EXECUTIVE SUMMARY

This Siting Application is submitted by PPL Electric Utilities Corporation (PPL Electric) pursuant to the Pennsylvania Public Utility Commission's (PUC or the Commission) regulations at 52 Pa. Code §§ 57.71 through 57.77 for PUC approval to site and construct transmission lines associated with the proposed Northeast-Pocono Reliability Project in portions of Luzerne, Lackawanna, Monroe, and Wayne Counties. As explained in the Attachments and Testimony filed with this Siting Application, the Northeast-Pocono Reliability Project is required to resolve violations of PPL Electric's "Reliability Principles & Practices" (RP&P) guidelines and to reinforce the 69 kV systems in Carbon, Lackawanna, Luzerne, Monroe, Pike, and Wayne Counties by bringing a new 230 kV supply into the area.

To resolve reliability and planning violations and to ensure reliable long-term service to customers in the Northeast Pocono region, PPL Electric is proposing to build a 230 kV network of transmission facilities which will extend into the counties identified above. This network will be created by extending the existing 230 kV system which currently loops around the defined Northeast Pocono area. Extending the 230 kV source(s) closer to the growing customer load and tying those 230 kV source(s) into the existing local 69 kV facilities through new regional substations will create a stronger, more reliable power system. PPL Electric's proposed project will significantly reinforce transmission supply to the northeast portion of PPL Electric's service territory.

To accomplish this reinforcement of the Northeast Pocono region, PPL Electric proposes to site and construct transmission line connections associated with two new 230-69 kV transmission substations, the West Pocono 230-69 kV Substation and North Pocono 230-69 kV Substation.[1] The proposed new West Pocono and North Pocono Substations will be connected to the existing 230 kV transmission systems by a new 58-mile 230 kV transmission line. The proposed transmission line will have three segments: (1) approximately 15 miles of the line will be constructed from the existing Jenkins 230-69 kV Substation to the new West Pocono 230-69 kV

[1] During the initial planning and siting phases of the Northeast-Pocono Reliability Project, the West Pocono Substation was referred to as the "Acahela Substation" and the North Pocono Substation was referred to as the "Pocono Substation" in various documents. For purposes of this filing, these substations will be referred to as the West Pocono and North Pocono Substations, respectively.

Substation; (2) approximately 21 miles of the line will be constructed from the new West Pocono 230-69 kV Substation to the new North Pocono 230-69 kV Substation; and (3) approximately 22 miles of the line will be constructed from the new North Pocono 230-69 kV Substation to the Paupack 230-69 kV Substation.

PPL Electric also proposes to construct five new 138/69 kV transmission lines, collectively approximately 11.3 miles, to connect the new North Pocono and West Pocono 230-69 kV Substations to the existing local 138/69 kV transmission system. Approximately 5.3 miles of new 138/69 kV transmission lines will be constructed to connect the new North Pocono 230-69 kV Substation to the existing local 138/69 kV lines. Approximately 6.0 miles of new 138/69 kV transmission lines will be constructed to connect the new West Pocono 230-69 kV Substation to the existing 138/69 kV local lines.

Collectively, the proposed North Pocono and West Pocono 230-69 kV Substations and associated new transmission lines make up the proposed Northeast-Pocono Reliability Project. The estimated cost to design and construct the Northeast-Pocono Reliability Project is approximately $154 million. This cost includes approximately $36 million for the substation work, $90.6 million for the 230 kV transmission line work, $10.3 million for the 138/69 kV transmission line work, and $17.1 million for the acquisition of needed rights-of-way and land for the substations. The Northeast-Pocono Reliability Project has a scheduled construction start date of Spring 2014 to meet an in-service date of November 2017.

Need for the Project

Currently, the only source of supply to the Northeast Pocono area is provided by 138/69 kV transmission circuits. It has been approximately 30 years since the last major transmission reinforcement was built in this Northeast Pocono area. There has been substantial load growth over time, and that load growth is expected to continue. The concern with the transmission facilities in this area is that the 69 kV transmission circuits are long in length and serve a significant number of customers. These customers are vulnerable to long duration outages for loss of the transmission circuit which serves them. The ability to restore service to these customers is limited due to the lack of 230 kV transmission sources in the area. The RP&P violations

explained in the Attachments and Testimony filed with this Siting Application demonstrate that the local transmission system does not measure up to PPL Electric's reliability standards.

PPL Electric's transmission system studies of the area revealed that, starting by the winter of 2014-2015, an outage of any one of the following facilities would result in violations of PPL Electric's RP&P guidelines for load interruption due to a contingency (unplanned outage): (1) double-circuit Blooming Grove – Jackson[2] and Peckville – Jackson 138/69 kV Transmission Line; (2) single-circuit outage of the Peckville – Jackson 138/69 kV circuit on the Blooming Grove – Jackson and Peckville – Jackson 138/69 kV Transmission Line; (3) single-circuit outage of the Blooming Grove – Jackson 138/69 kV circuit on the Blooming Grove – Jackson and Peckville – Jackson 138/69 kV Transmission Line; (4) double-circuit outage of the East Palmerton – Wagners #1 & #2 138/69 kV Transmission Line; and (5) single-circuit outage of the East Palmerton - Wagners #2 138/69 kV circuit on the East Palmerton-Wagners #1 & #2 Transmission Line. PPL Electric's transmission system studies further project that, by the winter of 2015-2016, the normal loading on both the Blooming Grove - Jackson and Peckville-Jackson 138/69 kV circuits will violate PPL Electric's RP&P guidelines. This is a concern because it limits the ability for PPL Electric to restore load from the interruption of a neighboring circuit. Finally, the transmission system studies identified that, by the winter of 2026-2027, the loss of one of the transformers at the Jackson 138/69 kV Substation could overload the remaining transformer in excess of its one month thermal rating, which also would be a violation of the RP&P guidelines. These violations demonstrate that the 138/69 kV transmission system serving the Northeast Pocono area needs to be reinforced.

The Northeast-Pocono Reliability Project is required to resolve the violations of the RP&P guidelines and to reinforce the existing 138/69 kV transmission system serving Carbon, Lackawanna, Luzerne, Monroe, Pike, and Wayne Counties by bringing a new 230 kV supply source closer to the growing load centers. To accomplish this, PPL Electric proposes to locate the new West Pocono and North Pocono 230-69 kV Substations central to the loads they will serve. The two new Substations and associated new transmission lines will enable PPL Electric to shorten the length of the existing 138/69 kV transmission circuits, which will reduce the distance between the supply of power and the homes and businesses that use the electricity. This proposed

[2] Abbreviated names of facilities appear on the figures in Appendix 5 of Attachment 2.

arrangement also will provide an alternate supply of power to the Northeast-Pocono area in the event that the normal supply is interrupted, which will improve power restoration times and provide operating flexibility and improved reliability for customers in the area. The Northeast-Pocono Reliability Project will reduce the number of customers affected by a single facility outage, as well as reduce the duration of the outage.

Siting Analysis

A detailed siting study was conducted for the Northeast-Pocono Reliability Project that identified major opportunities and constraints. Opportunities in the region included agricultural fields, forested areas, and existing utility corridors. Constraints included residential areas, conserved lands, and sensitive natural areas. A quantitative and qualitative evaluation process was then used to generate, and ultimately compare, alternative transmission routes for the Northeast-Pocono Reliability Project. The methodology used for the siting study provided a framework from which to select the routes most suited for an overhead transmission line. The ultimate goal of the study was to select a route that avoids or minimizes adverse impacts to the natural, cultural and social environments to the maximum extent practical, while still maintaining the economic viability and technical feasibility of the Project. The siting study process was executed independently for each of the proposed 230 kV and 138/69 kV transmission line segments of the Northeast-Pocono Reliability Project.

The siting analysis divided the 230 kV portion of the Northeast-Pocono Reliability Project into three segments based on the substation locations: the Jenkins-West Pocono segment, the West Pocono-North Pocono segment, and the North Pocono-Paupack segment. Two alternative routes were identified within the Jenkins-West Pocono Segment, three alternative routes were identified within the West Pocono-North Pocono Segment, and three alternative routes were identified within the North Pocono-Paupack Segment. Based on the results of quantitative and qualitative analyses, the Siting Team chose a preferred route for the proposed 230 kV transmission line: Alternative Route B as the Selected Route for the Jenkins-West Pocono Segment; Alternative Route D-1 as the Selected Route for the new West Pocono-North Pocono Segment; and Alternative Route F-1 as the Selected Route for the new North Pocono-Paupack Segment.

The siting analysis divided the 138 kV portion of the Northeast-Pocono Reliability Project into two parts based on the locations of the proposed new West Pocono 138/69 kV Substation and North Pocono 138/69 kV Substation. Two alternative routes for the 138/69 kV lines required to connect the West Pocono and North Pocono 230-69 kV Substation to the existing 138/69 kV system were identified. Based on the results of quantitative and qualitative analyses, the Siting Team chose a preferred route for the proposed 138 kV transmission lines: alternative route Connector Line 2 as the Selected Route for the West Pocono 138/69 kV Connector Line; and alternative route Connector Line 4 as the Selected Route for the North Pocono 138/69 kV Connector Line.

Overall, the preferred routes will have substantially less impact on the natural and built environments, land use, and citizens in the Northeast Pocono region. A detailed explanation of the selection of the preferred routes is provided in Attachments and Testimony filed with this Application.

PPL ELECTRIC UTILITIES SERVICE TERRITORY