

COMMONWEALTH OF PENNSYLVANIA



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June 23, 2025

Via Electronic Filing

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Interconnection and Tariffs for Large Load
Customers; Docket No. M-2025-3054271

Dear Secretary Homsher:

Please find enclosed the Office of Consumer Advocate's (OCA's) Reply Comments for the above-captioned docket. The OCA's Reply Comments were prepared with assistance from Frank A. Felder, Ph.D., of Independent Electricity Consultants, LLC.

Copies have been served as indicated on the enclosed Certificate of Service.

Respectfully submitted,

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Enclosures

cc: Certificate of Service

CERTIFICATE OF SERVICE

Interconnection and Tariffs for Large Load :
Customers : Docket No. M-2025-3054271
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I hereby certify that I have this day served a true copy of the following documents, the Office of Consumer Advocate’s Reply Comments, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant), in the manner and upon the persons listed below.

Dated this 23rd day of June 2025.

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Dated: June 23, 2025

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION
Reply Comments of the Office of Consumer Advocate
Concerning Interconnection and Tariffs for Large Load Customers
Docket Number: M-2025-3054271
June 23, 2025

Introduction and Summary

The Pennsylvania Office of Consumer Advocate (OCA) offers these reply comments in support of the Pennsylvania Public Utility Commission (Commission or PUC) proceeding on Interconnection and Tariffs for Large Load Customers.¹ The OCA represents the interests of consumers in matters properly before the Commission involving their utility service and is appreciative of the opportunity to provide these reply comments on this important topic.

As stated in the OCA's prior written testimony and comments,² a Large Load Customer Model Tariff (Model Tariff) can achieve the objectives of transparency, non-discriminatory access, fair cost allocation, and protection from stranded investments. Strong ratepayer protections are necessary, given the evolving, dynamic, and uncertain development of Large Load Customers and their underlying industries. A Model Tariff can also provide Large Load Customers and utilities

¹ As explained in the OCA's comment, the OCA proposes that the definition of Large Load Customer contain three elements based upon its size and not its industrial classification. First, the minimum threshold for defining a Large Load Customer should be 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. Second, the definition of a Large Load Customer should apply to the customer's aggregate power requirement and not to a point of interconnection to the distribution system or a meter. This requirement prevents the splitting of Large Load Customers into smaller units that do not trigger the definition. Third, if the sum of multiple facilities at different interconnection points owned by the same parent company exceeds 25 MW, those facilities, even if individually less than the applicable 25 MW or 1 MW threshold, should be defined as a Large Load Customer. OCA Comments, June 6, 2025, p. 10 (citations omitted).

² OCA, Darryl Lawrence Written Testimony, April 23, 2025, and OCA Comments, June 6, 2025.

the flexibility to meet legitimate business needs and further economic development. In its review of the filed comments in this proceeding, the OCA finds broad, substantial, and clear support for a Model Tariff.

Based upon the filed hearing testimony and comments to date, the OCA offers the following high-level recommendations for the Commission to consider:

1. Develop a Model Tariff that is considered and adopted in the appropriate process before the Commission and require Electric Distribution Companies (EDCs) to include the provisions in their respective binding tariffs.
2. Define Large Load Customers based on their size as a separate rate class.
3. Require a set of binding provisions to be incorporated in EDC tariffs that protect ratepayers from stranded costs, including minimum contract terms, demand ramping requirements, exit fees, and financial surety provisions.
4. Allow EDCs to set realistic study and interconnection timelines based upon each Large Load Customer's request.
5. Allow EDCs the flexibility, if they choose, to negotiate with Large Load Customers regarding the co-location of generation, demand flexibility, and customer construction and ownership of distribution facilities.
6. Establish a transparent data collection and Large Load Customer forecasting and queue status process to inform the Commission, EDCs, PJM Interconnection, and stakeholders.
7. Consider stakeholder proposals to accelerate the safe, reliable, and cost-effective interconnection of Large Load Customers.
8. Consider an analog Model Tariff for water companies regulated by the Commission, given the similarity between stranded electric infrastructure and stranded water infrastructure.

These reply comments are organized as follows: Section I summarizes the potential magnitude and likelihood of stranded investments due to Large Load Customers; Section II discusses why a Model Tariff with binding EDC tariff provisions is needed; Section III explains how the Model Tariff can be flexible to accommodate the needs of Large Load Customers and EDCs; Section IV reviews the reasons why Large Load Customers should be defined based upon their size; Section V articulates the tariff provisions that are necessary to protect ratepayers from stranded investment; Section VI reviews additional proposed tariff provisions including for water companies; and Section VII concludes.

I. Stranded investments resulting from Large Load Customers are a substantial risk to ratepayers.

The Commission initiated this proceeding to address the concern of stranded investments.³ Stranded investments are investments made by transmission companies and EDCs that at the time are thought to be needed to serve rapidly growing and forecasted demand that later would not be needed due to the demand not materializing as forecasted.

Like the OCA,⁴ numerous commentators acknowledge the concern of stranded investments associated with Large Load Customers. The Data Center Coalition observes that its industry is “currently facing substantial uncertainty and billions of dollars in stranded costs and

³ *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers, Motion of Chairman Stephen M. DeFrank, Agenda No. 3054271-CMR, March 27, 2025: “First and foremost, the Commission must protect the Commonwealth’s ratepayers. In this case, that means ensuring that if any upgrades are undertaken to enable the interconnection of large loads, they are made with a high degree of ratepayer protection against the risk of utility investment for projects that may not materialize. In such cases, questions may arise about who will ultimately bear these stranded costs. Providing certainty may mean requiring deposits or other financial security, minimum contract terms, or some sort of breakage or termination fee for loads that decide not to proceed with construction. The Commission also needs to ensure fair cost allocation for projects that do go forward, ensuring that costs attributable solely to one customer are not distributed to the rest of the rate base.”

⁴ OCA Comments, June 6, 2025, pp. 4-9.

investments....”⁵ The Office of Small Business Advocate (OSBA) notes “the magnitude and unpredictability of potential stranded costs if data centers become no longer commercially viable....”⁶ PennFuture warns that the “Commission must anticipate the potential for stranded assets and their economic impact on existing ratepayers.”⁷ NRG Energy asks “whether the first phase of AI development will flare and flame out like the 1990s dot-com bubble before being supplanted by a more sustainable growth....”⁸ ProtectPT opines that “Hyperscale data centers are still very new, and there is no guarantee of their longevity,” “this may just be another boom and bust cycle,” and “[t]he PUC needs to be prepared for the potential rapid obsolescence – or oversaturation – of hyperscale data centers.”⁹

Against this tide of concerns, PPL claims that Large Load Customers will provide substantial economic development, lower electricity rates, and improve reliability.¹⁰ Furthermore, PPL maintains that it already has tariff provisions in place that protect consumers from stranded investment and that the risks are limited.¹¹ According to PPL, “imposing additional cost/guarantees upon [L]arge [L]oad [C]ustomers that would disincentivize their construction in Pennsylvania” would potentially result in ratepayers losing out on lower rates, enhanced reliability, and economic development.¹² PPL, therefore, is asking the Commission to adopt the belief that all other ratepayers only stand to gain from Large Load Customers in terms of lower rates and

⁵ Data Center Coalition Comments, undated, p. 10.

⁶ Office of Small Business Advocate Comments, June 6, 2025, p. 13. A recent report by RMI, Jeffrey Sward, Lauren Sheinberg, Katerina Stephan, and Jacob Becker, *Get a Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads*, RMI, 2025, p. 5, <https://rmi.org/insight/get-a-load-of-this>, classifies data center forecast uncertainty as “very high” and flight risk as “high.”

⁷ PennFuture Comments, June 2, 2025, p. 1. OCA, Darryl Lawrence Written Testimony, April 23, 2025, p. 3: “Any stranded investments from large load customers paid by ratepayers hinders economic development by raising the cost to businesses and reducing spending by residents.”

⁸ NRG Energy Comments, June 6, 2025, pp. 3-4.

⁹ ProtectPT Comments, May 21, 2025, p. 5.

¹⁰ PPL Comments, June 6, 2025, p. 6 and p. 10.

¹¹ PPL Comments, June 6, 2025, pp. 10-11.

¹² PPL Comments, June 6, 2025, p. 11.

improvement reliability with minimal risk even though PPL expects that data center interconnections will double its summer peak load in five to six years and add another 10.9 gigawatts (GW) of data centers by 2034.^{13,14}

PPL provides no evidence that Large Load Customers will flee to other jurisdictions if the Commission adopts a Model Tariff. In fact, the testimony in this proceeding, including from data center developers and operators, makes clear that they support a Model Tariff.¹⁵ One reason a Model Tariff helps Large Load Customers is that it provides transparency for Large Load Customers that enter into the interconnection process, allowing them to know what to expect and avoiding needless and protracted negotiations with utilities over terms and conditions.¹⁶ Moreover, numerous other states with the support of the data center industry have or are considering regulatory and legislative measures to protect all other consumers from stranded costs while accommodating large load development.¹⁷

PPL provides no analysis to support its expansive and counterintuitive claim that Large Load Customers will lower rates, improve reliability, and stimulate the economy. Large Load Customers demand high levels of reliability, typically have high-load factors,¹⁸ are susceptible to

¹³ PPL Comments, June 6, 2025, p. 8.

¹⁴ The Energy Association of Pennsylvania takes a more cautious view in its Comments, June 6, 2025, p. 2: “The volume and scale of interconnection requests currently being evaluated by Pennsylvania’s electric utilities is without precedent in their operational history. The magnitude of these requests is poised to change the capacity planning paradigm that guides infrastructure development today.” It continues (p. 3): “Overall, these reports indicate that this kind of concentration of new load will strain existing infrastructure and require accelerated capital investment. In some cases, these new loads would require service at levels that would have previously been considered transmission-scale capacity”.

¹⁵ Data Center Coalition Comments, undated, p. 7. Amazon Data Services, Inc., Comments, June 6, 2025, pp. 1-2.

¹⁶ Data Center Coalition Comments, undated, p. 11 notes “...disparate treatment would erode fairness, chill capital deployment, and invite litigation.”

¹⁷ Energy Futures Group, [Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers](#), January 28, 2025.

¹⁸ Energy Association of Pennsylvania Comments, June 6, 2025, p. 5 and FirstEnergy Comments, June 6, 2025, p. 3.

causing faults on the power system,¹⁹ and are part of a high-risk, rapidly changing industry. All these factors point to the possibility, if not probability, of rising rates and lower reliability, even if the industry evolves as forecasted. However, evolution of the industry is not certain because there could be a data-center industry downturn, development of new technologies that replace data centers, or the re-location of data centers outside of Pennsylvania. Even if PPL's claim is true, it may only apply to its system. Other EDCs are concerned about rate increases and reliability degradation.²⁰

In summary, the OCA submits that the record to date in this proceeding establishes that stranded investment due to Large Load Customers is a significant and sufficiently likely risk to all other ratepayers. Accordingly, the Commission should act, as it is doing in this proceeding, to prevent its occurrence.

II. To protect ratepayers from the risks of stranded investments due to Large Load Customers, the Commission can and should require EDCs to adopt and incorporate the provisions of a Model Tariff into their respective binding tariffs.

As the Commission stated, the purpose of this proceeding “is to educate and inform the Commission on the prudent design of a large load customer model tariff.”²¹ The Commission

¹⁹ Energy Association of Pennsylvania Comments, June 6, 2025, p. 13, NERC, [NERC Seeks to Address Reliability Impacts from Large Load Integration](#), April 17, 2025, and NERC, “Incident Review: Considering Simultaneous Voltage-Sensitive Load Reductions,” January 8, 2025, https://www.nerc.com/pa/rmm/ea/Documents/Incident_Review_Large_Load_Loss.pdf.

²⁰ FirstEnergy Comments, June 6, 2025, p. 4: “If, however, the upgrades are to be used to serve many customers, then they are generally rolled into rate base for recovery through rates that are charged to all customers. This could result in increased costs to all customers if the rate base that is the basis for the FirstEnergy transmission companies’ rates were to increase at a faster rate than the load that is to be served by that rate base actually materializes.” Duquesne Comments, June 6, 2025, p. 7 in a subsection titled “The potential for cost reductions to other customers may be overstated” states “While much of this conversation focuses on the initial interconnection and infrastructure upgrade costs, there was discussion at the April 24th *en banc* regarding whether the growth of large users can create downward pressure on rates, by spreading fixed costs across a larger number of customers, potentially reducing rates for other users. Unfortunately, Duquesne Light does not expect this to be the case.”

²¹ PA PUC, Notice of *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers – docket Number: M-2025-3054271, April 12, 2025.

noted in a recent Federal Energy Regulatory Commission (FERC) filing on the topic of co-location of large loads, “The PA PUC favors economic growth in Pennsylvania, but growth where data centers consuming large amounts of electricity pay their equitable share of network services, such as ancillary and transmission costs for the grid and do not negatively impact reliability on the grid causing rate increases to Pennsylvania’s end user customers.”²²

The Commission heard in the *En Banc* Hearing and read in accompanying written testimonies and filed comments, including from the OCA,²³ that there is overwhelming support for a Model Tariff including from Large Load Customers.²⁴ The representative of the Data Center Coalition testified: “Let me preface my comments about those three tariff-related issues by noting that DCC supports tariffs that standardize several of the terms that have traditionally been a component of contracts between utilities and large customers but were bilaterally negotiated.”²⁵ There is widespread support for a Model Tariff for several reasons. A Model Tariff protects ratepayers from stranded investment, including Large Load Customers that remain on the system and are exposed to the risk of paying for the failed infrastructure-related investments of their competitors. It also establishes utility-wide provisions that avoid a “race-to-the-bottom competition”²⁶ in which each EDC competes with other EDCs to provide the most generous terms

²² PA PUC, Comments of the Pennsylvania Public Utility Commission; Docket Nos. EL25-49-000 *et al.*, April 22, 2025, pp. 5-6.

²³ OCA, Darryl Lawrence Written Testimony, April 23, 2025, p. 1, and OCA Comments, June 6, 2025, p. 1.

²⁴ Data Center Coalition Comments, June 6, 2025, p. 7: “Embedding these best practice terms in large load tariffs will let each cluster expand while shielding the wider customer base from unnecessary costs.” Sierra Club Comments, June 6, 2025, p. 2 (without the emphasis): “Tariffs before infrastructure: the Commission should require that Pennsylvania EDCs seek and obtain approval for tariffs for new large customers on the front end.” Also see, Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 1, and Exus Renewables North America, June 6, 2025, p. 10.

²⁵ Data Center Coalition, Lucas Fykes Written Testimony, undated, p. 4.

²⁶ Calibrant Energy Comments, June 5, 2025, p. 2: “Therefore, data centers will make efforts to find the best terms (costs, commitments, and speed to interconnection) available in the market, which could include seeking out other utility providers with slightly better contractual terms for firm capacity....”

to Large Load Customers risking stranded investment. Finally, a Model Tariff also provides transparency for the Commission, ratepayers, and stakeholders.

Some EDCs recommend that the Commission issue guidelines through a policy statement instead of a Model Tariff.²⁷ Guidelines, according to this view, can provide both transparency and protect ratepayers while providing the flexibility EDCs need to accommodate the “project-to-project differences” among Large Load Customer.²⁸ In the alternative, PPL claims that if a Model Tariff “is to be adopted, it should be non-prescriptive and allow EDCs sufficient flexibility to incorporate provisions pertaining to large load customers into an EDCs existing retail electric tariff.”²⁹

Policy guidelines or a “non-prescriptive tariff” do not protect ratepayers from stranded investments because EDCs would not have to abide by them. EDCs could agree to contractual terms with Large Load Customers that do not protect ratepayers, who are not represented during the contractual negotiations between the EDC and Large Load Customers. As PennFuture noted: “In alignment with its consumer protection mandate, the Commission should shift data centers away from special contracts in favor of a tariff that standardizes terms and conditions for future data center customers. This standardized tariff should consider the utility’s cost and revenue in their entirety, thus establishing a comprehensive and consistent approach to this burgeoning industry. If enacted, a ‘race-to-the-bottom competition’ would be avoided, and existing ratepayers would be safeguarded from subsidizing the energy-intensive customers.”³⁰

²⁷ PPL Comments, June 6, 2025, p. 22. Energy Association of Pennsylvania Comments, June 6, 2025, p. 11. Duquesne Comments, June 6, 2025, p. 5: “...it must be guidance, and not a real or perceived mandate.”

²⁸ PPL Comments, June 6, 2025, p. 22.

²⁹ PPL Comments, June 6, 2025, p. 7.

³⁰ PennFuture Comments, June 2, 2025, p. 2, without the emphasis, referencing E. Martin and A. Peskoe, Environmental & Energy Law Program, Harvard Law School, “Extracting Profits from the Public: How Utility Ratepayers Are Paying Big Tech’s Power,” March 5 2025, <https://eelp.law.harvard.edu/wp-content/uploads/2025/03/Harvard-ELI-Extracting-Profits-from-the-Public.pdf>.

Guidelines do not provide transparency because the Commission, ratepayers, and stakeholders would not know which guidelines EDCs are abiding by and which ones they are not. Moreover, which guidelines EDCs are complying with could vary over time and by each Large Load Customer. The Commission, ratepayers, and stakeholders would need to review each individual large load contract to determine whether ratepayers are being protected from stranded investment, which is contrary to the principle of transparency. “The use of special contracts for individual users – shielded behind layers of confidentiality – can serve to conflate the metrics and methodologies used to calculate and allocate costs in a rate cases [sic], making it exceedingly difficult and cost prohibitive to appropriately unwind.”³¹

Consider the following hypothetical. A utility has doubled its size to accommodate today’s forecast for Large Load Customers and in ten years most of its revenue comes from these customers. Five years later, many of the anticipated Large Load customers switch to operating at partial capacity or have shut down. As a result, the EDC requests substantial electricity rate increases for non-Large Load Customers. Moreover, in this hypothetical, the EDC requests discounted rates for Large Load Customers to retain their load, citing both economic development reasons and to offset the potential additional larger stranded investment that would result if the remaining Large Load Customers were to shut down completely.

This hypothetical is more likely to occur if the Model Tariff is only a guideline or non-binding tariff because some EDCs did not take full measures to protect ratepayers from stranded investments. Moreover, with guidelines, the Commission would have to adjudicate each contract

³¹ Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 6, referencing E. Martin and A. Peskoe, Environmental & Energy Law Program, Harvard Law School, “Extracting Profits from the Public: How Utility Ratepayers Are Paying Big Tech’s Power,” March 5 2025, <https://eelp.law.harvard.edu/wp-content/uploads/2025/03/Harvard-ELI-Extracting-Profits-from-the-Public.pdf>.

with a Large Load Customer, assess to what extent it satisfied the guidelines, and determine whether that resulted in stranded investments whose costs should be borne by ratepayers or EDC shareholders. In short, the Commission would be repeating this current proceeding but under much higher stakes and under contentious circumstances.

For the EDCs to adopt the Model Tariff provisions into their respective binding tariffs, the OCA envisions the following process. Based on the review by Commission of this docket, the Commission may issue a tentative order including a proposed Model Tariff, allowing stakeholders to submit comments on the proposed Model Tariff. The Commission would consider those comments and then issue a Final Model Tariff approved by the Commission in a final order that directs the EDCs to submit compliance filings consistent with the Final Model Tariff. Each EDC would then submit a compliance filing that modifies its respective tariff to comply with the Final Model Tariff. The individual EDCs' compliance filings could allow for flexibility across service territories, as requested by EDCs.³² Stakeholders would then have the opportunity to comment on the EDCs' compliance filings, and then the Commission would approve, after consideration of any comments to the compliance filing, an EDC's compliance filing, with or without modifications.

In summary, the OCA submits that the record to date in this proceeding supports the Commission's development of a Model Tariff and the Commission requiring EDCs to adopt the provisions of the Model Tariff into their respective binding tariffs. As set forth above, the OCA has proposed a process by which the Model Tariff can be developed and its provisions adopted in the tariffs of EDCs via an approved regulatory process.

³² Duquesne Comments, June 6, 2025, p. 6.

III. The Model Tariff for Large Load Customers should be flexible where appropriate.

Several stakeholders have emphasized the importance of the Model Tariff being flexible to accommodate the different types of Large Load Customers, the differences in EDCs' existing tariffs and rate structures, and the varying costs of interconnecting Large Load Customers.³³ The OCA supports flexibility when appropriate.³⁴

The Large Load Tariffs adopted by other jurisdictions are flexible. They accommodate different types of Large Load Customers, various interconnection needs and timelines, optional co-location of different types of generation, voluntary demand response, and multiple financial payment, credit, and surety options. The OCA submits that the record to date in this proceeding does not support the claim that a Model Tariff would stifle or prevent appropriate flexibility and is not substantiated with specific and realistic examples. This claim is further undercut by the fact that many other jurisdictions have adopted or are adopting binding tariffs for large loads.³⁵

IV. The Model Tariff should appropriately classify Large Load Customers by size.

A key question is whether to classify a Large Load Customer by size. As FirstEnergy observed:

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.

³³ See, for example, Duquesne Comments, June 6, 2025, p. 6, and PECO Comments, June 6, 2025, p. 3.

³⁴ OCA Comments, June 6, 2025, p. 1: "It [Model Tariff] can also provide Large Load Customers and utilities the flexibility to meet legitimate business needs and further economic development."

³⁵ Energy Futures Group, [Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers](#), January 28, 2025.

This often requires significant transmission buildout, which must first be analyzed thoroughly and involves substantial network investments.³⁶

Duquesne recommends that the Commission consider a megawatt (MW) size designation and operational and load characteristics but does not provide numerical suggestions.³⁷ PECO does not believe that a new customer class is needed.³⁸

PPL argues that the MW size of a Large Load Customer is not the appropriate metric to use for classifying Large Load Customers because it does not indicate whether system upgrades need to be socialized through the rate base.³⁹ PPL claims instead that a case-by-case, equipment level review is necessary because this review determines which system upgrades are necessary and therefore socialized. According to PPL, focusing on size may result in two types of errors: (1) imposing minimum load and other guarantees on large loads that require few, if any, system upgrades and thereby does not avoid any potential stranded investments, and (2) not imposing guarantees on smaller customers that do require substantial system upgrades, which could lead to stranded investments.

PPL's concerns about the mismatch between the definition of a Large Load Customer and its likely contribution to stranded investments are overstated. First, it is based upon PPL's unsubstantiated and incredulous claim, discussed above, that its system can handle a large influx of Large Load Customers with little or no system upgrades. If these system upgrades are made and Large Load Customers do not materialize or shut down their operations prematurely, ratepayers are potentially left paying for stranded investments. Second, PPL's analysis does not account for the system upgrades and investments that may be needed several years after the interconnection of

³⁶ First Energy Kelly Gower Written Testimony, April 23, 2025, p. 4.

³⁷ Duquesne Comments, June 6, p. 8.

³⁸ PECO June 6, 2025, p. 6.

³⁹ PPL Comments, June 6, 2025, pp. 14-15.

substantial amounts of Large Load Customers. The costs of future system upgrades are not known at the time when a Large Load Customer interconnects, but the EDC still must make those investments, presuming that its existing customer base will need them.⁴⁰ It is the very size of the Large Load Customers, both the individual customer size, which can be as large at 1,000 MW, or 1 GW, and the collective size, which can more than double a system's summer peak in five to ten years, that makes the risk of stranded investment due to size realistic.⁴¹

In summary, the OCA submits that the record to date in this proceeding, including the referenced practice of many other jurisdictions, shows that it is reasonable to classify Large Load Customers by their size as the OCA has proposed in its Comments⁴² and as is discussed in further detail below.

V. The Model Tariff should require contractual terms that minimize the risk of stranded investment.

The Commission, in initiating this proceeding, requested input on the types of provisions that a Model Tariff should contain.⁴³ Amazon Data Services, Inc., testified: "As stated within our initial testimony, the combination of reasonable term, minimum demand charges, and exit fees are all commercial obligations of rate payers, and reasonable consideration within a new large load tariff."⁴⁴

⁴⁰ As noted by the Energy Association of Pennsylvania in its Comments, June 6, 2025, p. 12: "Fourth, tariff mechanisms must ensure recovery of necessary infrastructure investments undertaken to serve large loads. This includes both direct interconnection costs and broader system upgrades necessitated by the cumulative impact of multiple large-load additions."

⁴¹ See Energy Association of Pennsylvania Comments, June 6, 2025, p. 2, which summarizes the magnitude of these requests that EDCs have reported.

⁴² See *supra*, n. 1; see also OCA Comments, June 6, 2025, p. 10.

⁴³ PA PUC, Notice En Banc Hearing Concerning Interconnection and Tariffs for Large Load Customers – Docket Number: M-2025-3054271, April 12, 2025.

⁴⁴ Amazon Data Services, Inc., Comments, June 6, 2025, pp. 1-2.

The OCA, in its written testimony and comments, specified the contractual terms that the Model Tariff should require, such as requiring Large Load Customers to pay for their interconnection studies and costs, a minimum contract length, demand ramp rates, exit fees, and financial and collateral requirements.⁴⁵ Commentators are in broad agreement that these requirements are appropriate, although in many cases do not provide specific guidance that the Commission should consider in the Model Tariff.⁴⁶

A. Large Load Customers should be defined as 25 MWs or larger.

In its Comments, the OCA proposed that the definition of Large Load Customer contain three elements based on its size, rather than its industrial classification.⁴⁷ First, the minimum threshold for defining a Large Load Customer should be 25 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.⁴⁸ Second, the definition of a Large Load Customer should apply to the customer's aggregate power requirement, rather than to a point of interconnection to the distribution system or a specific

⁴⁵ OCA, Darryl Lawrence Written Testimony, April 23, 2025, p. 4, and OCA Comments, June 6, 2025, pp. 9-15.

⁴⁶ Data Center Coalition Comments, undated, p. 4, supports exit fees, load-ramp schedules, and collateral flexibility. It further states (p. 13): "By pairing commitment periods with clear exit fees, phasing load in over time, and right-sizing collateral to actual exposure, a tariff can fund needed upgrades without shifting stranded asset risk to other customers." Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 9: "In addition to the recommendations outlined above, including ... requiring substantial collateral for inclusion in utility load forecasts, the Commission should also adopt minimum demand charges and early exit fees." The Energy Association of Pennsylvania in its Comments, June 6, 2025, p. 6 recommends a "robust framework for load commitment guarantees." PECO Comments, June 6, 2025, p. 6: "For example, deposits, minimum contract terms, ramp-up periods, advance notice requirements for changes in demand, exit fees, collateral requirements, and financial guarantees for large load customers can supplement existing customer protections in the EDCs' retail tariffs and help mitigate risk to other customers." Office of Small Business Advocate Comments, June 6, 2025, p. 14: "The OSBA recommends minimum load contract terms, duration provisions (8-10 years) and exit fees; concepts broadly supported by Hearing Panelists." ProtectPT Comments, May 21, 2025, p. 7: "We ask for minimum contractual terms, exit fees, fees for notifications of changes in the required load, and cash collateral."

⁴⁷ OCA Comments, June 6, 2025, p. 10.

⁴⁸ Pennsylvania's electric utilities fall into two sizes: those greater than 2,500 MW and those less than 100 MW (PAPUC, [Electric Power Outlook for Pennsylvania 2023-2028](#), August 2024, pp. 34-50). OCA (June 6, 2025, p. 10) proposes two Large Load Customer thresholds to protect ratepayers from rate increases of a few percent or more, since 25 MW is 1% of an EDC with a peak of 2,500 MW, and 1 MW is 1% of an EDC with a 100 MW peak.

meter.⁴⁹ This requirement prevents the splitting of Large Load Customers into smaller units that do not trigger the definition. Third, if the sum of multiple facilities at different interconnection points owned by the same parent company exceeds 25 MW, those facilities, even if individually less than the applicable 25 MW or 1 MW threshold, should be defined as a Large Load Customer.⁵⁰

NRDC suggests a 50 MW large load threshold.⁵¹ Exus Renewables supports a size definition of at least 100-200 MW.⁵² FirstEnergy notes that a typical data center may be sized at 100 MW and that it presently uses a load factor of 85% to ensure that other transmission customers are not adversely affected by this incoming load.⁵³ PECO recommends that the Commission not adopt a specific size designation in the Model Tariff, but that the Commission could address other ways of defining Large Load Customers.⁵⁴ PPL supported the OCA's provisions to prevent circumventing the size definition of Large Load Customers. The OSBA "recommends data centers be set up as a separate class of customer."⁵⁵ ProtoGen recommends that data centers be a distinct customer class.⁵⁶

B. Large Load Customers should be required to pay for interconnection studies and interconnection costs.

In its Comments, the OCA proposed that all interconnection studies and costs should be paid for by Large Load Customers and guaranteed via deposits covering the expenses.⁵⁷ These

⁴⁹ PECO supports OCA on this point. See PECO Comments, June 6, 2025, p. 4 but states that EDCs should have discretion in whether premises should be aggregated.

⁵⁰ American Electric Power, [In the Matter of the Application of Ohio Power Company for New Tariffs Related To Data Centers and Mobile Data Centers](#), Case No. 24-508-EL-ATA, October 23, 2024, pp. 3-4.

⁵¹ NRDC Comments, June 6, 2025, p. 2.

⁵² Exus Renewables North America Comments, June 6, 2025, p. 8.

⁵³ FirstEnergy Comments, June 6, 2025, p. 3.

⁵⁴ PECO Comments, June 6, 2025, p. 4.

⁵⁵ Office of Small Business Advocate Comments, June 6, 2025, p. 13.

⁵⁶ ProtoGen Comments, May 7, 2025, p. 4.

⁵⁷ OCA Comments, June 6, 2025, pp. 10-12.

arrangements between the Large Load Customer and the EDC should be stipulated in a contract filed with the Commission, including past contracts, and available to the Statutory Advocates under appropriate confidentiality agreements.⁵⁸ Large Load Customers would also be financially responsible for any additional facilities that are later determined to be needed for reliability given the evolving reliability requirements.⁵⁹

Commentators agree that Large Load Customers should pay in advance for their interconnection studies⁶⁰ and all interconnection costs,⁶¹ sometimes referred to as Contributions in Aid of Construction (CIAC), that do not provide system wide benefits.⁶² This payment for direct interconnection costs is consistent with cost-causation ratemaking principles.⁶³ The Model Tariff should codify this practice directly or by referencing to existing provisions in EDCs tariffs.

C. Large Load Customers should be required to agree to minimum contract lengths.

Commentators agree with minimum contract lengths and exit fees.⁶⁴ Such provisions are also found in Large Load Tariffs in different jurisdictions and supported by the data center

⁵⁸ OCA Comments, June 6, 2025, pp. 11.

⁵⁹ OCA Comments, June 6, 2025, p. 12.

⁶⁰ Energy Association of Pennsylvania Comments, June 6, 2025, p. 8, and Office of Small Business Advocate Comments, June 6, 2025, p. 8.

⁶¹ FirstEnergy Comments, June 6, 2025, p. 4, and Office of Small Business Advocate Comments, June 6, 2025, pp. 9-10.

⁶² EDCs should not be able to earn a return on CIAC. See Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 8: "...the Commission should adhere to the long-standing practice that utilities cannot rate base for purposes of earning a return [on] utility plant funded by CIAC." See also Duquesne Comments, June 6, 2025, p. 8; "Although the Company recovers the costs associated with maintaining these assets through base rates, it does not earn any return on plant supported by CIAC for the lifetime of the assets."

⁶³ Energy Association of Pennsylvania Comments, June 6, 2025, p. 4.

⁶⁴ Duquesne Comments, June 6, 2025, p. 8: "The Company currently utilizes minimum contract terms, generally ranging from five to ten years. FirstEnergy Comments, June 6, 2025, p. 13: "Exit fees and collateral requirements are therefore necessary to mitigate the risk and protect against transitory load so that customers are protected from the substantial investment needed to complete these data centers." ProtoGen Comments, May 7, 2025: p. 4 "Develops fair exit fee structures that recover stranded costs if facilities close prematurely." See also Sierra Club Comments, June 6, 2025, p. 3.

industry.⁶⁵ The OCA proposed a minimum contract duration of 20 years that requires the payment of an exit fee for early termination, allows for transfer of the contract to another qualified Large Load Customer that is willing to satisfy the terms and conditions of the contract, and a five-year notification period to renew or not to renew the contract.⁶⁶ NRDC recommends that tariff terms should reflect the 20-40 year horizon to recover new transmission and distribution infrastructure and also supports exit fees and resizing clauses.⁶⁷ The OBSA proposes minimum load contract terms of 8 to 10 years.⁶⁸

D. Large Load Customers should be required to have minimum demand payments and ramping requirements.

Minimum demand ramping provisions help ensure that Large Load Customers pay for the network transmission and distribution services that the EDCs are providing now and in the future. The OCA proposed minimum demand ramping provisions.⁶⁹ The Data Center Coalition supports a ramping period of 3 to 5 years.⁷⁰ FirstEnergy presently works with customers regarding load ramping and is correlated with the minimum contract demands in the Electric Service Agreement (ESA) with the customer.⁷¹ NRDC supports load ramping provisions and minimum load charges.⁷²

⁶⁵ Data Center Coalition Comments, undated, pp. 13-14: “Minimum contract terms and exit fee schedules give everyone a clear picture of who pays and for how long. When a large load customer commits to take service for, say, 10 years and backs that promise with an exit fee that steps down only as utility investment depreciates, the utility can size transformers, feeders, and substation upgrades with confidence. Other customers benefit because of the risk of stranded assets – the upgraded facilities that outlive the customer that prompted them – remains on the customer that caused the expense.” See FirstEnergy Comments, June 6, 2025, pp. 4-6, and Office of Small Business Advocate Comments, June 6, 2025, p. 14.

⁶⁶ OCA Comments, June 6, 2025, pp. 12-13.

⁶⁷ NRDC Comments, June 6, 2025, pp. 2-3.

⁶⁸ Office of Small Business Advocate Comments, June 6, 2025, p. 14.

⁶⁹ OCA Comments, June 6, pp. 13-14.

⁷⁰ Data Center Coalition Comments, undated, p. 14: “Load ramp provisions give both the utility and the large load customers some breathing room.”

⁷¹ FirstEnergy Comments, June 6, 2025, p. 5.

⁷² NRDC Comments, June 6, 2025, p. 3.

Related to ramping provisions is the ability of Large Load Customers to bypass some or all the applicable demand charges.⁷³ Demand charges for Large Load Customers must be structured or standby rates implemented to prevent Large Load Customers from avoiding some or all of their demand charges. This avoidance could be accomplished by operating its behind-the-meter generation during coincident peak hours to avoid the EDC's demand charge even though the EDC is planning and building its distribution and transmission system assuming that the behind-the-meter generation is not always available.

E. Large Load Customers should be required to have sufficient and high-quality financial guarantees.

Financial guarantees must be sufficient to ensure that Large Load Customers comply with their contractual obligations. The Data Center Coalition supports collateral requirements that protect the utility exposure and allow for flexibility.⁷⁴ FirstEnergy “requires additional deposits and surety instruments from large load customers to ensure proper cash flow and to cover the risk of non-payment that occurs during regular billing.”⁷⁵ The OCA proposed a specific but flexible combination of high-quality financial guarantees in its comments based upon tariff provisions from Ohio.⁷⁶

In summary, the OCA submits that the record to date in this proceeding has broad support for a set of contractual provisions mandated by the Model Tariff to protect ratepayers, including other Large Load Customers, from stranded investment. As set forth above in Section V, A through E, the OCA has proposed a specific set of these provisions based on the practices of other

⁷³ PennFuture Comments, June 2, 2025, pp. 3-4.

⁷⁴ See the Date Center Coalition Comments, undated, p. 15, and the Energy Association of Pennsylvania Comments, June 6, 2025, p. 7.

⁷⁵ FirstEnergy Comments, June 6, 2025, p. 3.

⁷⁶ OCA Comments, June 6, 2025, pp. 14-15.

jurisdictions, the long-lived and sunk nature of transmission and distribution facilities, and the overriding concern to protect ratepayers from stranded costs and their negative impact on economic development.

VI. Additional Model Tariff Considerations

In its Comments, the OCA identified additional Model Tariff provisions that the Commission should consider.⁷⁷ Below the OCA discusses three categories of topics that should be deliberated as part of the Model Tariff: (a) forecasts, large load interconnection queues, and confidential data; (b) timelines for interconnection studies and in-service dates; and (c) additional proposals to accelerate the interconnection of Large Load Customers.

A. The Commission should encourage and require transparency for Large Load Customer development, interconnection queue status, and forecasts, subject to appropriate confidential treatment of relevant information.

Having readily available and up-to-date data, information, and forecasts related to Large Loads and their interconnection status is critical for the Commission, EDCs, transmission companies, PJM, and stakeholders.

Commentators hold differing views on how to forecast the load of Large Load Customers. The Electricity Customer Alliance Comments emphasized transparency and consistency of load forecasting and demonstrated commercial viability or be commitment-backed.⁷⁸ FirstEnergy supports large load customers being financially responsible for their load forecast.⁷⁹ The Sierra Club recommends disclosure of “large load trajectories.”⁸⁰ NRDC states:

⁷⁷ OCA Comments, June 6, 2025, pp. 15-17.

⁷⁸ The Electricity Customer Alliance Comments, May 30, 2025, p. 2

⁷⁹ FirstEnergy Comments, June 6, 2025, pp. 12-13.

⁸⁰ Sierra Club Comments, June 6, 2025, p. 4.

For the commission to have the most accurate and sufficient information as large new loads evolve, utilities should additionally report on a timeline deemed fit by the commission (e.g., quarterly, semiannually, annually) the aggregated load from customers under the tariff, expected capacity and energy needs, status updates of prospective customers or customers in the queue, estimated interconnection timelines, and any further information deemed necessary for adequate short- and long- term planning. Importantly, this data could also inform a more accurate Pennsylvania component for the broader regional PJM load forecast.⁸¹

The OCA, along with other commentators, supports Vice Chair Barrow’s call during the April 24, 2025 *En Banc* Hearing for “radical transparency.”⁸² In its Comments, the OCA proposed that the Model Tariff include appropriate reporting provisions to the Commission regarding interconnection requests and their status, as well as a uniform data collection methodology for large loads, along with appropriate confidentiality provisions.⁸³ Information that should be made available is the number of requests under the tariff, the characteristics of the requesting interconnecting large loads, and the associated costs of direct transmission and distribution interconnections, local transmission upgrades, and regional transmission upgrades.⁸⁴ Given that EDCs need to know the size in MW, the load profiles, and the interconnection status of prospective Large Load Customers, they should compile this data and provide it as requested to the relevant transmission entity, PJM, and the Commission. The Model Tariff should include a uniform data collection methodology for large loads, along with appropriate confidentiality provisions. Non-confidential data regarding each EDC’s large load interconnection queue should be made publicly available.

⁸¹ NRDC Comments, June 6, 2025, p. 4.

⁸² Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 1, note 4.

⁸³ OCA Comments, June 6, 2025, p. 16.

⁸⁴ Joint Comments of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) and the Tenant Union Representative Network (TURN) Comments, June 6, 2025, p. 10: “CAUSE-PA and TURN recommend that the Commission set forth explicit guidance requiring utilities to separately track and report on all costs associated with serving each large load customer.”

This information regarding the interconnection of large loads serves multiple functions. First, it informs the Commission so that it can track large loads and their implications for ratepayers. This will provide the Commission with much needed information to assess if it needs to update large load policies and tariffs.⁸⁵ Second, it informs PJM’s load forecast for its capacity market, also known as its Reliability Pricing Model (RPM). Since PJM is forecasting load approximately three years in advance for this market, EDCs’ load forecasts should only include Large Load Customers that will be online within that period and the associated demand by year. Third, this information is used in EDCs distribution and transmission planning and in PJM transmission planning, which can have a planning horizon of 20 or more years.⁸⁶

In summary, based on the record to date in this proceeding, the OCA submits that the Commission should require detailed and timely information regarding the requests, interconnection, and short to long-term forecasts of Large Load Customers and make this information publicly available subject to appropriate confidentiality provisions.⁸⁷

B. The Commission should *not* require maximum timelines for interconnection studies, agreements, and in-service dates given the potential large number and wide variety of interconnection requests, the importance of comprehensive and accurate studies, and the many supply chain challenges confronting the industry.

⁸⁵ Several Commentators emphasized the need for flexibility in the Model Tariff given the dynamic nature of this rapidly expanding and relatively new sectors. See, for example, Duquesne Comments, June 6, 2025, p. 6, and PECO Comments, June 6, 2025, p. 3.

⁸⁶ PECO Comments, June 6, 2025, p. 5, “However, such system upgrades are oftentimes necessary to ensure reliability over a 40-year or more horizon.”

⁸⁷ A recent RMI report recommends increasing the frequency of updating load forecasts and load forecasting processes, making load forecast data and processes visible to other stakeholders, and ensuring load forecasts are consistently used across planning processes that utilize the same underlying set of data and assumptions. Jeffrey Sward, Lauren Shwisberg, Katerina Stephan, and Jacob Becker, Get a Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads, RMI, 2025, p. 7, <https://rmi.org/insight/get-a-load-of-this>.

Commentators disagree on whether there should be maximum times for utilities to complete interconnection studies and agreements. The Data Center Coalition supports commitment periods related to the interconnection process for Large Load Tariffs, but does not provide specifics.⁸⁸ Some EDCs oppose maximum time limits because they need to consider the specific requirements and grid impacts for each interconnection request, and each applicant must await the completion of studies from earlier requests.⁸⁹ The OSBA supports EDCs having sufficient time and suggests that there is no single standard.⁹⁰ The OCA does not support mandatory timelines for EDCs to conduct interconnection studies, sign contracts with Large Load Customers, or in-service dates. The large number and wide variety of interconnection requests, the importance of comprehensive and accurate studies, and the many supply chain challenges confronting the industry make it impractical to determine what these timelines should be.

In summary, the OCA submits that based on the record to date in this proceeding, mandatory timelines for interconnection studies and in-service dates are not advisable.

C. The Commission should not require EDCs to allow Large Load Customers to self-provide or self-construction distribution system equipment and facilities.

Some commentators propose that Large Load Customers should be able to provide EDCs with equipment or self-construct facilities.⁹¹ Some, but not all, EDCs are concerned with these types of arrangements.⁹² Given the reliability considerations in proper equipment procurement,

⁸⁸ Data Center Coalition, undated, p. 13.

⁸⁹ FirstEnergy Comments, June 6, 2025, p. 5, Duquesne Comments, June 6, 2025, p. 8, and PECO June 6, 2025, p. 6. Energy Association of Pennsylvania Comments, June 6, 2025, p. 13: “Rigidly defined study timelines could potentially compromise the thoroughness of system reliability analysis and proper planning.”

⁹⁰ Office of Small Business Advocate Comments, June 6, 2025, p. 9.

⁹¹ Amazon Data Services, Inc., Michael Fradette Written Testimony, April 23, 2025, p. 6.

⁹² PECO comments, June 6, 2025, pp. 4-5, Energy Association of Pennsylvania comments, June 6, 2025, p. 15, and Duquesne Comments, June 6, 2024, pp. 10-11. In contrast, FirstEnergy Comments, June 6, 2024, p7, state that “The Companies will consider proposals for non-transmission infrastructure being built by the customer.”

installation, maintenance, and operation, the OCA does not support requiring EDCs to allow for equipment self-provision or self-construction.

In summary, the OCA submits that based on the record to date in this proceeding, EDCs should have the flexibility in the Model Tariff to allow, but not required, for the self-provision and self-construction of interconnection facilities.

VII. The OCA would need additional information to fully consider other proposals submitted by commenters to accelerate the safe, reliable, and cost-effective interconnection of Large Load Customers.

As the OCA noted in its Comments⁹³ and in part of the reply comments, commentators have offered many different ideas to accelerate the interconnection of Large Load Customers, including provisions mandating or encouraging Large Load Customers to bring their own generation (BYOG),⁹⁴ Others include Large Load Customer demand flexibility and demand response, using a cluster interconnection process in which several Large Load Interconnection requests are processed at the same time instead of sequentially, and having a network open season.⁹⁵ These proposals, and others, are worthy of consideration but require additional information before the OCA can assess them.

VIII. The basis for the Commission's concerns regarding stranded investments also apply to Pennsylvania water utilities.

Several commentators observe that many Large Load Customers can consume substantial amounts of water for cooling and as part of natural gas production.⁹⁶ The basis for the

⁹³ OCA Comments, June 6, 2025, pp. 16-17.

⁹⁴ Exus Renewables North America, June 6, 2025, p. 5, and NRG Energy Comments, June 6, 2025, p. 6.

⁹⁵ NRG Energy Comments, June 6, 2025, p. 6.

⁹⁶ Delaware Riverkeeper Network Comments, June 6, 2025, p. 1, Mountain Watershed Comments, June 6, 2025, p. 2, and David Pedersen *et al.* Comments, May 7, 2025, p. 1. See also Siddik, Md Abu Bakar, Arman Shehabi, and Landon

Commission's concerns regarding stranded investments in electricity infrastructure also applies to water infrastructure. The Commission should consider a Model Water Tariff for the jurisdictional water utilities that it regulates.

IX. Conclusion

This section concludes OCA's reply comments. The OCA's comments were prepared in consultation with, and with the assistance of, Frank A. Felder, Ph.D., of Independent Electricity Consultants, LLC.

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Marston. "The environmental footprint of data centers in the United States." *Environmental Research Letters* 16.6 (2021): 064017, available at https://iopscience.iop.org/article/10.1088/1748-9326/abfba1?_sp=b48260d8-0a7b-4784-9d4b-0e1ac60ee727.