

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**  
**Harrisburg, Pennsylvania 17120**

**PPL Electric Utilities Corporation**

**Public Meeting held March 27, 2025**  
**3052129-TUS**

**Docket No. A-2024-3052129**

**STATEMENT OF VICE CHAIR KIMBERLY BARROW**

Before the Commission for consideration is a PPL Electric Utilities Corporation (PPL or Company) transmission line project, continuing the Company's wholesale reconstruction of rusted COR-TEN steel structures on their 230 kV system.

Presently, our regulations do not require utilities to present alternative engineering solutions for Letter of Notification (LON) transmission lines. However, evaluation of alternatives assists the Commission in evaluating the need for a project, and also helps justify to the public that the rate-based transmission system is being built cost effectively.

To that end, I would like to see feasibility evaluations of advanced transmission technologies such as dynamic line ratings (DLR) and composite core advanced conductors included. While I am convinced of the engineering prudence of the proposed line, assurance that a complete evaluation took place is a key part of maintaining public confidence in this body and in the utilities that serve the public. Strategies to increase emissivity could conceivably improve cost effectiveness, but these technologies are still at an early stage. Transmission owners can play an important role in data gathering and advancement of improved technologies by putting these options forward in transmission line replacement projects.

Dynamic line ratings leverage real-time environmental and operational data to adjust the capacity rating of transmission lines. Rather than using conservative static ratings, DLR enables operators to safely and efficiently utilize higher capacities when ambient conditions (such as cooler temperatures or higher wind speeds) permit. This not only increases the effective capacity of existing assets, but can also defer or minimize costly upgrades while reducing congestion and associated costs for customers. PPL has certainly been a leader in this space, and DLR is not cost-effective on all projects, but including feasibility information assists with evaluation, as stated previously.

Composite core advanced conductors incorporate newer, higher-performance core materials that support higher transfer capability while maintaining cross-sectional area and reducing sag. Although composite core advanced conductors may cost substantially more upfront, they can double transfer capability for lines under 50 miles.<sup>1</sup> These improvements can yield significant

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<sup>1</sup> Brian Deese, Rob Gramlich, and Anna Pasnau, *A Roadmap for Advanced Transmission Technology Adoption* (September 2024), <https://ceepr.mit.edu/wp-content/uploads/2024/09/MIT-CEEPR-RC-2024-06.pdf>; Emilia Chojkiewicz et al., *Accelerating Transmission Capacity Expansion by Using Advanced Conductors in Existing Right-Of-Way* (September 23, 2024), <https://www.pnas.org/doi/full/10.1073/pnas.2411207121>.

consumer savings by reducing unnecessary infrastructure investments and operational inefficiencies.

March 27, 2025

A handwritten signature in black ink, appearing to read "Kimberly Barrow", written over a horizontal line.

**Kimberly Barrow, Vice Chair**