Prepared Testimony of

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Introduction

Good morning, Chair Fiedler, Chairman Causer, and members of the House Energy Committee. My name is Stephen M. DeFrank, Chairman of the Public Utility Commission (Commission). I appreciate the opportunity to submit testimony before the Committee on the topics of advanced transmission technologies and virtual power plants.

House Bill 2223 & Advanced Transmission Technologies

House Bill 2223 (HB 2223) would require electric distribution companies (EDCs) to include evidence, within any siting application or letter of notification (LON) proceeding before the Commission, detailing its evaluation and assessment of utilizing advanced transmission technologies (ATTs). ATTs include advanced power flow controllers, dynamic line ratings (DLRs), high performance conductors, or other hardware or software technology that increases the capacity, efficiency, reliability, or safety of an existing or new electric transmission system.

The Commission supports regulatory policies that foster efficiencies in both the distribution and transmission systems. To that end, the Commission generally supports HB 2223. The technologies referenced in HB 2223 can reduce line losses or increase conductor transfer capability, thereby increasing the amount of power we receive from the transmission system. The use of these technologies is particularly wise given the ever-present concerns regarding resource adequacy and affordability in the electric sector. It is important to note that the Federal Energy Regulatory Commission (FERC), the economic regulator for transmission in Pennsylvania, has established policies requiring market operators, such as PJM Interconnection (PJM), to establish and maintain procedures necessary to afford transmission owners the ability to utilize DLRs.[1] Notably, since 2020, PPL Electric Utilities (PPL) has been upgrading its transmission system with DLRs to expand capacity and increase efficiency on historically congested lines. As well, Duquesne Light Company is operating a DLRs pilot on a select number of its transmission lines.

As drafted, HB 2223 places its requirements solely on EDCs. The Commission wishes to note that we also have siting authority over Transmission Owners (TOs), which the presently drafted bill does not include. These entities are certificated by the Commission for the sole purpose of electricity transmission and under the joint jurisdiction of the Commission for siting and FERC for rates. TOs may be affiliates of EDCs or non-affiliate competitive transmission providers. Examples include Keystone Appalachian Transmission Company, Mid-Atlantic Interstate Transmission, LLC, and Trans-Allegheny Interstate Line Company. We offer this input to the Committee as it may wish to consider inclusion of these entities in HB 2223.

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[1] *See* FERC Docket No. RM20-16.

Additionally, the market construct for electric transmission buildout involves the joint jurisdiction of the Commission and FERC. While many projects may be decided at the discretion of the EDCs or TOs, especially those for asset management and maintenance, other projects may be initiated under the direction of the market operator, or PJM, in Pennsylvania. In the latter situation, the project selection criteria is controlled by PJM's market rules and procedures, as approved by FERC. While cognizant of this complex paradigm, the Commission will continue to advocate for regional transmission organization (RTO) policies at FERC which appropriately encourage ATTs.

House Bill 2264 & Virtual Power Plants

House Bill 2264 (HB 2264) would require EDCs to develop and submit proposals to the Commission to implement virtual power plant (VPP) programs. As detailed in HB 2264, VPPs would harness distributed energy resources (DERs) to provide peak load reductions along with other grid services such as voltage support, emergency grid management, and other functions determined by the Commission to support efficient operation of the electric grid.

VPPs have garnered attention from regulators and utilities throughout the country, especially in the wake of FERC's Order No. 2222[2] issued in 2020. That Order directed RTOs, such as PJM, to establish rules and procedures enabling DER participation in their markets. In essence, Order No. 2222 permits broadly dispersed energy resources sized less than 5 MWs and interconnected to the distribution grid access to wholesale RTO markets that previously were the domain of generation resources interconnected to the transmission grid. PJM has made a number of Order No. 2222 compliance filings at FERC and awaits FERC's decision on these filings.[3]

In recognition of the marketplace that Order No. 2222 would create in the Commonwealth, the Commission recently issued a Noticed of Proposed Rulemaking (NOPR) regarding DER participation in wholesale markets.[4] The NOPR seeks to establish regulations facilitating necessary coordination protocols between EDCs, as distribution system operators, and DERs, as interconnected facility operators.

It is evident that the provisions of HB 2264 would synergize well with any eventual Order No. 2222 implementation by PJM, EDCs, and DERs here in the Commonwealth. Nonetheless, as HB 2264 clearly contemplates, VPP

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[2] *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197, *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021).

[3] *See* PJM, *General – Markets*, http://pjm.my.site.com/publicknowledge/s/article/FERC-Order-2222-and-DERs?language=en_US.

[4] *In re: Distributed Energy Resources Participation in Wholesale Markets, Chapter 57*, Docket No. L-2023-3044115 (Order entered December 18, 2025).

implementation is not limited to Order No. 2222 designs. VPPs may be utilized strictly on the retail level in order to reduce peak demand and electricity load on the distribution system, thereby inducing 'trickle-down' benefits to wholesale markets through reduced network peak load tags, reduced capacity costs, and reduced energy consumption. Put differently, VPPs can be directly focused on distribution system demand side management benefits while also creating wholesale energy, capacity market, and transmission benefits.

The Commission recently recognized the value of the VPP construct when we approved PPL's Distributed Energy Resource Management Plan (DER Management Plan) at our November 20, 2025, Public Meeting.[5] PPL's DER Management Plan requires the Company to install monitoring and control devices on DERs installed on its distribution system. Through this active management of DERs, the Company will be better situated to manage voltage and increase grid hosting capacity thereby reducing demand on its distribution system, and by extension, reducing demand on the transmission system. The DER Management Plan is projected to increase hosting capacity by up to 258 MWs. The Commission has directed PPL to conduct a request-for-proposals from third-party aggregators as the Company moves forward with implementation.

The Commission is currently reviewing how HB 2264 and its various requirements comport with related provisions established in statute, regulations, and Commission orders. Most notably, we are evaluating how these VPP requirements may be administered in tandem with the energy efficiency and conservation efforts required by Act 129 of 2008 and existing net-metering rules pursuant to the Alternative Energy Portfolio Standards (AEPS) Act, 73 P.S. §§ 1648.1-1648.9, as well as EDC default service programs.

We have continually stated that electric resource adequacy must be met with an 'all-of-the' above approach. The Commission believes VPPs represent a viable tool in the 'all-of-the above' approach that policymakers should deliberate. To that end, the Commission generally supports endeavors that assist in our consideration of well-designed VPP constructs. With that said, we must highlight a significant area of concern in HB 2264.

HB 2264, at Section 2806.3(c)(10), would require all excess generation provided by VPP resources to be credited at "…the full retail value at the time of export…." This language closely mimics language in the AEPS Act pertaining to excess generation that has led to significant affordability concerns by the Commission. As detailed in my previous testimony before this Committee on March 2, 2026, prescribing the compensation terms with such language creates a significant inequity between the

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[5] *Petition of PPL Electric Utilities Corporation for Approval of its Second Distributed Energy Resources Management Plan*, Docket No. P-2024-3049223 (Order entered December 3, 2025).

value the distributed resources are providing to the grid and the costs EDC customers must pay to those resources. This inequity is projected to reach up to $700 million annually in the existing AEPS net metering marketplace. As such, the Commission has strongly pushed for reforms to this existing compensation scheme. While the language in HB 2264 is an incremental improvement given the addition of the phrase "…at the time of export…," the Commission still believes this prescriptive language will ultimately lead to further cost inequities and likewise affordability concerns. We ask that the Committee consider language that would permit the Commission to establish rules compensating these VPP resources for excess generation at 'a *value commensurate with the benefits the resources provide to the electricity grid at the time of export*.'

Additionally, the Commission wishes to highlight Section 2806.3(c)(7) of HB 2264. This section would prohibit the Commission from establishing mechanisms to penalize VPPs for non-performance. We appreciate the apparent goal to establish prudent administrative rules for VPPs. However, prohibiting penalties for non-performance may inherently shift the risk of non-performance unfairly to EDC customers, further compounding affordability concerns. While the Commission is not advocating for universal application of stringent non-performance penalties, we believe this blanket prohibition is an unnecessary detriment to the Commission's necessary discretion on VPP program design. It may very well be the case that measured non-performance penalties are necessary to design VPPs in a manner that befits the public interest, especially for those programs designed to meet needs during periods of grid stress or emergency.

Conclusion

I commend the Committee for bringing these items to the forefront of consideration. The time is right for the evaluation of both ATTs and VPPs, and we hope you will consider the input provided herein. With affordability and resource adequacy top-of-mind at the Commission, we are pleased to foster constructive dialogue with the House Energy Committee and the General Assembly to ensure a safe, reliable, and affordable electric grid for the Commonwealth.