

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**RE: LETTER OF NOTIFICATION OF :
PPL ELECTRIC UTILITIES :
CORPORATION, FILED PURSUANT TO :
52 PA CODE CHAPTER 57, :
SUBCHAPTER G, FOR APPROVAL OF :
THE RECONSTRUCTION OF THE :
HOSENSACK - WESCOSVILLE 230 KV :
TRANSMISSION LINE IN UPPER :
MACUNGIE, LOWER MACUNGIE, :
UPPER MILFORD AND LOWER :
MILFORD TOWNSHIPS IN LEHIGH :
COUNTY, PENNSYLVANIA :**

Docket No. A-2011-_____

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**LETTER OF NOTIFICATION OF
PPL ELECTRIC UTILITES CORPORATION**

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 that the Pennsylvania Public Utility Commission (“Commission”) approve the reconstruction in place of the Hosensack - Wescosville # 3 230 kV Transmission Line. In support thereof, PPL Electric states the following:

I. OVERVIEW

1. PPL Electric proposes to rebuild a portion of the Hosensack - Wescosville # 3 230 kV Transmission Line (“Hosensack - Wescosville #3 Line”) which originates near the Hosensack Substation in Lower Milford Township, Lehigh County, Pennsylvania, and traverses portions of Upper Milford, and Lower Macungie Townships in Lehigh County, Pennsylvania ending at the Wescosville Substation in Upper Macungie, Lehigh County, Pennsylvania.

2. PPL Electric proposes to rebuild this line, which will include replacing all structures with new structures.

3. The Hosensack – Wescosville # 3 Line was built and placed in service in 1928 and is now 83 years old. It needs to be replaced because it has deteriorated substantially since it was placed in service. The foundations, the structure members, hardware, insulators, conductors and lightning protection all have been exposed to the elements and will not continue to provide dependable service unless they are replaced.

4. PPL Electric proposes to minimize impacts of the Hosensack - Wescosville # 3 Line by rebuilding it along its existing route and in the existing right-of-way. The existing right-of-way is sufficient to accommodate the rebuilt line and, in order to reduce the possibility of vegetation-related outages, has already been cleared of vegetation that could interfere with the operation of a high voltage transmission line.

5. This Letter of Notification for the rebuilding of the Hosensack – Wescosville #3 Line is the third filing by PPL Electric under its Vintage Conductor program. The first such filing was the Manor-Graceton project, at Docket No. A-2011-2219913. The second filing was the Otter Creek – Conastone project, at Docket No. A- 2011-2228595. Under the Vintage Conductor program, PPL Electric has identified old and/or deteriorated transmission lines that require reinforcement in order for PPL Electric to continue to provide safe and reliable service to its customers. Most of the transmission lines in the program were originally constructed in the 1920s and 1930s.

6. Presently, the structures for the Hosensack - Wescosville # 3 Line are steel lattice towers. A detailed inspection of the structures has revealed that the concrete foundations are in

poor condition and many would need to be replaced. Further, many steel members of the lattice structures are either bent or missing, which severely weakens the structure.

7. The Hosensack – Wescosville # 3 Line has been part of PPL Electric’s backbone bulk power system and has been relied upon in system planning for 83 years. The line is still required by PPL Electric to provide adequate and reliable service to customers. Therefore, abandoning the line is not a reasonable option.

8. PPL Electric analyzed whether it would be more appropriate to rehabilitate the Hosensack – Wescosville #3 Line or to rebuild it. After a thorough analysis, PPL Electric determined that it would be slightly less expensive to rebuild the line. PPL Electric also determined that rebuilding the line would result in a much longer expected service life than if the Company attempted to rehabilitate the line. It is therefore clearly more cost effective to rebuild the Hosensack - Wescosville #3 Line.

9. The rebuilt line will have new conductors with the same capacity. The capacity of the new conductors will be less than the capacity of PPL Electric’s standard conductors for 230 kV transmission lines. The existing conductor size is sufficient for this circuit as it serves only one power transformer at the Wescosville substation which has a capacity that is equal to the capacity of the smaller conductors. Using this smaller conductor, which is the minimum size required for operation of a 230 kV line, will result in cost savings to the project in terms of structures and foundations.

II. INTRODUCTION

10. The Applicant is PPL Electric Utilities Corporation. Its principal address is:

Two North Ninth Street
Allentown, Pennsylvania 18101.

11. PPL Electric is a Pennsylvania corporation which supplies electric distribution, transmission and provider of last resort electric supply services pursuant to the regulatory jurisdiction of the Commission to approximately 1.4 million customers. Its service territory covers approximately 10,000 square miles in all, or portions of, twenty-nine counties in eastern and central Pennsylvania.

12. PPL Electric's attorneys are:

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

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

- Attachment 1 Necessity Statement.
- Attachment 2 Engineering Description.
- Attachment 3 Siting Analysis and Environmental Assessment.
- Attachment 4 Design Criteria and Safety Practices.
- Attachment 5 Magnetic Field Management Practices.
- Attachment 6 List of Involved Governmental Agencies, Municipalities and Other Public Entities.
- Attachment 7 List of Owners of Property within the Right-of-Way.

This Letter of Notification and the Attachments listed above, which are incorporated herein by reference, provide all of the information required to be contained in a Letter of Notification under the Commission's regulations at 52 Pa. Code § 57.72(d) and the Commission's Interim Guidelines for the Filing of Electric Transmission Line Siting Applications at 52 Pa. Code §§ 69.3101 – 3107.

III. PROJECT SUMMARY

14. The Hosensack – Wescosville #3 Line will be located in Lower Milford, Upper Milford, Lower Macungie, and Upper Macungie Townships, Lehigh County, Pennsylvania. It is approximately 8.7 miles in length.

15. The Hosensack - Wescosville #3 Line originates near the Hosensack Substation in Lower Milford Township. The portion of the line being considered in this application ends at the Wescosville Substation in Upper Macungie Township.

16. PPL Electric proposes to rebuild the Hosensack – Wescosville #3 Line.

17. The present Hosensack - Wescosville #3 Line has a single circuit and is supported by steel lattice structures which average 90 feet in height.

18. The rebuilt Line will be supported primarily by steel monopole structures with upswept steel arms. The line will be built for a single circuit.

19. Angle structures may be single or two or three-pole structures depending on the severity of the angle. Some angle structures may be guyed.

20. All poles will be installed on concrete foundations. The structures will average about 120 feet in height.

21. In total, the project will require the installation of approximately 42 structures. The average span length will be 1,100 feet. PPL Electric intends to construct the new poles adjacent to the existing lattice towers along the centerline of the right-of-way, although the location of some new structures may be shifted or adjusted slightly to reduce environmental impacts, to meet engineering design requirements, or to accommodate reasonable requests from property owners. The structures currently supporting the line will be removed.

22. A picture of the proposed type of structure to be used to rebuild the Hosensack - Wescosville #3 Line is provided in Figure 1 to Attachment 2, the Engineering Description.

23. There will be three 795 KCMIL,¹ 30/19 stranding ACSR² power conductors for the line.

24. Lightning protection will be provided by a 0.752 inch diameter optical ground wire with 48 single mode fibers. An overhead shield wire, which will consist of ½ inch extra high strength steel, will also be installed.

¹ A circular mil is the cross-sectional areas of a wire one mil in diameter, where 1 KCMIL = 0.5067 mm².

² Aluminum conductor steel reinforced.

25. The minimum ground clearance will be 32 feet, which will occur at the maximum thermal conductor temperature of 125° C.

26. The Hosensack - Wescosville #3 Line will be designed and constructed to comply with, and will generally surpass, the applicable minimum standards established by the National Electric Safety Code (“NESC”).

27. The rebuilt line will have a single circuit.

28. The estimated cost to rebuild the Hosensack – Wescosville #3 Line is \$12,500,000.

29. Subject to the Commission’s approval, construction of the project is scheduled to start in fall of 2012, in order to meet an in service date of November, 2013.

IV. NECESSITY

30. The purpose of the Project is to rebuild the existing Hosensack - Wescosville #3 Line substantially in place. This line is needed in order for PPL Electric to provide reliable service to customers. The Hosensack - Wescosville #3 Line is the only 230 kV source of electric power to the 230-69 kV transformer # 2 at Wescosville. Permanent removal of the Hosensack – Wescosville #3 Line from service would weaken the 230 kV system in eastern Pennsylvania. When this line is temporarily removed from service to perform line maintenance, during heavy load periods an unplanned outage of either the Wescosville 138-69 kV transformer # 1 or # 4 causes an overload on the remaining transformer. The Hosensack - Wescosville #3 Line and the 230-69 kV transformer # 2 at Wescosville would normally relieve this overload condition. In addition, the 230-69 kV transformer # 2 is used to relieve an overload on the Wescosville 500-138 kV transformer # 3 during peak load periods under specific generation dispatches or

abnormal sectionalizing. Therefore, abandonment of the Hosensack – Wescosville #3 230 kV Transmission Line is not an option.

V. REHABILITATE V. REBUILD

31. Because it is necessary for the Hosensack - Wescosville #3 Line to remain in service, PPL Electric undertook an analysis to determine whether the line should be rebuilt or rehabilitated. The analysis included a detailed inspection of a statistically significant portion of the structures, 16 percent or 8 of 50 of the structures. The inspection revealed the following:

- a. Most of the structures have severe foundation conditions that require replacement.
- b. Many base plates have severe section loss.
- c. Many of the structures have bent, deformed or missing members, which reduce their ability to support conductors and hardware.
- d. The grounding system at each structure leg would require upgrading by adding counterpoise.
- e. All conductors need to be replaced due to their age.
- f. The overhead shield wires require replacement due to age and conditions of the materials. In addition, the wires may have to be repositioned in order to bring the line and structures up to current lightning protection standards. Some line segments do not have the appropriate shielding angle, which makes the line more susceptible to lightning strikes.
- g. All insulators require replacement due to their age, the condition of the insulating material, and contamination with pollutants from long-term exposure.

32. In order to determine whether the line should be rehabilitated or rebuilt, PPL Electric evaluated the cost of each alternative. Based on the evaluation, PPL Electric concluded that it would be slightly less expensive to rebuild the line rather than rehabilitate it.

33. Rebuilding the line would provide additional benefits. First, the rebuilt line would have a much longer expected useful life. A rebuilt line with modern structures, conductors, and hardware has a depreciable life of 65 years. A rehabilitated line, in contrast, with many portions of the structure already 83 years old could be expected to remain in service for only about 30 years. As a result, the life cycle cost of rebuilding the line is far less than rehabilitating the line.

34. Rebuilding the line also provides PPL Electric with the opportunity to build the line to meet modern clearance requirements under the NESC, to implement its Electric and Magnetic Field Management Practices, and to increase the line's carrying capacity.

VI. SITING ANALYSIS

35. Once it was determined that the Hosensack – Wescosville #3 Line should be rebuilt, PPL Electric undertook an analysis to determine whether there was an alternative route that would have a lesser impact than rebuilding within the existing right-of-way on all factors of the natural and human environment, while avoiding unreasonable routes, high or unnecessary costs and non-standard design requirements to the extent practical.

36. The first step in the siting analysis was to establish a Study Area. The Study Area generally is bounded by the Wescosville substation in the north, to the immediate northwest of the intersection of I-476 and US-222. The southern terminus lies just east of Kings Highway (State Route 2027) near the Hosensack Substation.

37. The siting process made use of Geographic Information System ("GIS") data. GIS data allow for the consideration and efficient use of a wide variety of information that would

otherwise be unavailable or impractical to consider for a planning effort of this scope. GIS information is a highly effective tool when utilized for broad level planning studies, identifying and characterizing landscape level constraints and features, and developing environmental inventory information for comparisons between planning alternatives.

38. PPL Electric engaged in field inspections in the fall of 2010, in order to confirm and supplement data obtained from other sources. Alternative routes were observed from points of public access.

39. In addition, PPL Electric consulted with numerous federal, state and local governmental agencies in order to gather additional information.

40. Based upon a comprehensive evaluation of potential alternative routes within the Study Area, PPL Electric determined that no feasible alternative route exists to re-site the Hosensack - Wescosville #3 Line that would have a lesser impact than rebuilding the line in place in the existing right-of-way. Use of the existing right-of-way will involve almost no additional clearing of vegetation since the right-of-way is already cleared. No condemnation of property will be required since PPL Electric already owns sufficient right-of-way for the line.

VII. IMPACTS ON NATURAL AND HUMAN ENVIRONMENTS

41. The rebuild of the Hosensack – Wescosville #3 Line will have only minimal impacts on the natural and human environments.

42. As explained in Attachment 3, no communication towers, pipelines, or other utilities will be affected by the proposed Hosensack – Wescosville #3 Line. Queen City Airport is located 3.2 miles east of the rebuilt line. No Impacts are anticipated.

43. The proposed Hosensack - Wescosville #3 Line was reviewed with the Pennsylvania Historical and Museum Commission (“PHMC”) Bureau of Historic Preservation.

According to their Cultural Resource Geographic Information System (“CRGIS”), there are numerous cultural resources within two miles of the right-of-way. PPL Electric will conduct a Phase I archaeological survey, and present the results to the PHMC. Should potentially significant archaeological sites be identified, a Phase II survey will be conducted to determine whether such sites are eligible for the National Register.

44. PPL Electric will consult with the PHMC throughout the planning, design, and construction process and conduct field work and surveys as necessary as part of the project permitting process to minimize impacts to historic sites.

45. Any direct physical effects will be minimized, where practical, by relocating access roads and staging areas. Any such effects that cannot be avoided will be only temporary.

46. PHMC indicated in a letter dated January 4, 2011, that although historic buildings, structures, districts or objects may be located in the project area, in their opinion, the activity described in this proposal should have no effect on such resources.

47. All reasonable efforts will be made to avoid affecting archaeological resources. Where practical, any such resources in the transmission line corridor, in the direct path of access roads or at proposed work areas will be avoided by relocation of structure positions and rerouting of roads and reconfiguring or relocating work areas.

48. The Hosensack - Wescosville #3 Line will cross several wetlands and waters. This includes a total of 6 stream crossings. All wetlands and waters will be surveyed and added to construction plans. PPL Electric will avoid wetland impacts where possible.

49. PPL Electric will obtain all required permits and comply with all conditions imposed on the issuance of such permits.

50. Because PPL Electric proposes to rebuild the Hosensack – Wescosville #3 Line in an existing, cleared right-of-way, minimal tree clearing for the line will be required. It is possible that there may be some minimal tree clearing for access roads and staging areas. If so, PPL Electric will follow its Vegetation Management Specification which is subject to change from time to time.

51. The route for the Hosensack – Wescosville #3 Line crosses near two areas of special concern in Lehigh County. The first site, East Texas-Little Lehigh Creek, is located near the middle of the project area along the Little Lehigh Creek in the town of East Texas. This site is associated with the riparian zone located along Little Lehigh Creek. It is of importance due to the presence of a spikerush species, a state listed threatened species of concern. Transmission line construction activities will avoid the area where the spikerush grows, so no impact is expected.

52. The second site is the Swabia/Indian Creek/Hosensack Watershed. This site is found within the southern portion of the project area. The watershed includes several connected habitat types, including marshes, streams, forested riparian areas, and scrub-shrub wetlands. The Hosensack Substation and associated line right-of-way have been identified as being beneficial to threatened and endangered species found within this portion of the project area.

53. The rebuild of the line will not cause significant incremental disturbance of these areas because the right-of-way has already been cleared to accommodate the existing line that will be replaced. Although existing access roads will be used in most areas, some vegetation clearing may be required. PPL Electric will minimize clearing in special natural areas and where threatened, endangered or rare species might be affected. Where appropriate, PPL Electric will consult with the Pennsylvania Department of Conservation and Natural Resources (“DCNR”) to

develop a specific vegetation management plan for areas with potentially affected rare, endangered or threatened species.

54. PPL Electric has consulted with state and federal agencies to obtain information regarding endangered and threatened species in close proximity to the proposed Hosensack – Wescosville #3 Line.

55. The DCNR indicated that PPL Electric should conduct surveys regarding six species presently listed or proposed to be listed in the Pennsylvania Natural Diversity Inventory (“PNDI”) as threatened or endangered. PPL Electric will conduct the requested surveys for the six species and resolve all PNDI conflicts prior to construction.

56. Pennsylvania provides habitat for numerous species of wildlife, including certain rare, threatened or endangered species. Rebuilding the line within the existing right-of-way will reduce, and perhaps eliminate, adverse impacts on wildlife habitat.

57. Areas near the right-of-way include potential habitat for several species of special concern, including bog turtles. PPL Electric has received correspondence from the Pennsylvania Game Commission indicating that the project is not expected to impact state listed or rare fish or mammals.

58. PPL Electric will conduct all required surveys and resolve all potential conflicts with rare, endangered and threatened species prior to starting construction.

VIII. HEALTH AND SAFETY

59. The rebuild of the Hosensack – Wescosville #3 Line will not cause any unreasonable risk to the health and safety of persons in its vicinity.

60. The Engineering Description of the proposed Hosensack – Wescosville #3 Line is provided in Attachment 2 accompanying this Letter of Notification. The Hosensack -

Wescosville #3 Line will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable NESC minimum standards and all applicable legal requirements. Descriptions of NESC standards, PPL Electric's design criteria, and PPL Electric's safety practices are provided in Attachment 4 hereto.

61. Attachment 5 accompanying this Letter of Notification explains PPL Electric's standards for Electric and Magnetic Field Management.

62. In general, PPL Electric constructs its transmission lines with ground clearances greater than those required under the NESC in order to reduce electric and magnetic fields from transmission lines. PPL Electric will implement additional measures to reduce electric and magnetic fields where doing so can be accomplished at little or no cost and where the measures will not interfere with the operation of the transmission line.

63. The proposed Hosensack – Wescosville #3 Line was reviewed with representatives of Lower Milford, Upper Milford, Lower Macungie, and Upper Macungie Townships and Lehigh County. The townships and the County did not object to the project.

IX. LETTER OF NOTIFICATION

64. 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). The proposed rebuild of the Hosensack – Wescosville #3 Line qualifies for use of a Letter of Notification under 52 Pa. Code § 57.72(d)(1)(i) because the Hosensack – Wescosville #3 Line will be located entirely on an existing transmission line right-of-way and because the size, character, design or configuration of the proposed line will not substantially alter the right-of-way. The rebuild of the Hosensack - Wescosville #3 Line will not substantially alter PPL Electric's existing right-of-way for the following reasons:

a. The existing right-of-way is 100 feet wide, which is sufficient for the rebuilt line. No additional right-of-way is required for the project.

b. Although the structures for the rebuilt line will be taller than the structures for the existing line, the rebuilt line is not expected to have a substantially greater effect on the right-of-way. The present structures are steel lattice structures which have numerous, complex cross-members and braces. In contrast, most of the rebuilt structures will be monopoles with simple upswept arms to support the conductors.

c. In addition, the existing lattice towers are wider than the rebuilt structures. The existing lattice towers are approximately 57 feet in width. In contrast, the maximum width of the future monopole structures and the upswept arms will be approximately 34 feet.

d. The rebuilt structures will have a much smaller footprint on the right-of-way. Lattice towers require four foundations per structure, and the structures have a footprint of approximately 900 square feet. A modern monopole structure, in contrast, has a single foundation with a footprint of approximately 64 square feet.

X. PROCEDURE

65. Attachment 6 accompanying this Letter of Notification contains a list of the involved governmental agencies, municipalities, and other public entities. Copies of this Letter of Notification are being served on the agencies listed in Attachment 6 in accordance with 52 Pa. Code § 57.72(d)(3).

66. PPL Electric requests specifically that the Commission approve siting and rebuilding of the Hosensack – Wescosville #3 Line as described.

67. As soon as practicable after the filing of this Letter of Notification and the assignment by the Commission of a docket number, PPL Electric will publish notice of the filing in newspapers of general circulation in the area of the proposed Hosensack – Wescosville #3 Line. Such notice will contain: (a) the date this Letter of Notification was filed with the Commission; (b) a brief description of the proposed reconstruction project and its location; (c) locations where the complete Letter of Notification may be reviewed by the public; and (d) an instruction that interested parties should contact the Commission.

68. 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 Hosensack - Wescosville #3 Line will be constructed as proposed herein without the formal application process set forth at 52 Pa. Code §§ 57.71, *et seq.*

XI. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve the reconstruction of the Hosensack – Wescosville #3 230 kV Transmission Line in Lower Milford, Upper Milford, Lower Macungie, and Upper Macungie Townships in Lehigh County, Pennsylvania, as a single circuit line, as explained above and in the Attachments hereto.

Respectfully submitted,



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Date: April 25, 2011

Attorneys for PPL Electric Utilities Corporation

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VERIFICATION

I, Gregory N. Dudkin, being the Sr. Vice President of Operations for 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 that 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: 4/21/11



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