December 22, 2025

<u>Via Electronic Filing</u>
Secretary Matthew L. Homsher
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, PA 17120

Re: Tentative Order Proposing a Model Tariff for Large Load Customers
Docket No. M-2025-3054271

INTRODUCTION

NRDC (the Natural Resources Defense Council) supports the Pennsylvania Public Utility Commission ("PUC" or "Commission") for initiating the process of establishing a model large load tariff and appreciates the opportunity to provide comments on the Tentative Order published in the *Pennsylvania Bulletin* on November 22, 2025.

NRDC is an international non-profit organization with over 700 lawyers, scientists, and other environmental specialists who have worked since 1970 to protect our public natural resources, health, and climate. With a diverse group of over three million members and activists, NRDC works with federal and state government officials, including utility commissions, to secure a just, clean energy future for all.

In this docket, NRDC's priorities include fairly allocating costs, reducing the risks of stranded assets, ensuring continued grid reliability, and increasing transparency in electric utility contracts for large load customers. We support many elements included in the PUC's model tariff and respectfully offer recommendations that we believe would go further to filter out speculative requests for interconnection and better promote flexibility and demand response; these recommendations are designed to further the interests of Pennsylvania consumers while safeguarding the grid and our climate.

We agree with the Commission's interpretation of previously submitted comments from multiple stakeholders: "Overall, there was broad consensus regarding the fundamental principle of cost causation and the need to protect ratepayers from unreasonable cost shifting. There was general agreement that Large Load Customer guidance is needed in the areas of interconnection costs, interconnection studies, minimum contract terms, exit fees, and collateral, among other areas."

DISCUSSION

Appropriate MW Size Designation

NRDC generally supports the PUC's proposed threshold of 50 MW individually or 100 MW in the aggregate, consistent with our initial comments in this proceeding. The Commission rightly recognizes that other states have approved similar applicability thresholds. However, there is precedent for even lower large load thresholds; the New York Independent System Operator ("NYISO") defines large loads as 10 MW or greater, and 25 MW thresholds were recently approved in AEP Ohio's data center tariff and Dominion's GS-5 Rate schedule in Virginia. Additionally, the U.S. Department of Energy ("DOE") recently directed the Federal Energy Regulatory Commission ("FERC") to consider an advance notice of proposed rulemaking relating to interconnection of large loads with a threshold set at 20 MW.

An appropriate threshold would be low enough to capture all large customers whose consumption at a single site, or at multiple sites in the aggregate, poses similar and substantial challenges to Pennsylvania's grid. A threshold set higher than 50 MW would fail to do so. At the same time, the threshold should not be set so low as to treat smaller, less impactful customers that do not pose comparable risks as though they do. The record in this proceeding does not detail the number and size of large load customers that have applied for or received interconnection in Pennsylvania; therefore, NRDC respectfully urges the Commission to reflect on its proposed threshold as projects continue to apply for and receive service and be open to defining a lower threshold in the future, consistent with the examples from other jurisdictions listed above.

<u>Deposits, Financial Security, or Collateral</u>

The collection of collateral as proposed in the Tentative Order – *"We tentatively determine that financial security should be sufficient to cover the cost of any Large Load Customers share of network upgrades for which the Large Load Customer is the majority beneficiary and that will be partially allocated to other customers of the EDC"* – leaves a high degree of discretion to electric utilities to calculate the benefits of network upgrades in a problematic, forward-looking manner that we believe should be improved. NRDC supports the well-reasoned arguments and bright-line test put forward by the Environmental Defense Fund ("EDF") in Section II(b) of its comments in this docket. To reiterate here, "[L]arge load customers must secure revenues sufficient to cover the costs of all facilities that serve them [. . .] this rule would establish an irrebuttable presumption that large load customers are the primary beneficiaries of such facilities. The costs of all such facilities would be included in large load customers' secured revenue guarantee."

Moreover, NRDC views the collection of deposits as a critical mechanism to both refine the accuracy of load forecasts and protect against stranded costs, which pose a significant concern. This is due, in part, to the financially risky and potentially unstable nature of data center developments and the artificial intelligence industry over time. The longevity of a data center customer's energy demand is often contingent on the financial stability of its parent company, meaning that a guarantee from a parent company does not always ensure cost recovery in the case of financial instability or bankruptcy of a guarantor.

<u>Contributions in Aid of Construction (CIAC)</u>

First and foremost, CIACs will only function as a financial protection mechanism if cost causation principles are upheld. This currently is not the case, and NRDC urges the Commission to create clear rules regarding direct cost allocation. A recent study from the Union of Concerned Scientists identified at least 16 transmission projects in Pennsylvania that were designed to interconnect a single new large customer, with individual project costs ranging from $700,000 to

$244 million. However, under current rules, a total of $491.8 million in costs would be socialized to all customers.[1] Table 1 shows three examples of such facilities:

Table 1: Approved transmission projects from PJM's 2024 RTEP report that are designed to serve a single customer.[2]

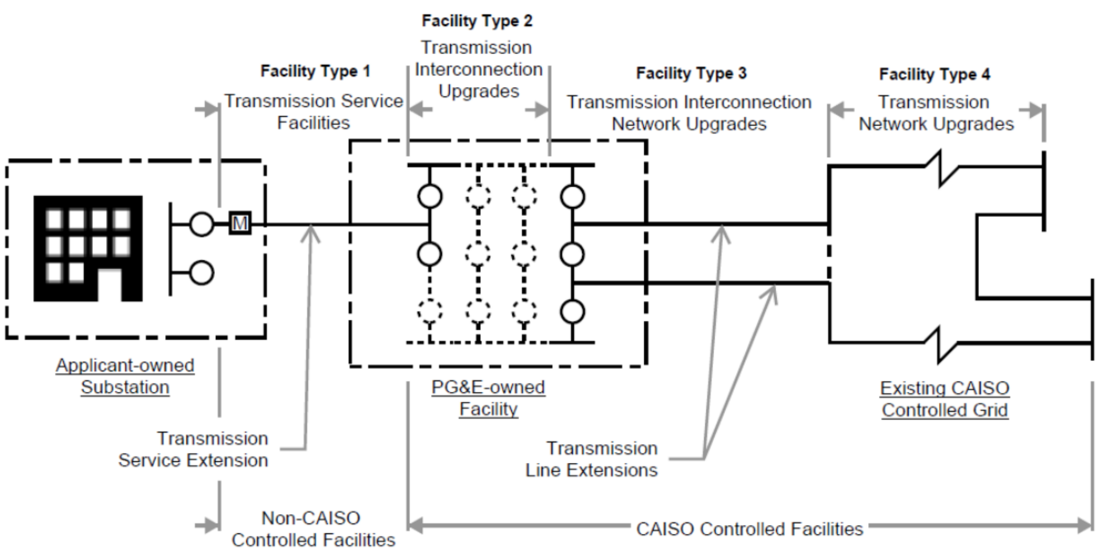
Project No.	Cost ($M)	Utility	Description
S3311.1-6	244	PPL	Break the existing Juniata (JUNI)-Three Mile Island (TMIS) 500 kV line and extend the lines 0.1 miles into a new four bay Bernheisel (BERN) 500 kV breaker-and-a-half yard. Rebuild the existing JUNI-TMIS 500 kV line to double-circuit for 13.3 miles from Juniata substation to Bernheisel substation. Install four 500-138 kV transformers. Install a six-bay 138 kV yard. Install two 138 kV capacitor banks. **Extend six 138 kV lines to customer facility.**
S3528.1-3, 4-11	190.5	PPL	Tomhicken 230 kV switchyard: Install a six-bay BAAH 230 kV switchyard with a 125 MVAR capacitor bank. Nescopeck 230 kV switchyard: Install a new three-bay BAAH 230 kV switchyard. Susquehanna 230 kV switchyard: Install a new line terminal at Susquehanna 230 kV yard by installing new dead end, 230 kV breaker, and associated equipment…Tomhicken Customer taps 230 kV lines: **Install four 230 kV lead lines for an ~0.1 miles from Tomhicken 230 kV switchyard to the customer facility.**
S3125.1	5.4	AP-First Energy	138 kV transmission line tap: Install three SCADA-controlled transmission line switches. **Construct an ~0.75 miles of transmission line using 1590 ACSR 45/7 from tap point to customer substation. Install one 138 kV revenue metering package at customer substation.**

[1] Mike Jacobs, "Connection Costs Policy Brief," September 2025, https://www.ucs.org/sites/default/files/2025-09/PJM%20Data%20Center%20Issue%20Brief%20-%20Sep%202025.pdf.
[2] 2024 RTEP Report, PJM, https://www.pjm.com/-/media/DotCom/library/reports-notices/2024-rtep/2024-rtep-report.pdf.

The PUC's Tentative Order states, "PPL starts with the assumption that the customer pays for all interconnection costs, then determines on a case-by-case basis which upgrades provide broader system benefits." The two PPL projects shown in the table above suggest otherwise. Pennsylvania residents are already paying for high-voltage line extensions, substations, and meters designed and built for single customers.

The California Public Utilities Commission ("CPUC") issued a decision on July 24, 2025 regarding PG&E's Electric Rule 30 application that requires transmission-level retail customers to pay their full initial costs.[3] PG&E's proposal breaks facilities into four separate categories, shown in Image 1. Facility types 1-3 are necessary for the interconnection of a large retail customer at transmission levels, and under Rule 30 will be fully paid for by the customer through Advances and Actual Cost Payments. Type 4 facilities are projects overseen by the regional transmission organization ("RTO") that generally benefit all transmission customers. In their decision, the CPUC requires that all customers provide pre-fund loans for 100% of the actual costs for Type 4 facilities, deferring refunds until a comprehensive review of cost allocation methods is completed in the final decision.[4]

Image 1: PG&E's Proposed Rule 30 Facility Type Classifications[5]



[3] Decision 25-07-039, https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M574/K875/574875643.PDF
[4] *Id*. at 31-32
[5] CPUC, Application 24-11-007

The PUC should implement a similar construct by requiring payments in advance covering the full initial costs of high-voltage line extensions, including the costs of substations, service lines, and meters that are currently being socialized across all customer classes. Rather than determine a benefit threshold at which a customer must pay, the Commission should instead require costs to be covered in full, then provide refunds in an appropriate manner and on a case-by-case basis. The mechanism to collect payments is up to the PUC's discretion—CIACs and Advances would similarly protect other customers from financial risks, but Advances may provide more flexibility under certain conditions, such as if future customers connect to the same facility. Determining the methods of refund calculations requires information, input, and analysis that is not before the Commission in this proceeding and therefore may be more appropriately determined in a separate filing.

Furthermore, it falls within the Commission's jurisdiction to require retail customers to pay for their interconnection costs, as this is a retail service need regardless of whether it is classified by utilities as transmission. As argued in the Initial Brief of the JNGO group in the active case regarding Commonwealth Edison's ("ComEd") large load tariff in Illinois, "JNGO do not argue that ComEd's functionalization determinations are necessarily incorrect under the Seven Factor Test and existing precedent. Rather, ComEd's determinations of whether a line is functionalized as 'distribution' or 'transmission' under the Seven Factor Test is immaterial to the question of who should pay for new facilities designed to connect retail customers. Instead, the PUA's cost-causation requirement governs this retail rate issue." [6]

Finally, the statement of Commissioner John F. Coleman, Jr. from November 6 questioned whether the Commission should stay its final action in this proceeding until FERC issues a decision in its ongoing proceeding regarding interconnection of large loads (potentially by April 2026). The expected FERC rulemaking will help determine the rules by which large loads are required to pay for network upgrades but will not affect states' authority to decide the rates,

[6] Initial brief of the Environmental Law & Policy Center, NRDC, Union of Concerned Scientists, and Vote Solar, pp. 27-30, November 10, 2025, Docket No. 25-0577, https://www.icc.illinois.gov/docket/P2025-0677/documents/372855/files/653685.pdf.

terms, and conditions by which retail loads connect to the grid. Accordingly, it should not delay a final order by the PUC in this docket.

Minimum Contract Terms

The Tentative Order proposes a minimum contract length of five years, with the Commission declining to direct a specific length beyond this "as the determination of appropriate terms involves balancing cost protection for ratepayers with commercial viability, considering local conditions, and ensuring that investments do not result in stranded costs borne by other rate classes, which are unique variables for each EDC."

While NRDC agrees there are varying local conditions that may influence an appropriate contract length, five years is insufficient to protect ratepayers from stranded costs. A minimum term of at least 15 years would be more appropriate.

The Tentative Order supports the proposed five-year minimum contract length with the claim that "a majority of tariffs in the United States for both large loads and data centers have minimum or maximum contract lengths of five years." According to Smart Electric Power Alliance's database of emerging large load tariffs, consisting of 63 proposed and approved tariffs across 34 states beginning in 2018, the average contract term for large loads is approximately ten years.[7] Emerging large load tariffs included in this database are more relevant to this determination as they have sought to address the same unprecedented challenges caused by large load growth that have only arisen in recent years. This is especially true for large load tariffs approved in similarly situated states with similar large load forecasts, such as Consumer Energy's 15-year contract minimum with a five-year evergreen period in Michigan,[8] Indiana Michigan's 15-year contract minimum,[9] and Dominion's 14-year contract minimum in Virginia.[10]

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[7] Smart Electric Power Alliance, *Database of Emerging Large-Load Tariffs (DELTa)*, November 7, 2025, https://sepapower.org/large-load-tariffs-database.

[8] MPSC Case No. U-21859, https://mi-psc.my.site.com/s/case/500cs00000TedunAAB/in-the-matter-of-the-application-of-consumers-energy-company-for-ex-parte-approval-of-certain-amendments-to-rate-gpd.

[9] IURC Cause No. 46097, https://iurc.portal.in.gov/docketed-case-details/?id=b8cd5780-0546-ef11-8409-001dd803817e.

[10] SCC Docket No. PUR-2025-00058, https://www.scc.virginia.gov/docketsearch#caseDetails/146025.

Interconnection Studies and Agreements

The Commission's Tentative Order recognizes that some utilities are implementing policies to collect application fees and deposits for interconnection and engineering studies but does not provide guidance on how or when these should be collected (or whether they should be refunded). To provide a fair playing field and adequately protect against stranded costs, NRDC respectfully urges the Commission to provide guidance on what constitutes a sufficient deposit or fee to cover the costs incurred before energization, including costs of engineering and interconnection studies.

If study deposits are refundable, there are limited means by which to differentiate serious projects from speculative ones. Requiring non-refundable deposits would have a tangible impact on the accuracy of utility-reported load forecasts, as well as on expediting interconnection for customers committed to developing in the Commonwealth.

Minimum Demand Charges

NRDC supports the Commission's tentative adoption of an 80% minimum charge in this proceeding. We urge this should not be lowered – as recommended in other comments – while noting there is strong precedent for a higher minimum charge of 85%.[11]

Load Ramp Schedule

NRDC supports the adoption of a 3–5-year load ramp. Implementation should require advanced reporting of the customer's load ramp schedule. A large load customer must be held financially responsible if costs are incurred and its load fails to materialize.

Exit or Early Contract Termination Fees

NRDC supports the adoption of a 42-month notice period but believes the 48-month notice period would be more appropriate to align with PJM's Base Residual Auction (capacity auction) schedule. The exit fee amount should be sufficient to cover any stranded costs of a large load

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[11] *Supra* note 10; Application of Ohio Power Company For New Tariffs Related to Data Centers and Mobile Data Centers, No. Case No. 24-508-EL-ATA (Public Utilities Commission of Ohio April 9, 2025), https://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=82a856c0-206c-491d-9d93-96969cac1a6e

customer's reduced or terminated capacity, and there must be an additional penalty for providing less notice than required in order to, at minimum, cover costs incurred because of the late notice.

NRDC is not opposed to reducing the exit fee so long as there is another customer to take on the financial responsibility. However, exit fee reductions are not a necessary term. The Tentative Order suggests that the exit fee can be reduced given opportunities by the EDC to "assign the terminated/reduced capacity to serve new Large Load Customers, to expand service to existing Large Load Customers, or otherwise secure offsetting expected revenues." This proposal is vague, leaving room for the benefit of *any* utility cost-cutting measures to be given to a departing large load customer. These negotiations must not occur behind closed doors. If the Commission does allow exit fee reductions, these should occur in standardized processes with clear rules, sufficient oversight, and stakeholder input.

<u>Interruptible Service and Standby Rates for Large Load Customers</u>

The Commission unquestionably has authority over retail electric service, including the terms and conditions under which service is provided. At the same time, the Commission shall maintain reliability and cost-effectiveness for all customers. Given the unprecedented risks that large loads pose to reliability and affordability, requiring customer curtailment during emergencies is not undue discrimination. Rather, it is a reasonable and necessary measure within the Commission's jurisdiction. Other state PUCs have already taken steps in this direction, including in Ohio.[12]

Given strong opposition to curtailment requirements from certain commenters, if the Commission decides against such requirements, utilities must be required to create robust demand response programs. In lieu of a curtailment requirement, flexible interconnection fast-tracks should also be adopted. Under this track, large load customers that voluntarily agree to reduce a specified amount of load resulting in significantly reduced costs on the system would be prioritized for expedited interconnection.

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[12] Public Utilities Commission of Ohio, Opinion and Order, Case No. 24-508-EL-ATA, July 9, 2025, https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A25G09B43531I00509.

As many commenters expressed, large load customers have different abilities to reduce or shift their load. It is currently standard for those inflexible customers to rely on diesel backup generators to provide flexibility. It is critical that any voluntary demand response program must exclude demand reductions resulting from polluting backup generators, and that any mandated curtailment program allows the use of backup generators only in emergency situations following existing requirements and protocols.

The PUC's Tentative Order proposes lowering minimum demand charges for customers that participate in demand response programs. The goal of minimum demand charges, defined in the Tentative Order as a percentage of contracted capacity, is to ensure revenues are sufficient to cover the large customer's full costs in case their load does not sustain at contracted levels. While demand response could lower a customer's monthly maximum capacity and costs, it is not the proper incentive mechanism, as reducing the minimum demand charge would undermine its intended function. Instead, customers should receive credits based on the actual system value of their flexibility. The appropriate methodology used to define the benefits of flexibility should be explored by the Commission in a future proceeding.

Infrastructure Upgrades by Large Load Customers

NRDC agrees with the Commission in supporting a self-construct option for large load customers willing to fully fund infrastructure upgrades. The proposed PG&E Electric Rule 30's Applicant Build Option provides a good example of how this can be accomplished. Rule 30 permits a utility, under its sole discretion, to allow customers to build facilities that can lower overall costs for facilities that will end up in rates. Upon completion, the customer must transfer ownership to the utility. The rate includes strong mechanisms to ensure the costs are reasonable and not excessive, allowing the customer to potentially receive service faster and at a lower cost while not exposing the utility or other customers to financial risks. Rule 30 only allows the Applicant Build Option for Facility Types 1 and 2 that directly serve the Applicant (see Image 1 above). Some facilities are prohibited from the option entirely for safety and reliability reasons – such as underground wires – and the option clearly outlines applicants' responsibilities and technical requirements.

Customer-constructed infrastructure could reduce financial risks associated with a project by avoiding the potential of stranded costs and cost shifts entirely. Expedited service and the maintenance of safe and reliable service are not at odds when strong technical, financial, and safety requirements are in place, as Rule 30 demonstrates. Prohibiting customer-funded infrastructure would be a disservice to all customers. Additionally, NRDC strongly opposes allowing a return on customer-funded infrastructure, which would mark a radical shift in current regulatory practices.

<u>Universal Service Cost Allocation</u>

NRDC supports the Commission's finding that large loads contribute to higher electricity bills for all customers in Pennsylvania, including the residential customer class, and should be required to mitigate those impacts. We fully agree with the statement from Vice Chair Barrow on November 6, that "While…enhancing hardship funding is beneficial, …directing the money to offset the universal service charge currently paid by the residential class on a per-kwh basis is likely a more beneficial solution."

Pennsylvania utilities' hardship funds unquestionably provide critical support to households struggling with rising electricity costs, especially low-income customers facing crisis via imminent utility termination. However, requiring a universal service charge would provide not just the remedial support of the hardship fund but would also act preventatively and put downward pressure on rates. Therefore, while we support the determination that large loads must contribute to hardship funds, NRDC urges the Commission to prioritize requiring a universal service charge on a volumetric, per-kWh basis for large load customers.

<u>Reporting</u>

NRDC strongly supports the confidential reporting requirements outlined in the Tentative Order. We anticipate this information will better enable the Commission and other government bodies to regulate large load additions in a reasonable and effective manner. We also support the public reporting of interconnection applications including zip code, date accepted, MW size, and stage of interconnection study progress.

CONCLUSION

As the PUC continues to navigate the diverse, rapidly evolving challenges posed by large loads, the Commission's determinations in this proceeding must ultimately prioritize fairness, transparency, and reliability. NRDC urges the Commission to maintain the strong financial protections proposed in the Tentative Order – such as the 80% minimum demand charge, 3-5 year load ramp, and threshold of 50 MW for individual sites and 100 MW in the aggregate – while also keeping in mind that these terms reflect a baseline that may need strengthening in the future as circumstances change. The proposed requirements for collateral, CIACs, exit fees, and universal service contributions merit additional consideration to better address the full range of financial risks; NRDC further urges the minimum contract term should be increased to at least 15 years. Finally, there remain issues that have not yet been addressed in full but demand careful attention, such as the direct cost allocation of high-voltage interconnection facilities designed to serve single large customers, the technical and financial components of large load demand response programs, and load interconnection standards.

NRDC appreciates the opportunity to submit these comments. We look forward to working with the PUC and all relevant stakeholders to finalize a large load tariff that will reduce costs, enhance grid reliability, and deliver a cleaner economy for all.

Respectfully submitted,

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