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File #: 140066

April 19, 2018

VIA HAND DELIVERY

Rosemary Chiavetta, 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 Rebuild Approximately 6.4 Miles of Existing Double-Circuit 138 kV Transmission Line between the Gilbert 138-12 kV Substation and the Little Gap 69 kV Transmission Tap Located in Polk Township and Eldred Township, Monroe County, Pennsylvania
Docket No. A-2018-

Dear Secretary Chiavetta:

Enclosed for filing is the Letter of Notification of PPL Electric Utilities Corporation in the above-referenced proceeding. A CD containing a copy of the Letter of Notification and Attachments in Support of the Letter of Notification is also enclosed.

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.

Subject to Commission approval, construction is scheduled to begin in July 2018, to support an in-service date of July 2019.

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

Respectfully submitted,

Lindsay A. Berkstresser

LAB/jl
Enclosures

cc: Certificate of Service
Office of Consumer Advocate
Office of Small Business Advocate
Bureau of Investigation & Enforcement
Robert F. Young
Paul T. Diskin
Yasmin Snowberger
Kimberly Hafner

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 Rebuild Approximately 6.4 Miles of Existing Double-Circuit 138 kV Transmission Line between the Gilbert 138-12 kV Substation and the Little Gap 69 kV Transmission Tap located in Polk Township and Eldred Township, Monroe County	:	Docket No. A-2018-_____

RECEIVED

APR 19 2018

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation ("PPL Electric") hereby files, pursuant to 52 Pa. Code § 57.72(d), this Letter of Notification to request approval from the Pennsylvania Public Utility Commission ("Commission") to rebuild an approximately 6.4-mile-long section of existing double-circuit 138 kV transmission line between a structure located just south of the PPL Electric Gilbert 138-12 kV Substation located in Polk Township, Monroe County and a structure located at the junction with the de-energized Little Gap 69 kV Transmission Tap to the PPL Electric Little Gap 69/12 kV Substation located in Eldred Township, Monroe County ("Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line" or the "Project").

The proposed Project is needed to provide safe and reliable service into the future. As explained herein, the existing transmission structures have reached an age and condition that the facilities must be replaced. The Project is part of PPL Electric's Asset Optimization Strategy and involves rebuilding the lines to meet all current design and lightning protection

standards. The modernization of the line will help ensure reasonably continuous and reliable service to customers located in Monroe County.

This Letter of Notification is being filed pursuant to 57.72(d)(1)(i) because the proposed Project will be built entirely within the existing right-of-way. Subject to the Commission's approval, construction of this Project is scheduled to begin in July 2018 to support an in-service date of July 2019. In support thereof, PPL Electric states as follows:

I. INTRODUCTION

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

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

3. PPL Electric's attorneys are:

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

4. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central

Pennsylvania. PPL Electric is a "public utility" and an "electric distribution company" as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa.C.S. §§ 102, 2803.

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

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

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

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

II. THE PROJECT

A. NEED FOR THE PROJECT

8. PPL Electric has adopted an Asset Optimization Strategy to modernize existing facilities across PPL Electric's transmission system. The Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line Project is being initiated pursuant to PPL Electric's Asset Optimization Strategy. Specifically, the proposed Project is necessary to replace facilities that have reached the end of their useful life and to meet PPL Electric Transmission System Development Standards.

9. The double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line extends approximately 25 miles between the Siegfried 230/138/69 kV Substation located in Whitehall Township, Northampton County and the Jackson 138/69 kV Substation located in Jackson Township, Monroe County. The entire double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line serves five 138/12 kV distribution substations: Blue Mountain, Gilbert, Effort Mountain, McMichaels and Appenzell, as shown in Figure 1-1. These five 138/12 kV distribution substations serve a significant number of customers in Monroe County.

10. The double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line is a segment of the Siegfried – Jackson #1 and #2 138 kV Transmission Line that extends approximately 6.4 miles from the third structure south of Gilbert 138/12 kV Substation to its junction with the de-energized Little Gap 69 kV Transmission Tap. This portion of the transmission line primarily consists of 70 wood poles constructed around 1974 and 13 steel structures.

11. As part of its Asset Optimization Strategy, PPL Electric has analyzed the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line and concluded that 8 of the 13 steel structures have reached the end of their reliable service life. PPL Electric has also determined that 8 of the 13 steel structures need to be replaced in order to avoid engineering issues such as uplift[1] or the need to install additional mid-span poles, where no presently exist today, due to differences in structure height.

12. In addition, the majority of the wood poles on the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line have reached the end of their reliable service life. These wood poles are "cellon treated." Since the installation of cellon treated wood poles in the

[1] Uplift occurs when an adjacent pole is higher causing a force in the upward direction on either the pole or the conductor assemblies.

1970s, it has been discovered that cellon treated wood poles are susceptible to advanced aging through internal wood rot, insect infestation, and ultimately pole failure. As better alternatives emerged, cellon treated wood poles were discontinued in the 1980s. The service life of cellon treated wood poles is approximately 35 years.

B. THE PROPOSED PROJECT

13. To resolve these issues with the aging facilities identified above, PPL Electric proposes to rebuild the 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line. The new line will be designed and rebuilt for double-circuit 138 kV operation.

14. The 70 wood poles will be replaced with new steel monopoles. A new dual optical ground wire (OPGW) will be installed along the 6.4-mile segment to provide lightning protection for the transmission lines and provide a communication path between the Gilbert 138-12 kV and Little Gap 69-12 kV Substations. PPL Electric does not intend to replace the conductors on the Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line except in sections where it is deemed more cost effective to replace both the conductors and tower structures rather than to just replace the structures. An engineering description of the rebuilt line is provided in Attachment 2.

15. The proposed rebuild of the 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will bring the line into compliance with current design standards, including increased vertical ground clearance, increased phase spacing for galloping[2] loop consideration, and installation of steel monopole structures for optimal structure longevity. The Project will also increase the lightning protection of the transmission line to reduce the

[2] Galloping is a wind-induced oscillation of the wires which could potentially cause the wires to come into contact or flashover causing an outage. The consequences of galloping are mitigated by providing adequate wire-to-wire and wire-to-object clearances.

frequency of momentary outages experienced by customers. Additionally, as a part of the Project, PPL Electric will be installing load break air break switches that will allow for sectionalizing of the transmission system to restore service to customers in instances of sustained outages or maintenance scenarios.

16. The improvements that will be implemented as part of the proposed Project are necessary to enable PPL Electric to continue to provide reliable service now and into the future.

17. The total estimated cost to design and construct the Project is $5.9 million[3].

III. HEALTH AND SAFETY

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

19. 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. Consistent with PPL Electric's Magnetic Field Management Program, the Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will exceed the NESC standards for ground clearance.

20. The Project will conform to PPL Electric's design criteria, construction standards, and safety practices, which are provided in Attachment 4.

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

[3] The estimated cost for the proposed Project is an order-of-magnitude estimate developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The estimated cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses. The entire cost for this transmission line Project will be paid by PPL Electric. The costs and cost recovery of this transmission line Project are subject to the regulatory jurisdiction of the Federal Energy Regulatory Commission.

22. The closest airport is the Pegasus Airport, which is located approximately 5 miles northeast of the Project. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities, and the new facilities will be similar heights as the existing facilities. However, PPL Electric will file any required documentation with both the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

IV. DESCRIPTION OF THE PROJECT AREA

23. As shown on Figure 3-1, the Jackson – Gilbert #1 and #2 138 kV Transmission Line traverses through a mix of forested, residential, and agricultural areas. The route ends at the junction with the de-energized Little Gap 69 kV Transmission Tap. The existing right-of-way varies between 50 and 100 feet in width, generally 50 feet through agricultural and residential areas and 100 feet through forested areas.

24. PPL Electric determined that no additional right-of-way is required for the proposed rebuild of the double-circuit Jackson – Gilbert #1 and #2 138 kV Transmission Line. Therefore, the proposed Project will be rebuilt entirely within the existing right-of-way.

25. The existing right-of-way is currently maintained in accordance with PPL Electric's Vegetation Management Program. Limited tree clearing within the right-of-way is anticipated as part of this Project. In areas where vegetation management is required, PPL Electric will apply its "Specifications for Initial Clearing and Control of Vegetation On or Adjacent to Electric Line Right-of-Way Through Use of Herbicides, Mechanical and Hand Clearing Techniques" to minimize any potential impacts.

26. The existing outdated structures range from approximately 45 to 105 feet in height, with an average structure height of 85 feet. The new structures for the rebuilt Gilbert –

Little Gilbert Tap #1 and #2 138 kV Transmission Line will have an average height of approximately 95 feet. Although the new structures will increase in height as compared to the existing outdated structures, impacts are anticipated to be minimal because average structure height is only increasing by approximately 10 feet and all new structures are anticipated to be placed within approximately 10 feet of the existing structures. No structures will be placed on a property that does not already have an existing pole.

27. There are two National Register of Historic Places ("NRHP")-eligible historic architectural resources and one NRHP-eligible historic district located within 1 mile of the Project. No previously recorded archaeological resources are crossed by the Project. PPL Electric submitted a request for review of the proposed Project to the State Historic Preservation Office (SHPO). The SHPO responded that the Project as proposed will have no effect on historic properties, should they exist, provided that the replacement poles remain the same heights. PPL Electric will continue to consult with the SHPO during final design to ensure no impacts to cultural resources occur.

28. The Project crosses approximately 0.2 mile of Pennsylvania State Game Land 168 in Eldred Township, Monroe County. The existing transmission line traverses through the northwestern portion of the Game Land within the existing, cleared right-of-way. Therefore, no impacts are anticipated. No other recreational areas or natural landmarks are located within 1 mile of the Project.

29. The Project will traverse approximately 0.8 mile of one Important Bird Area (IBA). The Hawk Mountain and Kittatinny Ridge IBA is located within the southern boundary of the Project. No impacts to this IBA are anticipated because the Project will be constructed within the existing, cleared right-of-way.

30. The Project crosses one Natural Area Inventory (NAI) area, the Blue Mountain at Delps. No other NAI areas are located in close proximity to the existing right-of-way. The Project is not expected to impact the Blue Mountain at Delps NAI because the Project will be rebuilt structure for structure within the existing, cleared right-of-way. The Project will not traverse or affect any other unique geological, scenic or natural areas.

31. The proposed Project will span seven wetlands and four streams. However, it is anticipated the Project will have no impacts on streams or wetlands because the entire Project will be built within the existing right-of-way, and the new tower structures will be located to avoid impacts to wetland and streams. PPL Electric will obtain all necessary permits from the Pennsylvania Department of Environmental Protection and the United States Army Corps of Engineers and will comply with all of the terms and conditions placed on those permits. PPL Electric also will prepare any required soil erosion and sedimentation control plans and obtain National Pollutant Discharge Elimination System (NPDES) permits as required and will comply with any conditions placed on those permits.

32. The Pennsylvania Game Commission (PGC), Pennsylvania Department of Conservation and Natural Resources (DCNR), and Pennsylvania Fish and Boat (PFBC) reported that the Project will not impact any threatened and endangered species, or special concern species and resources located within the Project area.

33. The United States Fish and Wildlife Service (USFWS) indicated that the Project is located within range of the federally threatened bog turtle (*Clemmys muhlenbergii*). PPL Electric retained a qualified bog turtle surveyor to conduct Phase 1 bog turtle habitat assessment. Based on the Phase 1 bog turtle habitat assessment, evidence of suitable bog turtle habitat was identified within three delineated wetlands. Between May and June 2017, a Phase 2/3 habitat

assessment was conducted. No evidence of bog turtles were found during the Phase 2/3 assessment. Therefore, on August 23, 2017, the USFWS concluded that the Project will have no effect on the bog turtle.

34. For the reasons stated herein, the proposed Project will not substantially alter the existing right-of-way. Impacts to land use are anticipated to be minimal because the Project will be constructed within the existing right-of-way and no additional right-of-way will be required to complete the Project. PPL Electric will use and update previously established access roads for construction to the extent practical to further reduce interference with existing uses and minimize land use impacts.

V. NOTICE

35. PPL Electric has provided information regarding the Project to representatives of Monroe County, Polk Township and Eldred Township. These entities have not objected to the proposed Project.

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

VI. LETTER OF NOTIFICATION

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

38. Section 57.72(d)(1)(i) permits a Letter of Notification for a high voltage transmission line which is proposed to be located entirely on an existing transmission line right-of-way, so long as the size, character design or configuration of the proposed high voltage line does not substantially alter the right-of-way. As explained above, the Gilbert – Little Gap Tap

#1 and #2 138 kV Transmission Line will be located entirely within the existing right-of-way and will not substantially alter the existing right-of-way.

39. 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.*

VII. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests Pennsylvania Public Utility Commission approval for the siting and rebuild of approximately 6.4 miles of Existing Double-Circuit 138 kV Transmission Line between the Gilbert 138-12 kV Substation and the Little Gap 69 kV Transmission Tap located in Polk Township and Eldred Township, Monroe County.

Respectfully submitted,

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Date: April 19, 2018

Attorneys for PPL Electric Utilities Corporation

ATTACHMENT 1
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
NECESSITY STATEMENT

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ATTACHMENT 1
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
NECESSITY STATEMENT

A. INTRODUCTION

PPL Electric Utilities Corporation ("PPL Electric") proposes to rebuild an approximately 6.4-mile-long section of existing double-circuit 138 kV transmission line between a structure located just south of the PPL Electric Gilbert 138-12 kV Substation located in Polk Township, Monroe County and a structure located at the junction with the de-energized Little Gap 69 kV Transmission Tap to the PPL Electric Little Gap 69/12 kV Substation located in Eldred Township, Monroe County ("Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line" or the "Project").[1] As explained below, the existing transmission structures have reached an age and condition that the facilities must be replaced in order to continue to provide safe and reliable service into the future. The Project is part of PPL Electric's Asset Optimization Strategy, and involves rebuilding the lines to meet all current design and lightning protection standards. The modernization of the line will help ensure reasonably continuous and reliable service to customers located in Monroe County.

The rebuilt Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will be located entirely within Polk and Eldred Townships in Monroe County, Pennsylvania. The estimated cost to design and construct the Project is approximately $5.9 million[2]. Subject to the Pennsylvania Public Utility Commission's ("Commission") approval, the Project has a scheduled construction

[1] As explained below, the proposed Project will rebuild a section of the double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line between a structure located just south of the Gilbert 138-12 kV Substation and a tap point along the de-energized Little Gap 69 kV Transmission Tap. For purposes of this filing, this segment will be referred to as the "Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line."

[2] The estimated cost for the proposed Project is an order-of-magnitude estimate developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The estimated cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses. The entire cost for this transmission line Project will be paid by PPL Electric. The costs and cost recovery of this transmission line Project is subject to the regulatory jurisdiction of the Federal Energy Regulatory Commission.

start date of July 2, 2018 to meet an in-service date of July 2019. PPL Electric will own, operate and maintain the Gilbert – Little Gap Tap #1 and #2 138 Transmission Line. The cost for this Project will be paid by PPL Electric.

B. TRANSMISSION SYSTEM PLANNING PROCESS

The nation's interconnected 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. It is critically important that this interconnected transmission system (transmission grid) be planned and designed to be highly reliable so that reliable electric service can be provided under peak and all loading conditions and when certain elements of the system are out of service (system contingencies) due to planned or unplanned outages.

System Planning is the process that assures that the transmission system can supply electricity to all customer loads in a manner that is reliable and economical. This System Planning process assures that both the Bulk Electric System (BES)[3] and non-Bulk Electric System (non-BES)[4] are planned and constructed so that:

- They are able to accommodate forecasted system flows during summer and winter peak load;
- They can adequately serve each customer's need with regard to capacity, voltage and reliability for all load levels throughout the daily load cycle;
- They can sustain probable contingencies and disturbances with minimal customer service interruptions; and
- They are in conformance with North American Electric Reliability Corporation (NERC), PJM Interconnection, LLC ("PJM"), and the Transmission Owner's reliability criteria for all normal and emergency operating conditions.

[3] Bulk Electric System (BES) – Includes transmission facilities operated at voltages of 100 kV or higher.
[4] Non-Bulk Electrical System (non-BES) – Includes transmission facilities operated at voltages less than 100 kV.

PJM is a 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 most of Pennsylvania. In order to ensure reliable transmission service, PJM prepares an annual Regional Transmission Expansion Plan (RTEP)[5] to identify system reinforcements that are required to, among other things, meet the NERC Reliability Standards, PJM reliability planning criteria, and Transmission Owner reliability criteria.

PJM conducts RTEP studies in conjunction with its Transmission Owners and applies NERC, regional, and Transmission Owner reliability criteria to specific conditions on the transmission system. PJM's RTEP is an annual process that encompasses a comprehensive series of detailed analyses to ensure power continues to flow reliably to customers under stringent reliability criteria set by NERC. PJM's manual 14B[6] outlines the RTEP process and reliability criteria used for this process. As mentioned in manual 14B, every year PJM performs various reliability tests such as Baseline Thermal, Baseline Voltage, Load Deliverability, Generation Deliverability and Baseline Stability to ensure safe, reliable operation of the electric grid.

When the studies show an inability of the transmission system to meet specific reliability criteria under these conditions, PJM opens an RTEP Window in accordance with FERC Order 1000[7] to solicit bids and approve optimal solutions to resolve the criteria violation.

PPL Electric, as a Transmission Owner and member of PJM, undertakes an independent analysis of both its BES transmission facilities and its non-BES transmission facilities in concert with the PJM RTEP process. PPL Electric identifies all conditions where the future system does not meet

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[5] PJM's RTEP process is currently set forth in Schedule 6 of PJM's Amended and Restated Operating Agreement ("Schedule 6"). Schedule 6 governs the process by which PJM's members rely on PJM to prepare an annual regional plan for the enhancement and expansion of the transmission facilities to ensure long-term, reliable electric service consistent with established reliability criteria. In addition, Schedule 6 addresses the procedures used to develop the RTEP, the review and approval process for the RTEP, the obligation of transmission owners to build transmission upgrades included in the RTEP, and the process by which interregional transmission upgrades will be developed.

[6] PJM Manual 14B is available at http://www.pjm.com/~/media/documents/manuals/m14b.ashx

[7] http://www.ferc.gov/industries/electric/indus-act/trans-plan.asp

the NERC criteria, PJM reliability criteria, or PPL Electric Transmission Owner criteria. In this way, PPL Electric actively participates in the PJM RTEP process, and through this participation PPL Electric provides results of its independent studies to PJM for consideration and inclusion in the PJM RTEP.

Alternatives that can mitigate violations to the reliability criteria are developed and analyzed to ensure that the PPL Electric transmission system meets the reliability criteria. Estimated costs and lead times to implement the reinforcements are prepared. PPL Electric then proposes solutions to PJM through an RTEP window. If the project is awarded to PPL Electric, it then becomes a baseline RTEP project.

PPL Electric's Transmission Owner 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. These criteria ensure adequate and appropriate levels of electric service to PPL Electric customers in accordance with good utility practices. In addition to these criteria, PPL Electric plans the system according to its own Transmission System Development Standards.

In addition to NERC, PJM, and Transmission Owner criteria-based projects, PPL Electric also initiates projects based on the Transmission System Development Standards. These projects address local load growth, provide load restoration flexibility, and replace poor performing transmission assets in order to provide an advanced level of reliability on the local system.

PPL Electric has developed an Asset Optimization Strategy that is incorporated into the Transmission System Development Standards. A significant portion of the system infrastructure is either approaching the end of or has exceeded its expected or useful life. The Asset Optimization Strategy was developed to systematically identify and modernize these aging facilities. The measures used to identify and prioritize the equipment and lines that qualify for this work include, but are not limited to: age, condition, operational issues, maintainability of the equipment, criticality of the equipment or line, line loading, and circuit performance. Once

equipment has been identified and assessed under the above measures, it will be put into the Capital Budget for replacement under the Asset Optimization Strategy.

As explained below, the proposed Project is necessary to replace facilities that have reached the end of their useful life and to meet PPL Electric Transmission System Development Standards.

C. EXISTING SYSTEM

The double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line extends approximately 25 miles between the Siegfried 230/138/69 kV Substation located in Whitehall Township, Northampton County and the Jackson 138/69 kV Substation located in Jackson Township, Monroe County.

The double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line is a segment of the Siegfried – Jackson #1 and #2 138 kV Transmission Line that extends approximately 6.4 miles from the third structure south of Gilbert 138/12 kV Substation to its junction with the de-energized Little Gap 69 kV Transmission Tap. This portion of the transmission line primarily consists of 70 wood poles constructed around 1974 and 13 steel structures.

From the Little Gap 69 kV Transmission Tap, the Siegfried – Jackson #1 and #2 138 kV Transmission Line continues approximately 2.1 miles to the Blue Mountain 138/12 kV Substation located in Moore Township, Northampton County. The final 6.6 miles of the Siegfried – Jackson #1 and #2 138 kV Transmission Line extends between the Blue Mountain 138/12 kV Substation and the Siegfried 230/138/69 kV Substation located in Whitehall Township, Northampton County.

The entire double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line serves five 138/12 kV distribution substations: Blue Mountain, Gilbert, Effort Mountain, McMichaels and Appenzell, as shown in Figure 1-1. These five 138/12 kV distribution substations serve a significant number of customers in Monroe County.

A one-line diagram and map of the existing system are shown in Figures 1-1 and 1-2, respectively.

D. DEFINITION OF THE PROBLEM

PPL Electric has adopted an Asset Optimization Strategy to address and modernize deteriorated existing facilities across PPL Electric's transmission system. PPL Electric has analyzed the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line and concluded that the 70 wood poles and 8 of the 13 steel structures have reached the end of their reliable service life.

The majority of the wood poles on the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line were identified as having a cellon material treatment.[8] At the time of installation, cellon treated wood poles were believed to be an economic technology and were thought to have the same life expectancy as wood poles with alternative treatments. Since the installation of the cellon treated wood poles, wood pole manufacturers have determined that cellon treated wood poles do not last as long as wood poles with alternative treatments. Cellon treated wood poles have been found to have insufficient penetration of wood preservatives. Over time as the wood ages and splits, the poles become susceptible to advanced aging through internal wood rot, insect infestation, and ultimately pole failure. As a result of the short service life, cellon treated wood poles were discontinued in the 1980s, and manufacturers recommend the replacement of all cellon treated wood poles that are at or near the end of their service life, which is approximately 35 years. As explained above, the cellon treated wood poles on the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line were installed around 1974 and, therefore, have reached the end of their reliable service life.

[8] Cellon treated wood poles are pressure-impregnated with a wood preservative, such as pentachlorophenol (penta), through a process commonly known as the cellon process.

Additionally, PPL Electric has determined that 8 of the 13 steel structures need to be replaced in order to avoid engineering issues such as uplift[9] or the need to install additional mid-span poles, where no presently exist today, due to differences in structure height.

Lastly, the Siegfried – Jackson #1 and #2 138 kV Transmission Line, including the segment referenced in this filing as the double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line, is ranked in the top 5 percent of PPL Electric's worst performing circuit list.[10]

E. PROPOSED SOLUTION

PPL Electric proposes to rebuild the 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line. The new line will be designed and rebuilt for double-circuit 138 kV operation.

The 70 wood poles will be replaced with new steel monopoles. A new dual optical ground wire (OPGW) will be installed along the 6.4-mile segment to provide lightning protection for the transmission lines and provide a communication path between the Gilbert 138-12 kV and Little Gap 69-12 kV Substations. PPL Electric does not intend to replace the conductors on the Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line except in sections where it is deemed more cost effective to replace both the conductors and tower structures rather than to just replace the structures. An engineering description of the rebuilt line is provided in Attachment 2.

A one-line diagram and a map of the proposed system are shown in Figures 1-3 and 1-4, respectively.

---

[9] Uplift occurs when an adjacent pole is higher causing a force in the upward direction on either the pole or the conductor assemblies.

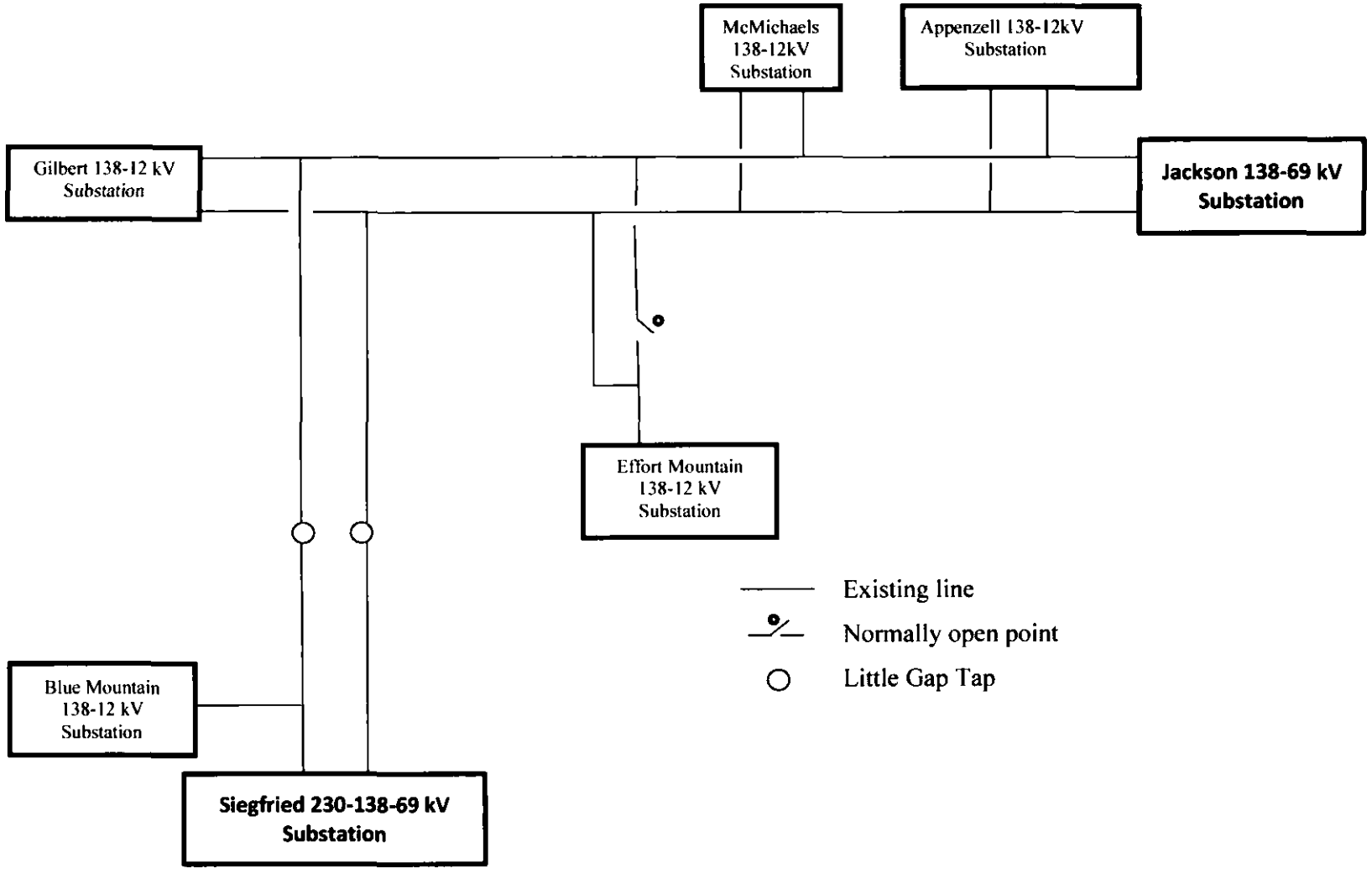
[10] PPL Electric is continuing to evaluate and determine whether improvements to other segments of the Siegfried – Jackson #1 and #2 138 kV Transmission Line are needed. Upon completion of its analysis and engineering studies, PPL Electric will, if needed, submit appropriate filings for Commission approval of any such improvements.

The proposed rebuild of the 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will bring the line into compliance with current design standards, including increased vertical ground clearance, increased phase spacing for galloping[11] loop consideration, and installation of steel monopole structures for optimal structure longevity. The Project will also increase the lightning protection of the transmission line to reduce the frequency of momentary outages experienced by customers. Additionally, as a part of the Project, PPL Electric will be installing load break air break switches that will allow for sectionalizing of the transmission system to restore service to customers in instances of sustained outages or maintenance scenarios.

For all of the foregoing reasons, this Project is necessary to enable PPL Electric to continue to provide reliable service now and into the future and, therefore, the Company requests Commission approval to complete this Project.

[11] Galloping is a wind-induced oscillation of the wires which could potentially cause the wires to come into contact or flashover causing an outage. The consequences of galloping are mitigated by providing adequate wire-to-wire and wire-to-object clearances.

Figure 1-1. One-Line Diagram of Existing Transmission Facilities



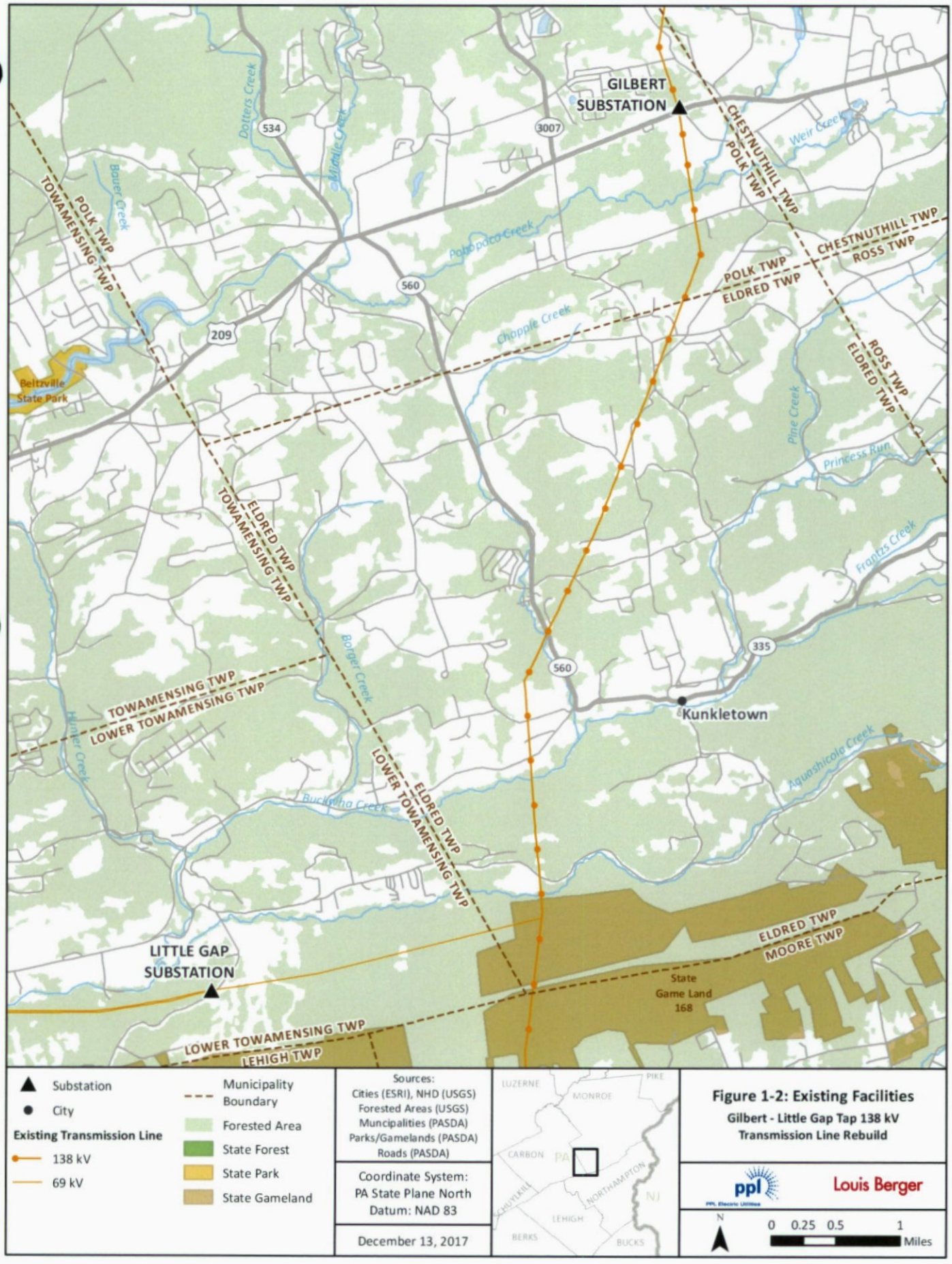
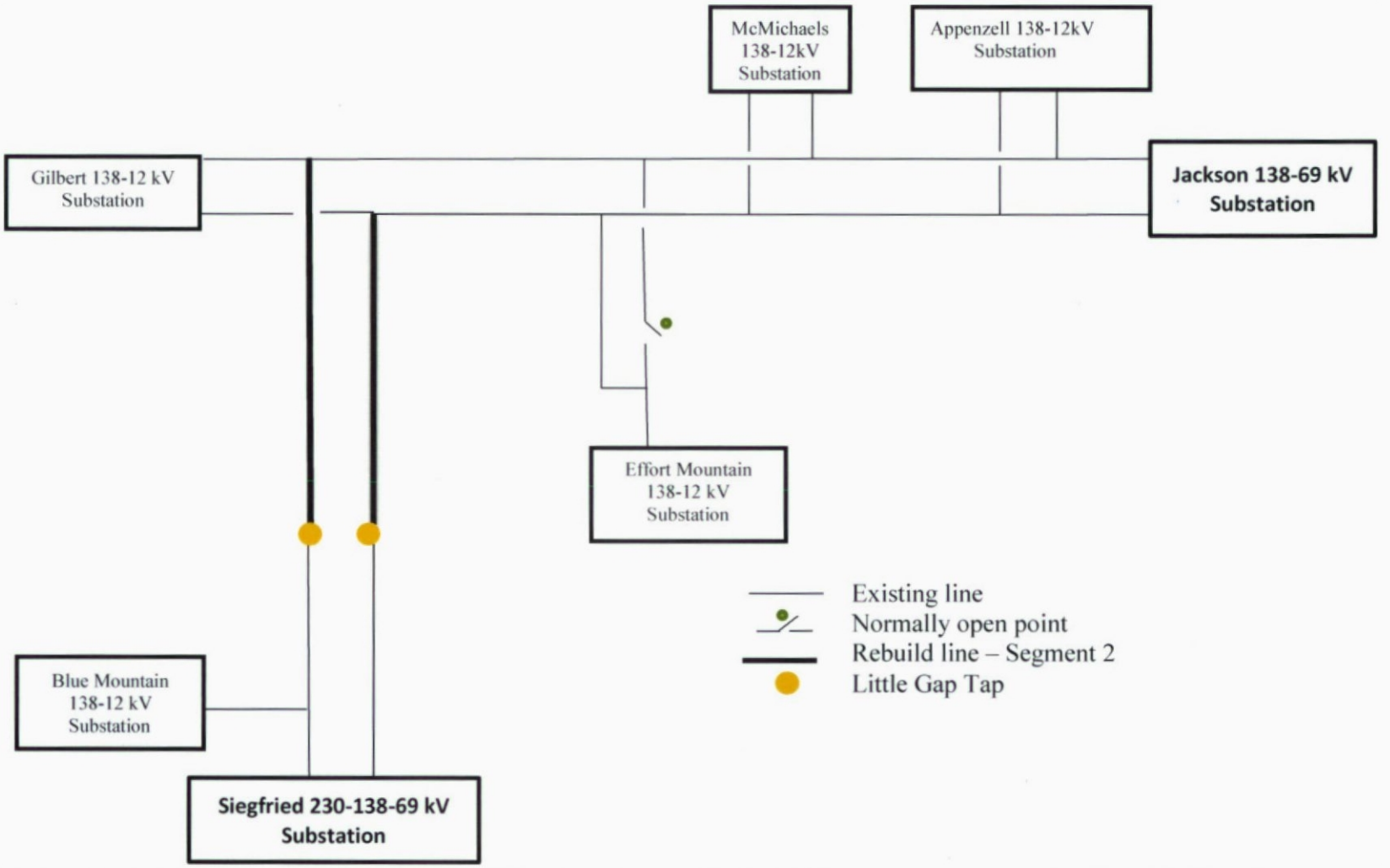
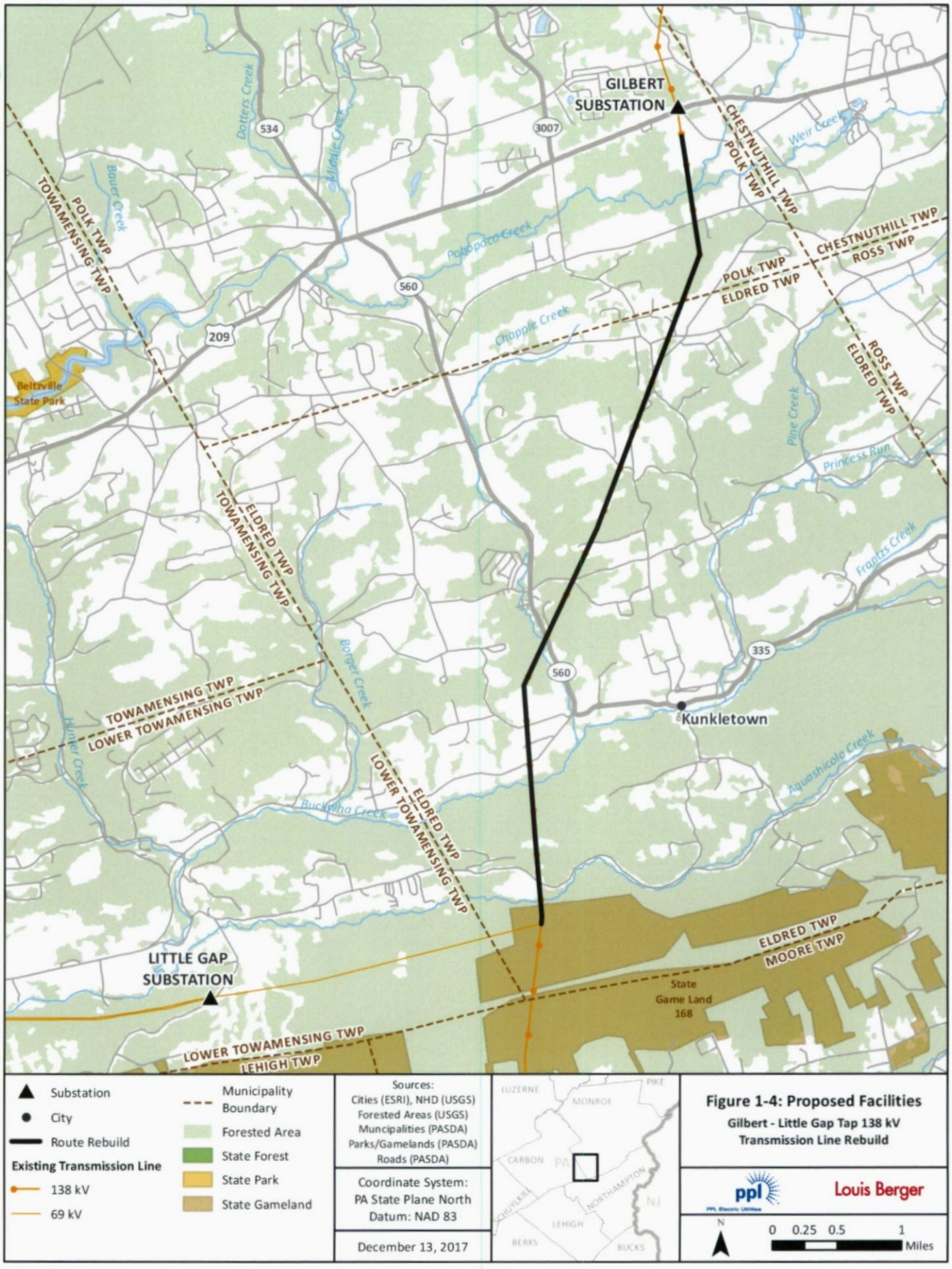

GILBERT SUBSTATION
LITTLE GAP SUBSTATION
Kunkletown
Beltzville State Park
State Game Land 168
534
3007
560
209
335
Dotters Creek
Middle Creek
Bauer Creek
Pohopoco Creek
Weir Creek
Chapple Creek
Pine Creek
Princess Run
Frantzs Creek
Aquashicola Creek
Berger Creek
Hunter Creek
Buckwha Creek
POLK TWP
TOWAMENSING TWP
CHESTNUTHILL TWP
ROSS TWP
ELDRED TWP
MOORE TWP
LOWER TOWAMENSING TWP
LEHIGH TWP
Substation
City
Existing Transmission Line
138 kV
69 kV
Municipality Boundary
Forested Area
State Forest
State Park
State Gameland
Sources:
Cities (ESRI), NHD (USGS)
Forested Areas (USGS)
Muncipalities (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)
Coordinate System:
PA State Plane North
Datum: NAD 83
December 13, 2017
LUZERNE
PIKE
MONROE
CARBON
PA
NJ
SCHUYLKILL
NORTHAMPTON
LEHIGH
BERKS
BUCKS
Figure 1-2: Existing Facilities
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild
ppl
Louis Berger
N
0 0.25 0.5 1
Miles

Figure 1-3. One-Line Diagram of Proposed Transmission Facilities




GILBERT SUBSTATION
LITTLE GAP SUBSTATION
Kunkletown
Dotters Creek
Middle Creek
Weir Creek
Bauer Creek
Pohopoco Creek
Chapple Creek
Pine Creek
Princess Run
Frantz Creek
Aquashicola Creek
Hunter Creek
Buckwha Creek
Borger Creek
Beltzville State Park
534
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335
POLK TWP
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LEHIGH TWP
State Game Land 168
Substation
City
Route Rebuild
Existing Transmission Line
138 kV
69 kV
Municipality Boundary
Forested Area
State Forest
State Park
State Gameland
Sources:
Cities (ESRI), NHD (USGS)
Forested Areas (USGS)
Muncipalities (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)
Coordinate System:
PA State Plane North
Datum: NAD 83
December 13, 2017
LUZERNE
PIKE
MONROE
CARBON
PA
NJ
NORTHAMPTON
LEHIGH
BERKS
BUCKS
Figure 1-4: Proposed Facilities
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild
ppl
Louis Berger
N
0 0.25 0.5 1
Miles

ATTACHMENT 2
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
ENGINEERING DESCRIPTION

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ATTACHMENT 2
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
ENGINEERING DESCRIPTION

A. INTRODUCTION

PPL Electric Utilities Corporation ("PPL Electric") proposes to rebuild the approximately 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line (the "Project").[1] As explained in Attachment 1, the existing transmission structures have reached an age and condition that the facilities must be replaced in order to continue to provide safe and reliable service into the future.

B. DESCRIPTION OF THE PROPOSED LINES[2]

PPL Electric proposes to rebuild the 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line. The rebuilt Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will be reconstructed with new steel monopoles and two optical ground wires (OPGW). The existing ROW generally varies from 50 to 100 feet in width. PPL Electric has designed the rebuilt Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line to fit within the existing ROW.

Currently, there are a total of 70 wood structures and 13 steel structures along the Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line. The Project involves the removal of all 70 existing wood structures and 8 steel structures that have reached the end of their service life as explained in Attachment 1. The remaining five steel structures will remain in-place. The existing structures range in height from approximately 45 to 105 feet.

[1] The proposed Project will rebuild a section of the double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line between a structure located just south of the Gilbert 138-12 kV Substation and a structure located at the junction with the de-energized Little Gap 69 kV Transmission Tap. For purposes of this filing, this segment will be referred to as the "Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line."

[2] Description of the proposed transmission line is based on preliminary engineering. Design details may change while finalizing engineering.

The Project will require the installation of approximately 55 new steel monopole structures and 23 new steel two-pole structures. No new structures will be located on any property that currently does not have an existing structure. All of the proposed structures are anticipated to be located within 10 feet of the existing structures[3].

The proposed transmission structures will consist of weathering steel monopoles and two-pole structures equipped with steel upswept arms and glass 138 kV insulator assemblies. All new poles will be self-supported, either direct embedded or on concrete caisson foundations. The structures are expected to range between approximately 45 and 110 feet in height. Most structures will be approximately 95 feet in height. Figures 2-1 through 2-5 depict typical structure types that will be used for the Project.

As explained in Attachment 1, PPL Electric does not intend to replace the conductors on the Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line. Rather, the existing conductors will be transferred to the new poles and assemblies. The existing power conductors are 556.5 kcmil[4], 24/7 stranding, ACSR[5] conductors. The two new OPGWs will each be 0.567-inch in diameter.

The rebuilt lines will be designed according to, and generally exceed, all National Electrical Safety Code (NESC) minimum standards. Design specifications and safety rules practiced by PPL Electric are included in Attachment 4.

The minimum conductor-to-ground clearance will be 20.6 feet (NESC Minimum) which occurs at a maximum thermal conductor temperature of 125°C (257°F). The design minimum conductor clearances and conductor thermal ratings for the lines are shown in Tables 2-1 and 2-2, respectively.

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[3] This statement is based off of preliminary engineering and therefore, design elements may vary slightly in the final engineering phase.

[4] 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.

[5] Aluminum conductor steel reinforced.

Table 2-1. Design for Minimum Conductor Clearances for 556.5 kcmil 24/7 strand ACSR	
Condition	**Transmission Double-Circuit Design Clearance-to-Ground**
Static Condition (No Wind, 16°C, ambient temperature)	20.6 feet
Predicted extreme thermal load (125°C conductor temperature)	20.6 feet
Predicted blowout (6 lbs., 16°C, ambient temperature)	20.6 feet

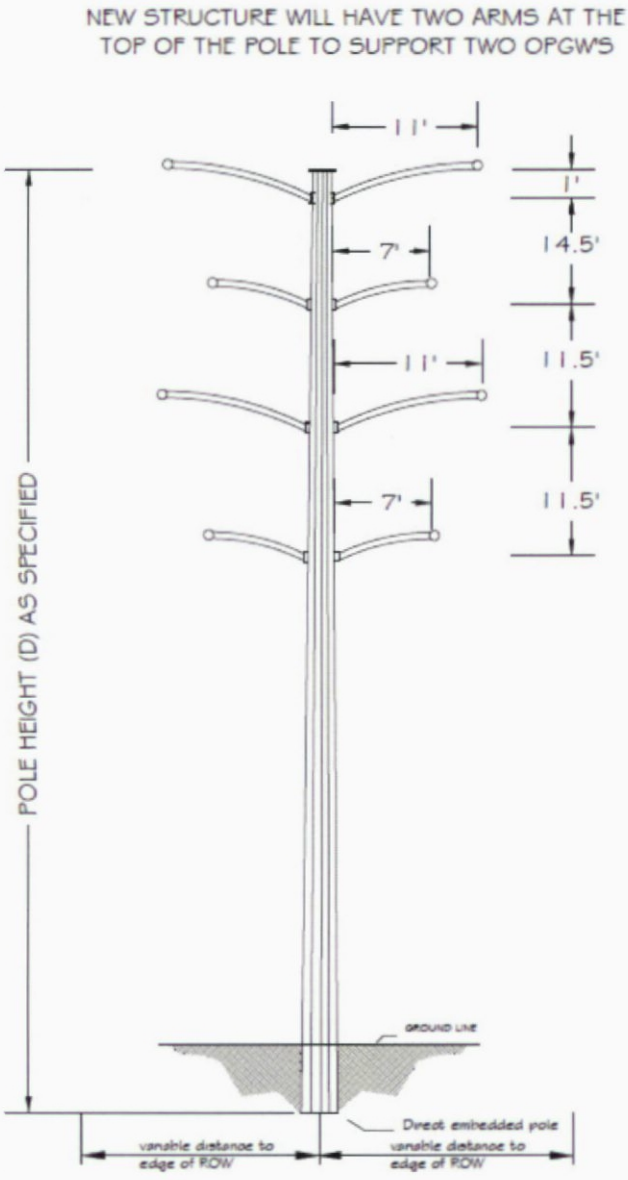
Table 2-2. Conductor Thermal Rating 556.5 kcmil 24/7 Stranding ACSR 125°C Maximum Conductor			
Condition	**Ambient Temperature (°C)**	**Wind Speed (Ft./sec)**	**Ampacity (Amps)**
Summer Normal	35	0	815
Winter Normal	10	0	885
Summer Emergency	35	2.533	1030
Winter Emergency	10	2.533	1070

C. MAGNETIC FIELD MANAGEMENT

PPL Electric's Magnetic Field Management Program is applied to new and reconstructed transmission line projects. The Company does not believe that the current scientific evidence demonstrates that magnetic fields cause any adverse health efforts or pose a health or safety danger to the public. Nevertheless, PPL Electric has determined, as a matter of policy, to design its new and rebuilt transmission lines to reduce magnetic fields when that can be done at low or no cost and consistent with functional requirements. PPL Electric's Magnetic Field Management Program has been developed to implement that policy decision. To reduce magnetic field exposures, the program generally prescribes the use of a line design with ground clearance that is 5 feet higher than NESC standards and reverses phasing of new double-circuit lines where it is feasible to do so at low or no cost.

The rebuilt double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line will continue to use reverse phasing and the new structures will be designed at least 5 feet higher than NESC standards where feasible.

Figure 2-1. Typical Double-Circuit 138 kV Single Dead-end Structure



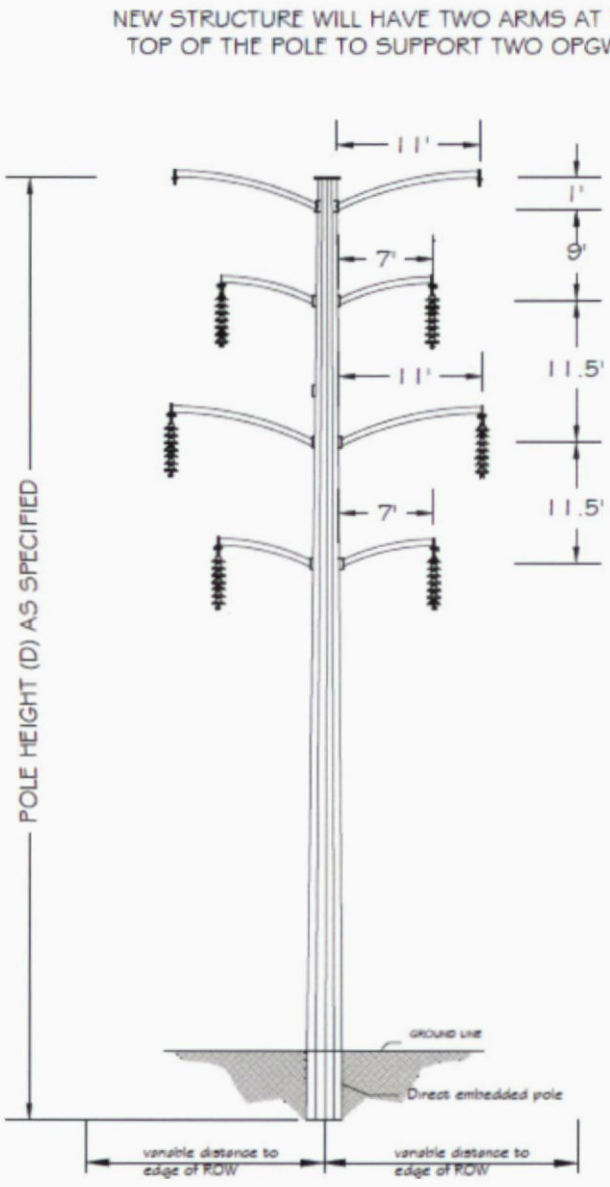
OPGW to top conductor spacing: 1'

Arm lengths: 7' to 1.1'

Conductor spacing: 14.5', 11.5', 11.5'

All heights approximate, drawing not to scale

Figure 2-2. Typical Double-Circuit 138 kV Tangent Suspension



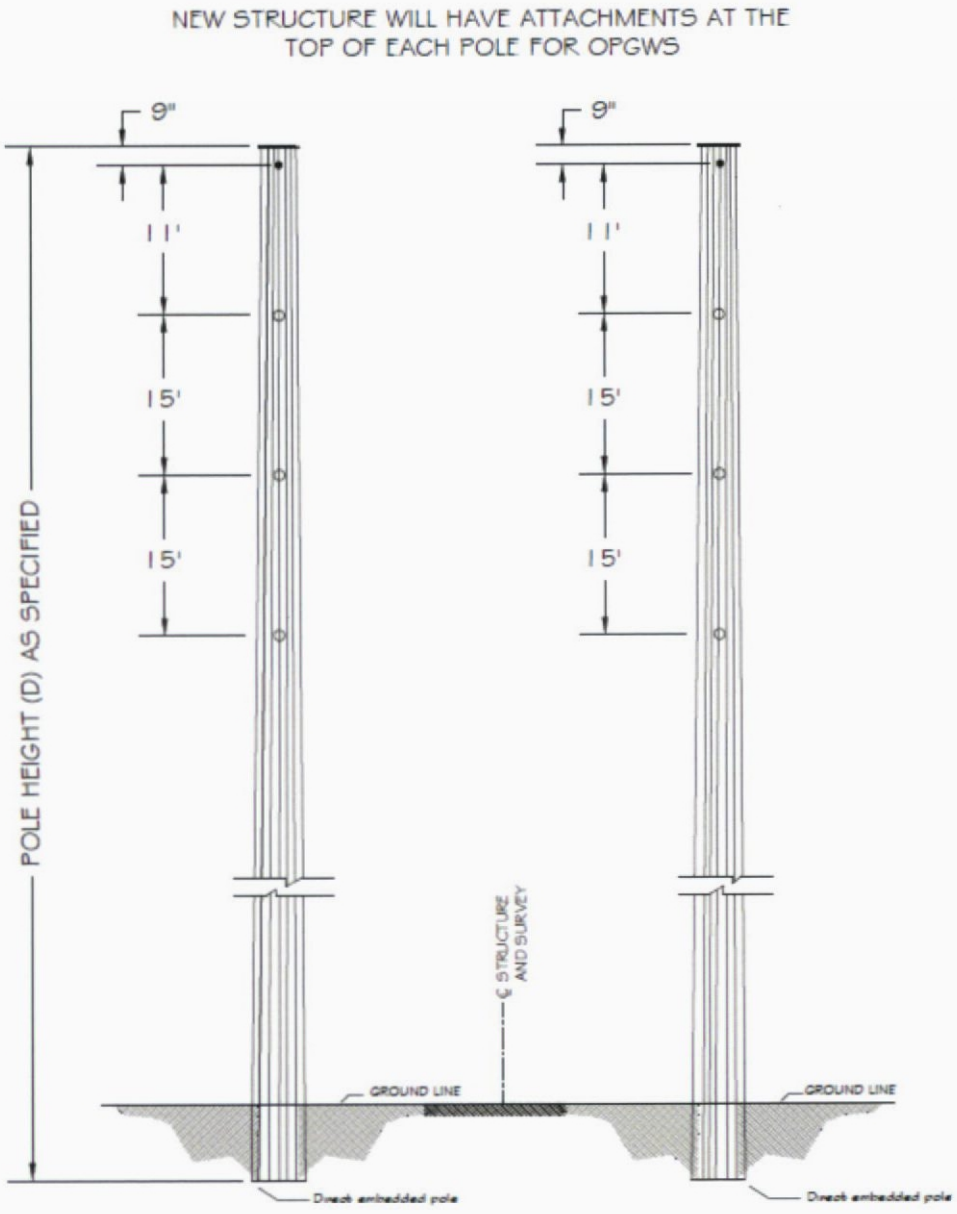
OPGW to top conductor spacing: 1'

Arm lengths: 7' to 1.1'

Conductor spacing: 9', 11.5', 11.5'

All heights approximate, drawing not to scale

Figure 2-3. Typical Double-Circuit 138 kV 2-Pole Switch Structure

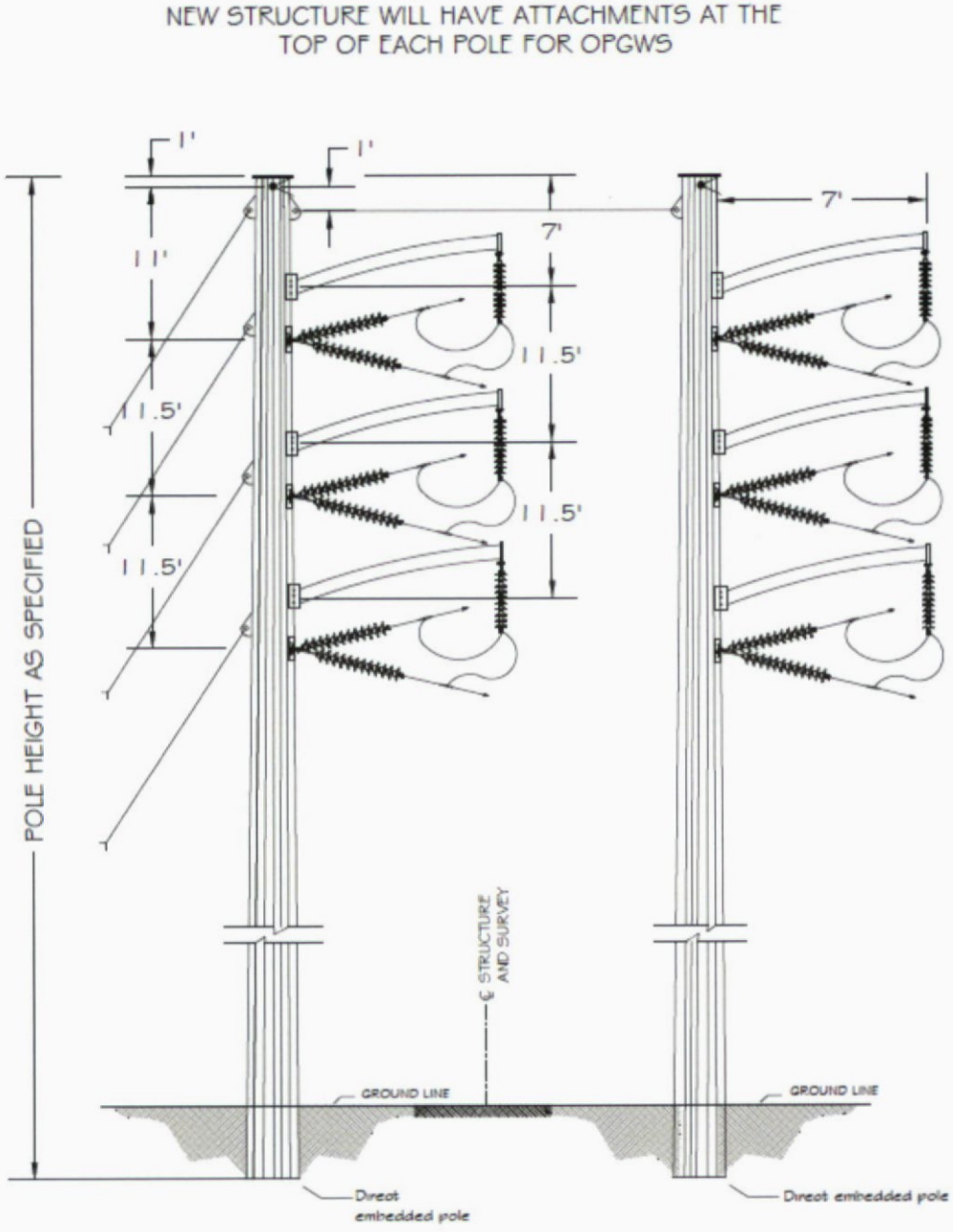


OPGW to top conductor spacing: 9"

Conductor spacing: 1.1', 1.5', 1.5'

All heights approximate, drawing not to scale

Figure 2-4. Typical Double-Circuit 138/69 kV 2-Pole Angle Tension Structure

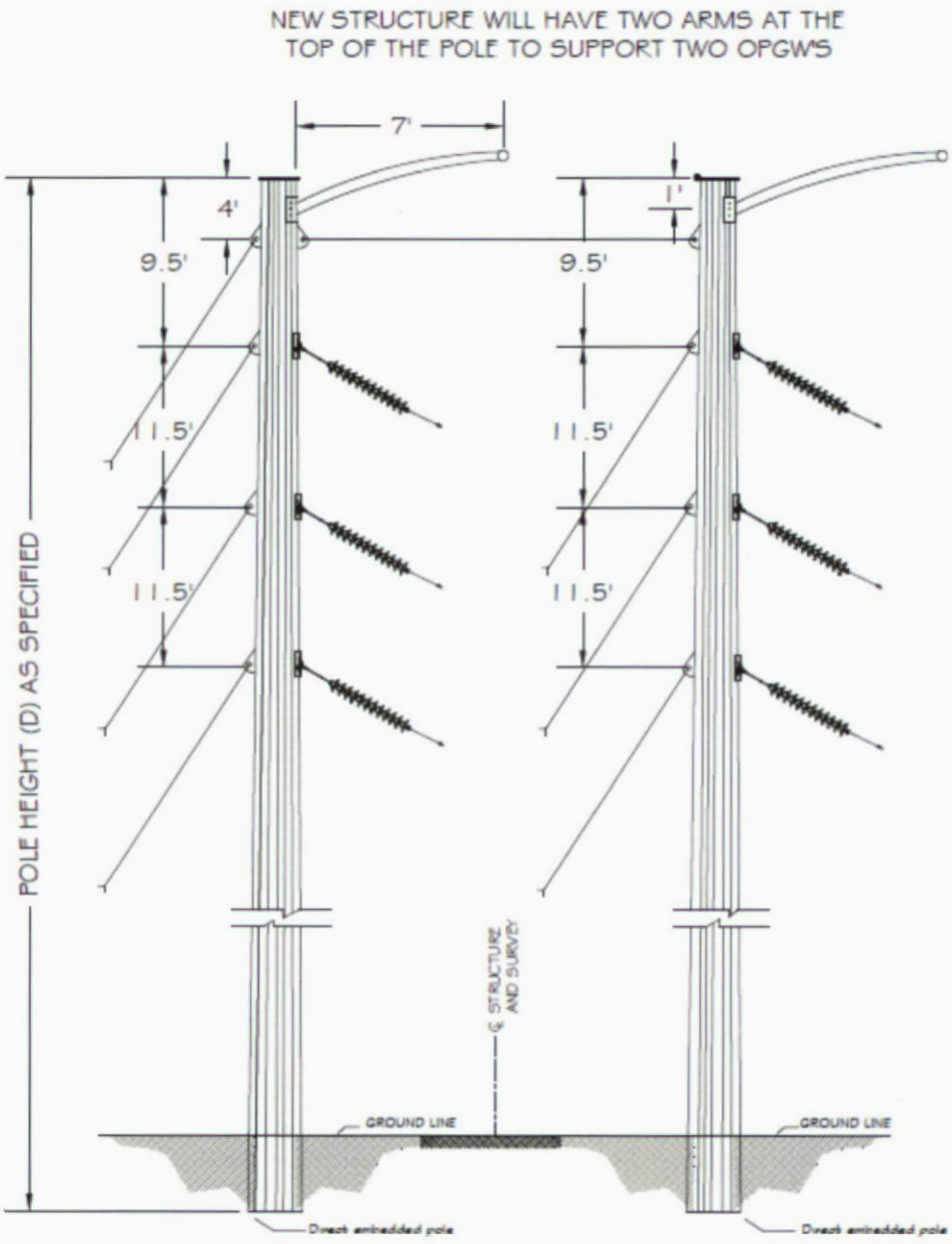


OPGW to top conductor spacing: 1'

Conductor spacing: 1.1', 11.5', 11.5'

All heights approximate, drawing not to scale

Figure 2-5. Typical Double-Circuit 138 kV 2-Pole Side Tension Structure



OPGW to top conductor spacing: 1'

Arm lengths: 7'

Conductor spacing: 8.5', 11.5', 11.5'

All heights approximate, drawing not to scale

ATTACHMENT 3
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
DESCRIPTION OF THE RIGHT-OF-WAY

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ATTACHMENT 3
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
TRANSMISSION LINE REBUILD
DESCRIPTION OF THE RIGHT-OF-WAY

A. INTRODUCTION

As explained in Attachment 1, PPL Electric Utilities Corporation ("PPL Electric") seeks Pennsylvania Public Utility Commission ("PUC" or the "Commission") approval to rebuild the approximately 6.4-mile double-circuit Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line in order to improve electric reliability in the region (the "Project").[1] This attachment provides a description of the right-of-way ("ROW").

B. DESCRIPTION OF THE RIGHT-OF-WAY

The Project is located within Monroe County, Pennsylvania and traverses 2.3 miles through Polk Township and 4.1 miles through Eldred Township. PPL Electric has discussed the proposed Project with representatives from Monroe County and each township, none of which had any objection to the Project. Figure 3-1 is an aerial exhibit of the Project that identifies property owners crossed by the Project.

From the third structure south of the Gilbert 138/12 kV Substation, the Jackson – Gilbert #1 and #2 138 kV Transmission Line extends south for approximately 6.4 miles as a double-circuit 138 kV transmission line to the junction with the de-energized Little Gap 69 kV Transmission Tap. PPL Electric proposes to rebuild this segment of the line to meet modern, double-circuit 138 kV transmission line standards. The proposed Project is explained in detail in Attachment 1 and an engineering description of the rebuilt line is provided in Attachment 2.

[1] The proposed Project will rebuild a section of the double-circuit Siegfried – Jackson #1 and #2 138 kV Transmission Line between a structure located just south of the Gilbert 138-12 kV Substation and a structure located at the junction with the de-energized Little Gap 69 kV Transmission Tap. For purposes of this filing, this segment will be referred to as the "Gilbert – Little Gap Tap #1 and #2 138 kV Transmission Line."

As explained in Attachment 2, the proposed Project will be rebuilt entirely within the existing ROW. No new rights are required for the construction, operation, or maintenance of the Project.

As shown on Figure 3-1, the Jackson – Gilbert #1 and #2 138 kV Transmission Line begins at the third structure south of Gilbert 138 kV Substation and traverses through forested and agricultural areas, crossing Pohopoco Creek before Mountain View Drive Road. South of Mountain View Drive Road, the route continues in a southwesterly direction and traverses through a mix of forested, residential, and agricultural land until reaching Route 560. Approximately 0.5 mile after Silver Springs Blvd., the route turns south, traversing through a mix of forested, residential, and agricultural land before reaching State Game Land 168. The route traverses approximately 0.2 mile of State Game Land 168 before ending at the junction with the de-energized Little Gap 69 kV Transmission Tap. The existing ROW varies between 50 and 100 feet in width, generally 50 feet through agricultural and residential areas and 100 feet through forested areas. Based on an engineering review, PPL Electric determined that no additional ROW is required for the proposed rebuild of the double-circuit Jackson – Gilbert #1 and #2 138 kV Transmission Line.

As explained in Attachment 2, the existing outdated structures range from approximately 45 to 105 feet in height, with an average structure height of 85 feet. The new structures for the rebuilt Gilbert – Little Gilbert Tap #1 and #2 138 kV Transmission Line will have an average height of approximately 95 feet. Although the new structures will increase in height as compared to the existing outdated structures, impacts are anticipated to be minimal because average structure height is only increasing by approximately 10 feet and all new structures are anticipated to be placed within approximately 10 feet of the existing structures. No structures will be placed on a property that does not already have an existing pole.

The existing ROW is currently maintained in accordance with PPL Electric's Vegetation Management Program. Only limited tree clearing within the ROW is anticipated as part of this Project. In areas where vegetation management is required, PPL Electric will apply its "Specifications for Initial Clearing and Control of Vegetation On or Adjacent to Electric Line

Right-of-Way Through Use of Herbicides, Mechanical and Hand Clearing Techniques" to minimize any potential impacts.

In summary, PPL Electric does not believe the proposed Gilbert – Little Gilbert Tap #1 and #2 138 kV Transmission Line Project will result in a substantial alteration of the ROW for the following reasons:

- The line will be constructed entirely within existing ROW.
- No new rights are required for the construction, operation or maintenance of the Project.
- The entire ROW is currently maintained in accordance with PPL Electric's Vegetation Management Program.
- The average structure height is only increasing by approximately 10 feet.
- All new structures will be located in close proximity to the existing structure locations.
- No structures will be placed on a property that does not already have an existing pole.

C. CULTURAL RESOURCES

PPL Electric conducted a review of the online State Historic Preservation Office (SHPO) and Cultural Resources Geographic Information System (CRGIS) database to determine if National Register of Historic Places (NRHP)-listed or eligible historic properties are located in the Project vicinity. Based on this review, there are two NRHP-eligible historic architectural resources and one NRHP-eligible historic district located within 1 mile of the Project. There are 25 NRHP architectural resources located within 1 mile that are either not eligible or contain insufficient information to evaluate. No listed NHRP historic architectural resources are located within 1 mile of the Project. No previously recorded archaeological resources are crossed by the Project.

PPL Electric submitted a review request to the SHPO on May 30, 2017. The SHPO's June 15, 2017 response indicated that in their opinion, the Project as proposed will have no effect on historic properties, should they exist provided that the replacement poles remain the same heights. PPL Electric will continue to consult with the SHPO during final design to ensure no impacts to cultural resources occur.

D. LAND USE AND NATURAL FEATURES

Impacts to land use are anticipated to be minimal because the Project will be constructed within the existing ROW and no additional ROW will be required to complete the Project. PPL Electric will use and update previously established access roads for construction to the extent practical to further reduce interference with existing uses and minimize land use impacts.

No communication towers or other utilities will be affected by the proposed Project. The closest airport is the Pegasus Airport, which is located approximately 5 miles northeast of the Project. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities and because the new facilities will be similar heights as the existing facilities. However, PPL Electric will file any required documentation with both the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

As previously mentioned, the Project crosses approximately 0.2 mile of Pennsylvania State Game Land 168 in Eldred Township, Monroe County. The existing transmission line traverses through the northwestern portion of the Game Land within the existing, cleared ROW. Therefore, no impacts are anticipated. No other recreational areas or natural landmarks are located within 1 mile of the Project.

The Project will traverse approximately 0.8 mile of one Important Bird Area (IBA)[2]. The Hawk Mountain and Kittatinny Ridge IBA is located within the southern boundary of the Project. The IBA encompasses State Game Land 168, which is crossed by the Project. No impacts to this IBA are anticipated because the Project will be constructed within the existing, cleared ROW.

A Natural Area Inventory (NAI) has been prepared by The Nature Conservancy in association with the Pennsylvania Natural Heritage Program (PNHP) for Monroe County (1999). The Project crosses one NAI area. The Blue Mountain at Delps NAI is located in the southern

[2] IBAs are sites that provide essential habitat for one or more species of bird. IBAs include sites for breeding, wintering, and/or migrating birds.

portion of the Project area in Eldred Township, Monroe County. This NAI provides habitat for sensitive species of concern as well as many other species. The Blue Mountain at Delps is described mostly as an undisturbed forested ridgeline throughout, occasionally broken by roads and structures. No other NAI areas are located in close proximity to the existing ROW. The Project is not expected to impact the Blue Mountain at Delps NAI because the Project will be rebuilt structure for structure within the existing, cleared ROW. The Project will not traverse or affect any other unique geological, scenic or natural areas.

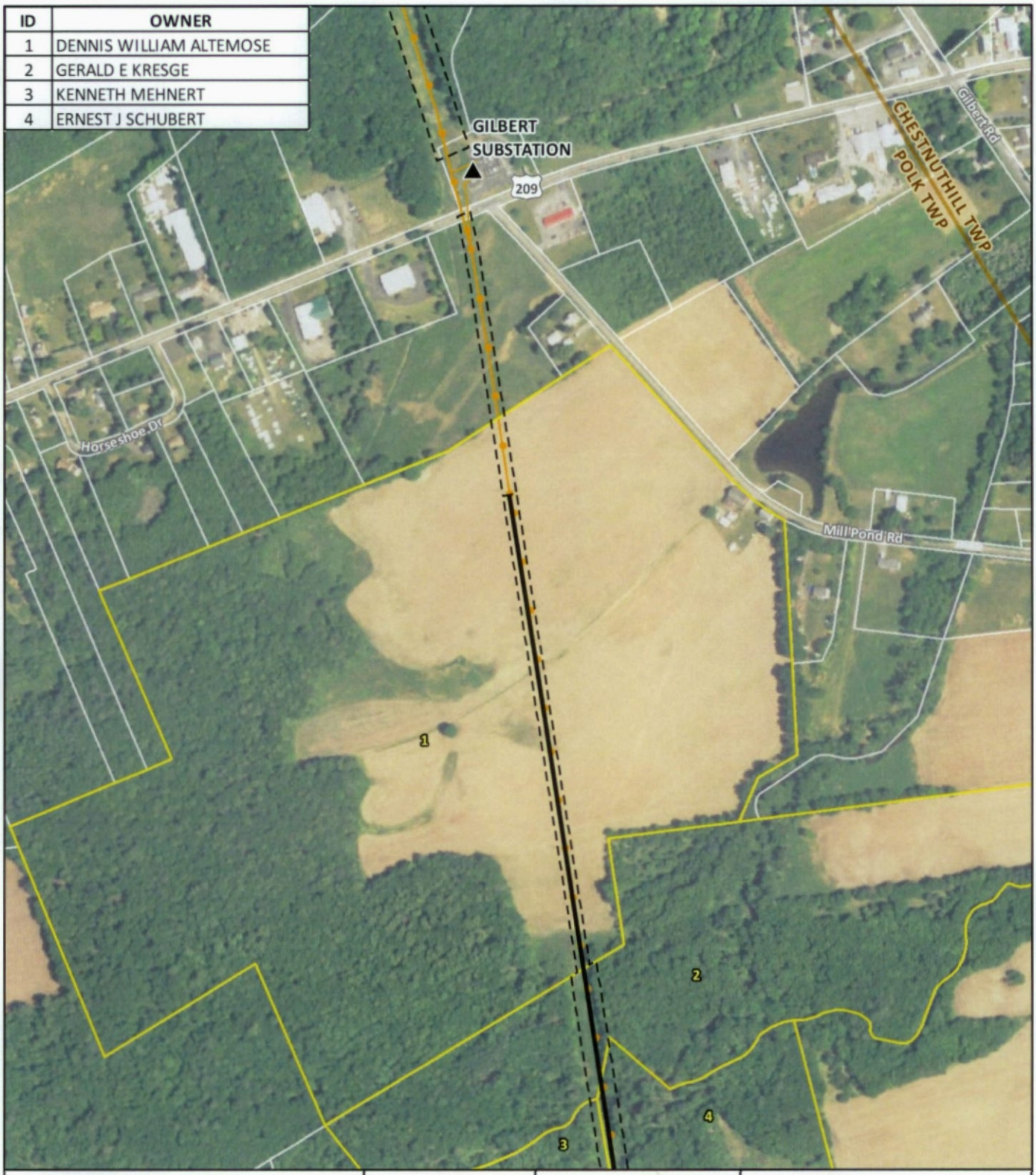
PPL Electric retained an environmental consultant to identify and delineate all wetlands and watercourses within the area of the proposed Project. The proposed Project will span seven wetlands and four streams. However, it is anticipated the Project will have no impacts on streams or wetlands because the entire Project will be built within the existing ROW, and because the new tower structures will be located to avoid impacts to wetland and streams. PPL Electric will obtain all necessary permits from the Pennsylvania Department of Environmental Protection and the United States Army Corps of Engineers and will comply with all of the terms and conditions placed on those permits. PPL Electric also will prepare any required soil erosion and sedimentation control plans and obtain National Pollutant Discharge Elimination System (NPDES) permits as required and will comply with any conditions placed on those permits.

E. THREATENED AND ENDANGERED SPECIES

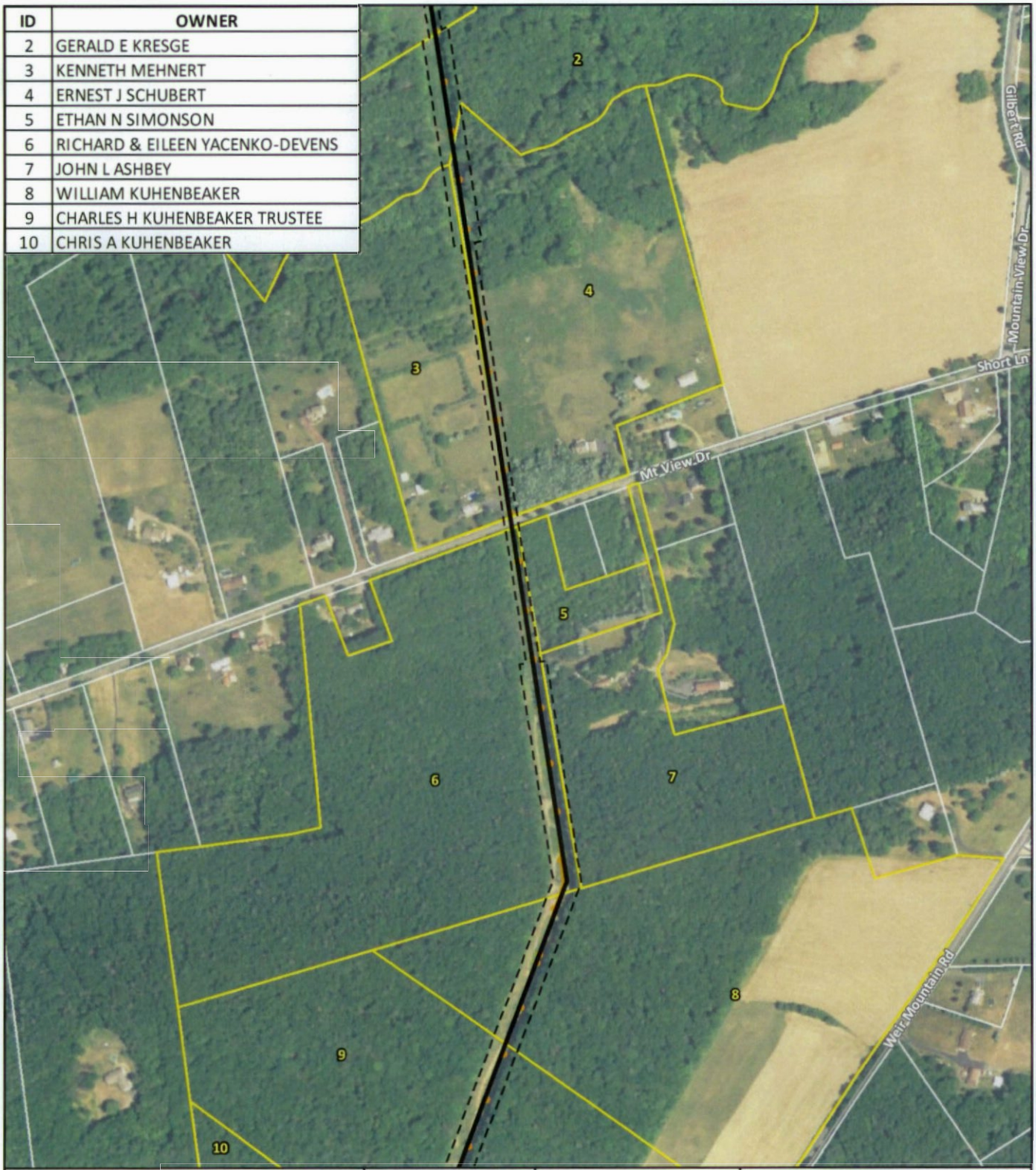
PPL Electric conducted an online Pennsylvania Natural Diversity Inventory (PNDI) database review on April 6, 2017.[3] Based on this review, the Pennsylvania Game Commission (PGC), Pennsylvania Department of Conservation and Natural Resources (DCNR), and Pennsylvania Fish and Boat (PFBC) reported that the Project will not impact any threatened and endangered species, or special concern species and resources located within the Project area. The United States Fish and Wildlife Service (USFWS) indicated that the Project is located within range of the federally threatened bog turtle (*Clemmys muhlenbergii*). PPL Electric retained a qualified bog turtle surveyor to conduct Phase 1 bog turtle habitat assessment. Based on the Phase 1 bog

[3] PNDI Project Search ID: 627843

turtle habitat assessment, evidence of suitable bog turtle habitat were identified within three delineated wetlands. Between May and June 2017, a Phase 2/3 habitat assessment was conducted. No evidence of bog turtles were found during the Phase 2/3 assessment. Therefore, on August 23, 2017, the USFWS concluded that the Project will have not affect the bog turtle.


ID
OWNER
1
DENNIS WILLIAM ALTEMOSE
2
GERALD E KRESGE
3
KENNETH MEHNERT
4
ERNEST J SCHUBERT
GILBERT
SUBSTATION
209
Gilbert Rd
CHESTNUTHILL TWP
POLK TWP
Horseshoe Dr
Mill Pond Rd
1
2
3
4
Substation
Route Rebuild
Existing ROW
Existing Transmission
138 kV
69 kV
ROW Parcel
Municipality
Boundary
Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)
Coordinate System:
State Plane PA South
NAD 1983
October 31, 2017
CARBON COUNTY
MONROE COUNTY
Figure 3-1a: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild
ppl
Louis Berger
N
0 100 200 400 600
Feet

ID	OWNER
2	GERALD E KRESGE
3	KENNETH MEHNERT
4	ERNEST J SCHUBERT
5	ETHAN N SIMONSON
6	RICHARD & EILEEN YACENKO-DEVENS
7	JOHN L ASHBEY
8	WILLIAM KUHENBEAKER
9	CHARLES H KUHENBEAKER TRUSTEE
10	CHRIS A KUHENBEAKER



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

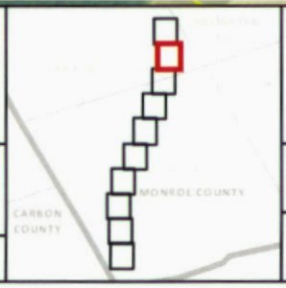
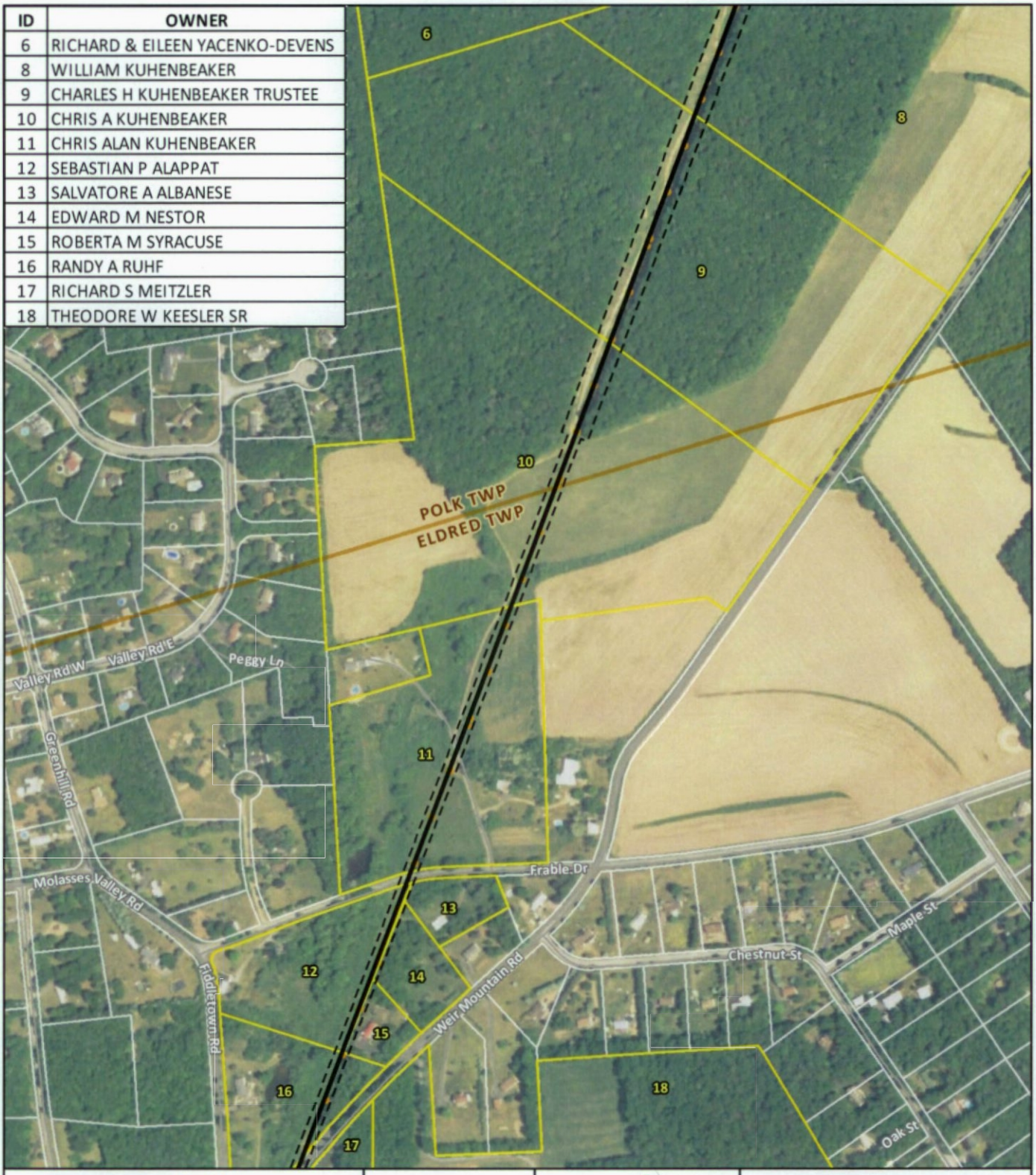


Figure 3-1b: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
6	RICHARD & EILEEN YACENKO-DEVENS
8	WILLIAM KUHENBEAKER
9	CHARLES H KUHENBEAKER TRUSTEE
10	CHRIS A KUHENBEAKER
11	CHRIS ALAN KUHENBEAKER
12	SEBASTIAN P ALAPPAT
13	SALVATORE A ALBANESE
14	EDWARD M NESTOR
15	ROBERTA M SYRACUSE
16	RANDY A RUHF
17	RICHARD S MEITZLER
18	THEODORE W KEESLER SR



Route Rebuild
Existing ROW
Existing Transmission
138 kV
ROW Parcel
Municipality Boundary

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

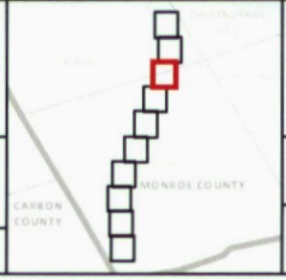
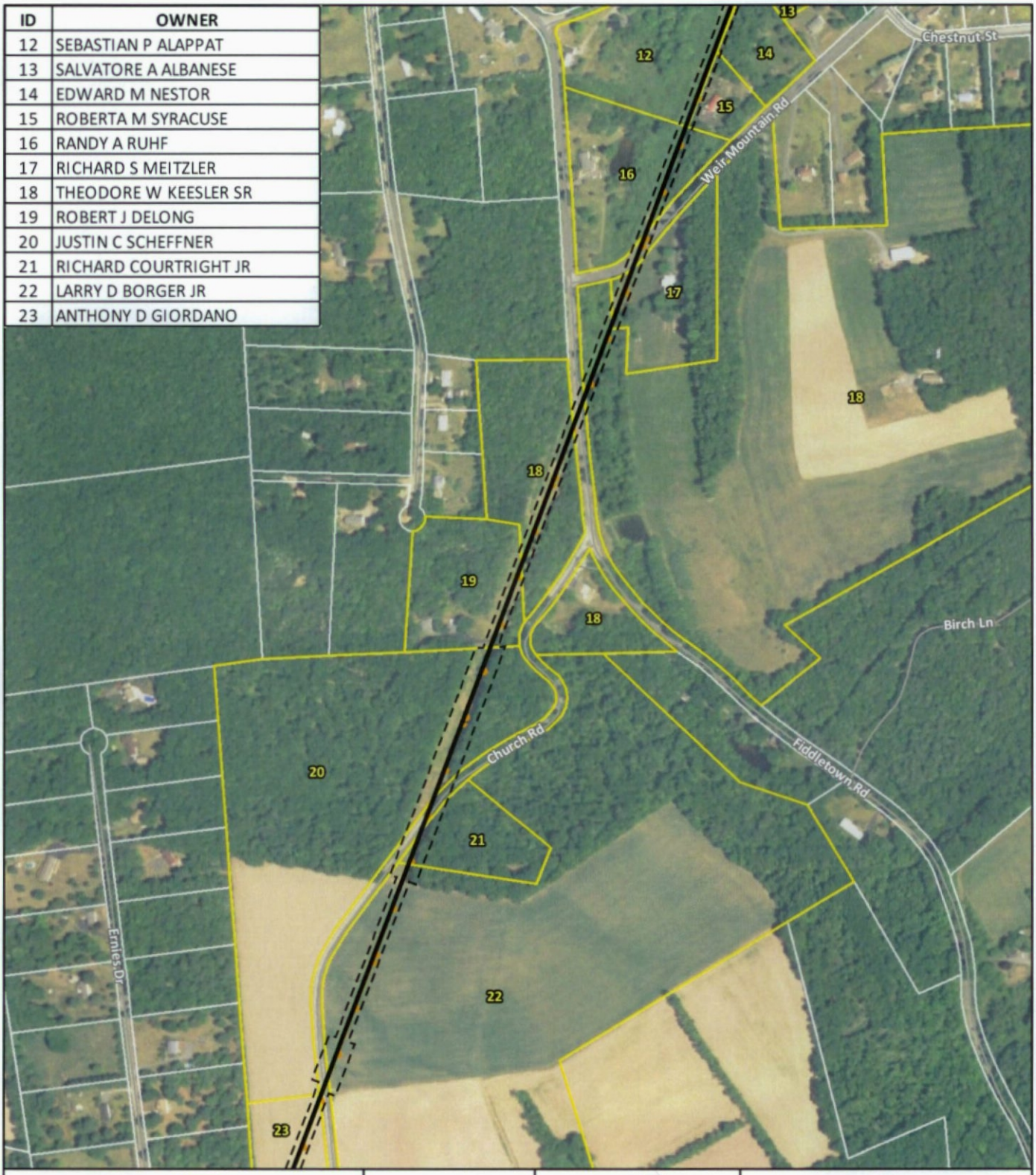


Figure 3-1c: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
12	SEBASTIAN P ALAPPAT
13	SALVATORE A ALBANESE
14	EDWARD M NESTOR
15	ROBERTA M SYRACUSE
16	RANDY A RUHF
17	RICHARD S MEITZLER
18	THEODORE W KEESLER SR
19	ROBERT J DELONG
20	JUSTIN C SCHEFFNER
21	RICHARD COURTRIGHT JR
22	LARRY D BORGER JR
23	ANTHONY D GIORDANO



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

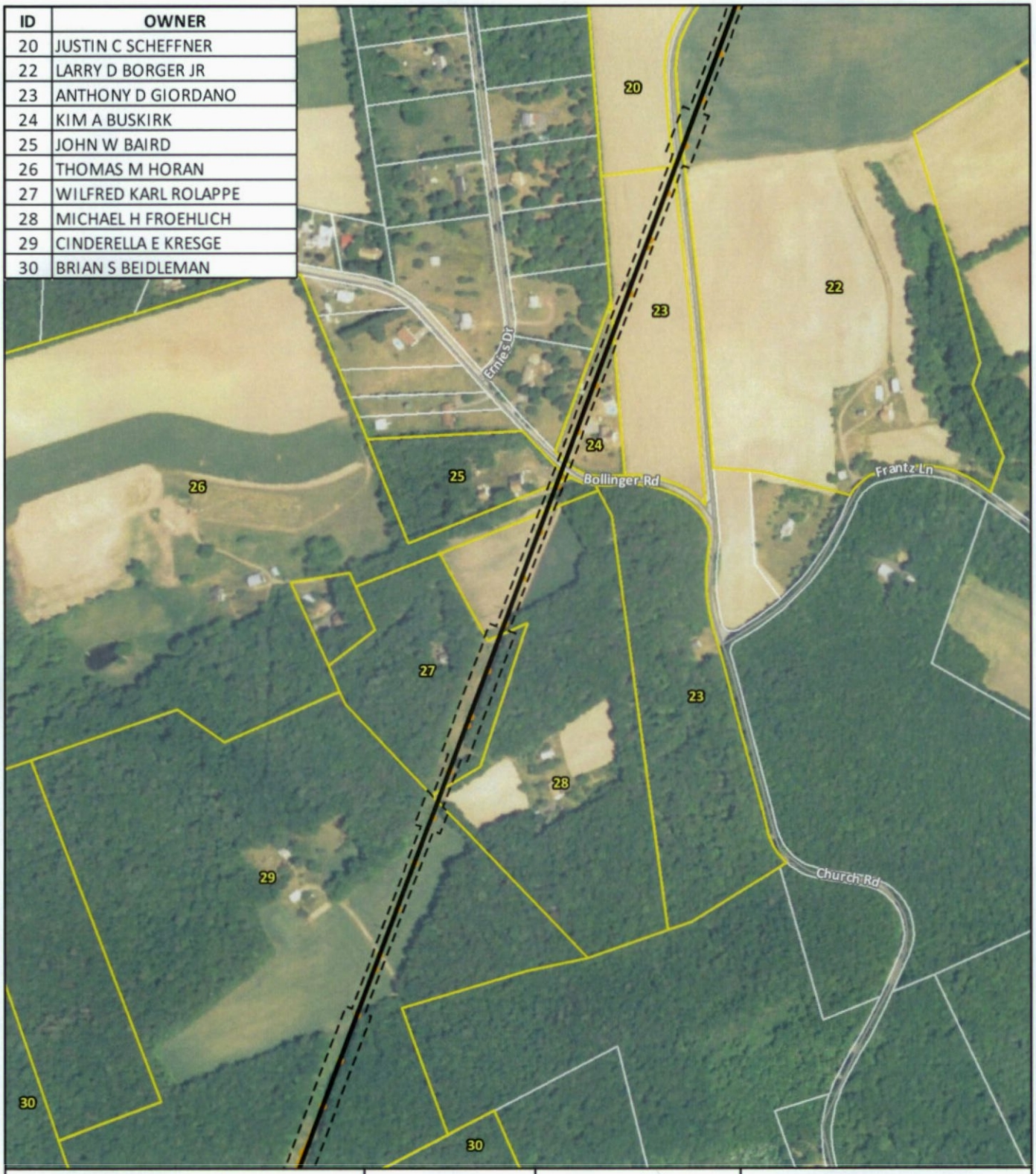
October 31, 2017

Figure 3-1d: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild

ppl
PPL Electric Utilities
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
20	JUSTIN C SCHEFFNER
22	LARRY D BORGER JR
23	ANTHONY D GIORDANO
24	KIM A BUSKIRK
25	JOHN W BAIRD
26	THOMAS M HORAN
27	WILFRED KARL ROLAPPE
28	MICHAEL H FROEHLICH
29	CINDERELLA E KRESGE
30	BRIAN S BEIDLEMAN



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

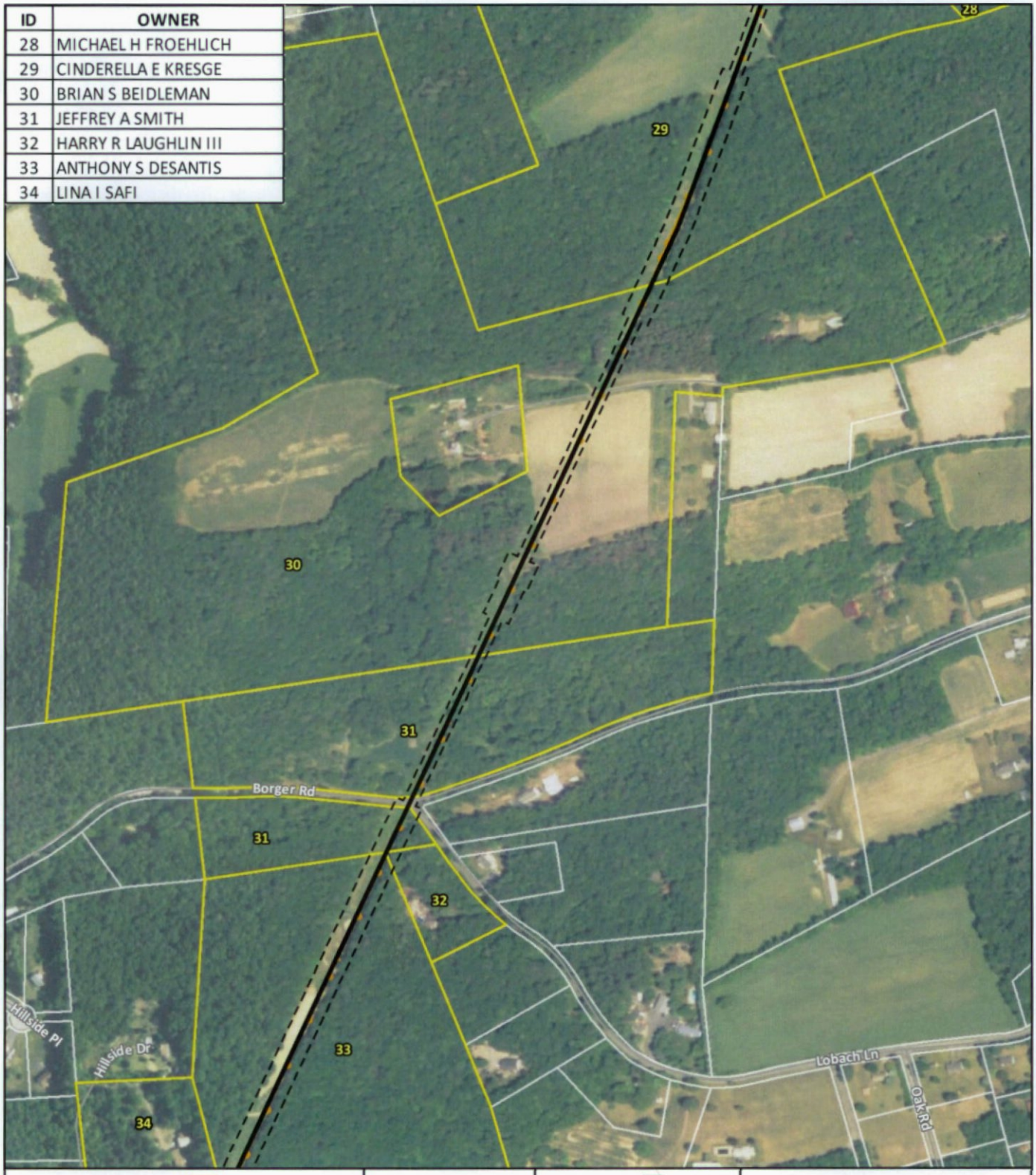
Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

Figure 3-1e: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

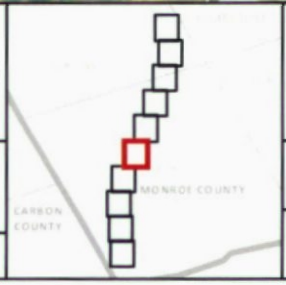
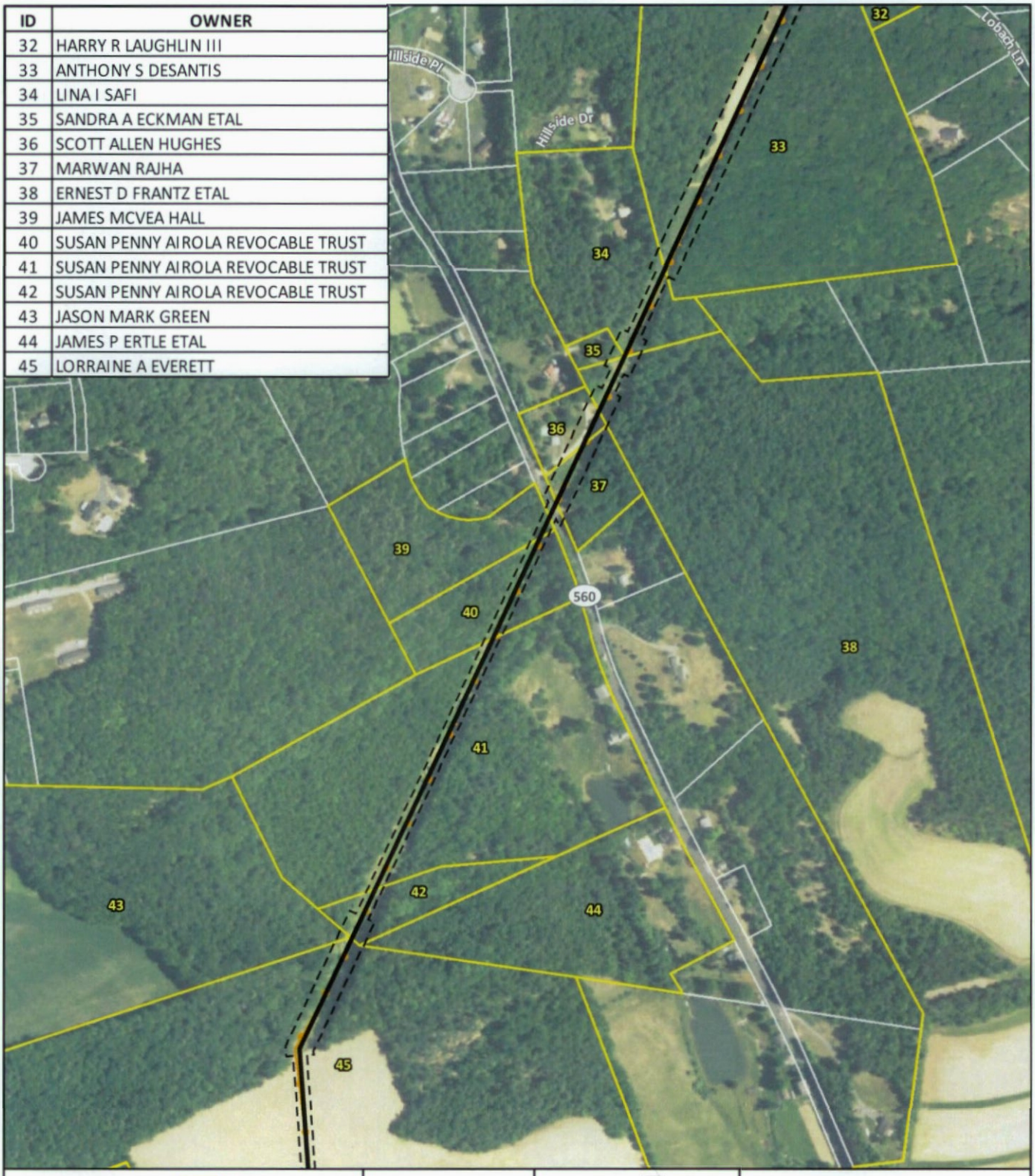


Figure 3-1f: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
32	HARRY R LAUGHLIN III
33	ANTHONY S DESANTIS
34	LINA I SAFI
35	SANDRA A ECKMAN ETAL
36	SCOTT ALLEN HUGHES
37	MARWAN RAJHA
38	ERNEST D FRANTZ ETAL
39	JAMES MCVEA HALL
40	SUSAN PENNY AIROLA REVOCABLE TRUST
41	SUSAN PENNY AIROLA REVOCABLE TRUST
42	SUSAN PENNY AIROLA REVOCABLE TRUST
43	JASON MARK GREEN
44	JAMES P ERTLE ETAL
45	LORRAINE A EVERETT



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

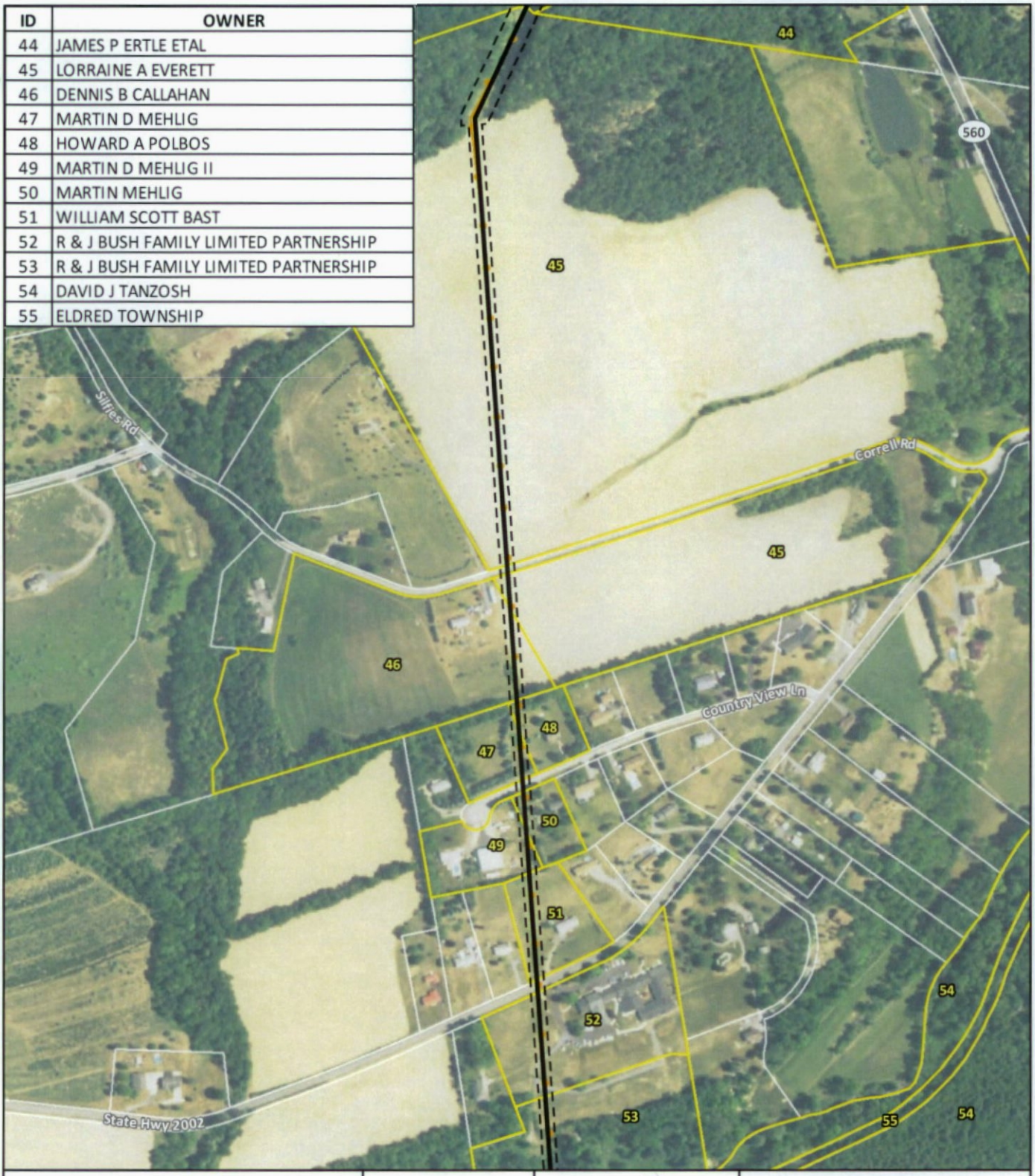
October 31, 2017

Figure 3-1g: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
44	JAMES P ERTLE ETAL
45	LORRAINE A EVERETT
46	DENNIS B CALLAHAN
47	MARTIN D MEHLIG
48	HOWARD A POLBOS
49	MARTIN D MEHLIG II
50	MARTIN MEHLIG
51	WILLIAM SCOTT BAST
52	R & J BUSH FAMILY LIMITED PARTNERSHIP
53	R & J BUSH FAMILY LIMITED PARTNERSHIP
54	DAVID J TANZOSH
55	ELDRED TOWNSHIP



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

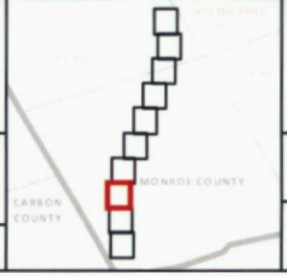
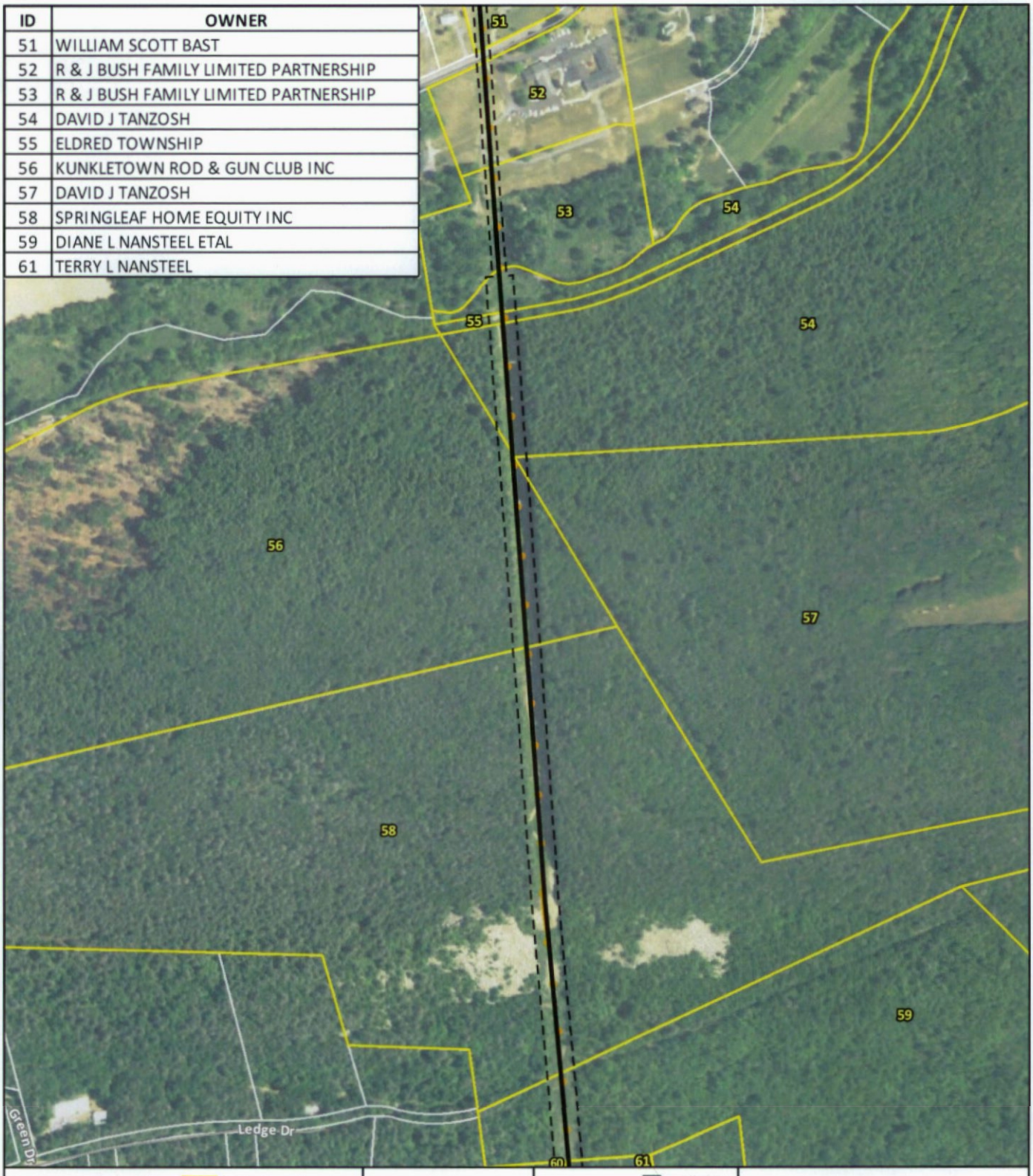


Figure 3-1h: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV Transmission Line Rebuild

ppl Electric Utilities
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
51	WILLIAM SCOTT BAST
52	R & J BUSH FAMILY LIMITED PARTNERSHIP
53	R & J BUSH FAMILY LIMITED PARTNERSHIP
54	DAVID J TANZOSH
55	ELDRED TOWNSHIP
56	KUNKLETOWN ROD & GUN CLUB INC
57	DAVID J TANZOSH
58	SPRINGLEAF HOME EQUITY INC
59	DIANE L NANSTEEL ETAL
61	TERRY L NANSTEEL



Route Rebuild
Existing ROW
ROW Parcel

Existing Transmission
138 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

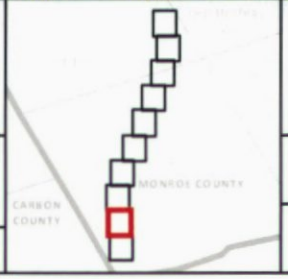
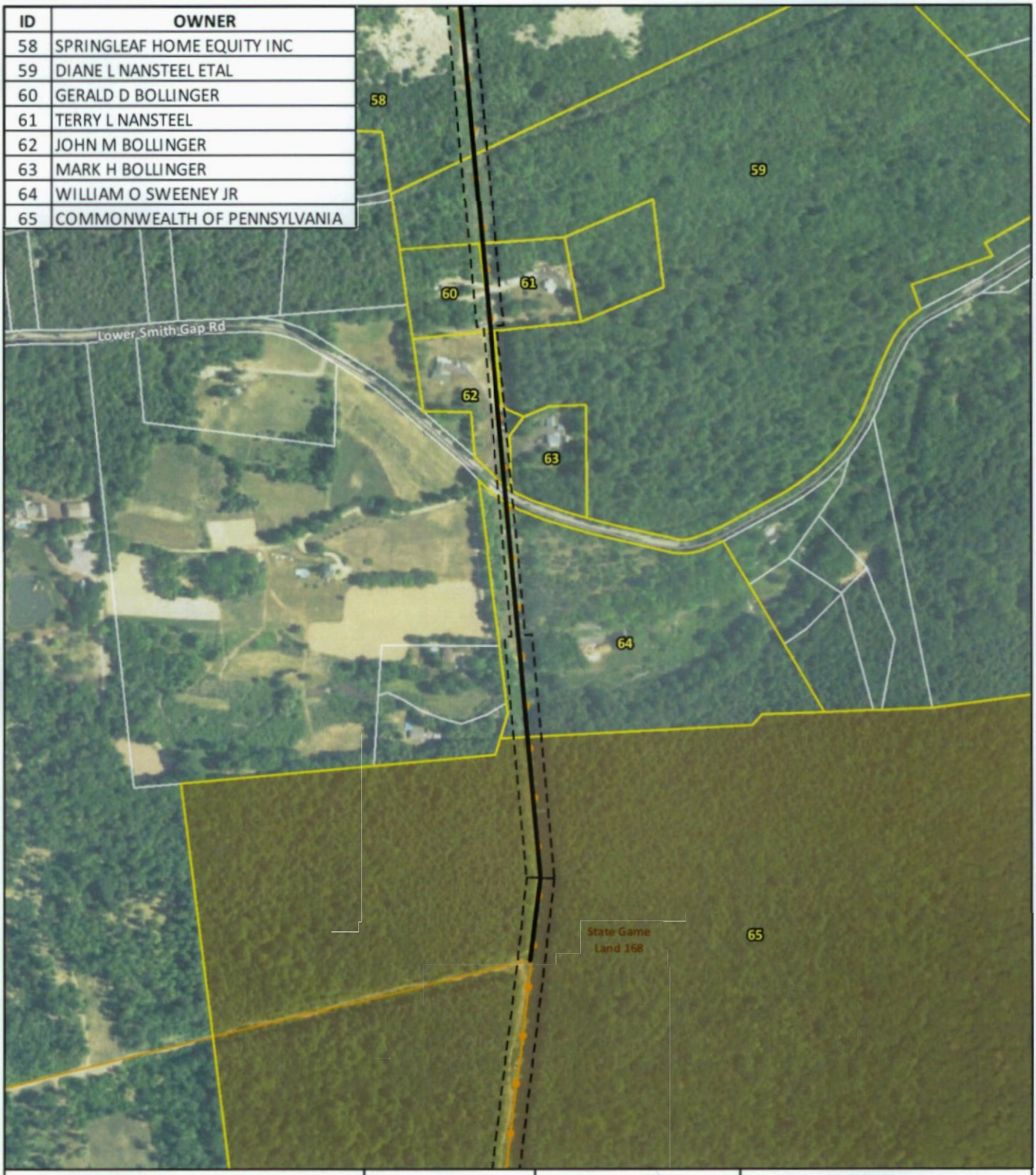


Figure 3-1i: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV
Transmission Line Rebuild

ppl
Louis Berger

N
0 100 200 400 600
Feet

ID	OWNER
58	SPRINGLEAF HOME EQUITY INC
59	DIANE L NANSTEEL ETAL
60	GERALD D BOLLINGER
61	TERRY L NANSTEEL
62	JOHN M BOLLINGER
63	MARK H BOLLINGER
64	WILLIAM O SWEENEY JR
65	COMMONWEALTH OF PENNSYLVANIA



Route Rebuild
Existing ROW
ROW Parcel
State Gameland

Existing Transmission
138 kV
69 kV

Sources:
Imagery (NAIP)
Muncipalities/Counties (PASDA)
Parks/Gamelands (PASDA)
Roads (PASDA)

Coordinate System:
State Plane PA South
NAD 1983

October 31, 2017

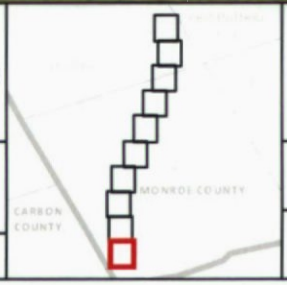


Figure 3-1j: Aerial Exhibit
Gilbert - Little Gap Tap 138 kV Transmission Line Rebuild

ppl Electric Utilities
Louis Berger

N
0 100 200 400 600
Feet

ATTACHMENT 4

GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
PPL ELECTRIC DESIGN CRITERIA AND SAFETY PRACTICES

TABLE OF CONTENTS

LIST OF TABLES

ATTACHMENT 4
GILBERT – LITTLE GAP TAP #1 AND #2 138 KV
DESIGN CRITERIA AND SAFETY PRACTICES

A. DESIGN CONSIDERATIONS

PPL Electric's new and rebuilt transmission lines will be designed according to, and generally exceed, all NESC minimum standards. The NESC is a set of rules to safeguard people 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. PPL Electric transmission line design standards meet or surpass the NESC clearances and loading requirements.

For example, 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 of 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, which provides a higher margin of safety.

Another example is the design parameters utilized to account for ice and wind loadings on the wires and structure. The conductor sags and tensions along with the structure loading used in line designs are the result of various ice and wind combinations. PPL Electric's transmission lines are designed to exceed NESC requirements by accounting for additional load cases with various ice and wind loading conditions not required by NESC. This means that PPL Electric lines are designed to operate safely and reliably during extreme inclement weather even more severe than assumed by the NESC. In addition, where practicable, PPL Electric transmission lines are designed with more clearance to the ground than required by the NESC. The tables below compare PPL Electric's general conductor to ground design and the NESC minimum ground clearances for lines of various voltages.

TABLE 4-1. 69 kV VERTICAL CLEARANCE TO GROUND		
Surface Underneath Conductors	**NESC Standard Clearance**	**PPL Conductor Clearances**
Roads, streets, alleys	19.2 Ft.	30 Ft.
Other land traversed by vehicles (such as cultivated field, forest, etc.)	19.2 Ft.	30 Ft.
Spaces accessible to pedestrians only	15.2 Ft.	30 Ft.
Railroad tracks	27.2 Ft.	31.5 Ft.

TABLE 4-2. 138 kV VERTICAL CLEARANCE TO GROUND		
Surface Underneath Conductors	**NESC Standard Clearance**	**PPL Conductor Clearances**
Roads, streets, alleys	20.6 Ft.	31 Ft.
Other land traversed by vehicles (such as cultivated field, forest, etc.)	20.6 Ft.	31 Ft.
Spaces accessible to pedestrians only	16.6 Ft.	31 Ft.
Railroad tracks	28.6 Ft.	35 Ft.

TABLE 4-3. 230 kV VERTICAL CLEARANCE TO GROUND		
Surface Underneath Conductors	**NESC Standard Clearance**	**PPL Conductor Clearances**
Roads, streets, alleys	22.4 Ft.	33 Ft.
Other land traversed by vehicles (such as cultivated field, forest, etc.)	22.4 Ft.	33 Ft.
Spaces accessible to pedestrians only	18.4 Ft.	33 Ft.
Railroad tracks	30.4 Ft.	35 Ft.

TABLE 4-4. 500 kV VERTICAL CLEARANCE TO GROUND		
Surface Underneath Conductors	**NESC Standard Clearance**	**PPL Conductor Clearances**
Roads, streets, alleys	28.4 Ft.	40 Ft.
Other land traversed by vehicles (such as cultivated field, forest, etc.)	28.4 Ft.	40 Ft.
Spaces accessible to pedestrians only	24.4 Ft.	40 Ft.
Railroad tracks	36.4 Ft.	53 Ft.

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

B. 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 through the use of 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 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.

C. PERSONNEL SAFETY RULES

Overall PPL Electric designs and constructs projects with high regards to both public and employee safety, and follows or exceeds all codes and requirements. The following are a few, but not all, of the PPL Electric safety rules that demonstrate the Company's dedication to employee and contractor safety:

- Work 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.
- 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 test is done 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.

D. MAGNETIC FIELD MANAGEMENT PLAN

PPL Electric's Magnetic Field Management Program is applied to new and reconstructed transmission line projects. In order to lower magnetic field exposures, the program generally prescribes the use of a line design that provides ground clearances higher than the 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, are considered, provided those modifications can be made at low or no cost and will not interfere with the operation of the line.

VERIFICATION

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

Date: 4/16/18

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **Letter of Notification** has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

PA Historical and Museum Commission
PA State Historic Preservation Office
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120
Attn: Douglas C. McLearen, Chief

PA Department of Transportation
Commonwealth Keystone Building
400 North Street, 8th Floor
Harrisburg, PA 17120
Attn: Jason Sharp, Acting Chief Counsel

PA Department of Environmental Protection
PO Box 2063
Market Street State Office Building
Harrisburg, PA 17105
Attn: Office of Field Operations

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

PA Game Commission
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
Attn: Olivia Mowery

PA Fish and Boat Commission
595 E. Rolling Ridge Drive
Bellefonte, PA 16823-9620
Attn: Christopher A. Urban

U.S. Army Corps of Engineers
Philadelphia District
Regulatory Branch
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390

U.S. Fish and Wildlife Services
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, PA 16801
Attn: Lora Lattanzi

Monroe County Board of Commissioners
One Quaker Plaza, Room 201
Stroudsburg, PA 18360
Attn: John R. Moyer, Chairperson

Monroe County Planning Commission
One Quarter Plaza
Stroudsburg, PA 18360
Attn: Richard Schlameuss, Chairman

Eldred Township
PO Box 600
490 Kunkletown Road
Kunkletown, PA 18058
Attn: E. Ann Velopolcek, Secretary

Eldred Township Board of Supervisors
PO Box 600
490 Kunkletown Road
Kunkletown, PA 18058
Attn: Mary Anne Clausen, Chairperson

Eldred Township Planning Commission
PO Box 600
490 Kunkletown Road
Kunkletown, PA 18058
Attn: Robert Boileau, Chairman

Polk Township
PO Box 137
165 Polk Township Road
Kresgeville, PA 18333
Attn: Ruthanne Toner, Secretary

Polk Township Board of Supervisors
PO Box 137
165 Polk Township Road
Kresgeville, PA 18333
Attn: Brian K. Ahner, Chairman

Polk Township Planning Commission
PO Box 137
165 Polk Township Road
Kresgeville, PA 18333
Attn: Brian K. Ahner, Supervisor

Anthony D Giordano
653 52 ND St
Brooklyn, NY 11220

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Kunkletown, PA 18058

Brian S & Kathy L Beidleman
160 Shady Maple Ln
Kunkletown, PA 18058

Charles H Kuhenbeaker Trustee
12786 Golden Trout Way
Penn Valley, CA 95946

5Chris A Kuhenbeaker
189 Weir Mountain Rd
Kunkletown, PA 18058

Chris Alan & Tania M Kuhenbeaker
189 Weir Mountain Rd
Kunkletown, PA 18058

Cinderella E & Sandra A Kresge
PO Box 507
Kunkletown, PA 18058

Commonwealth Of Pennsylvania
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Harrisburg, PA 17120

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PO Box 386
Kunkletown, PA 18058

David J & Timothy J Tanzosh
PO Box 448
Kunkletown, PA 18058

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486 Correll Rd
Kunkletown, PA 18058

Dennis William & Larry I Altemose
PO Box 54
Gilbert, PA 18331

Diane L Nansteel et al.
951 Almar Ln
Kunkletown, PA 18058

Edward M Nestor
202 Hill St
Slatington, PA 18080

Eldred Township
PO Box 600
Kunkletown, PA 18058

Ernest D Frantz et al.
118 Oak Tree Rd
Kunkletown, PA 18058

Ernest J & Susan R Schubert
PO Box 382
Gilbert, PA 18331

Ethan N & Carol M Simonson
2265 Reo Drive
Effort, PA 18330

Fannie Mae
14221 Dallas Parkway
Dallas, TX 75254

Gerald E & Nancy E Kresge
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Gilbert, PA 18331

Harry R Laughlin III
Daryla Laughlin
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Kunkletown, PA 18058

Howard A & Claudette M Polbos
136 Country View Ln
Kunkletown, PA 18058

James Mcvea Hall
213 York Ave
Staten Island, NY 10301

James P Ertle et al.
181 Silver Spring Blvd
Kunkletown, PA 18058

Jason Mark Green
381 Silfies Rd
Kunkletown, PA 18058

Jeffrey A & Deborah A Smith
105 Lobach Ln
Kunkletown, PA 18058

John L & Patricia Ashbey
PO Box 377
Gilbert, PA 18331

John M & Colleen F Bollinger
103 Cale Ct
Kunkletown, PA 18058

John W Baird
110 Upper Sam Smith Rd
Kunkletown, PA 18058

Justin C Scheffner
135 Upper Sam Smith Rd
Kunkletown, PA 18058

Kenneth & Clara E Mehnert
601 Mountain View Dr
Gilbert, PA 18331

Kim A Buskirk
385 Bollinger Rd
Kunkletown, PA 18058

Kunkletown Rod & Gun Club Inc.
Robert Dorshimer, Tres.
PO Box 596
Kunkletown, PA 18058

Larry D Borger Jr
1230 Stoney Ridge Rd
Palmerton, PA 18071

Lina I Safi
Valerie M Clark
161 Stone Ln
Kunkletown, PA 18058

Lorraine A Everett
367 N 6th St
Lehighton, PA 18235

Mark H & Donna M Bollinger
111 Cale Ct
Kunkletown, PA 18058

Martin D Mehlig II
153 Country View Ln
Kunkletown, PA 18058

Martin D Mehlig
150 Country View Ln
Kunkletown, PA 18058

Martin Mehlig
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Kunkletown, PA 18058

Marwan & Talal M Rajha
3019 N Front St
Whitehall, PA 18052

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Kunkletown, PA 18058

R & J Bush Family Limited Partnership
302 Kunkletown Rd
Kunkletown, PA 18058

Randy A Ruhf
718 Fiddletown Rd
Kunkletown, PA 18058

Richard & Eileen Yacenko-Devens
48 Dickison Rd
Westtown, NY 10998

Richard Courtright Jr
Lynn A Courtright
6551 Pine Tree Ln
Kunkletown, PA 18058

Richard S & Karol F Meitzler
120 Weir Mountain Rd
Kunkletown, PA 18058

Robert J & Joan V Delong
631 Church Rd
Kunkletown, PA 18058

Roberta M Syracuse
139 Weir Mountain Rd
Kunkletown, PA 18058

Salvatore A Albanese
563 Frable Rd
Kunkletown, PA 18058

Sandra A Eckman et al.
122 Stone Ln
Kunkletown, PA 18058

Scott Allen Hughes
835 Route 115
Saylorsburg, PA 18353

Sebastian P Alappat
Lori Ann Syracuse
36 W 90Th St, Apt B
New York, NY 10024

Springleaf Home Equity Inc.
& Anthony Malinowski
600 NW Second St
Evansville, IN 47708

Susan Penny Airola Revocable Trust
PO Box 564
Kunkletown, PA 18058

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951 Almar Ln
Kunkletown, PA 18058

Theodore W Keesler Sr
Tyler D Keesler
136 Weir Mountain Rd
Kunkletown, PA 18058

Thomas M Horan
922 Castle Point Terrace
Hoboken, NJ 07030

Wilfred Karl & Monika Rolappe
PO Box 381
Kunkletown, PA 18058

William Kuhenbeaker
337 Weir Mountain Rd
Gilbert, PA 18331

William Scott Bast
301 Kunkletown Rd
Kunkletown, PA 18058

William O & Eileen Sweeney
147 Taylor Run
Kunkletown, PA 18058

Gerald D & Ellen Bollinger
926 Almar Ln
Kunkletown, PA 18058

Date: April 19, 2018

Lindsay A. Berkstresser, Esquire