeffrey Spotts, Chief Counsel
Keystone Building
400 North Street, Ninth Floor
Harrisburg, PA 17120

PA Historical and Museum Commission
Bureau for Historic Preservation
Attn: Ms. Emma Diehl, Division Manager
Commonwealth Keystone Building, 2nd Fl.
400 North Street
Harrisburg, PA 17120-0093

PA Department of Conservation and Natural Resources
Attn: Rebecca Bowen, Ecological Services Section Chief
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17105-8767

Pennsylvania Game Commission
Attn: David Gustafson, Director, Bureau of Wildlife Habitat Management 2001 Elmerton Avenue
Harrisburg, PA 17110-9797

Pennsylvania Fish and Boat Commission
Attn: Christopher A. Urban, Chief, Natural Diversity Section
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620

Pennsylvania Office of Consumer Advocate
Attn: Darryl A. Lawrence, Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, Pennsylvania 17101-1923

PA Office of Small Business Advocate
Attn: Steven C. Gray, Senior Supervising Assistant Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101

United States Army Corps of Engineers
Attn: Public Affairs Office
Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201

United States Fish and Wildlife Service
Attn: Lesa Lindsay
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, PA 16801

Lancaster County Conservation District
Attn: Christopher Thompson, District Manager
1383 Arcadia Road, Room 200
Lancaster, PA 17601

Lancaster County Planning Commission
Attn: William Clark, Interim Executive Director
150 North Queen Street
Lancaster, PA 17603

East Lampeter Township
Attn: Ethan Demme, Chairman
2250 Old Philadelphia Pike
Lancaster, PA 17602

Greenfield Road Owner LLC
11 W Forty Second Street
Twenty Fourth Floor
New York, NY 10036

Date: May 1, 2026

Garrett P. Lent

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Build Approximately 0.25 Miles Of New Double Circuit 138 kV Transmission Tap Lines To Connect The Existing Akron – Prince #1 & #2 138 kV Transmission Lines To The New Pitney 138 kV Switchyard And To Build Two Double Circuit 0.1-Mile-Long 138 kV Transmission Lines From The Pitney 138 kV Switchyard To A New Customer-Owned 138-34 kV Substation Located In East Lampeter Township, Lancaster County, Pennsylvania	:	Docket No. A-2025-_____

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation ("PPL Electric") hereby files this Letter of Notification pursuant to Sections 57.72(d)(1)(iii) and 57.72(d)(1)(vi) of the Pennsylvania Public Utility Commission's ("Commission") regulations, 52 Pa. Code §§ 57.72(d)(1)(iii) and (d)(1)(vi), to: (1) build approximately 0.25 miles of new double circuit 138 kilovolt ("kV") transmission taps ("Tap Lines"); (2) bifurcate and connect the existing South Akron – Prince #1 & #2 138 kV Transmission Lines to the new Pitney 138 kV Switchyard ("Pitney Switchyard") via the Tap Lines; and (3) build two double circuit (four circuits total) 0.1-mile-long 138 kV transmission lines ("Connecting Lines") from the Pitney Switchyard to a new customer-owned 138-34 kV substation to be located in East Lampeter Township, Lancaster County. Collectively, the construction of the new Tap Lines and Connecting Lines at the new Pitney Switchyard will be referred to as the "Project."

Construction of the Project will take place entirely upon existing PPL Electric right-of-way or customer-owned property where easements are being finalized.

As explained in greater detail below, this Project is needed to meet the electric needs and demands of an existing customer requesting upgrades to their transmission-level service in East Lampeter Township, Lancaster County, Pennsylvania. To meet the customer's needs, PPL Electric's system planners determined that utilizing the adjacent 138 kV transmission lines and providing 138 kV service is the optimal solution to serve the customer's requested load increase. As such, PPL Electric herein seeks Commission approval for bifurcating the existing South Akron – Prince #1 & #2 138 kV Transmission Lines and extending the Tap Lines to the new Pitney Switchyard, as well as providing new Connecting Lines from the new Pitney Switchyard to the customer-owned 138 kV-34 kV substation in East Lampeter Township, Lancaster County, Pennsylvania.

The Project will be located in East Lampeter Township, Lancaster County, Pennsylvania. PPL Electric has provided information regarding this Project to all identified political subdivisions, and none of them have objected to the Project. Subject to the Commission's approval, construction will begin in September 2026 to support an in-service date of May 2027. PPL Electric will own, operate, and maintain the new Pitney 138 kV Switchyard and 138 kV Tap Lines and Connecting Lines. The customer will construct, own, operate, and maintain its 138-34 kV substation. The total estimated cost of this Project, as described below, is approximately $36.3 Million, with the customer responsible for approximately $21.3 Million and PPL Electric responsible for approximately $14.9 Million. To meet the projected in-service date, PPL Electric is seeking the Commission's decision by no later than the public meeting currently scheduled for August 6, 2026.

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 as follows:

PPL Electric Utilities Corporation
827 Hausman Road
Allentown, Pennsylvania 18104

3. PPL Electric's attorneys are:

Michael J. Shafer (I.D. # 205681)
PPL Services Corporation
645 Hamilton Street, Suite 700
Allentown, PA 18101
Phone: 610-774-2599
Fax: 610-774-4102
E-mail: mjshafer@pplweb.com

David B. MacGregor (I.D. # 28804)
Garrett P. Lent (I.D. #321566)
Megan E. Rulli (I.D. # 331981)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
Phone: 717-731-1970
Fax: 717-731-1985
E-mail: dmacgregor@postschell.com
glent@postschell.com
mrulli@postschell.com

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 1.5 million customers throughout its certificated service territory, which includes all or portions of 29 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 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 South Akron – Prince #1 & #2 138 kV lines are part of PPL Electric's 138 kV Regional Electric network. These transmission lines serve PPL Electric distribution substation and transmission customer load in Lancaster County, including the current customer. The South Akron – Dillerville #1 & #2 and West Hempfield – Prince #1 & #2 138 kV lines are also part of this system, which serve customer load in Lancaster County. These 138 kV transmission lines serve more than 50,000 customers, including the 138 kV customers Lancaster Air Products, DART, and the two former Donnelley facilities.

7. This Letter of Notification includes the following accompanying Attachments:

- Attachment 1 Necessity Statement;
- Attachment 2 Engineering Description;
- Attachment 3 Description of Project Area;
- Attachment 4 PPL Electric Design Criteria and Safety Practices; and
- Attachment 5 Landowners and Agencies List.

8. 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

9. PPL Electric has a responsibility to provide transmission assets and maintain them in a manner that is safe, reliable, and resilient to meet the needs of the electric system and the service expectations of its customers. To meet this duty, PPL Electric applies its transmission asset management planning procedure, which includes system performance and condition

assessments. These performance and condition assessments identify system needs and prioritize projects based on several variables such as equipment age, condition, maintenance schedule, and impact on system reliability and performance to ensure a reliable electric grid and reasonable service to its customers.

10. As explained in greater detail below and in **Attachment 1 – Necessity Statement**, this Project is needed to meet the electric needs and demands of an existing customer requesting upgrades to its transmission-level service in East Lampeter Township, Lancaster County, Pennsylvania.

11. PPL Electric, as a public utility, has a general right and obligation to serve customers in its service territory, subject to the terms and conditions of its certificate of public convenience. Specifically, under Section 1501 of the Public Utility Code, PPL Electric:

> shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.

66 Pa.C.S. § 1501 (emphasis added); *see also id.* § 1103(a). Section 2802(12) of the Public Utility Code further emphasizes that "[r]eliable electric service is of the utmost importance to the health, safety and welfare of the citizens of the Commonwealth. Electric industry restructuring should ensure the reliability of the interconnected electric system by maintaining the efficiency of the transmission and distribution system." *Id*. § 2802(12). Pennsylvania appellate courts and the Commission have further confirmed this obligation to serve. *See, e.g.*, *Pa. Gas Co. v. Pub. Serv. Comm'n*, 83 Pa. Super. 557, 565-66 (1924); *Philadelphia Transp. Co. v. Pa. PUC*, 37 A.2d 138, 147 (Pa. Super. 1944); *Application of Leatherstocking Gas Co., LLC, for Approval to Supply Natural Gas Serv. to the Pub. in N. Susquehanna Cnty., in the Twps. of Bridgewater, Forest Lake,*

Great Bend, Harmony, New Milford, and Oakland, and in the Boroughs of Great Bend, Hallstead, Lanesboro, Montrose, New Milford, Oakland and Susquehanna, Docket No. A-2011-2275595, 2012 Pa. PUC LEXIS 1391, at *22 (Order entered Aug. 30, 2012).

12. PPL Electric also has a duty to make line extensions in its service territory, in order to serve customers who request service. 52 Pa. Code § 57.19(b). PPL Electric serves customers taking service at 69 kV and above at its LP-5 rate class.

13. Expedient provision of upgrades to adequate and reliable service to high-load customers on PPL Electric's system is critical for the Commonwealth of Pennsylvania's continued economic development. This interest is addressed by the Project.

14. The Project as proposed addresses the prospective customer's high-load transmission level service in a cost-efficient manner, as opposed to the alternatives evaluated by PPL Electric, such as installing two new 138 kV terminals at South Akron and extending two new 138 kV circuits to the customer facility. This is addressed at further length in **Attachment 1 – Necessity Statement**.

1. Existing System

15. The South Akron – Prince #1 & #2 138 kV lines are part of PPL Electric's 138 kV Regional Electric network along with the South Akron – Dillerville #1 & #2 and West Hempfield – Prince #1 & #2 138 kV lines.

16. The 138 kV system moves power from the 230 kV regional supply substations to PPL Electric's distribution substations and transmission- level customers. These 138 kV lines serve customer load throughout Lancaster County, including more than 50,000 customers and the following specific 138 kV customers: Lancaster Air Products, DART, and the two former Donnelley facilities.

17. The customer's current substation (currently known as Donnelley Gravure) is served via a double circuit tap off the South Akron – Prince #1 & #2 138 kV lines.

18. A map of the existing system configuration is provided as **Figure 1-1** in **Attachment 1 – Necessity Statement.**

2. Identification of Need

19. This Project is needed to serve a requested load increase for an existing customer located in East Lampeter Township, Lancaster County.

20. The existing customer is requesting an upgrade to its 138 kV electrical service with an in-service date of May 2027 and an initial load of 130 megawatts ("MW"). The customer's load will increase in stages to approximately 350 MW by 2028. The customer's current arrangement is not sufficient to serve this requested load.

21. Due to the size of the requested load, the customer is most appropriately supplied from a 138 kV switchyard to avoid reliability violations caused by the additional customer load.

22. The Pitney Switchyard is required to meet PPL EU's FERC 715 load loss criteria of 300 MW.[1] The existing arrangement of a double circuit tap from the South Akron – Prince #1 & #2 138 kV lines would result in a violation of this criterion when the customer's load exceeds approximately 200 MW. A P7[2] tower failure would result in an outage of both South Akron - Prince 138 kV lines and result in the customer's and all other loads being served from the South Akron – Prince #1 & #2 138kV lines being interrupted.

23. The installation of the Pitney Switchyard will allow for operation of the South Akron – Prince #1 & #2 and West Hempfield – Prince #1 & #2 138 kV transmission lines in

[1] Available at https://www.pjm.com/-/media/DotCom/planning/planning-criteria/ppl-planning-criteria.pdf
[2] TPL-001 lists a P7 as multiple contingency event of the loss of two adjacent circuits on a common structure. https://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-5.pdf

network configuration. This installation will resolve the P7 tower failure violation by creating multiple paths to serve the customer's load and other connected load on the 138 kV system.

B. THE PROPOSED PROJECT

24. PPL Electric proposes building the new breaker-and-a-half 138 kV Pitney Switchyard and to extend four 138 kV circuits to the customer's substation, all located within the customer-owned parcel.

25. The new Pitney Switchyard is required due to the number of lines needed by the customer and the size of the requested load. The West Hempfield – Prince #1 & #2 and the South Akron #1 & #2 138 kV lines will be placed in network configuration and will become part of the BES.

26. The new Pitney Switchyard will be constructed in a breaker-and-a-half arrangement. The breaker-and-a-half arrangement is recommended by the PJM Minimum Planning and Design Standards, Section III, relating to Substation Bus Configurations and Substation Design Recommendations.[3] Under the PJM design standards, three terminal lines and radial bus station configurations are both discouraged for use in new BES substation construction because of the considerable potential for detrimental effects on transmission system reliability.

27. The proposed Pitney Switchyard will be owned and operated by PPL Electric and will be constructed on land that was part of the same customer-owned parcel as the customer's 138-34 kV substation and facilities. The Company will acquire the necessary land and ROW from the customer for the new Pitney Switchyard, Tap Lines, and Connecting Lines prior to the initiation of construction. Building the new switchyard at this location is optimal since the existing 138 kV transmission lines already traverse the property.

[3] The PJM Substation Bus Configurations and Substation Design is available at https://www.pjm.com/~/media/planning/design-engineering/maac-standards/section-iii-sub-bus-config.ashx

28. The proposed Project will allow PPL Electric to provide safe and reliable service to the customer while improving reliability and operational flexibility of the 138 kV BES. Additionally, this solution is the least impactful option to landowners and the local community among the feasible alternatives. A map of the proposed system alignment is provided as **Figure 1-2** in **Attachment 1 – Necessity Statement**.

29. The proposed Pitney 138 kV Switchyard will be owned and operated by PPL Electric and will be constructed on land that was part of the same customer-owned parcel as the customer's 138-34 kV substation and facilities.

30. PPL Electric will acquire the necessary land and right-of-way ("ROW") from the customer for the new Pitney Switchyard, Tap Lines and Connecting Lines prior to the initiation of construction. Building the new Pitney Switchyard at this location is optimal because the existing 138 kV transmission lines already traverse the property.

31. In addition, the proposed Pitney 138 kV Switchyard will serve the customer's load, provide improved operational flexibility and reliability to the 138 kV network in the area, and allow for expansion of the 138 kV network to meet future system needs. Serving the customer from dedicated lines from the Pitney Switchyard prevents any outage or fault on the customer equipment from impacting other customers on the system. The Pitney Switchyard will add the ability to connect additional 138 kV circuits to support the 138 kV system to address load growth in the Lancaster area.

32. This Project will serve the customer while meeting the minimum design standards set forth by PJM, as described in **Section 3.0 of Attachment 1 – Necessity Statement**.

33. The total estimated cost of this Project is approximately $36.3 Million, with the customer responsible for approximately $21.3 Million and PPL Electric responsible for approximately $14.9 Million.

III. HEALTH AND SAFETY

34. The proposed lines will not create any unreasonable risk of danger to public health or safety. The proposed lines 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 of the NESC standards, PPL Electric's design criteria, and PPL Electric's safety practices are provided in **Attachment 4 – Design Criteria**.

35. **Attachment 4 – Design Criteria** also explains PPL Electric's standards for Magnetic Field Management. Ground clearances for the proposed Project will be at least three feet higher than those required by the NESC standard in order to reduce the magnetic field exposure. The implementation of additional modifications to reduce magnetic field levels is considered, provided those modifications can be made at low or no cost and will not interfere with the operation of the line.

IV. DESCRIPTION OF THE RIGHT-OF-WAY

36. PPL Electric has designed the proposed Project so that it is located entirely on the customer's property. The necessary land and right of way ("ROW") will be acquired from the customer by PPL Electric to construct the new switchyard and transmission lines.

37. The Project will be located in East Lampeter Township, Lancaster County, Pennsylvania. PPL Electric has provided information about the proposed Project to representatives from East Lampeter Township and Lancaster County.

38. The new 138 kV Tap Lines will replace the existing 0.25 mile alignment of the South Akron – Prince #1 & #2 138 kV Transmission Lines within the Project area. The alignment of the existing line and the proposed Tap Lines are shown in **Figure 3-1** to **Attachment 3 – Description of Project Area**.

39. A description of the Project alignment is provided in **Attachment 3**, and detailed map of the Project alignment is provided as **Figure 3-1** in **Attachment 3**.

40. A detailed description of the transmission line structures that will be rebuilt as a part of the Project is set forth in **Attachment 2 – Engineering Description**.

41. Two aerial plot plans are provided at the end of **Attachment 1 – Necessity Statement**. Figure 1-1 depicts the location of the existing transmission facilities associated with this Project. Figure 1-2 depicts the location of the proposed transmission facilities associated with this Project.

V. LAND USE AND ENVIRONMENTAL EVALUATION

42. The proposed Project will take place entirely within the customer's property, with the necessary land and ROW to be acquired from the customer by PPL Electric to construct the

new switchyard and transmission lines. Therefore, it is anticipated that the proposed Project will have minimal incremental impacts on land use in the area. A detailed description of the route and land use and environmental evaluation of the Project can be found in **Attachment 3 – Project Area Description**.

VI. NOTICE

43. PPL Electric has provided information regarding the Project to representatives of East Lampeter Township, Lancaster County Conservation District, and the Lancaster County Planning Commission. These entities have not objected to the proposed Project. Copies of the Letter of Notification will be served upon all state agencies, federal agencies, county agencies, municipalities, and landowners in accordance with 52 Pa. Code § 57.72(d)(3). A list of the same impacted or potentially impacted by this project is provided in **Attachment 5 – Agency and Landowner List**.

VII. LETTER OF NOTIFICATION

44. 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)(iii) and (d)(1)(vi).

45. The Project qualifies for a Letter of Notification because it is proposed to be located entirely within PPL Electric's existing transmission line right-of-way and the property of the sole customer to be served by the line, and the size, character, design or configuration of the proposed high voltage lines do not substantially alter the right-of-way. it consists of high voltage lines with a proposed route of 2 miles or less. *See* 52 Pa. Code § 57.72(d)(1)(iii). In addition, the Project

qualifies for a Letter of Notification because it consists of high voltage lines with a proposed route of 2 miles or less. *See* 52 Pa. Code § 57.72(d)(1)(vi).

46. 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*.

VIII. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve the proposed Pitney 138 kV Switchyard Project located in East Lampeter Township, Lancaster County, Pennsylvania, that is explained above and in the Attachments hereto, by no later than the public meeting currently scheduled for August 6, 2026.

Respectfully submitted,

Michael J. Shafer (I.D. # 205681)
PPL Services Corporation
645 Hamilton Street, Suite 700
Allentown, PA 18101
Phone: 610-774-2599
Fax: 610-774-4102
E-mail: mjshafer@pplweb.com

David B. MacGregor (I.D. # 28804)
Garrett P. Lent (I.D. #321566)
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E-mail: dmacgregor@postschell.com
glent@postschell.com
mrulli@postschell.com

Date: May 1, 2026 Attorneys for PPL Electric Utilities Corporation

Attachment 1

PITNEY 138 kV SWITCHYARD PROJECT

TABLE OF CONTENTS

List of Figures

1.0 INTRODUCTION

PPL Electric Utilities Corporation ("PPL Electric" or the "Company") requests approval from the Pennsylvania Public Utility Commission ("PUC" or the "Commission") to construct limited transmission facilities necessary to reliably serve a significant increase in customer load in East Lampeter Township, Lancaster County. The Project (hereinafter defined) will enable PPL Electric to provide transmission-level service that meets applicable planning and reliability criteria while minimizing new infrastructure and community impacts.

The Project includes construction of a new 138 kV switchyard on customer-owned property, along with short extensions of existing 138 kV transmission lines to interconnect the switchyard and the customer's substation. This configuration allows PPL Electric to serve the customer's initial and planned load increases safely and reliably using existing transmission corridors, avoids unacceptable loss-of-load contingencies, and complies with established system planning standards.

Absent the Project, the existing radial configuration of the 138 kV system would be insufficient to support the customer's scheduled load growth and would result in reliability violations as load increases. The proposed facilities therefore represent the least-impactful and most efficient means to meet the customer's request while preserving system reliability and operational integrity.

Accordingly, PPL Electric respectfully seeks Commission approval to construct the Project as proposed.

2.0 BACKGROUND

PPL Electric is a public utility that provides electric service to approximately 1.5 million customers throughout 29 central and eastern Pennsylvania counties. The Company has a right and obligation to provide retail electric service in a manner that is adequate, efficient, safe, reliable, and reasonable to meet the needs of the electric system and the expectations of its customers.

In accordance with the Company's right and obligation to serve retail customer load, the Project is required to comply with:

- PPL Electric Utilities Corporation's general tariff to provide non-discriminatory service to a customer facility at 69 kV or above at the LP-5 rate schedule; and
- PPL Electric's general right and obligation to serve customers in its service territory, subject to the terms and conditions of its tariffs and certificate of public convenience.[1]

The Project consists of the following system upgrades:

- Build approximately 0.25 miles of new double circuit 138 kilovolt ("kV") transmission taps ("Tap Lines");
- Bifurcate and connect the existing South Akron – Prince #1 & #2 138 kV Transmission Lines to the new Pitney 138 kV Switchyard ("Pitney Switchyard") via the Tap Lines; and
- Construct two double circuit (four circuits total) 0.1-mile-long 138 kV transmission lines ("Connecting Lines") from the Pitney Switchyard to a new customer-owned 138-34 kV substation.

The Project is located in East Lampeter Township, Lancaster County. The existing 138 kV system moves power from the 230 kV regional supply substations to PPL Electric's distribution substations and transmission-level customers. The South Akron – Prince #1 & #2 138 kV lines serve PPL Electric's distribution substation and transmission level customer load in Lancaster County, including the current customer. The South Akron – Dillerville #1 & #2 and West Hempfield – Prince #1 & #2 138 kV lines are also part of this system, which serves customer load in Lancaster County. These 138 kV lines serve more than 50,000 customers, including the transmission-level 138 kV customers Lancaster Air Products, DART, and the two former Donnelley facilities.

Subject to the Commission's approval, construction of the Project will begin in September 2026 to support an in-service date of May 2027. PPL Electric will own, operate, and maintain the new

[1] *See, e.g.*, 66 Pa.C.S. §§ 1103, 1501, 2802(12); 52 Pa. Code §§ 57.19; *Popowsky v. Pa. PUC*, 910 A.2d 38, 48-56 (Pa. 2006); *Pa. Gas Co. v. Pub. Serv. Comm'n*, 83 Pa. Super. 557, 565-66 (1924); *Philadelphia Transp. Co. v. Pa. PUC*, 37 A.2d 138, 147 (Pa. Super. 1944); *Application of Leatherstocking Gas Co., LLC, for Approval to Supply Natural Gas Serv. to the Pub. in N. Susquehanna Cnty., in the Twps. of Bridgewater, Forest Lake, Great Bend, Harmony, New Milford, and Oakland, and in the Boroughs of Great Bend, Hallstead, Lanesboro, Montrose, New Milford, Oakland and Susquehanna*, Docket No. A-2011-2275595, 2012 Pa. PUC LEXIS 1391, at *22 (Order entered Aug. 30, 2012).

Pitney Switchyard, Tap Lines, and Connecting Lines. The customer will construct, own, operate, and maintain its 138-34 kV substation. The total estimated cost of this Project, as described below, is approximately $36.3 Million, with the customer responsible for approximately $21.3 Million and PPL Electric responsible for approximately $14.9 Million. To meet the projected in-service dates, PPL Electric is seeking the Commission's decision by no later than the public meeting currently scheduled for August 6, 2026.

3.0 TRANSMISSION SYSTEM PLANNING PROCESS

The transmission system is planned and operated to ensure reliable service under both normal and contingency conditions and in accordance with applicable North American Electric Reliability Corporation ("NERC"), PJM Interconnection, LLC ("PJM"), and Transmission Owner reliability criteria. These standards apply to both Bulk Electric System ("BES") and non-BES facilities, as applicable. The nation's interconnected transmission grid ("Transmission Grid") serves as the backbone for the safe and reliable delivery of large amounts of electricity from generating stations over substantial distances to customers served by transmission and local distribution systems.

Robust transmission planning assures that the transmission system can supply electricity to all customer loads in a manner that is reliable and economical. This system planning process ensures that both the BES[2] and non-BES[3] are planned and constructed so that they can:

- Accommodate forecasted system flows during summer and winter peak load;
- Adequately serve each customer's need regarding capacity, voltage, and reliability for all load levels throughout the daily load cycle;
- Sustain contingencies and disturbances with minimal customer service interruptions; and
- Conform to NERC, PJM, and the Transmission Owner's reliability criteria for all normal and emergency operating conditions.

[2] The BES includes transmission facilities operated at voltages of 100 kV or higher.
[3] The non-BES includes transmission facilities operated at voltages less than 100 kV.

PJM is a Federal Energy Regulatory Commission ("FERC")-approved Regional Transmission Organization ("RTO") charged with ensuring the reliability of the electric transmission system under its functional control (100 kV and above) and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including Pennsylvania.

New transmission-level customer load is evaluated pursuant to PJM's Open Access Transmission Tariff, including Attachment M-3 procedures. The supplemental project driver of "Customer Service" is used for new customer load requests. For such requests, PPL Electric submits the projected load, location, and in-service date to PJM and identifies the facilities necessary to reliably serve the load without causing adverse impacts to the transmission system ("Do No Harm Test" or "DNH"). PJM reviews the proposed solution using established planning models and criteria to confirm that it does not create transmission overloads, voltage violations, or other reliability concerns.

Projects that satisfy these criteria are incorporated into PJM's Regional Transmission Expansion Plan and PPL Electric's local transmission plan. Any future overloads, voltage violations, or other criteria violations caused by the increase of load on PPL Electric's system are then resolved through the PJM Competitive Planning Process.

4.0 THE NEED FOR THE PROJECT

4.1 Existing System

The Existing System is described in Section 2.0 above.

A map of the existing system configuration is provided as **Figure 1-1**.

4.2 Project Need

The Project is needed to serve a requested load increase for an existing customer located in East Lampeter Township, Lancaster County. Specifically, the customer is requesting an upgrade to its 138 kV electrical service to serve an initial load of 130 megawatts ("MW") which will increase in stages to approximately 350 MW by 2028. The Project was assigned supplemental number S3547 by PJM. The customer has requested an in-service date of May 2027.

The customer's current arrangement is not sufficient to serve this requested load. Due to the size of the requested load, the customer is most appropriately supplied from a 138 kV switchyard to avoid reliability violations caused by the additional customer load. The switchyard is required to meet PPL Electric's FERC 715 load loss criteria of 300 MW.[4] The existing arrangement of a double circuit tap from the South Akron – Prince #1 & #2 138 kV lines would result in a violation of this criterion when the customer's load exceeds approximately 200 MW. A P7[5] tower failure would result in an outage of both South Akron - Prince 138 kV lines and result in the customer's and all other loads being served from the South Akron – Prince #1 & #2 138kV lines being interrupted. The installation of the Pitney Switchyard will allow for operation of the South Akron – Prince #1 & #2 and West Hempfield – Prince #1 & #2 138 kV transmission lines in network configuration. This installation will resolve the P7 tower failure violation by creating multiple paths to serve the customer's load and other connected load on the 138 kV system.

5.0 ALTERNATIVES

PPL Electric performed a comprehensive analysis to identify feasible and cost-effective solutions to best serve the customer, while minimizing impacts upon the local environment and surrounding community. PPL Electric evaluated the following alternative to the Project to serve the customer at 138 kV:

Install two new 138 kV terminals at the South Akron Substation and extend two new 138 kV circuits to the customer facility. This would require two new 138 kV bays and installation of five new 138 kV breakers. In addition to the South Akron Substation expansion, one new double circuit line (138 kV) would need to be installed over approximately 9 miles within a new greenfield right-of-way ("ROW") and connected to the customer's 138-34 kV substation. The customer substation would be served from the double circuit taps from the South Akron – Prince #1 & #2 138kV lines

[4] Available at https://www.pjm.com/-/media/DotCom/planning/planning-criteria/ppl-planning-criteria.pdf
[5] TPL-001 lists a P7 as multiple contingency event of the loss of two adjacent circuits on a common structure. https://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-5.pdf

as well as the two new circuits. This solution was not selected as it would require a significant amount of new ROW and take substantially more time to complete.

6.0 PROPOSED SOLUTION

PPL Electric chose the Project to serve the customer's initial and future load requests, adhere to PPL Electric's FERC 715 criteria, limit impacts to the local community, and meet the customer's schedule ("Proposed Solution"). PPL Electric proposes building a new breaker-and-a-half 138 kV switchyard and to extend four 138 kV circuits to the customer's substation, all located within the customer owned parcel. A map of the proposed system alignment is provided as **Figure 1-2**.

The new breaker-and-a-half switchyard is required due to the number of lines needed by the customer and the size of the requested load. The West Hempfield – Prince #1 & #2 and the South Akron #1 & #2 138 kV lines will be placed in network configuration and will become part of the BES.

The new Pitney Switchyard will be constructed in a breaker-and-a-half arrangement. The breaker-and-a-half arrangement is recommended by the PJM Minimum Planning and Design Standards, Section III relating to Substation Bus Configurations and Substation Design Recommendations.[6] Under the PJM design standards, three terminal lines and radial bus station configurations are both discouraged for use in new BES substation construction because of the considerable potential for detrimental effects on transmission system reliability.

The proposed Pitney Switchyard will be owned and operated by PPL Electric and will be constructed on land that was part of the same customer-owned parcel as the customer's 138-34 kV substation and facilities. The Company will acquire the necessary land and ROW from the customer for the new Pitney Switchyard, Tap Lines, and Connecting Lines prior to the initiation of construction. Building the new switchyard at this location is optimal since the existing 138 kV transmission lines already traverse the property. In addition, the proposed Pitney Switchyard will

[6] The PJM Substation Bus Configurations and Substation Design is available at https://www.pjm.com/~/media/planning/design-engineering/maac-standards/section-iii-sub-bus-config.ashx

serve the customer's load as well as provide improved operational flexibility and reliability to the 138 kV network in the area. The Pitney Switchyard will also allow for expansion of the 138 kV network to meet future system needs. Serving the customer from dedicated lines from the Pitney Switchyard prevents any outage or fault on the customer equipment from impacting other customers on the system. Placing the West Hempfield – Prince #1 & #2 and the South Akron #1 & #2 138 kV lines in network configuration will result in network flow through the Pitney 138kV Switchyard. This will allow load to be served from either West Hempfield or South Akron 138kV sources. The Pitney 138 kV Switchyard will add the ability to connect additional 138 kV circuits to support the 138 kV system to address load growth in the Lancaster area.

The Proposed Solution will allow PPL Electric to provide safe and reliable service to the customer while improving reliability and operational flexibility of the 138 kV BES. Additionally, the Proposed Solution is the least impactful option to landowners and the local community among the feasible alternatives.

7.0 COST ALLOCATION

PPL Electric's policy governing cost allocation for large customer interconnections is grounded in long-standing tariff requirements and federal transmission principles that distinguish between customer-specific facilities and network facilities that provide broader system benefits. Customers taking service at 69 kV and above (LP-5 rate class) are generally responsible for the costs necessary to directly connect their facilities to the transmission system, while costs associated with upgrades that benefit other customers or the bulk electric system may be recovered through transmission rates.

The Company evaluates cost allocation for customer interconnection facilities on a case-by-case basis to determine whether they provide benefits to other customers or enhance overall system performance. Factors supporting recovery through transmission rates include, among other things, improved system reliability, increased transfer capability or congestion relief, enhanced asset condition, service to multiple customers or feeders, increased resilience and operational flexibility, and expanded capacity for future generation or interconnections.

PPL Electric has allocated $21.3 Million as the customer's responsibility to be paid through a contribution in aid of construction ("CIAC"). PPL Electric will recover the remaining $14.9 Million through its FERC Transmission Formula Rate. Additional detail on the upgrades being recovered through rates is provided in the table below:

Project Component	**Description**	**System Benefit**	**Cost**
Pitney Switchyard Equipment (1W, 2W, 5E, 6E)	Provides alternate paths for power flow, minimizing the risk of outages to customers along the transmission system. Supports additional contingencies, reduces downtime, increases line capacity, and improves total transfer capability.	Yes	$10,140,423.09
South Akron – Prince No. 1	Supports sectionalization of existing 138 kV transmission lines, providing new capacity and alternative routes for power flow. Enhances system reliability, operational flexibility, and area capacity.	Yes	$2,258,334.94
South Akron – Prince No. 2	Supports sectionalization of existing 138 kV transmission lines, providing new capacity and alternative routes for power flow. Enhances system reliability, operational flexibility, and area capacity.	Yes	$2,118,584.94
Remote Substation Upgrades	Upgrades remote relaying to support main line sectionalization.	Yes	$460,250.00

Figure 1-1: Existing System Configuration

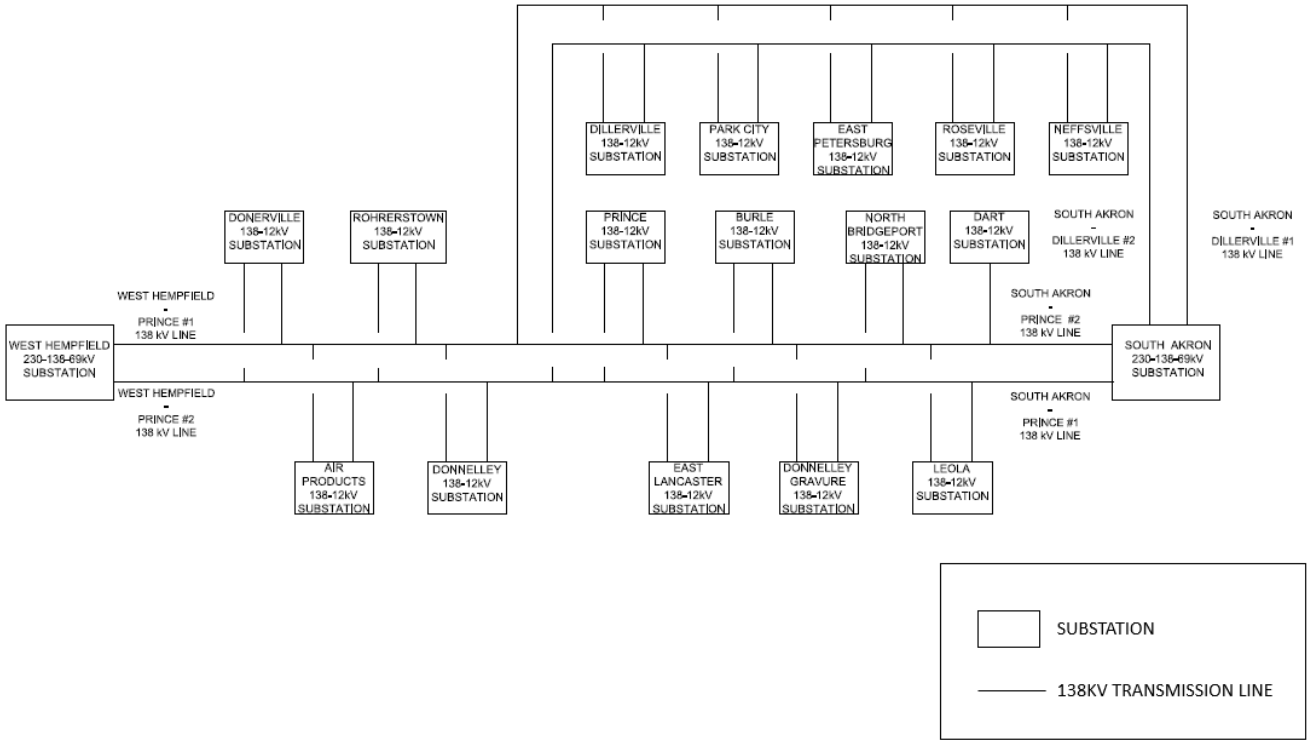
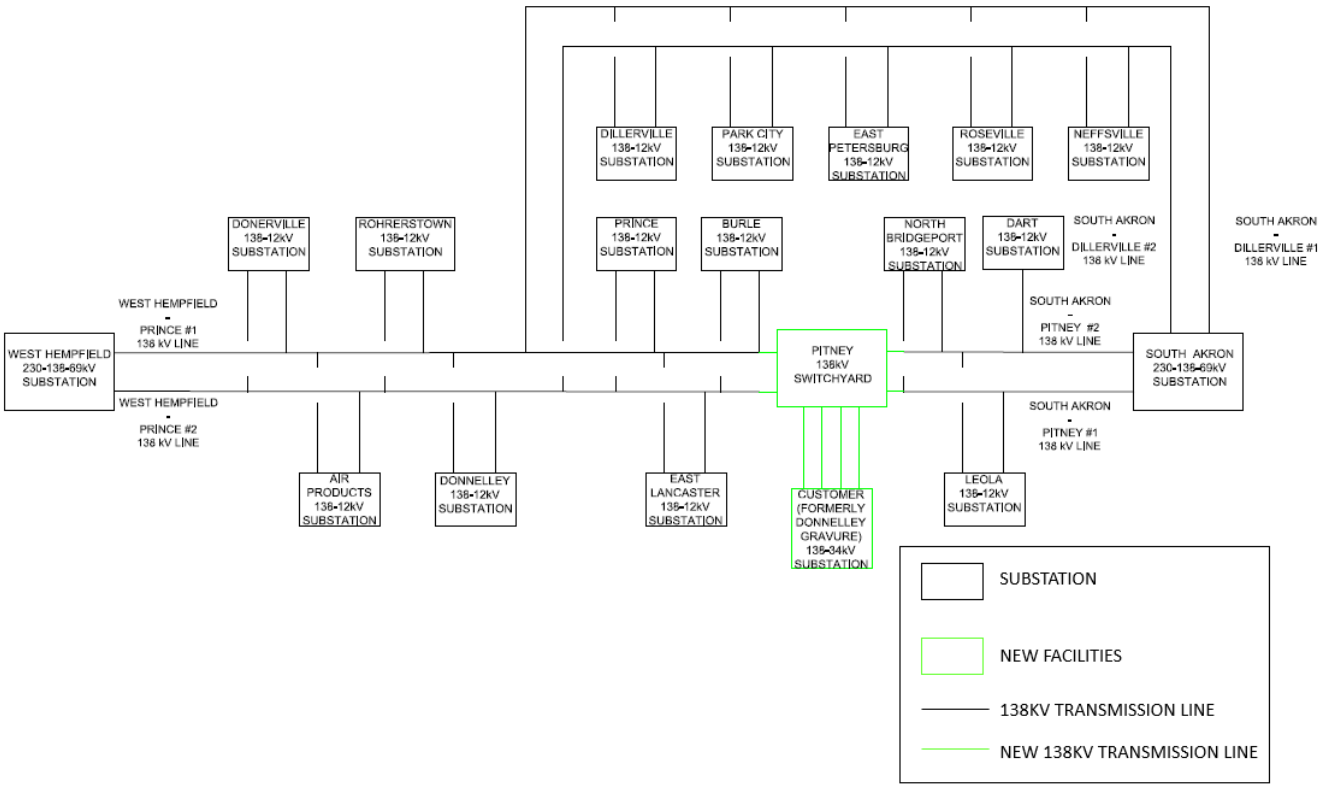


Figure 1-2: Proposed System Configuration



Attachment 2

PITNEY 138 kV SWITCHYARD PROJECT

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1.0 INTRODUCTION

As described in **Attachment 1**, PPL Electric Utilities Corporation ("PPL Electric" or the "Company") is seeking Pennsylvania Public Utility Commission ("PUC" or the "Commission") approval for the Pitney 138 kV Switchyard Project ("Project"). This **Attachment 2** provides the engineering description of the proposed transmission facilities associated with the Project, including transmission line configuration, structure types, conductor specifications, clearances, and thermal ratings. The proposed transmission line facilities will be designed in accordance with, and generally exceed, applicable National Electrical Safety Code ("NESC") requirements. Applicable design specifications and safety standards are provided in **Attachment 4**.

2.0 DESCRIPTION OF THE EXISTING AND PROPOSED LINES AND STRUCTURES

The section of the South Akron-Prince ("SAKR-PRIN") #1 and #2 138 kV lines to be rebuilt currently involves two single-circuit monopole structures (01S50, 05S51) and one double circuit lattice tower structure (76S40) that will be replaced. At 01S50 and 05S51, the structures will be replaced with two steel monopoles (78A and 78B) and the rerouted SAKR-PRIN line extending into the new PPL Electric-owned Pitney Switchyard will be supported by three new steel monopoles (79 through 81A). Connecting Lines will extend from the Pitney Switchyard into the new customer-owned substation supported by three new steel monopoles (PITN-A1, PITN-A2, and PITN-A3). The SAKR-PRIN lines will then leave the Pitney Switchyard supported by one new steel monopole (81B) and two steel monopole structures (81C and 81D) that will replace structure 76S40. To temporarily maintain the existing alignment during construction of the new Pitney Switchyard, two monopoles will also be installed between the existing customer-owned substation and structure 76S40 and then removed at the end of construction. In addition to the three existing structures to be replaced and the seven new structures to be installed, seven existing structures located adjacent to the existing customer substation will be removed.

The existing SAKR-PRIN #1 & #2 138 kV Transmission Lines contain six 795 kcmil,[1] 30/19 ACSR[2] single bundle conductors, one steel 3/8 inch overhead ground wire ("OHGW"), and one 0.567 inch 48F optical ground wire ("OPGW").

A detailed map of the Project alignment is provided as **Figure 3-1 in Attachment 3**. **Table 2-1** below provides a summary of the number and heights of the existing and proposed structures.

Table 2-1: Existing and New Transmission Line Structures

Transmission Line	No. of Existing Structures	Existing Structure Height Range (feet)	Proposed No. of New Structures	Proposed Structure Height Range (feet)	Applicable Framing/ Specifications
SAKR-PRIN 138 kV #1 and #2	10	41.5 - 90	11	75 - 130	7-008-001 7-008-004 7-008-007 7-008-013
Total	**10**		**11**		

Figures 2-1 through **2-4** depict typical structure types that will be used to reroute the SAKR-PRIN 138 kV lines. These include the following:

- Install approximately 1 new double-circuit steel pole tangent suspension structure (**Figure 2-1**).
- Install approximately 6 new double-circuit steel pole tension on arm structures (**Figure 2-2**).
- Install approximately 2 new double-circuit steel pole high-low tap structures (**Figure 2-3**).
- Install approximately 2 new single-circuit steel pole tension on pole structures (**Figure 2-4**).

PPL Electric has designed the proposed transmission line system so that it is located entirely on the customer's property. The necessary land and right-of-way ("ROW") will be acquired from the customer by PPL Electric to construct the Pitney Switchyard, Tap Lines, and Connecting Lines.

The proposed SAKR-PRIN 138 kV lines will consist of six 1113 kcmil, 54/19 ACSS[3] single bundle conductors. The existing OHGW will be replaced with a 0.567 inch 48F OPGW. The

[1] A kcmil is a thousand circular mils. A circular mil is the cross-sectional area of a wire one mil in diameter, where 1 kcmil = 0.5067 mm².
[2] ACSR stands for aluminum conductor steel reinforced.
[3] ACSS stands for aluminum conductor steel supported

existing OPGW will not be replaced. The minimum conductor-to-ground clearance will be 23.6 feet, which occurs at the maximum thermal conductor temperature of 200 °C or 250 °C with Dynamic Line Rating ("DLR"). The design minimum conductor clearances and conductor thermal ratings for the reconstructed lines are noted in **Tables 2-2 and 2-3**, below.

Table 2-2: Design for Minimum Conductor Clearance for 1113 kcmil 54/19 ACSS Single Bundle

Condition	Transmission Double-Circuit Design Clearance-to-Ground
Heavy Ice (1" ice at 0 °C ambient temperature)	23.6 ft
Predicted Extreme Thermal Load (250 °C conductor temperature)	23.6 ft
Predicted Blowout (6 psf, 16 °C ambient temperature)	23.6 ft

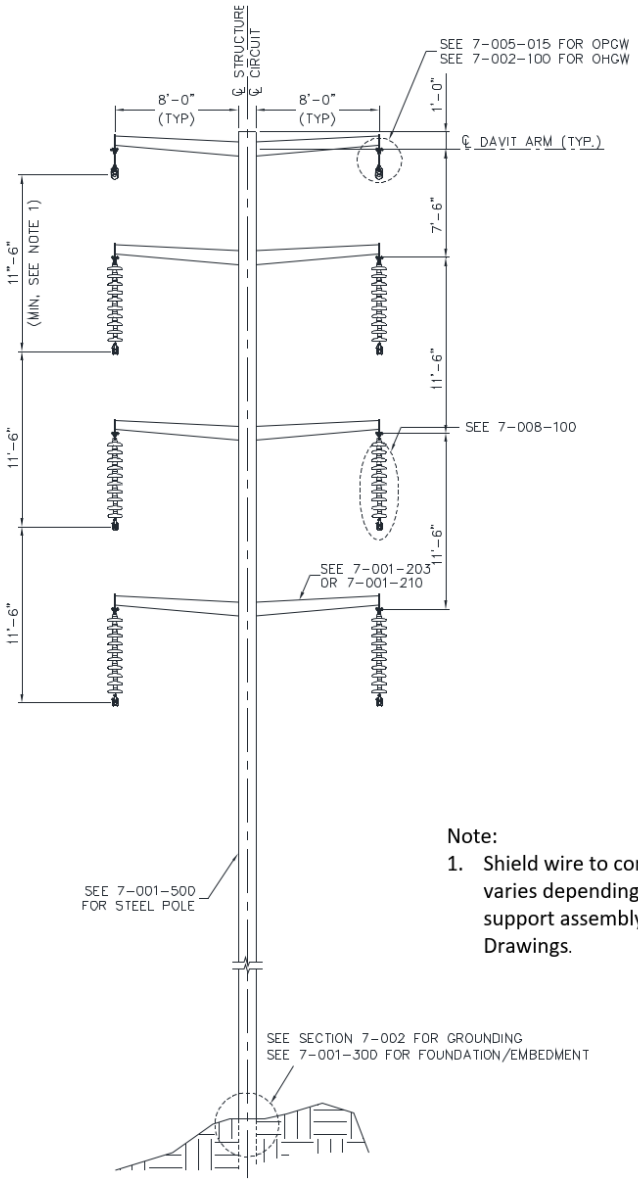
Table 2-3: Conductor Thermal Rating 1113 kcmil 54/19 ACSS Single Bundle – 200 °C Normal Maximum Conductor Temperature or 250 °C with DLR

Condition	Ambient Temperature (°C)	Wind Speed (Ft./sec)	Ampacity (Amps)
Summer Normal	35	0	1876
Winter Normal	10	0	2007
Summer Emergency	35	2.533	2204
Winter Emergency	10	2.533	2337

Figure 2-1: Typical 115/138 kV Double Circuit Steel Pole Tangent Suspension Structure

ppl	**7-008-001** 115/138kV Double Circuit Steel Pole Tangent Suspension Structure	Revision: 03 Effective Date: 02/10/2025 Sheet 1 of 1

T-7-008-001



Note:
1. Shield wire to conductor spacing varies depending on shield wire support assembly. See Job Specific Drawings.

Rev	Date	ECN	Sponsor	Reviewer	Transmission Construction Standards PPL Corporate
00	03/18/2016	ECN-6316	MSD	SDS	
01	02/14/2022	ECN-15222	JAK	KEL	Approved: Maxwell Pepper
02	05/21/2023	ECN-16828	JMB	JFK	Supervisor T&S Standards
03	02/10/2025	ECN-19004	SMS	CMG	

Approved: E171459 Pepper, Maxwell Huntington

Figure 2-2: Typical 115/138 kV Double Circuit Steel Pole Tension on Arm Structure

7-008-004
115/138kV Double Circuit Steel Pole
Tension on Arm Structure

Revision: 03
Effective Date: 02/10/2025
Sheet 1 of 1

T-7-008-004

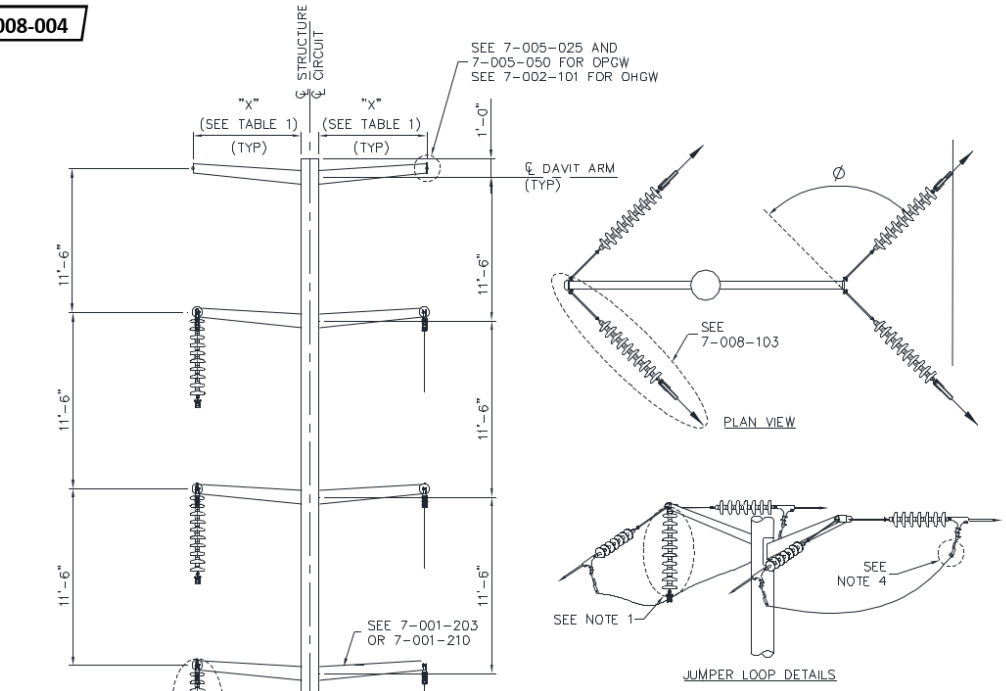


Table 1	
Line Angle Ø	Davit Arm Length "X"
0° - 30°	8'-0"
31° - 60°	9'-0"
61° - 90°	11'-0"

Notes:

1. For line angles over 10°, install jumper suspension assembly (7-008-106) on outside circuit only.
2. A minimum 58 inch clearance shall be maintained from any point on the jumper to all grounded structural components and hardware.
3. Line angle may exceed 90° with approval from PPL Engineering/Standards.
4. See 7-003-005 for conductor jumper loops, as necessary.

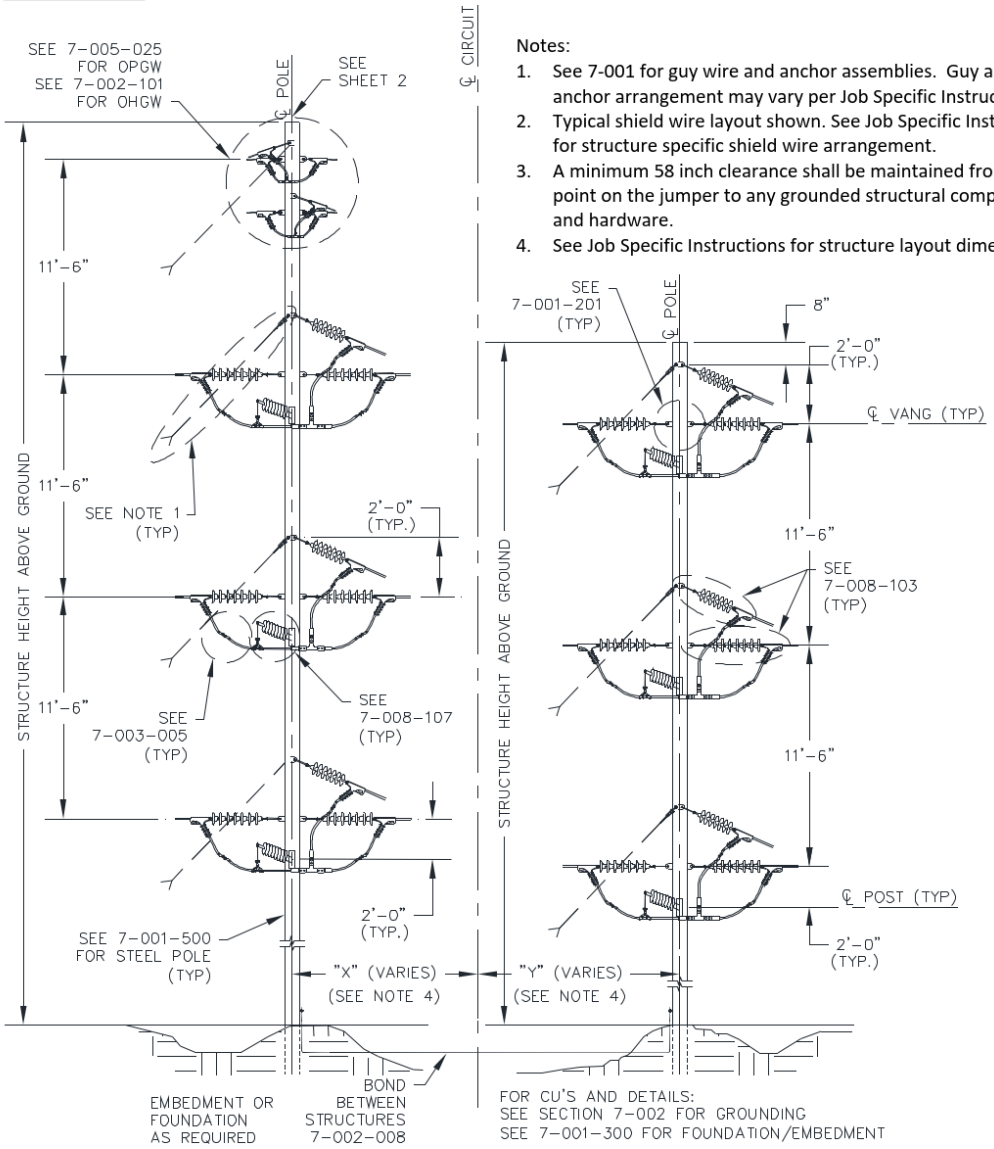
Rev	Date	ECN	Sponsor	Reviewer	Transmission Construction Standards PPL Corporate
00	03/18/2016	ECN-6316	MSD	SDS	
01	03/11/2022	ECN-15806	JAK	KEL	Approved: Maxwell Pepper
02	05/21/2023	ECN-16828	JMB	JFK	Supervisor T&S Standards
03	02/10/2025	ECN-19004	SMS	CMG	

Approved: E171459 Pepper, Maxwell Huntington

Figure 2-3: Typical 115/138 kV Double Circuit Steel Pole High-Low Tap Structure

ppl	**7-008-007** 115/138kV Double Circuit Steel Pole High-Low Tap Structure	Revision: 02 Effective Date: 02/10/2025 Sheet 1 of 4

T-7-008-007



Notes:

1. See 7-001 for guy wire and anchor assemblies. Guy and anchor arrangement may vary per Job Specific Instructions.
2. Typical shield wire layout shown. See Job Specific Instructions for structure specific shield wire arrangement.
3. A minimum 58 inch clearance shall be maintained from any point on the jumper to any grounded structural components and hardware.
4. See Job Specific Instructions for structure layout dimensions.

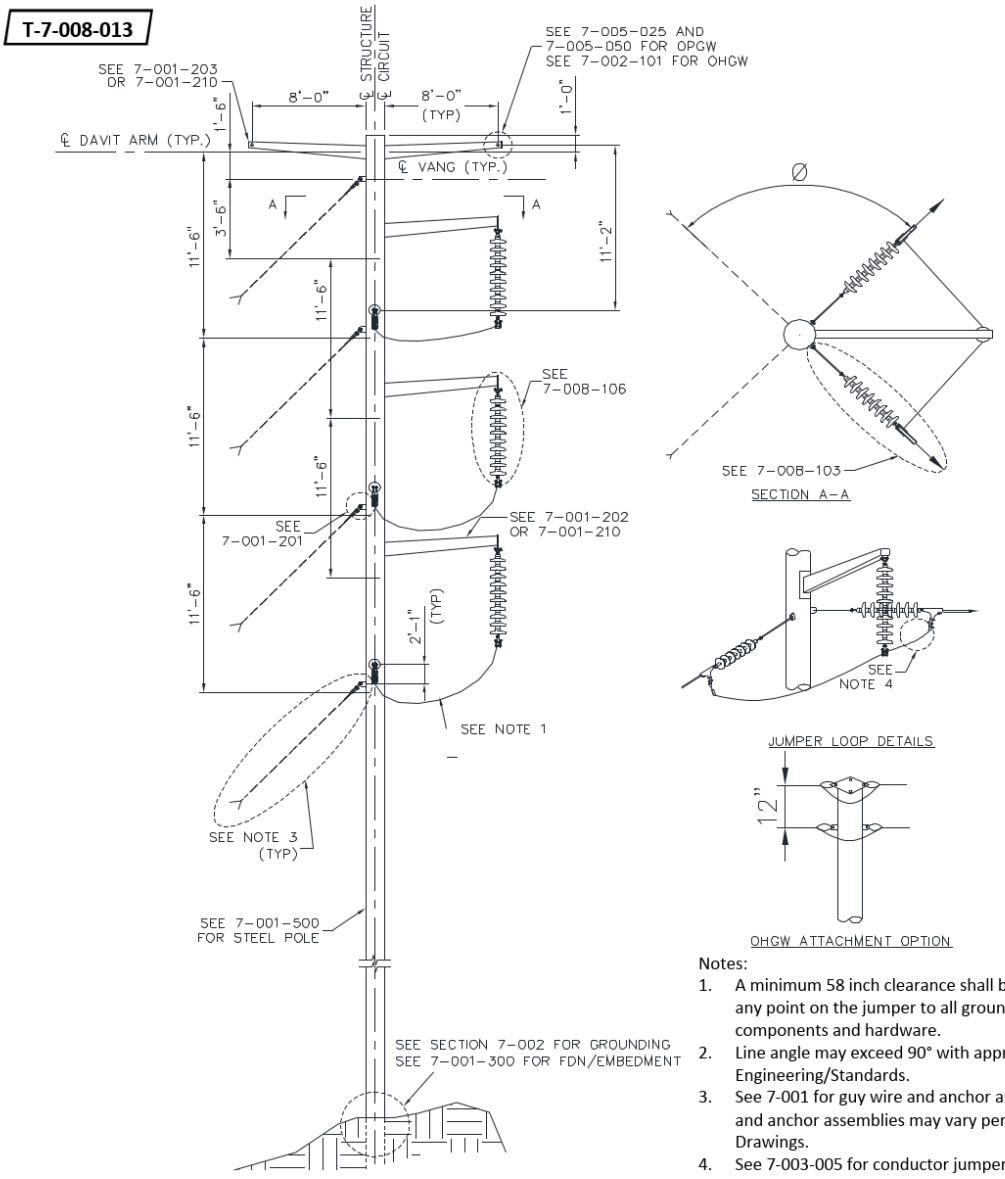
Rev	Date	ECN	Sponsor	Reviewer	Transmission Construction Standards PPL Corporate
00	09/30/2022	ECN-XXXX	JAK	MSD	
01	05/21/2023	ECN-16828	JMB	JFK	Approved: Maxwell Pepper
02	02/10/2025	ECN-19004	SMS	CMG	Supervisor T&S Standards

Figure 2-4: Typical 115/138 kV Single Circuit Steel Pole Tension on Pole Structure

7-008-013
115/138kV Single Circuit Steel Pole
Tension on Pole Structure

Revision: 04
Effective Date: 02/10/2025
Sheet 1 of 1

T-7-008-013



Notes:
1. A minimum 58 inch clearance shall be maintained from any point on the jumper to all grounded structural components and hardware.
2. Line angle may exceed 90° with approval from PPL Engineering/Standards.
3. See 7-001 for guy wire and anchor assemblies. Guy wire and anchor assemblies may vary per Job Specific Drawings.
4. See 7-003-005 for conductor jumper loops, as necessary.
5. If a standard class pole is used, tension vangs with 12" vertical spacing may be utilized for shield wire attachments in lieu of davit arms

Rev	Date	ECN	Sponsor	Reviewer	Transmission Construction Standards PPL Corporate
01	03/11/2022	ECN-15806	JAK	KEL	
02	5/21/2023	ECN-16828	JMB	JFK	Approved: Maxwell Pepper
03	12/11/2024	ECN-18886	SMS	NMM	Supervisor T&S Standards
04	02/10/2005	ECN-19004	SMS	CMG	

Approved: E171459 Pepper, Maxwell Huntington

Attachment 3

PITNEY 138 kV SWITCHYARD PROJECT

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1.0 INTRODUCTION

As described in **Attachment 1**, PPL Electric Utilities Corporation ("PPL Electric" or the "Company) proposes transmission facilities to interconnect the new Pitney Switchyard with existing 138 kV lines and a new customer-owned substation in East Lampeter Township, Lancaster County. This attachment describes the Project area and relevant land use, environmental, and resource conditions.

The new Tap Lines will replace the existing 0.25 mile alignment of the South Akron – Prince #1 & #2 138 kV Transmission Lines within the Project area. The alignment of the existing line and the proposed Tap Lines are shown in **Figure 3-1**. The existing South Akron – Prince #1 & #2 138 kV Transmission Lines currently enter the southeast corner of the customer parcel from the east and connect to two single-circuit monopole structures (01S50, 05S51). At these structures, the lines turn sharply to the northeast for approximately 530 feet to a series of six monopole structures near the existing customer-owned substation located in the northeastern corner of the parcel. These monopole structures redirect a tap line into and out of the substation. A taller set of lattice towers turn the main transmission lines sharply to the northwest for approximately 835 feet to a lattice tower (76S40) along Pitney Road, from which the transmission lines span Pitney Road and head west. To temporarily maintain the existing alignment during construction of the new Pitney Switchyard, two monopoles will be installed between the existing customer-owned substation and structure 76S40 and then removed at the end of construction.

The alignment of the Tap Lanes and Connecting Lines are further described below:

- From Structures 78A and 78B, which will replace Structures 01S50 and 05S51, the Project will extend northwest approximately 0.16 mile (870 feet) across meadow and gravel areas to Structure 80 in the southwestern corner of the customer parcel. Structures 78A and 78B will consist of two single circuit steel pole tension on pole structures (7-008-013), Structure 79 will consist of one double circuit steel pole tangent suspension structure (7-008-001), and Structure 80 will consist of one double circuit steel pole tension on arm structure (7-008-004) (Structures 78A/B to 80 in **Figure 3-1**). These structures are located entirely on the customer-owned parcel where new right-of-way ("ROW") will be acquired from the customer to extend the line from the existing line into the new Pitney Switchyard.

- From Structure 80, the Tap Lines turn to the northeast for approximately 305 feet (0.06 mile) across a meadow area to a new monopole structure (Structure 81A) that turns the transmission lines, which extend approximately 220 feet (0.04 mile) east into the proposed Pitney Switchyard. Structure 81A will consist of one double circuit steel pole tension on arm structure (7-008-004) (Structure 81A in **Figure 3-1**). This structure will be located entirely on PPL Electric property to be acquired from the customer.
- From the Pitney Switchyard, a new 138 kV Connecting Line extends east for 240 feet (0.05 mile) to a new monopole structure (PITN-A1) that is used to turn the lines south for 140 feet (0.03 mile) to another monopole (PITN-A2) that turns the lines east for approximately 165 feet (0.03 mile) in the new customer-owned substation. Structures PITN-A1 and A2 will each consist of one double circuit steel pole tension on arm structure (7-008-004) (Structure PITN-A1 and A2 in **Figure 3-1**). These structures will be located entirely on PPL Electric property to be acquired from the customer.
- From the customer substation, another new 138 kV Connecting Line will extend west for approximately 155 feet (0.03 mile) to a new monopole structure (PITN-B1) and then an additional approximately 195 feet (0.04 mile) into the Pitney Switchyard. Structure PITN-B1 will consist of one double circuit steel pole tension on arm structure (7-008-004) (Structure PITN-B1 in **Figure 3-1**). This structure will be located entirely on PPL Electric property to be acquired from the customer.
- From the Pitney Switchyard, the new 138 kV Tap Lines will extend west for approximately 200 feet (0.04 mile) across a meadow area to a new monopole structure (Structure 81B) that turns the transmission lines, which extend approximately 135 feet (0.03 mile) northeast to a new two-pole turn structure (Structures 81C/D) that will replace the existing lattice tower (76S40) along Pitney Road. The proposed transmission line will connect to the existing transmission line at Structures 81C/D. Structure 81B will consist of one double circuit steel pole tension on arm structure (7-008-004) and Structures 81C/D will consist of one double circuit steel pole high-low tap structure (7-008-007) (Structures 81B to 81C/D in **Figure 3-1**). These structures will be located on PPL Electric property to be acquired from the customer and existing ROW.

2.0 LAND USE

PPL Electric evaluated the existing land uses on the customer-owned properties and within the existing PPL Electric ROW ("Project Area"). The Project Area was reviewed to provide a sense of the landscape in which the Project is located. Based on a review of aerial imagery, land use in the Project Area is approximately 70% developed commercial land, 10% forested, and 20% undeveloped commercial land. According to Lancaster County Land Use Codes[1], the parcel is classified as code "559," "Other Storage Warehouse and Distribution Facilities." No communication towers are located within the Project Area. The Project does not cross any railroads, but the parcel is bordered to the south by the existing Philadelphia to Harrisburg section of the AMTRAK commuter rail line. No pipelines cross the Project Area.

There are no active airports within 2 miles of the Project Area. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities. However, PPL Electric will comply with any applicable requirements of the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

Conserved Lands

The proposed Project will not affect any national parks, state parks, local parks, or natural landmarks. The nearest park, Conestoga Pines, is located directly west of Pitney Road approximately 100 feet from the Project Area. There are no Pennsylvania State Game Lands or Pennsylvania State Parks within 10 miles of the Project Area.

3.0 CULTURAL RESOURCES

An online review of the Project Area and surrounding landscape was conducted through the Pennsylvania Historical and Museum Commission ("PHMC") State Historic and Archaeological Resource Exchange site. No State Historic Preservation Office ("SHPO") eligible or listed structures or districts were found within the Project Area. Two SHPO eligible districts are located

[1] Lancaster County Land Use Code Sheet, last revised 01/11/2022.

200 feet south of the Project Area, Pennsylvania Railroad: Main Line (Philadelphia to Harrisburg) and Philadelphia & Columbia Railroad, which are the AMTRAK rail lines referenced above.

4.0 NATURAL FEATURES

Unique Natural Features

No unique geological, scenic, or natural areas are located within the Project Area, according to the Pennsylvania Department of Conservation and Natural Resources ("PADCNR").

Soils

The Project Area sits in a relatively flat area between a forested park and developed commercial land. Elevations span from 320 feet above sea level ("asl") at the northwestern corner of the parcel, up to 354 feet asl at the southeastern end of the parcel. Soils present within the Project Area consist of mainly silt loams and urban land.

Erosion and Sedimentation ("E&S") Control Plans will be developed and implemented for the Project by the customer to minimize the displacement of soils. These plans will require prior approval from the local county conservation district. A National Pollutant Discharge Elimination System for the Discharge of Stormwater Associated with Construction Activities ("NPDES") permit will also be required from the Pennsylvania Department of Environmental Protection ("PADEP"). During construction, PPL Electric will adhere to all conditions specified in the customer's NPDES permit. Impacts to local soil resources are anticipated to be minimal.

Waterways

Review of the United States Geological Survey ("USGS") mapping website indicated that the Project will not cross any mapped streams. The Project Area is located within the Lower Conestoga River watershed (USGS Hydrologic Unit Code ("HUC") 020503061107). This watershed flows southwest, draining directly into the Susquehanna River. The Conestoga River has a PADEP Chapter 93 Designated Use Stream Classification of Warm Water Fishes ("WWF") and Migratory Fishes ("MF"). There are no named streams within the Project Area and no direct impact to streams are anticipated by the Project activities.

As noted above, an E&S Control Plan will be developed to address stormwater control in all watershed areas crossed by the Project. PPL Electric will ensure all approvals and permits necessary for the construction of the Project are in place prior to beginning work and will comply with any conditions placed on those permits.

Wetlands

Based on review of the U.S. Fish and Wildlife Service's ("USFWS") National Wetlands Inventory ("NWI"), the Project will not cross any wetland areas. The NWI only provides a general overview of the potential wetlands that may be located within an area. For federal and state permitting purposes, a wetland and waterbody delineation was performed by Herbert, Roland & Grubic, Inc in October 2022, and a wetland delineation report was published on January 31, 2023. No wetlands or waterbodies were documented within the wetland delineation report or delineated within the Project Area.

100-year Floodplains

The National Flood Hazard Layer for Lancaster County, Pennsylvania was obtained through the Federal Emergency Management Agency ("FEMA") Flood Map Service Center website and analyzed for 100-year floodplains within the Project Area and surrounding landscape. Based on review of this data, the Project will not span any FEMA defined 100-year floodplains (FEMA FIRM 42071C0367F, 4/5/2016).

Vegetation

Vegetative cover in the Project Area consists of maintained ROW corridors, surrounding forested land, and maintained residential and commercial lawns. The existing ROW areas for the transmission lines have previously been cleared of woody vegetation. PPL Electric will apply its vegetation management program as defined in its manual, "Specifications for Transmission Vegetation Management LA-79827," to minimize potential impacts.

5.0 THREATENED AND ENDANGERED SPECIES

Natural Areas Inventory

Based on review of the Pennsylvania Conservation Explorer, there is a Natural Heritage Area Core Habitat, Danville Pike Cave, Williamson Park, Kiwanis Park Woods, located 1.30 miles southwest of the Project Area along the Conestoga River. The natural area provides unique habitat conditions that support a variety of plant and animal species of concern.

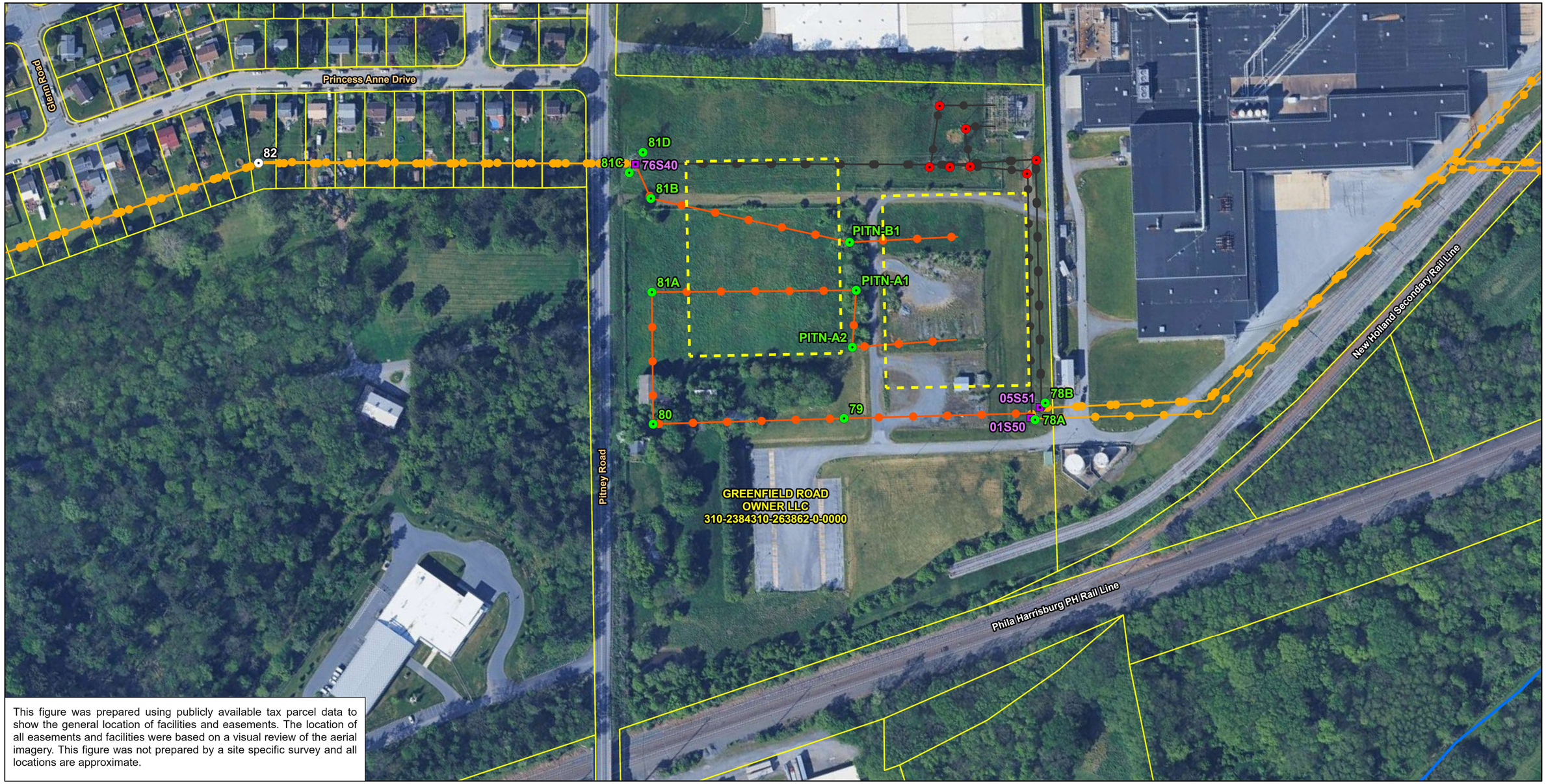
Threatened and Endangered Species

A Pennsylvania Natural Diversity Inventory ("PNDI") was completed for the Project on February 12, 2025, to assess the potential presence of threatened and endangered species and/or special concern species (PNDI #833072). Specific agencies reviewing the Project included the following:

- Pennsylvania Game Commission ("PGC");
- Pennsylvania Fish and Boat Commission ("PFBC");
- PADCNR; and
- USFWS.

No threatened and endangered species or special concern species were identified as being in or near the Project Area.

Figure 3-1: Aerial Map of the Project



This figure was prepared using publicly available tax parcel data to show the general location of facilities and easements. The location of all easements and facilities were based on a visual review of the aerial imagery. This figure was not prepared by a site specific survey and all locations are approximate.

Legend

- Existing Structure To Be Replaced
- Existing Structure To Remain
- Proposed Structure
- Existing Structure To Be Removed
- Proposed Substation Fence Line
- Proposed Transmission Line
- Existing Transmission 138kV Line to Remain
- Existing Transmission 138kV Line to be Removed
- Parcel Boundary

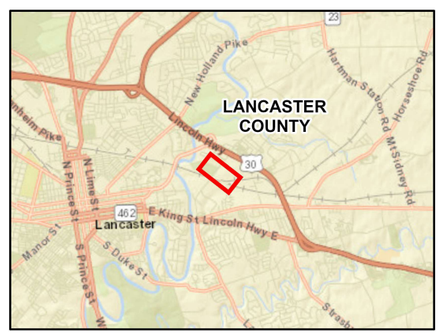
Notes:

1.Existing and Proposed Structures provided by PPL EU in April 2025.

NAD 1983 StatePlane Pennsylvania South
FIPS 3702 (US Feet)
Projection: Lambert Conformal Conic
Linear Unit: US Foot

References:
Google Maps Imagery (2025)

0 200 400
Feet



PPL Electric Utilities

AECOM

FIGURE 3-1

PITNEY 138KV SWITCHYARD PROJECT

Lancaster County, Pennsylvania

Prepared By: GIB	Checked By: RB
Job: 60757219	Date: 6/11/2025

Attachment 4

PITNEY 138 kV SWITCHYARD PROJECT

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1.0 DESIGN CONSIDERATIONS

PPL Electric Utilities' ("PPL Electric") new and rebuilt transmission lines are designed according to, and generally exceed, all National Electric Safety Code ("NESC") minimum standards. The NESC is a set of rules guiding safety standards during the installation, operation, and maintenance of electric power lines. The NESC contains the basic provisions considered necessary for the safety of employees and the public. Although it is not intended as a design specification, its provisions establish minimum design requirements. PPL Electric has developed design specifications and safety rules which meet or surpass all requirements specified by the NESC.

The NESC includes loading requirements and clearances for the design, construction, and operation of power lines. The "loads" on conductors and supporting structures are the mechanical forces that develop from the weight of the conductors, the weight of ice on the conductors, plus wind pressure on the conductors and supporting structures. Loading requirements are the loads on the conductors and structures that are anticipated assuming certain ice and wind conditions. Loading requirements always contain "safety factors" to allow for unknown or unanticipated contingencies. The clearances and loading requirements contained in the NESC are designed to maintain public safety.

The NESC specifies strength and loading rules based on three different "grades of construction" for conductors and supporting structures:

- Grade B – This grade of construction provides the highest margin of safety and is required when the pole supports spans that cross limited access highways, railroads, and waterways.
- Grade C – This grade of construction is most common and provides a basic margin of safety. It is often utilized for the typical power and joint-use distribution pole.
- Grade N – This is the lowest grade of construction and is most often used for emergency and temporary construction.

PPL Electric designs all its transmission lines for Grade B construction. The use of Grade B design and construction translates to higher levels of structural reliability and safety to withstand the environmental conditions of ice and/or wind loading.

PPL Electric's rigorous design standards are further incorporated into the parameters utilized to account for ice and wind loadings on the wires and structure. Structure loading and line designs

must accommodate a variety of operating conditions as different ice and wind combinations that can impact the conductor sags and tensions of the line. PPL Electric's transmission lines are designed to exceed NESC requirements by accounting for additional load cases due to various ice and wind loading conditions beyond what is required by NESC. This means that PPL Electric lines are designed to operate safely and reliably during extreme inclement weather. In addition, PPL Electric design standards include a clearance to ground buffer in excess of NESC required clearances to account for construction and design tolerances and the filling or grading of land within the right-of-way by property owners. This buffer also significantly reduces the risk of a property owner inadvertently contacting a transmission line. This has occurred on PPL Electric's system in the past and higher clearances minimize the likelihood of future occurrences.

TABLE 4-1: 69 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	19.2 Ft.	22.2 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	19.2 Ft.	22.2 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	15.2 Ft.	22.2 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	27.2 Ft.	30.2 Ft.

TABLE 4-2: 138 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	20.6 Ft.	23.6 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	20.6 Ft.	23.6 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	16.6 Ft.	23.6 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	28.6 Ft.	31.6 Ft.

TABLE 4-3: 230 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	22.5 Ft.	25.5 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	22.5 Ft.	25.5 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	18.5 Ft.	25.5 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	30.5 Ft.	33.5 Ft.

TABLE 4-4: 500 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	28.4 Ft.	31.4 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	28.4 Ft.	31.4 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	24.4 Ft.	31.4 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	36.4 Ft.	39.4 Ft.

A relay protection system is also used on PPL Electric's transmission lines to protect public safety, as well as the equipment on the transmission system. The purpose of relay protection is to automatically de-energize the line in the unlikely event that the line or supporting structure fails and the line contacts the ground.

2.0 PERIODIC MAINTENANCE PROGRAM ON ALL TRANSMISSION LINES

To ensure continued public safety and integrity of service, a periodic maintenance and inspection program is implemented for every transmission line. The program is administered using helicopter patrols, with supplemental foot patrols as needed. Helicopter patrols are performed on all lines on a predetermined frequency, depending on voltage level. The two-man helicopter crew flies parallel

to and above the line so that the observer can look for signs of line damage or deterioration and observe clearances between vegetation and conductors. The observations are included in a report that is forwarded to the appropriate department for corrective action.

3.0 PERSONNEL SAFETY RULES

Overall, PPL Electric designs and constructs projects with high regard to both public and employee safety and follows or exceeds all codes and requirements. The following are a few examples of PPL Electric's safety rules that demonstrate its dedication to employee and contractor safety:

- Procedures have been developed to allow work to be performed on energized facilities in a safe manner. When lines or apparatus are removed from service to be worked on, the Energy Control Process system is applied. This system provides that a red tag must be physically placed on the control handle of the de-energized equipment.
- The red tag may be removed only after proper authorization to energize the equipment has been received.
- Various other tags are used for limited operations and informational purposes.
- Employees or contractors will not apply or remove a tag or change the status of tagged equipment unless authorized.
- Temporary safety grounds are used on de-energized facilities for employee lineman safety during maintenance, construction, or reconstruction work. Safety grounds are wires connecting the de-energized facility to an electrical ground. If the facility should be energized, the safety grounds will divert the current directly to ground and reduce the likelihood of personal injury.
- Before applying grounds, a voltage test is performed to confirm that the line is de-energized. The voltage test device is checked before and after use to assure reliability.
- Poles or structures are inspected and examined for structural integrity before climbing. If there is any reason to believe that a pole is unsafe, it is stabilized before work is performed. Appropriate safety gear in the form of body belts, safety straps, hard hats, gloves, etc., is worn by linemen during line work activity.

4.0 MAGNETIC FIELD MANAGEMENT PLAN

PPL Electric's Magnetic Field Management Program is applied to new and reconstructed transmission line projects. Although there is no current scientific evidence demonstrating that magnetic fields cause any adverse health effects or pose a health or safety threat to the public, PPL Electric has established a policy to design its new and rebuilt transmission lines to reduce magnetic fields. To lower magnetic field exposures, the program generally prescribes the use of a line design that provides ground clearances higher than the required minimum NESC ground clearance and reverse phasing of new double circuit lines where it is feasible to do so at low or no cost. The implementation of additional modifications to reduce magnetic field levels is considered, provided those modifications can be made at low or no cost and will not interfere with the operation of the line.

The Company's Magnetic Field Management Program will be applied to this Project and the Project will be designed with clearances that are at least three feet higher than NESC standards.

Attachment 5

PITNEY 138 kV SWITCHYARD PROJECT

STATE AGENCIES

Pennsylvania Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, Pennsylvania 17120
Attn: Allison Kaster

Pennsylvania Department of Environmental Protection
400 Market Street
10th Floor Rachel Carson State Office Building
Harrisburg, Pennsylvania 17101
Attn: Regional Permit Coordination Office

Pennsylvania Department of Environmental Protection
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110
Attn: Waterways Engineering and Wetlands Department

Pennsylvania Department of Transportation
Keystone Building
400 North Street, Ninth Floor
Harrisburg, Pennsylvania 17120
Attn: Jeffrey Spotts, Chief Counsel

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093
Attn: Ms. Emma Diehl, Division Manager

Pennsylvania Department of Conservation and Natural Resources
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105-8767
Attn: Rebecca Bowen, Ecological Services Section Chief

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
Attn: David Gustafson, Director, Bureau of Wildlife Habitat Management

Pennsylvania Fish and Boat Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620
Attn: Christopher A. Urban, Chief, Natural Diversity Section

Pennsylvania Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, Pennsylvania 17101-1923
Attn: Darryl A. Lawrence, Consumer Advocate

Pennsylvania Office of Small Business Advocate
555 Walnut Street
1st Floor Forum Place
Harrisburg, Pennsylvania 17101
Attn: Steven C. Gray, Senior Supervising Assistant Small Business Advocate

FEDERAL AGENCIES

United States Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
Baltimore, Maryland 21201
Attn: Public Affairs Office

United States Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801
Attn: Lesa Lindsay

COUNTY AGENCIES

Lancaster County Conservation District
1383 Arcadia Road, Room 200
Lancaster, Pennsylvania 17601
Attn: Christopher Thompson, District Manager

Lancaster County Planning Commission
150 North Queen Street
Lancaster, Pennsylvania 17603
Attn: William Clark, Interim Executive Director

MUNICIPALITIES

East Lampeter Township
2250 Old Philadelphia Pike
Lancaster, Pennsylvania 17602
Attn: Ethan Demme, Chairman

LANDOWNERS

Greenfield Road Owner LLC
11 W Forty Second Street
Twenty Fourth Floor
New York, New York 10036

VERIFICATION

I, JOSEPH B. LOOKUP, being the Vice President – Transmission & Distribution Planning and Asset Management at PPL Services 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: May 1, 2026

Joseph B. Lookup