

**PENNSYLVANIA PUBLIC UTILITY COMMISSION
HARRISBURG, PENNSYLVANIA 17120**

Application of PPL Electric Utilities Corporation, for Approval to Rebuild Approximately Six Miles of the Breinigsville-Alburtis 500 kV Transmission Line in Lower Macungie and Upper Macungie Townships, Lehigh County, Pennsylvania

**Public Meeting July 11, 2019
3007945-TUS
Docket No. A-2019-3007945**

Petition for Waiver of Certain Provisions of the Commission's Regulations for the Commission Review of Siting and Construction Of Electric Transmission Lines Set Forth at 52 Pa. Code §57.71 *et seq.*

MOTION OF COMMISSIONER NORMAN J. KENNARD

Before the Pennsylvania Public Utility Commission (Commission) for consideration and disposition is the full siting application of PPL Electric Utilities Corporation (PPL or Company), relative to the above-referenced docket (Application). In its Application, PPL seeks permission to rebuild the existing Breinigsville-Alburtis 500 kV Transmission Line into a double-circuit configuration (Breinigsville-Alburtis Line or Proposed Project). PPL also jointly filed with this Application a Petition for Waiver of certain regulations regarding Commission review of siting and construction of electric transmission lines.

Background and Petition for Waiver

PPL filed a Letter of Notification (LON) requesting Commission approval to rebuild the Breinigsville-Alburtis Line in November of 2017. By Order entered August 3, 2018, the Commission denied PPL's LON on the grounds that the Company did not adequately demonstrate need for the Proposed Project.¹ On August 31, 2018, PPL filed a Petition for

¹ I note my dissent from the Commission's finding that: (1) PPL did not establish a reasonable likelihood that the alleged events leading to an outage event were likely to occur; and (2) PPL did not demonstrate that the Proposed Project is an efficient and cost-effective choice relative to other alternatives. *Letter of Notification of PPL Electric Utility Corporation, for Approval to Rebuild the Existing Breinigsville-Alburtis 500 kV Transmission Line in Lower Macungie and Upper Macungie Townships, Lehigh County, Pennsylvania*, Docket No. A-2017-2635709 (Order entered August 3, 2018).

Review of the Commission's August 3, 2018 Order in the Commonwealth Court.² Based on a subsequent agreement by PPL with the Commission, the parties filed a Joint Application for Stay of the Commonwealth Court appeal pending Commission resolution of a full siting application to be filed by PPL for the Proposed Project.

In the instant Application, PPL explains that unlike many full siting applications, the Proposed Project involves reconstructing the existing Breinigsville-Alburtis Line entirely in the existing right-of-way. As such, PPL seeks certain waivers from our full siting requirements. I agree with PPL that its proposed waivers should be granted as the Proposed Project will not require new right of way or substantially alter the existing one.

Purpose of the Project

In addition to the waiver request, PPL is also seeking approval of the Proposed Project and has provided additional evidence of need with its full siting application. The Proposed Project will rebuild the existing Breinigsville-Alburtis Line into a double-circuit transmission line to improve the reliability of the Breinigsville Substation by providing a third 500 kV source. Currently, the Breinigsville Substation has two sources, the Wescosville-Breinigsville 500 kV transmission line and the Breinigsville-Alburtis line.

PPL states that the addition of this third 500 kV source will avoid unacceptable low voltage and voltage drops in the situation of the loss of both 500 kV lines. Specifically, PPL avers that if the Company experiences the loss of one line, PPL system operators are required to make manual readjustments. If the loss of the second line occurs during one of these readjustments, an unacceptable low voltage drop event would occur at the Breinigsville Substation. This scenario is referred to as an N-1-1 contingency. Should this scenario occur, PPL system operators would need to shed approximately 10,000 commercial and residential *distribution* customers to protect the grid from the risk of cascading outage and blackout events and to prevent equipment damage.³ PJM Interconnection, LLC (PJM) staff conducted an N-1-1 analysis that independently verified the identified voltage violations that would occur if this project is not completed.⁴

Separately, PPL has represented that the Proposed Project is designed to resolve safety issues to satisfy the requirements of the National Electric Safety Code (NESC). PPL has identified that 12 of the 28 existing spans of the Breinigsville-Alburtis Line would not satisfy the requirements of the 5mA rule for new or rebuilt transmission lines if the line was rebuilt with its

² See Docket No. 1194 CD 2018.

³ The Breinigsville 500 kV substation serves communication facilities, county and township offices, health care facilities, schools, sewage facilities, and UGI gas facilities. This substation also serves large commercial and industrial customers, including Air Products, Tek Park, Amazon, Nestle Foods and Coca Cola Bottling. PPL Electric Utilities Application, Attachment 1 – Necessity Statement.

⁴ April 29, 2019 PPL Reply to TUS Data Request, Q-5, PJM Reply to June 14, 2019 TUS-1 Data Request.

current configuration. PPL is obligated to ensure that its facilities comply with the standards set forth in the NESC.⁵ Rebuilding and raising the height of the line resolves these safety issues.

Standard of Review

The Commission will enter an order to approve an application for a proposed high-voltage (HV) transmission line only after it determines that the applicant has satisfied the following four criteria:

1. That there is a need for it.
2. That it will not create an unreasonable risk of danger to the health and safety of the public.
3. That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.
4. That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.

52 Pa. Code §57.76(a).

I conclude that the Application clearly satisfies the second, third, and fourth criteria. The Proposed Project will be built entirely within the existing PPL 200-foot-wide right-of-way. The new structures are almost the same height, with towers of 115 to 195 feet replacing towers that are currently 115 to 185 feet high. PPL will also use existing access roads where possible, and the new facilities will be in close proximity to existing ones. PPL states that construction will be done in compliance with the NESC and that it will obtain all necessary local and state permits for the work before beginning construction. The Proposed Project does not traverse any national, state or local parks, recreational areas, or natural landmarks. The state and federal agencies have confirmed that they either have no concerns regarding impacts on endangered or threatened species, or that they will work with PPL to ensure that the construction does not negatively impact such species.

The criteria that requires the most consideration for the Proposed Project is whether it is needed. The Commission's regulations do not define need, but a review of our enabling legislation, the history of this regulation and Pennsylvania court decisions interpreting the rule are instructive.

Sections 1501 and 1504(1) of the Public Utility Code are a source for the Commission's jurisdiction and authority over utility facilities, and among the statutes the Commission relied upon in the promulgation of its transmission line siting regulations. Most relevantly, Section 1501 provides that:

⁵ 66 Pa. C.S. § 2804(1)(ii).

Every public utility shall furnish and maintain adequate, efficient, safe and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience and safety of its patrons, employees, and the public. Such service shall also be reasonably continuous and without unreasonable interruptions or delay.

66 Pa. C.S. §1501.

Separately, Section 1504(1), relating to “standards of service and facilities,” provides that the Commission may:

Prescribe as to service and facilities, including the crossing of facilities, just and reasonable standards, classifications, regulations and practices to be furnished, imposed, observed and followed by any or all public utilities.

66 Pa. C.S. §1504(1).

From time to time the issue of whether a particular HV transmission line was needed has been subject to litigation before the Commission, and subsequent review by the Pennsylvania courts. The Pennsylvania courts have made a number of findings relevant to the Commission’s review of HV transmission line need and siting, including but not limited to the following:

- An applicant does not need to demonstrate “need from an engineering perspective,” but rather that approval of a project is “necessary or proper for the accommodation, convenience, and safety of its patrons, employees and the public.”⁶
- The Commission may consider “regional reliability needs” in implementing the provisions of the Electric Choice and Competition Act when determining whether to grant or deny an application to construct a new 500 kV line.⁷
- The Commission may find need based on evidence that approval is required to satisfy a transmission owner’s own reliability guidelines.⁸
- An electric utility is to be proactive in monitoring its system to identify reliability problems and should not wait until a problem is looming or absolutely necessary before correcting it.⁹

The record in this proceeding demonstrates that both PPL and PJM have identified potential North American Electric Reliability Corporation (NERC) standard violations in summer peak

⁶ *Pennsylvania Power & Light Company v. Pa. PUC*, 696 A.2d. 248 (PA. Cmwlth. 1997).

⁷ *Energy Conservation Council of Pa. v. Pa. PUC*, 995 A.2d 465 (Pa. Cmwlth. 2010).

⁸ *Hess v. Pa. PUC*, 107 A.3d 346 (Pa. Cmwlth. 2014)

⁹ *Id.*

conditions in 2023. PPL also states that its own analysis identifies reliability violations in the 2021 Regional Transmission Expansion Plan (RTEP) summer peak case, and that preliminary analysis shows reliability problems during light load conditions in 2023.¹⁰ PPL also avers that if construction were to commence upon approval, the project could be completed by April of 2021.

A relevant question to determining whether there is a need for the Proposed Project is whether the Company has considered alternatives to its preferred approach. PPL provided information that it considered five other alternatives, and maintains that its proposal is the most effective, least cost, long-term solution for the reliability and safety issues. One of the alternatives it studied is what is known as a “load drop.” The use of this approach would allow PPL to avoid building a second circuit. Although PPL identified that the NERC reliability standards allow for load drop as a solution to such an N-1-1 contingency scenario, PPL states that load drop must be automatic, which would require the installation of new equipment, known as a Special Protection Scheme (SPS). PPL also states that load drop installation equipment is prone to mis-operation and “should not be installed as a substitute for good system design or operating practices.”¹¹ PJM separately confirmed that a SPS was not an appropriate solution for the identified issue,¹² nor does PPL have any SPS currently in place on its bulk electric system.

Based on the information provided with the Application and in the response to our data requests, I find that there is substantial evidence to support the approval as necessary for the accommodation, safety and convenience of the public. It is reasonable to conclude that, in the absence of completing the Proposed Project, Pennsylvania customers may be at risk for interruptions in service as early as the summer of 2021, and likely in the summer of 2023. Such interruptions could be sustained outages, which may harm commercial and industrial business operations, damage or destroy personal property, and jeopardize public safety.

If PPL were to begin construction at this time, the work should be finished by April of 2021, prior to PPL’s forecast of potential problems during the summer peak of 2021. PPL’s customers are statutorily entitled to service that is reasonably continuous and uninterrupted, and it is appropriate that PPL begin to remedy the forecasted reliability problem now. Neither the Commission nor PPL should wait until the point of system failure to address these issues.

I note that the Commission’s full siting regulations contain different standards and criteria for transmission line project review than those set forth in PJM’s tariff and operating agreements. The relevant Commission regulations precede the opening of wholesale electric markets, and the FERC’s requirements for transmission planning, coordination, and cost allocation.¹³ Additionally, Commission and PJM review of these types of projects are independent of one another.

The Commission finds sufficient PJM’s assurances that its preliminary analysis shows likely voltage drop and voltage limit violations of PJM’s regional reliability criteria in the year

¹⁰ PPL answer to June 13, 2019 TUS data request Q-12.

¹¹ See PJM Manual 7.

¹² PJM answer to June 14, 2019 data request TUS-5.

¹³ FERC Order Nos. 888, 890 and 1000.

2023 in order to issue a determination on the need for the project, without having to return it to PJM for a complete RTEP analysis.

In conclusion, I find that PPL has demonstrated that the Proposed Project is necessary for the accommodation, safety and convenience of the public, meets the applicable regulatory requirements, and fulfills PPL's obligations to provide service in accord with the provisions of the NESC. Accordingly, its Application should be approved.

THEREFORE, I move that:

1. The Petition of PPL Electric Utilities Corporation for the waiver of certain provisions of the Commission's regulations set forth at 52 Pa. Code §57.71 *et seq.* is hereby approved.
2. The Application of PPL Electric Utilities Corporation, for Approval to Rebuild Approximately Six Miles of the Breinigsville-Alburtis 500 kV Transmission Line in Lower Macungie and Upper Macungie Townships, Lehigh County, Pennsylvania is approved.
3. The Bureau of Technical Utility Services prepare an Order consistent with this Motion.

Date: July 11, 2019



NORMAN J. KENNARD
COMMISSIONER