COMMONWEALTH OF PENNSYLVANIA

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June 6, 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:

With the assistance of Frank A. Felder, Ph.D., of Independent Electricity Consultants, LLC, in preparing these comments, please find enclosed the Office of Consumer Advocate's Comments, for the above-captioned docket.

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

I hereby certify that I have this day served a true copy of the following documents, the Office of Consumer Advocate's 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 6th day of June 2025.

SERVICE BY E-MAIL ONLY

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Dated: June 6, 2025

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Comments Concerning Interconnection and Tariffs for Large Load Customers

Docket Number: M-2025-3054271

Pennsylvania Office of Consumer Advocate

June 6, 2025

Introduction and Summary

The Pennsylvania Office of Consumer Advocate ("OCA") commends the Pennsylvania Public Utility Commission ("Commission") for initiating this proceeding on Interconnection and Tariffs for Large Load Customers. 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. It can also provide Large Load Customers and utilities the flexibility to meet legitimate business needs and further economic development.

The OCA represents consumers in matters involving their utility service and is pleased to provide these comments. The OCA supports a Model Tariff that protects ratepayers from stranded investments – investments that utilities make to serve Large Load Customers whose electric load did not materialize as anticipated. Strong ratepayer protections are necessary given the evolving, dynamic, and uncertain development of Large Load Customers and their underlying industries. The systemic risk of multiple closures or significant reductions in operations by Large Load Customers due to technological changes or an economic downturn necessitates substantial ratepayer protections from stranded investments. In addition to these ratepayer protections, the

OCA discusses possible suggestions that the Commission should consider to be included in the Model Tariff and responds to the Directed Questions of Vice Chair Kimberly Barrow.[1]

These comments are organized as follows. First, the OCA summarizes the key findings from the written testimonies submitted on April 25, 2025, for the *En Banc* Hearing as part of this docket.[2] These findings are the foundation of the OCA's comments. Second, the OCA briefly discusses some background and historical context regarding electricity demand growth, stranded investment, and generation interconnections. History suggests the need for strong protections against systemic risk. Third, the OCA describes the necessary ratepayer protections that should be part of the Model Tariff.[3] Experience from other states shows that a comprehensive package of ratepayer protections is necessary. This section responds to the Directed Questions #13, "What safeguards do you believe are essential to prevent cost-shifting from speculative or short-lived data center investments onto existing ratepayers?" and #14 "How can we ensure tariff structures are transparent enough to allow meaningful public input on what constitutes fair cost allocation, especially when commercial contracts are confidential?" Fourth, the OCA identifies additional important topics that should also be considered as part of the Model Tariff. Many of these topics involve suggestions by other stakeholders that require further development and presentation before the OCA can comment. Finally, the OCA concludes its comments.

[1] May 1, 2025, hereafter "Directed Questions".
[2] Notice of *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers – Docket Number: M-2025-3054271, April 12, 2025.
[3] Section III answers Directed Questions #13, "What safeguards do you believe are essential to prevent cost-shifting from speculative or short-lived data center investments onto existing ratepayers?" and #14 "How can we ensure tariff structures are transparent enough to allow meaningful public input on what constitutes fair cost allocation, especially when commercial contracts are confidential?"

I. Findings from the *En Banc* Hearing Supporting a Model Tariff with Comprehensive Ratepayer Protections

The OCA submits that the written testimonies presented as part of the *En Banc* Hearing, along with the accompanying oral statements and responses by panelists to Commissioners' questions, support the following findings:

1. Safety and reliability are paramount in the interconnection of Large Load Customers.[4]
2. Large Load Customers may provide the Commonwealth of Pennsylvania economic development opportunities if ratepayers are protected from stranded investments.[5]
3. The industries causing large increases in forecasted electricity demand are evolving, dynamic, and uncertain.[6]
4. There is a lack of consensus on the impact that Large Load Customers will have on utility rates.[7]
5. A Model Tariff provides transparency, uniformity, and prevents utilities from competing against each other to attract Large Load Customers.[8]
6. The Model Tariff should contain provisions to protect ratepayers from stranded investment.[9]
7. To protect ratepayers from stranded investments, the Model Tariff should contain all these protections: minimum contract durations, minimum demand payments with ramping

[4] PECO, Richard G. Webster Written Testimony, April 23, 2025, p. 2, hereafter "PECO".
[5] Data Center Coalition, Lucas Fykes Written Testimony, April 23, 2025, p. 2, hereafter "DCC", and OCA, Darryl Lawrence Written Testimony, p. 3, hereafter "OCA".
[6] PPL, Joseph B. Lookup Written Testimony, April 23, 2025, p. 1, (hereafter "PPL").
[7] Amazon Data Services, Inc., Michael Fradette Written Testimony, p.7 (hereafter "AWS"); PPL, p. 1; First Energy, Kelly Gower Written Testimony, April 23, 2025, p. 5 (hereafter "First Energy"); AWS p. 7. PA PUC Bureau of Investigation and Enforcement, Allison Kaster Written Testimony, April 23, 2025, pp. 1-2 (hereafter "I&E").
[8] I&E, p. 2.
[9] I&E, p. 4. OCA p. 4.

requirements, notification provisions for contract termination and extension, and sufficiently high-quality collateral and financial guarantees.[10]

8. Under the Model Tariff, electric distribution companies ("EDCs") and Large Load Customers would sign contracts that codified the agreement between the parties, which is done today under existing tariffs.[11]
9. Presently, EDC tariffs require that the Direct Interconnection costs of all studies and facilities necessary to interconnect large loads are paid entirely by the Large Load Customer.[12]

II. Background and Context Supporting the Need to Avoid Utility Stranded Investments Due to Large Loads

The uncertainty surrounding the rapidly expanding data center industry, past Pennsylvania and other states' experience with utility stranded investments, and the unique characteristics of large loads substantiate the need for strong ratepayer protections against stranded investment. This section highlights the systemic risk associated with large loads – the risk that multiple Large Load Customers do not materialize as anticipated due to a common factor such as technological change or an economic downturn – and the possibility for substantial stranded investment.

The business, technological, and regulatory environment of large loads is rapidly changing,[13] as evidenced by the jump from nearly flat electricity demand forecasts two years ago to today's forecasts of 2-3% annual increases.[14] "As recently as 2022, nearly all utilities' ten-year

[10] OCA, p. 4 and p. 7.
[11] First Energy, p. 2, has a Construction Service Agreement ("CSA), and PPL, p. 2, has an Electric Service Agreement ("ESA"). These contracts would continue, subject to the Model Tariff, as implied in DCC, p. 4.
[12] First Energy, p. 4; PECO p. 5; PPL p. 2.
[13] PECO, p. 3: "Third, the advent of large load customers is occurring in the context of a rapidly evolving external environment." PECO continues: "In short, change can occur quickly in this space, and the future is uncertain."
[14] U.S. Energy Information Administration, EIA publishes its first energy-sector forecasts through 2026, January 14, 2025.

load forecasts did not feature high load growth from any of these drivers [data centers, large manufacturing expansions, electrification of existing industry, or hydrogen production]."[15] Forecasts for electricity demand and data centers are presently off the chart, predicting an additional 30 gigawatts (GW) in PJM.[16] Data center owners are, however, concerned about these load forecasts being uncertain and not sufficiently vetted.[17] One study compared announced aggregate data center demand of 93 GW to a bottom-up analysis based upon identifiable commitments, which only forecasted 23 GW.[18] The difference between these two forecasts is 70 GW, with the 93 GW forecast being 400% larger than the 23 GW forecast.

In this rapidly evolving business environment, uncertainties surround supply chains,[19] workforce challenges,[20] evolving artificial intelligence (AI) technologies and their electricity consumption,[21] and federal and state regulatory activities.[22] In addition, understanding of the reliability implications of large loads is also evolving as indicated in recent testimony of the North American Electric Reliability Corporation ("NERC")before FERC.[23] Further complicating the interconnection of large loads are the number of proposed large load facilities, their size, their

[15] Grid Strategies, Strategic Industries Surging: Driving US Power Demand, December 2024, p. 22.
[16] Grid Strategies, Strategic Industries Surging: Driving US Power Demand, December 2024, p. 4.
[17] Google, Brendon Baatz, Written Testimony, p. 7 (hereafter "Google").
[18] Wood Mackenzie, Gridlock: The Demand Dilemma Facing the US Power Industry, October 2024, cited in Grid Strategies, Strategic Industries Surging: Driving US Power Demand, December 2024, p. 21.
[19] First Energy, p. 4.
[20] PECO, p. 3.
[21] Berkeley Lab, 2024 United States Data Center Usage Report, December 2024, p. 6.
[22] DCC, p. 3. The Federal Energy Regulatory Commission ("FERC") on February 20, 2025, ordered a review of co-location issues related to large data centers in PJM. See FERC, FERC Orders Action on Co-Location Issues Related to Data Centers Running AI, February 20, 2025.
[23] DCC, p. 3. The Federal Energy Regulatory Commission ("FERC") on February 20, 2025, ordered a review of co-location issues related to large data centers in PJM. See FERC, FERC Orders Action on Co-Location Issues Related to Data Centers Running AI, February 20, 2025.

potential widespread impact on the grid, and the limited availability of personnel to conduct the necessary interconnection studies.[24]

The recent forecasts of high U.S. electricity demand and linkage with utility stranded investments are not without precedent. In the 1970s, annual U.S. electricity demand was forecasted to be approximately 5%.[25] The high electricity forecasts for the 1970s did not materialize due to the economic recessions in 1974-1975 and 1979-1982. Rapid increases in oil prices diminished economic activity and raised electricity prices, reducing electricity demand and causing stranded investments.

Multiple states, including Pennsylvania, initiated proceedings in the 1990s to address the stranded costs and rising electricity rates associated with electric utilities building generation, transmission, and distribution assets predicated on unrealized high demand forecasts.[26] Industrial customers sought reductions and discounts in their electricity rates based on claims of supporting economic activity that benefit local communities.[27] Thus, today's concerns about stranded investment are based upon historical precedent and are not due to an overabundance of caution or hypothetical scenarios. The Commission rightly wants to avoid repeating the history of utilities planning for and constructing facilities assuming high electricity demand that does not materialize.

Ratepayer protections from stranded investments are needed because EDCs make long-lived, sunk investments in facilities, the costs for which, including the utilities' cost of capital, are

[24] Advanced Energy United, New Report Shows Most RTOs Struggling with Generation Interconnection, March 7, 2024.
[25] Grid Strategies, Strategic Industries Surging: Driving US Power Demand, December 2024, p. 5.
[26] S&P Global, Grid transformation and stranded costs: An old topic becomes new again, July 23, 2019, p. 1. See, for example, Pennsylvania Public Utilities Commission, Petition of PECO Energy Company for a Declaratory Order Regarding the Acceleration of Depreciation and Amortization of Certain Regulatory Assets Associated With The Limerick Nuclear Station, Docket No. P-00950982, February 22, 1996. See also, James H. Cawley and Norman J. Kennard, Before the Pennsylvania Public Utility Commission A Guide to Utility Ratemaking, 2018, pp. 12, 14-15.
[27] Industrial Energy Consumers of Pennsylvania, Statement by Don Hornung on Behalf of the Industrial Energy Consumers of Pennsylvania (IECPA) Before the Pennsylvania House Consumer Affairs Committee Regarding Retail Electric Competition and House Bill 2537, June 10, 1996.

recovered over decades or more. Suppose a Large Load Customer stops paying demand charges. In that case, the EDC cannot liquidate the distribution investments made in support of these customers, and the EDC and its remaining customers, some of which may themselves be Large Load Customers, are burdened with the outstanding financial obligation reflected in higher than necessary electricity rates. Moreover, planning, building, and upgrading distribution facilities takes several years. Once a Large Load Customer is interconnected, sufficient notification periods are required from Large Load Customers if they plan to materially change their operations or shutdown so that the utility can modify its investment plans accordingly.

To illustrate the possible extent of large load stranded investments, consider the situation of PPL. PPL has over 9 GW of requests that are in advanced stages to interconnect data centers to its existing summer peaking system of 7.5 GW.[28] Assume PPL expands its system by 9 GW of additional large load to be online in five years. Its peak load in 2030 would be 16.5 GW (= 7.5 GW + 9 GW). A GW is the equivalent of 1,000 MW, the approximate size of a small to midsize city. With these assumptions, consider two scenarios.

Scenario 1: Idiosyncratic Risk of Closure of a Single Large Load Customer.

Assume one large data center of 1 GW out of the planned 9 GW of large load does not materialize. PPL builds for an anticipated total summer peak load of 16.5 GW, but its actual peak is only 15.5 GW. This results in excess infrastructure of 6% (= 1 GW/16.5 GW) with a commensurate increase to retail distribution rates to recover the 1 GW of stranded EDC assets.

[28] PPL p. 1. This discussion is not intended to be a complete analysis of the possible scenarios and corresponding impacts on the amount of stranded investment and corresponding rate impacts. Instead, it is intended to illustrate that some of the possible outcomes if Large Load Customers do not materialize as planned and indicate the resulting commensurate increase in electric distribution rates.

Scenario 2: Systemic Risk of Closure of Multiple Large Load Customers.

In this scenario, assume that 50% of the planned large load (4.5 GW out of 9 GW) does not materialize due to an economic downturn or a technological change. PPL would have a system designed to serve 16.5 GW, but with only 12 GW (= 7.5 GW + 4.5 GW) of actual peak demand materializing. The excess infrastructure that would have been built is 27% (= (16.5 GW – 12 GW)/16.5 GW) with a commensurate rate increase.

Further informing the risk of stranded investment and the needed provisions of the Model Tariff, Large Load Customers differ from other loads both regarding their size and generation-like characteristics. First and foremost is their size. As First Energy states in its testimony[29]:

> "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."

These large loads have many similarities to generators. Of course, large loads consume electricity instead of generating it. However, their size, transmission and distribution-related costs, potential for stranded investment, and interconnection safety and reliability issues are more like those of generators than the typical industrial customer. Large load customers can impact multiple distribution and regional transmission systems, and requests in other states can impact ongoing studies.[30] Thus, Large Load Customers may need specialized interconnection studies and

[29] First Energy, p. 4.
[30] PECO, pp. 2-3, and I&E p. 3.

additional transmission and distribution infrastructure more like that of a generation interconnection request than that of the typical industrial customer. Furthermore, many Large Load Customers will have primary or backup generation of commensurate size to their load and/or energy storage facilities, making them both a large load and a large generator.[31] Presently, several major data center companies have agreements with generators to power their facilities.[32] The challenges PJM faces in defining appropriate interconnection arrangements for co-locating large loads and generators suggest that the lines distinguishing generation, energy storage, and large loads are becoming blurred.[33] The analogous distribution issues and blurring of lines are likely to emerge as well.

III. Recommended Ratepayer Protections to be Included in the Model Large Load Tariff

Many states have or are developing large load tariffs to protect ratepayers, including Large Load Customers, from stranded investments. Informed from these states' efforts,[34] this section identifies the ratepayer protection provisions the Model Tariff should contain. These provisions are: A) definition of a Large Load Customer; B) assignment and verification of costs unique to large load; C) minimum contractual duration, renewal, and cancellation provisions; D) minimum demand payments and demand ramping requirements; and E) financial collateral and guarantees. The entire package of these protections and safeguards is necessary to prevent cost-shifting from speculative or short-lived data centers to existing ratepayers.

[31] Duquesne Light Co., Jamie Davis Written Testimony, (hereafter "DLC") p. 2; PPL 9.
[32] Google, p. 2.
[33] See FERC, FERC Orders Action on Co-Location Issues Related to Data Centers Running AI, February 20, 2025, and PJM, Large Load Additions Workshop, May 9, 2025, which discuss eight different options for large load integration and co-location with generation.
[34] Energy Futures Group, Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers, January 28, 2025.

A. Definition of a Large Load Customer

The OCA proposes that the definition of Large Load Customer contain three elements based upon its size and not its industrial classification.[35] 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.[36] 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.[37]

B. Assignment of Costs Unique to Large Load Customers and Their Verification

Based upon utility cost causation principles, the OCA proposes that the Model Tariff contain provisions that identify the Direct Interconnection Facilities due to the Large Load Customer (transmission and distribution facilities that do not materially benefit other customers) and assign the Direct Interconnection Costs of these facilities to the individual Large Load Customer, and require a deposit by the Large Load Customer to cover these costs.[38] These Direct Interconnection Costs include the costs of studies, facilities, operations and maintenance,

[35] See Vantage, pp. 4-5, and Google p. 6.
[36] 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 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.
[37] 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.
[38] DLC, p. 2.

financing, indirect costs, and taxes.[39] The inclusion of these costs is the current practice of EDCs for existing customers and should be explicitly described and mandated in the Model Tariff.[40]

The Model Tariff also should mandate a Large Load Contract between the Large Load Customer and the EDC that, among other requirements discussed below, appropriately describes the Direct Interconnection Facilities and quantifies the Direct Interconnection Costs. The EDC should file the Large Load Contract with the Commission and should make the contract and all supporting studies, analyses, and documents available if requested by the Commission or the Statutory Advocates as part of a regulatory or other legal proceeding[41] subject to reasonable non-disclosure provisions. Summaries of these documents and redacted versions that do not disclose sensitive commercial information should be made available as part of the Commission's normal course of business. The Model Tariff should require that existing contracts executed prior to the development of the Model Tariff that would have been subject to it should also be filed with the Commission, which would permit the Commission and/or Statutory Advocates to review it under the Commission's power in Section 508 of the Public Utility Code for potential revisions to be consistent with the requirements of the Model Tariff.

A Large Load Customer facility may also contain primary generation, backup generation, and energy storage facilities. Determining the assignment of Direct Interconnection Costs must include any studies and transmission and distribution facilities necessary for all the anticipated operation modes of these generation and storage facilities. Large Load Customers may operate in different modes, sometimes consuming large amounts of electricity from the grid, sometimes being

[39] DLC, p. 2. DLC refers to these Direct Interconnection Costs as "open book costs," p. 2.
[40] DLC p. 2. First Energy, p. 3, uses the terms "network facilities" and "non-network facilities" in the context of transmission facilities to distinguish between those facilities whose costs are paid for by all ratepayers and those that the EDC assigns to individual ratepayers.
[41] I&E, OCA, and the Office of Small Business Advocate (OSBA).

a net-zero load, and sometimes exporting power to the grid, even during the course of a 24-hour period. The Model Tariff should make clear that Large Load Customers with generation and energy storage facilities may also be subject to distribution and transmission tariff provisions relevant to generation and storage interconnection, operations, and standby rates, and cannot circumvent those provisions as a customer under the Model Tariff.

The engineering understanding and standards regarding large loads and their safety and reliability implications are still evolving,[42] and additional interconnection facilities may be needed to comply with future standards that were not in place at the time of interconnection. The Model Tariff should contain provisions that any additional Direct Interconnection Facilities retroactively required are paid for by the Large Load Customer.

C. Minimum Contractual Duration, Renewal, and Cancellation Notification Provisions

Consistent with proposals in other jurisdictions, the OCA proposes a Large Load Contract duration of 20 years[43] that only allows for the termination of the contract if the facility ceases operations and pays a financial penalty based upon the discounted value at the EDC's cost of capital that is equivalent to the remaining monthly payments under the contract. Twenty years is necessary to have sufficient time to recover a substantial portion of the Network Distribution Costs – those costs that are "rolled into" distribution rates and collected from all distribution customers – that the EDC has incurred to provide service to the Large Load Customer. Not only are Network

[42] NERC, NERC Seeks to Address Reliability Impacts from Large Load Integration, April 17, 2025, and Elevate Energy Consulting, An Assessment of Large Load Interconnection Risks in the Western Interconnection, February 2025.

[43] Energy Futures Group, Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers, January 28, 2025, p. 6. The Appalachian Power Company proposed an initial contract duration of 20 years. See Energy Futures Group, Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers, January 28, 2025, p. 21.

Distribution Costs recovered over many decades, but some of these costs also may be incurred many years after the interconnection of the Large Load Customer.

Large Load Customers should be required to provide five-years' notice stating that they plan or do not plan to renew the contract for an additional 20 years. A notification period of five years is necessary to give the EDC and transmission planners sufficient time to avoid making any unnecessary investments. The OCA supports the ability of Large Load Customers, with the approval of the interconnecting EDC, to transfer their contract to another entity that assumes all the remaining contractual obligations of the original Large Load Customer. Contracts transferring a Large Load Customer Contract should be filed with the Commission, subject to appropriate confidentiality protections. EDCs should be required to make their best efforts to facilitate such transfers. All these provisions should be part of the Model Tariff and reflected in the Large Load Contract filed with the Commission.

D. Minimum Demand Payments and Demand Ramping Requirements

The OCA proposes that Large Load Customers pay a minimum demand charge of 90% of their MW size. Upon agreement with the utility, the Large Load Customer's demand that is invoiced must be ramped up over no more than four years, starting when the Large Load Customer's interconnection is complete and ready to be energized. The OCA proposes a Ramping Schedule of 50% in Year 1, 65% in Year 2, 80% in Year 3, and 90% in Year 4 of the Contract Capacity.[44] When the Large Load Customer's demand charge exceeds the minimum demand charge, it pays the actual demand charge.

[44] 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. 7-8.

Ramping allows the utility to plan and phase-in its Network Facilities while allowing the Large Load Customer to also phase in its operations. The demand charges should begin when the Large Load Customer is able take service because the EDC and transmission utilities have made the necessary investment and associated expenditures in Network Facilities and need to start recovering those costs. All these provisions should be part of the Model Tariff and reflected in the Large Load Contract filed with the Commission.

E. Financial Collaterals and Guarantees

The OCA proposes that Large Load Customers provide sufficient, high-quality financial guarantees to cover the minimum monthly payments for a minimum of the next two years or the remaining time in the Large Load Customer's contract. Without such financial guarantees, provisions to protect ratepayers from stranded costs are valueless. In addition, the OCA proposes that the amount of all non-payments by the Large Load Customers is not charged to ratepayers, whether in rates or any other fees or payments. By making the EDCs financially liable for non-payments instead of ratepayers, EDCs have the financial interest to implement sound financial guarantees and diligently monitor the financial status of Large Load Customers.

Specifically, the OCA proposes the following:[45]

> "The customer, if not having both (a) a credit rating of at least A- from S&P Global Inc. ("S&P") and A3 from Moody's Corporation ("Moody's") and (b) cash and cash equivalents on an audited balance sheet prepared in accordance with Generally Accepted Accounting Principles ("GAAP") ("Liquidity") greater than ten times the Collateral Requirement, must provide a guarantee or collateral at the time of signing the contract equal to 50% of the total minimum charges for the full term of the contract ("Collateral Requirement"), calculated based on… [the EDC's] rates in effect at the time the Collateral Requirement is provided. The Collateral Requirement must be provided in one or more of the following forms:

[45] 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. 25-26.

1. A guarantee from the ultimate parent or a corporate affiliate of the customer for the full Collateral Requirement, so long as the guarantor has both (a) a credit rating of at least A- from S&P and A3 from Moody's and (b) Liquidity greater than ten times the Collateral Requirement; or

2. A standby irrevocable letter of credit ("Letter of Credit") for the full Collateral Requirement. The Letter of Credit must be issued by a U.S. bank or the U.S. branch of a foreign bank, which is not affiliated with the customer or its guarantor, with a Credit Rating of at least A- from S&P and A3 from Moody's. Such security must be issued for a minimum term of 360 days. The customer must cause the renewal or extension of the security for additional consecutive terms of 360 days or more no later than 30 days prior to each expiration date of the security. If the security is not renewed or extended as required herein, the Company will have the right to draw immediately upon the Letter of Credit and be entitled to hold the amounts so drawn as security. The Letter of Credit must be in a format acceptable to and approved by the Company;

3. Cash for the full Collateral Requirement.

The amount of the Collateral Requirement will be reduced by one year's minimum charges for each year the customer is energized and makes on-time electric service payments under the contract. If the financial condition of the customer or guarantor changes – or market conditions (including ownership/structural changes) change – over the term of the contract, the Company may request updated information to reevaluate the customer and its collateral requirements, which may be adjusted accordingly."

All these provisions should be part of the Model Tariff and reflected in the Large Load Contract filed with the Commission.

IV. Additional Model Tariff Provisions for Consideration

The OCA would like to address additional topics about the Model Tariff that are not directly related to protecting ratepayers from stranded investments.[46]

[46] Many of these items are listed in the notice for the *En Banc* Hearing, raised in written and oral testimony for the hearing, and identified in the Vice Chair's May 1, 2025, Directed Questions.

A. Large Load Forecasts, Interconnection Queues, and Confidential Data

Given the emerging and dynamic nature of large loads, the Model Tariff should have appropriate reporting provisions so that the Commission is well informed regarding 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.

Furthermore, EDCs, transmission companies, PJM Interconnection LLC (PJM), and the Commission need accurate data based on a uniform methodology to develop electricity demand forecasts for Large Load Customers consistent with PJM's Regional Transmission Expansion Plan (RTEP) planning processes.[47] 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 contain a uniform data collection methodology for large loads with appropriate confidentiality provisions. Non-confidential data regarding each EDC's large load interconnection queue should be made publicly available.

B. Methods to Lower Costs and Risks for Large Load Customers

Suggestions to lower the costs and risks of Large Load Customers should be considered and included in the Model Tariff if viable. The written and oral testimonies in the *En Banc* Hearing included many such suggestions, which need to be developed more with the proposing entity providing draft Model Tariff language.

[47] PJM, PJM Manual 19: Load Forecasting and Analysis, Revision 37, December 18, 2024.

One category of suggestions includes conditions under which Large Load Customers are advantaged in the interconnection process if they have some demand flexibility,[48] provide their own generation[49] (which may require standby rates and tariff provisions for interruptible Large Load Customers),[50] directly procure some of their interconnection equipment and facilities,[51] or fund utility demand response, energy efficiency, or universal service programs.[52] Some advantages for Large Load Customers that engage in one or more of these activities that have been suggested include having a separate interconnection track for customers that are providing their own generation, allowing scoring advantages, and offering earlier system impact studies.[53]

Another category of suggestions is outside the scope of the Model Tariff. These suggestions include changing or improving PJM processes,[54] addressing questions of generation resource adequacy,[55] evaluating the applicability of cost allocation methodologies in the context of Large Load Customers,[56] and using grid-enhancing technologies.[57] Without complete proposals with sufficient details for these suggestions, the OCA cannot, at this time, evaluate the merits of these suggestions, but the OCA will provide comments if and when such suggestions are full-fledged proposals.

[48] Google p. 1 & 3.
[49] AWS p. 6, Vantage p. 2, and DLC pp. 2-3.
[50] Notice of *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers – Docket Number: M-2025-3054271, April 12, 2025, p. 1.
[51] Vantage p. 4.
[52] Google p. 4.
[53] Vantage p. 2.
[54] Google p. 5.
[55] PPL p. 2.
[56] I&E p. 3; Google p. 5.
[57] Google p. 4.

V. Conclusion

This concludes OCA's 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.

Respectfully submitted,

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Dated: June 6, 2025