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VIA ELECTRONIC FILING

Matt Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

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

Dear Secretary Homsher:

In accordance with the Pennsylvania Public Utility Commission's Secretarial Letter issued on April 12, 2025, at Docket No. M-2025-3054271, FirstEnergy Pennsylvania Electric Company ("FE PA") hereby submits its prepared testimony that will be highlighted at the En Banc hearing scheduled for April 24, 2025 in the above-referenced proceeding. FE PA will be represented by Ms. Kelly Gower, Vice President of Finance and Regulatory, who will testify regarding the Company's perspective on the agenda item related to large load customers.

Ms. Gower can be reached by phone at (835) 201-9590 and by email at kgower@firstenergycorp.com. Please do not hesitate to contact Ms. Gower or me should you have any questions or need additional information.

Respectfully submitted,

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TLG/mlr
Enclosures

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Introduction

Chairman DeFrank, Vice Chair Barrow, and Commissioners, good afternoon and thank you for the opportunity to testify today regarding the interconnection issues that are starting to manifest as data centers and other very large loads locate into Pennsylvania. I am Kelly Gower, Vice President of Finance and Regulatory for FirstEnergy Pennsylvania Electric Company (or “FE PA”), and I will be commenting on behalf of FE PA.

Our former distribution operating companies, Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power, consolidated in January 2024 to form FE PA. Altogether, FE PA serves approximately 2.1 million customers in 56 of the 67 counties throughout the Commonwealth of Pennsylvania. It is important to note that for purposes of today’s conversation, preceding and as part of the January 2024 consolidation, each of the transmission systems once owned by any of FE PA’s predecessor companies are no longer part of FE PA but rather helped form a collection of affiliated transmission operating companies under the FirstEnergy Corp. umbrella, including Mid-Atlantic Interstate Transmission, LLC, Keystone Appalachian Transmission Company, American Transmission Systems, Incorporated, and Trans-Allegheny Interstate Line Company.

Today, I will be testifying to you about the unique qualities that certain new large load customer requests have and the challenges that those qualities present as compared to our typical large industrial load for which our processes have traditionally been designed. I also offer perspectives on the work that FE PA and its sister companies are doing to tackle these challenges to address the needs of all stakeholders. Finally, I attempt to initially respond to the various questions posed by the PaPUC when setting this *en banc* hearing, recognizing that there will be further opportunity for input through written comments to follow.

Traditional Large Customer Load Connections

Traditionally, large customers apply for retail service through FE PA, which initiates a process that involves preparing detailed load studies (“DLS”) that are provided to the customer, inclusive of details such as facility upgrades/requirements for both the customer and the utility, cost of utility upgrades and responsibility thereof, and timing for completion of all required upgrades. This load study process takes into account many customer-specific and system-specific details such as location, proposed diversified loads, basic project technical information, and any thermal or voltage violations this new load would cause to the grid in its current state. FE PA provides an estimated cost and an approximate time frame to complete the study. Once the customer signs the study application, pays the fee, and provides certain basic information, the DLS process begins.

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The DLS process results in a technical draft that is then reviewed by a technical review team and a cost allocation team. This process not only provides for review of the technical solution to supplying service to the new customer, but also looks to determine proper cost allocation between the customer, FE PA and the transmission company. The technical outcomes of the study include the full scope of work required to mitigate any identified violations, work required to extend the electric grid to the point of interconnection while supporting the project's redundancy requirements, and the estimated cost and timeline to complete that work. The cost allocation review identifies network transmission facility costs, distribution facilities costs and the "contribution in aid of construction" or "CIAC" that the customer would be responsible for paying. In this cost allocation review, we would also determine if any tariff-based revenue credits might be applied. Once these working group reviews are done, FE leadership conducts a final review of the project scope, costs, and risks. The leadership team is comprised of appropriate staff in the business unit, engineering, finance, rates, and legal. This process results in a DLS document that is provided to the customer. The DLS document describes a plan for interconnecting the customer's load, the costs of the facilities that are necessary to connect the load, the allocation of costs between the transmission company and FE PA, and the CIAC costs that are to be paid by the customer. If the customer accepts the plan and chooses to move forward with the project, a "Construction Services Agreement" (or "CSA") is prepared and the customer is invoiced for its share of the upgrades required. Upon execution of this CSA and payment of the invoice, engineering and construction move forward to bring the project to completion.

As previously discussed, FE PA does not own the transmission systems serving its territory following the various transactions that have established stand-alone transmission companies which now own those assets. This construct means that while transmission-level retail customers see FE PA as their service provider, it is critical for FE PA to coordinate with and ensure ongoing service for these customers through the applicable transmission owner serving each customer's location. As a result, most large load requests invoke the standards, rates, rules, and policies of the transmission owner along with those of FE PA. Similarly, because these elements of transmission service are governed by the Federal Energy Regulatory Commission ("FERC"), it is important to remember that the details of serving large-load customers typically also require FERC jurisdiction. Given the scale of load needs presented by incoming data centers, hyper scalers, and the like, this coordination between FE PA, transmission owners, the PaPUC, and FERC are increasingly important.

One specific area in which this applies is in the determination of whether new transmission assets that are needed to support new large-load customers should be classified as transmission network facilities versus non-network facilities, which hinges on several key characteristics, as recognized by FERC. Namely, transmission network facilities typically reflect one or more the following criteria:

- Operate in parallel with other transmission facilities;
- Are used to serve multiple customers;
- Support the reliability of other transmission facilities;
- Allow for multi-directional energy flow;
- Enable coordinated operation of the grid; and/or
- Would affect the larger transmission grid in the event of an outage on the facility at issue.¹

The costs for transmission network facilities that meet one or more of these criteria are shared across all customers who benefit from them. Since 1994, FERC’s policy has held that network facility costs are to be recovered via “rolled-in” transmission rates charged to all customers that are served by the transmission network. By contrast, facilities that do not meet any one of these characteristics typically would be classified as non-networked, with the costs borne solely by the customer benefiting from them.

Features, Goals and Risks of Today’s New Load Requests

The new class of large load requests that are increasingly coming to utilities are distinct in several key respects from the traditional large user or industrial load that our industry has historically served. As is true with any type of prospective load, FE PA strives to meet each of these incoming customers’ unique needs and further economic development within its service territory to the benefit of not only the incoming customer or FE PA, but ratepayers and the communities we serve at large. This means that when reviewing these applications and determining system upgrade needs for interconnection, we are doing so in an equitable manner that not only follows well-accepted cost causation principles but also ensures that no customer is receiving undue benefit to the detriment of other customers.

¹ *E.g., Buckeye v ATSI*, Opinion No. 533, 148 FERC ¶ 61,174 at PP 12, 13 (2014), and *Mansfield v New England Power*, Opinion 454, 97 FERC ¶ 61,134 at 61,613 (2001).

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While surety of timing and cost remains an important factor to these applicants in the same way customers of all varieties demand, the speed to market expectations of these applicants are often accelerated significantly when compared to other typical new service applications, including requests for shortened/fast-tracked study timelines. Nonetheless, in fairness to all customers, we determine the applicants' place in the queue of incoming interconnections in the same manner as any other applicant. For any customer application to interconnect, position in the interconnection queue is based upon the date when an application is considered complete (including execution of the DLS agreement and payment of the study fees), which means each application must await completion of other studies ahead of it. Once studied, there can be significant lead time on materials critical to those applicants' connection to the system and, given the scale of facilities needed to serve such customers, there can be a need to secure an outage window through PJM Interconnection, LLC ("PJM") in order to complete the necessary construction. Our experience has shown that this can be a frustrating realization for applicants whose ramp up is faster than the average large user, where timing expectations often do not reflect current supply chain and regulatory process realities.

The other significant distinction in the new load requests that we are discussing today is the size of the interconnection service capacity that they request and the associated costs of building the facilities necessary to serve loads of that size. Until recently, interconnecting large loads did not generally result in material network transmission upgrades due to the differing nature of their requirements. In contrast, the large loads that we are talking about today often require significant investment in the transmission system. Further, the requests we are discussing are often for new customers to be situated in geographic areas where electrical systems were not designed to support load needs anywhere near those which are now being requested. This often requires significant transmission buildout, which must first be analyzed thoroughly and involves substantial network investments.

Generally, the cost to construct or upgrade facilities to support a new interconnection has historically been determined to fall into one of two categories: (i) facilities that will serve only the new customer, and (ii) upgrades to the system that is used to service all customers. The first category, facilities that will only serve to benefit the new customer, usually are funded by the new incoming customer through a CIAC payment or, in limited circumstances, self-ownership. The second category of costs are for facilities/upgrades that serve or benefit the larger system's collective current and projected needs, in which case the new infrastructure would be treated as network upgrades, with costs to be "rolled-into" transmission rates for collection from all transmission customers. Both of these paths to funding for large-load customer requests create challenges to utilities in ways that have not historically been at play. New large-load customers can face significant CIAC charges for facilities that are built only to serve a single customer, and

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also because a new large-load customer can require further material investment in the electric system that can lead to incremental rate increases for all customers that are served by the system. A further complication is that the industry has comparatively little experience with new large-load customers and, consequently, it is difficult to understand the entirety of the system impact without extensive study.

For example, there are open questions as to whether these large loads will materialize on schedule, whether they will persist for many years, and whether they will reflect high load factor patterns of usage or variable usage.

Where a customer self-funds through CIAC or a similar model, the payment covers the utility's capital investment, meaning that the utility (both transmission and distribution) is required to expend significant operations and maintenance resources from application through construction and does not have the opportunity to earn a return on its efforts, as the capital investment is fully funded by the customer and is not included in rate base. If these large-load customers fund the required work through CIAC, this model increases the amount of investment that the utilities must focus on projects that would not increase rate base, as compared to investment that is otherwise necessary to maintain the physical and financial health of the utility.

In the alternative scenario that the system upgrades are treated as networked and rolled-into network transmission rate base, other concerns arise. While the utility's capital investment rolls into rate base for recovery through rates that are charged to all customers, it must be recognized that there may be increased costs to all customers, as the rate base that is the basis for the utility's rates grows due to construction of the upgrades required by the new customer's load. Overall, the goal of the Company and its affiliates is always to balance affordability concerns with reliability and resiliency needs as best possible.

What can be done?

In light of the challenges I just outlined, the team at FirstEnergy has been exploring solutions on behalf of its family of companies, including reviewing solutions that have been leveraged in other jurisdictions to address these challenges in a workable way for all stakeholders. Central to this solutioning effort has arisen the recognition that for "unbundled" states like Pennsylvania, no one solution squarely falls within the state or federal jurisdiction, but rather the parameters of both jurisdictions must be accounted for in each such instance. Potential options include but are not limited to incorporation of critical tariff provisions, ratemaking structures, siting approvals, and the like. Further, the degree of complexity in addressing this challenge increases in certain respects in the case of FE PA, where the distribution utility is not the transmission utility. For example, if ultimately a construction agreement is to address both

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transmission and distribution service, then the agreement likely will need to be signed by the customer, FE PA, and the affected transmission utility, and the agreement also likely will need to be filed with and approved both by the PA PUC (as to state jurisdictional matters) and with FERC (for the transmission-jurisdictional elements). As described earlier related to the interconnection process, this is predominantly handled through contracts outlining the critical provisions of necessary upgrades, expected load, cost allocation, security, etc., while living within the confines of all applicable regulatory and tariff requirements, as well as system planning policies and requirements.

Our review demonstrates that the industry still is in the early stages of dealing with each of the concerns I've outlined, and that more work needs to be done to address the FERC and state elements that are in play. We also plan to submit written comments as per the Commission's schedule. As such, we welcome this process and look forward to hearing from the Commission, our peers, and other stakeholders. Thank you.