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E-File

June 23, 2025

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17120-3265

**Re: En Banc Hearing on Interconnection and Tariffs for Large Load
Customers
Docket No. M-2025-3054271**

Dear Secretary Homsher:

Enclosed for filing please find the Reply Comments of PPL Electric Utilities Corporation in the above-captioned proceeding. These Comments are being filed pursuant to the May 1, 2025 Directed Questions issued by Pennsylvania Public Utility Commission Vice Chair Kimberly Barrow.

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on June 23, 2025 which is the date it was filed electronically using the Commission's E-filing system.

If you have any questions regarding these Reply Comments, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Michael J. Shafer", is written over a light blue horizontal line.

Michael J. Shafer

Enclosure

I. INTRODUCTION & BACKGROUND

At the Public Meeting held on March 27, 2025, Chairman Stephen M. DeFrank of the Pennsylvania Public Utility Commission (“Commission”) issued a Motion charging Commission staff with organizing an *en banc* hearing to address, among other things, topics related to the interconnection of, and tariffs for, large load customers in Pennsylvania (the “Motion”). The Motion identified that an increasing number of large load customers, specifically including “hyperscale data centers supporting artificial intelligence and other operations” are “forecast to place significant new demand on the electric grid, in both Pennsylvania and the broader PJM [Interconnection L.L.C.] region.”¹ The Motion identified 14 topics for which the *en banc* hearing would receive testimony and comments.² In addition, it contemplated that the hearing would be comprised of three panels: one panel of electric distribution companies (“EDCs”), one panel of large load customers, and one panel of the Statutory Advocates.³

On April 12, 2025, the Pennsylvania Public Utility Commission (“Commission”) issued a Secretarial Letter that provided Notice of an *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers at Docket No. M-2025-3054271 (“Secretarial Letter”). In the Secretarial Letter, the Commission indicated that the contemplated *en banc* hearing was to educate and inform the Commission on the prudent design of a large load customer model tariff, and the Commission sought testimony and comments the topics identified in the Motion.⁴ The Secretarial Letter further scheduled the hearing to occur on April 24, 2025, with written comments to be

¹ Motion, p. 1.

² Motion, p. 2.

³ Motion, p. 2.

⁴ Secretarial Letter, p. 1.

submitted during a 30-day comment period after the conclusion of the hearing, and a 15-day reply comment period to follow the end of the comment period.⁵

On April 24, 2025, the *en banc* hearing was held as scheduled. Joseph B. Lookup, Vice President-Transmission & Distribution Planning and Asset Management, testified as a part of the EDC panel portion of the hearing on behalf of the Company. In addition, Mr. Lookup's written testimony was filed at Docket No. M-2025-3054271.

On May 1, 2025, Vice Chair Kimberly Barrow issued Directed Questions ("VC Directed Questions") to several target audiences, including EDCs and electric transmission utilities. The VC Directed Questions sought additional information from each of the identified target audiences, which could be supplied as a part of any comments submitted in this matter. Six questions were specifically directed at EDCs and electric transmission utilities.⁶

On May 15, 2025, the Commission issued a Secretarial Letter extending the deadline for interested parties to submit Comments to June 6, 2025, and the deadline to submit Reply Comments to June 23, 2025.

In accordance with this schedule, PPL Electric, as well as many other interested stakeholders, submitted Comments on June 6, 2025.

PPL Electric will not respond to each issue raised in the other parties' Comments. Instead, PPL Electric will focus on those issues that are particularly important to the Company.

⁵ Secretarial Letter, p. 2.

⁶ VC Directed Questions, p. 2.

II. REPLY COMMENTS OF PPL ELECTRIC

As a preliminary matter, PPL Electric supports the Reply Comments filed by the Energy Association of Pennsylvania (“EAP”) on behalf of its members, which include the Company. PPL Electric offers its own separate comments below to direct attention to matters that are particularly important to the Company. First, PPL Electric outlines its concerns that certain of the other parties’ proposals are inconsistent with the Public Utility Code’s mandate that electric distribution companies (“EDCs”) provide non-discriminatory service. Next, the Company addresses proposals from other parties recommending that the Commission prioritize interconnection of large load customers that bring their own generation or build their own upgrades. Third, PPL Electric responds to proposals that ask the Commission to impose a large load customer threshold or minimum contract terms for large load customers. Fourth, PPL Electric responds to the promotion of behind the meter co-location with networked generation in some of the Comments received and explains why these co-located facilities must be required to pay for their fair share of grid costs. Lastly, PPL Electric responds to the other parties’ Comments related to cost allocation.

A. CERTAIN PROPOSALS MADE BY COMMENTERS ARE INCONSISTENT WITH PROVIDING NON-DISCRIMINATORY ELECTRIC SERVICE

After reviewing the other parties’ Comments, PPL Electric is concerned that certain recommendations, if adopted, would be inconsistent with the requirement under the Public Utility Code that EDCs provide non-discriminatory service. For example, NRG Energy, Inc. (“NRG”) asks the Commission to consider requiring “very large loads as part of a tariff requirement to enter into a contract that transparently designates a source and supplier of generation as part of a [bring your own generation (“BYOG”)] requirement.” (NRG Comments at 6.) PennFuture recommends that the Commission should require utilities to “modify their tariffs and classify data center loads as ‘interruptible customers’” and to “modify interconnection procedures to designate data centers

as ‘controllable loads.’” (PennFuture Comments at 3.) The Office of Consumer Advocate (“OCA”) “proposes that Large Load Customers pay a minimum demand charge of 90% of their MW size,” under a schedule that ramps up from 50% to 90% during the first 4 years of interconnection. (OCA Comments at 13.) Furthermore, several commenters raised concerns regarding the impacts of large load customer growth on generation resources and mix, with respect to co-located generation and BYOG scenarios. (*See, e.g.*, Constellation Energy Generation, LLC (“Constellation”) Comments at 3-5; Exus Renewables North America (“Exus”) Comments at 8-9; Mainspring Energy Pa. (“Mainspring”) Comments at 1-2).

PPL Electric reiterates its position that it is not appropriate for the Commission to treat issues around large load customers as either new or novel simply due to the size of their loads and their end use. (PPL Electric Comments at 12.) To do otherwise would likely constitute unlawfully discriminatory treatment in violation of the Public Utility Code⁷ and be inconsistent with the requirements of the Competition Act.⁸ The Company maintains that the Commission lacks authority to require customers to commit to tariff provisions such as a BYOG requirement or interruptible service, or to require utilities to impose a one-size-fits-all minimum demand charge. The decision to take interruptible service or secure generation is fundamentally an issue of customer choice. Moreover, the Commission cannot dictate Pennsylvania’s generation mix. Any comments that ask the Commission to adopt rules or requirements to incentivize or disincentivize specific types of generation as a part of these proceedings should be rejected. Instead, the Commission should continue to allow utilities to serve large load customers in the manner they request to be served. EDCs already have multiple tools at their disposal to ensure they can

⁷ 66 Pa.C.S. § 1304.

⁸ *See* 66 Pa. C.S. § 2801, *et seq.* (“Competition Act”).

equitably address the needs associated with specific large load customers and projects, including contributions in aid of construction (“CIAC”) payments, minimum load guarantees, and exit/early termination fees when appropriate. (PPL Electric Comments at 34.)

Data center development is projected to produce substantial economic benefits in Pennsylvania over the coming years and PPL Electric believes that the load growth opportunities associated with data centers will improve the reliability of the transmission and distribution systems. (See PPL Electric Comments at 7-10.) The Company is concerned that imposing unreasonable additional requirements on a particular subset of customers solely due to their load size or end use could unnecessarily chill this projected economic development and impede corresponding grid-wide improvements that the Company projects will benefit all utility customers. (See PPL Electric Comments at 10-12.)

B. FASTER INTERCONNECTIONS

Several parties submitted Comments in favor of facilitating faster interconnections for data center customers by prioritizing projects that provide their own generation or build their own upgrades. For example, the Industrial Energy Consumers of Pennsylvania (“IECPA”) and Exus recommend that any model large load tariff prioritize faster interconnections for large loads that bring their own generation. (IECPA Comments at 10; Exus Comments at 4-5.) Similarly, Vistra Corp. (“Vistra”) supports expedited interconnections for large load customers who pay for all or some of their equipment and for those that bring their own generation (Vistra Comments at 6), while Mainspring proposes that the Commission should “[e]stablish clear, expedited interconnection pathways for customers willing to undertake and finance necessary infrastructure upgrades.” (Mainspring Comments at 2).

PPL Electric respectfully requests clarification on what is meant by prioritizing applications.. If prioritization of large load customers who either bring their own generation or

build their own upgrades means that those customers will be moved ahead in the queue it will be difficult for EDCs to manage. Typically, EDCs manage interconnection applications on a first-come, first-serve basis. This allows the utility to equitably manage the interconnection queue based on the timing of applications without having to weigh additional and potentially subjective factors. Prioritizing certain applications may require EDCs to re-study existing applications, or cause delays in other customer projects.

Practically, it remains unclear whether moving large load customers up in the queue based on their ability to bring their own generation or building their own upgrades would in fact expedite interconnection. Based on PPL Electric's experience, many of the variables that cause interconnection delays are not within the EDC's control, such as right-of-way acquisition negotiations or permitting and approval processes. (*See* PPL Electric Comments at 24-25.) As detailed in the Company's Comments, PPL Electric is willing to take equipment from a customer to complete system upgrades if the customer can source the equipment faster than the Company, however, this will not always speed up interconnection. (*See* PPL Electric Comments at 25.)

In addition, the Commission should be careful not to conflate the distributed energy resources ("DER") interconnection process with that of interconnecting new large load customers. When the Company processes interconnection applications for DER customers, there exists the option for the DER to be scaled back to avoid certain utility upgrades, *e.g.*, resizing the solar system to avoid the need for a new transformer. Unlike DERs, however, data centers and other large load customers require high voltage lines to extend service, including those with behind-the-meter generation or demand response built in. It is PPL Electric's experience that system upgrades are not required to increase system capacity to serve large load customers but rather are required to extend service. Building a high voltage transmission line to serve these customers is an

unavoidable step to interconnecting large load customers that requires time and regulatory approval to complete. It is unlikely that an interconnection would be any quicker, or materially less costly even if a large load customer is agreeable to lowering its load needs, or a more gradual load ramp schedule. Finally, the Company notes that in line with its Reply Comments in Section A, *supra*, prioritizing customers solely based on their load size or end use may be inconsistent with the requirement to provide non-discriminatory utility service.

C. LARGE LOAD THRESHOLDS AND MINIMUM CONTRACT TERMS

Some parties contend that the Commission should implement large load customer thresholds and minimum contract terms. However, there is no immediate consensus on what the threshold or terms should be, and the parties present a broad range of proposals. The suggested large load customer thresholds range from OCA's proposal of a minimum threshold of 25 megawatts ("MW") for EDCs whose peak load is equal to or above 2,500 MW and 1 MW for those utilities whose peak load is less than 2,500 MW (OCA Comments at 10), to IECPA's implied recommendation of a 100 MW threshold (IECPA Comments at 7). The Natural Resources Defense Council ("NRDC") references a 50 MW threshold with a minimum capacity of 50% (NRDC Comments at 2), while Walmart Inc. ("Walmart") argues that large load customer tariffs should provide a minimum 75 MW threshold to protect existing commercial and industrial customers from inclusion in the large load tariffs (Walmart Comments at 3-4). Regarding minimum contract terms, NRDC recommends 20- to 40-year tariff terms to match infrastructure cost recovery (NRDC Comments at 2), OCA recommends a 20-year minimum contract with 5-year advance notice for non-renewal (OCA Comments at 12-13), and OSBA recommends a minimum 8- to 10-year contract term (OSBA Comments at 14).

As explained in more detail in the Company's Comments (*see* PPL Electric Comments at 14-16), and as demonstrated by the wide range of proposed thresholds in the other parties'

Comments, there is no brightline MW limit to distinguish whether a large load customer will necessitate upgrade costs that are placed into rates and socialized by other customers. Creating an arbitrary MW threshold for large load customers that is not tied to the actual risk to other customers could likely have a chilling effect on data center development and does not account for the actual factors that influence whether system upgrades are socialized among the rate base. (PPL Electric Comments at 15.)

Regarding contract length, the Company believes that contract terms need to be tied to cost causation principles and should reflect the actual risk to other customers. For example, a 50 MW customer that does not introduce socialized costs should not be required to have a minimum load guarantee or a 20-year minimum contract term. If a 50 MW customer triggers certain large load thresholds, that customer could be forced into a 20-year electric commitment with the EDC even if it does not represent a stranded cost risk. To require such commitments without consideration of the actual risk could discourage businesses with large loads, like data centers, from developing in Pennsylvania.

The Company maintains that definitional thresholds for “large load customers” are acceptable only if they allow for flexibility in security terms that reflect the actual risk caused by the customer interconnecting to the system. PPL Electric currently secures the amount of socialized costs from large load customers, which already provides reasonable protection of other non-large load customers from the risks of early termination. (*See* PPL Electric Comments at 29.) In addition, large load customers are currently required to pay for upgrades on their side of the meter and pay an upfront CIAC for upgrades that PPL Electric determines are their responsibility. PPL Electric believes the Commission should continue to allow EDCs to maintain flexibility in

both the amount of security required and in the type of security instrument required to account for customer-specific facts. (*See* PPL Electric Comments at 16.)

D. CO-LOCATION PROPOSALS

Certain commenters support specific co-location scenarios. For example, Constellation proposes that any model tariff should enable and promote co-location with generation resources. (Constellation Comments at 5-7). Similarly, Exus recommends that the Commission support behind-the-meter generation and co-location arrangements. (*See generally* Exus Comments). In addition, OSBA “supports policy tools, such as co-location, that prioritize projects that solve grid challenges provided that utilities are providing fair non-discriminatory access to the grid” (OSBA Comments at 9), while NRDC suggests that co-location “should be explored as an alternative large load tariff to drive clean energy investments and bolster grid reliability” (NRDC Comments at 6).

As noted in the Company’s Comments, while PPL Electric supports co-location of facilities to lower otherwise needed infrastructure upgrades, the Company does not support the co-location of data centers behind the meter with networked electric generation plants where the end use load is not a customer of the EDC. (PPL Electric Comments at 33.) In most cases, co-location still requires connection to the grid, which requires the utility to account for and manage the impacts of this load on the grid. The Company maintains that because co-located behind the meter data centers receiving electricity from networked generation indirectly benefit from the grid, they should be required to pay their fair share of grid costs. (*See* PPL Electric Comments at 33.) The Commission should oppose any co-location arrangement with networked generation that would allow co-located customers to avoid paying for their grid costs entirely that they would otherwise be responsible for if in front of the meter.

E. COST ALLOCATION CONSIDERATIONS

Several of the parties commented on the issue of cost allocation and recovery related to interconnecting large load customers. Generally, the parties are in favor of large load customers paying for their direct interconnection costs. (*See, e.g.*, IECPA Comments at 7; NRDC Comments at 4; OSBA Comments at 9-10; OCA Comments at 10-11). In addition, some parties submitted comments addressing the impact of large load customer interconnections on existing EDC universal service programs. Here, CAUSE-PA, TURN, and NRDC ask the Commission to require that all large load tariffs include a volumetric systems benefits charge that contributes to universal service programs. (CAUSE-PA & TURN Comments at 4-5; NRDC Comments at 5.)⁹

Generally, PPL Electric agrees with those commenters that argue for the direct costs of interconnection that benefit the customer to be borne by the customer. If a system upgrade to interconnect only benefits the large load customer, PPL Electric already directly assigns those costs to the customer and collects a CIAC. (PPL Electric Comments at 28.) However, the Company maintains that when interconnection upgrades benefit customers other than the large load customer, those costs should be socialized according to established cost causation principles. (PPL Electric Comments at 28.) In its Comments, NRDC argues that utilities “should not be permitted to earn a rate of return on any portion of new infrastructure construction costs that are fully borne by the large load customer” (NRDC Comments at 5). In accordance with FERC accounting rules, CIACs are not included in rate base and, therefore, utilities already do not earn a rate of return on those new facilities. In addition, and as detailed in the Company’s Comments, PPL Electric anticipates that interconnecting large load customers have the potential to reduce

⁹ CAUSE-PA and TURN also recommend that large load tariffs include a flat upfront fee that benefits universal service programs. (CAUSE-PA and Turn Comments at 4-5.)

transmission rates for all customers, given the anticipated contribution to system peak attributable to large load customers moving forward. (*See* PPL Electric Comments at 10; Lookup Testimony, p. 1.)

In their Comments, CAUSE-PA and TURN ask the Commission to require utilities “to separately track and report on all costs associated with serving each large load customer.” (CAUSE-PA & TURN Comments at 10.) The Company maintains that any cost tracking requirement should have a corresponding benefit. While CAUSE-PA and TURN argue that tracking and reporting by large load customers would “facilitate the proper allocation of costs in the context of a rate proceeding” and conserve stakeholder resources (CAUSE-PA & TURN Comments at 10), it is unclear how this would be accomplished or why this tracking and reporting is even necessary. Cost allocation is a hotly contested issue during base rate cases, and it is unclear how imposing burdensome tracking and reporting requirements for a single subset of customers will streamline resolution of those issues. Absent a clear benefit and demonstrated need, those recommendations should not be adopted.

Notwithstanding the recommendation above, PPL Electric does support reporting of load forecasts that will help the Commission better evaluate and address resource adequacy concerns arising from the development of large loads. As the Company discussed in its comments to the Resource Adequacy Technical Conference, the PUC has an obligation to ensure that there are adequate generation resources to serve the Commonwealth.¹⁰ Furthermore, and as noted by other Commenters in this docket, ensuring the accuracy of load forecasts helps mitigate risks associated with the interconnection of new large load customers, by ensuring that adequate generation and

¹⁰ PPL Electric’s Comments dated January 9, 2025, at p. 6, in the Technical Conference on Resource Adequacy in Pennsylvania, Docket No. M-2024-3051988.

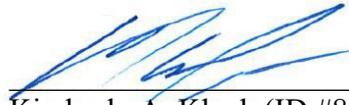
capacity resources exist to support anticipated load and that new generation resources are appropriately sized to meet anticipated new load.¹¹ While there may be disagreement amongst stakeholders about how the Commission should address load forecast accuracy in order to ensure adequate resources are maintained to serve the Commonwealth, it is clear that accurate, data driven load forecasts are needed and will be beneficial for EDCs, large load customers, other stakeholders, and the Commission. Therefore, PPL Electric submits that it would be reasonable for the Commission to require quality load forecasts to meet its obligation to ensure there are adequate generation resources to serve the Commonwealth. And, in order to meet this obligation, PPL Electric believes that it would be reasonable for the Commission to require EDCs to provide load forecast information that has been obtained from large load applicants through regularly reporting of this information.

III. CONCLUSION

PPL Electric appreciates the opportunity to provide these Reply Comments and respectfully requests that the Commission take these Reply Comments into consideration when developing any proposals related to interconnection and tariff design for large load customers in Pennsylvania. Additionally, for the reasons explained in its Comments and Reply Comments, PPL Electric submits that the Commission should focus upon adopting a policy statement to provide guidance to EDCs in developing tariff provisions, instead of implementing a potentially inflexible and overly prescriptive model tariff.

¹¹ See, e.g. OCA Comments, at pp. 5-6 (noting that data center load forecasts may be uncertain and present risks associated with stranded investments); CAUSE-PA Comments, at pp. 8-9 (noting that load forecasts are surging, but there is uncertainty associated with their accuracy); Constellation Comments, at p. 4 (asserting that load forecasting transparency is necessary to provide PJM with sufficient information for long-term planning to ensure investments are prudent and necessary); Data Center Coalition Comments, pp. 8-10 (advocating for improved forecasting of load); Natural Resources Defense Council Comments, at p. 2 (noting the variable nature of load forecasts presents risks).

Respectfully submitted,



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