June 5, 2025

VIA ELECTRONIC FILING

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
2nd Floor, Room-N201
400 North Street
Harrisburg, PA 17120

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

Dear Secretary Homsher,

Attached to this cover letter is Vote Solar's comments in response to the Pennsylvania Public Utility Commission's En Banc Hearing on Interconnection and Tariffs for Large Load Customers (M-2025-3054271).

Please feel free to contact me with any follow-up discussion or questions. We look forward to ongoing collaboration on this vital issue.

Sincerely,

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

Introduction

Vote Solar is grateful to the Pennsylvania Public Utility Commission (PA PUC) for the opportunity to provide comments on the vitally important issue of large load interconnection and tariffs. It will be absolutely necessary for PA PUC to identify and implement best practices around the tech-industry-fueled anticipated proliferation of large load customers.

Vote Solar's primary overarching recommendation is that the PA PUC establish a standing working group that can identify and integrate policy interventions premised on best practices for managing speculative load growth from large load customers while protecting ratepayers. The deliverables from this working group would then be fashioned into a PUC order for which Electric Distribution Companies (EDCs) and large load customers would have to be in compliance. This working group should be multistakeholder, going beyond the representation we saw at the en banc hearing on April 24, 2025. The working group should also include far greater representation from civil society, particularly with participation from environmental and energy justice advocates. The projected demands on the electricity system coming from speculative data centers are unprecedented, and there remain many gray areas that require policy interventions that remain flexible and iterative through regular multistakeholder deliberation.

The remainder of these comments will cover high-level policy recommendations for large load customers, as well as how these areas of intervention speak to the general importance of establishing an inclusive multistakeholder working group focused on large load interconnection and tariffs.

Transparency and Cost Causation

Energy-intensive large load customers like data centers have the potential to come into agreement with EDCs for individualized energy rates through special contracts. Special contracts may be used in order to attract investments and economic development opportunities from customers. Additionally, special contracts are often less transparent at the behest of preserving proprietary information supposedly vital to the customer's industry competitiveness.

These contracts, even when adhering to cost causation principles, are based on methodologies and underlying assumptions that remain disputed by industry professionals and energy stakeholders. This reality is not unique to special contracts, and influences cost of service studies in formal rate cases. However, there is a distinction in the process of regulatory approval for special contracts between an energy-intensive customer and utility, where it is common practice to grant confidentiality. Special

contracts therefore do not often undergo the same level of public scrutiny as a cost of service study in a rate case.

Methodological assumptions are not inherently problematic, but they do warrant debate in the public realm to ensure formalized understanding of a large load entity's grid impacts and associated costs is established in line with public interest. Without public scrutiny, and given the asymmetry of information built into a special contract review process, special contracts may not adequately shield other ratepayers from large load customer cost impacts.[1] The PUC therefore must have robust guidelines on how data center interconnection proposals are evaluated. This is urgently needed given the projected proliferation of data centers, thereby implying a far greater proportion of EDC customer portfolios coming from special contracts if no changes are made to standards and procedures for data center interconnection. Interconnection review guidelines should also include requirements for thorough public and multistakeholder input so that underlying methodologies and assumptions can be adequately reviewed by the wider public.

A working group process can help ensure that guidelines for review are co-created through input from multisectoral experts and communities who stand to be impacted most by unprecedented large load growth.

Ratemaking and Tariff Structure

Vote Solar strongly believes that it is imperative for data centers to comprise their own rate class under a separate tariff structure. As discussed in the previous section, cost causation is not a precise objective science but rather an imprecise study that involves methodologies with inherent assumptions. Furthermore, as technologies change, the load profiles of data centers could very well change as well, thereby necessitating updates to the assumptions and methodologies utilized for associated cost of service studies.

First, a distinct rate class and tariff structure, rather than rates established through special contracts, would allow for additional public scrutiny of how cost of service is determined.[2] Secondly, a separate tariff structure and rate class for data centers provides for more collective processes of iterative review of tariffs over time, providing opportunity for alterations to underlying methodologies as technological changes potentially alter load profiles and capacity needs.[3]

A separate rate class and tariff structure for data centers is not a panacea when it comes to shielding other ratepayers from increased costs. However, it provides an additional bulwark and the regulatory architecture for iterative public scrutiny of the costs associated with powering these facilities and the

[1] Martin and Peskoe, "Extracting Profits from the Public: How Utility Ratepayers Are Paying For Big Tech's Power," March 2025, Harvard Law School Environmental & Energy Law Program
[2] Ibid.
[3] Ibid.

societal and system impacts this may have. These tariffs would be reviewed through a rate case process that attracts wider participation from stakeholders, unlike a special contract process.

The terms and standards for this overarching tariff structure and rate class must be determined through a collaborative process that ensures ratepayers across a given distribution system are protected from cost shifts. It is imperative that further deliberation around the nuances of tariff design and rate class designation must be done in a democratic and collaborative manner through an inclusive working group structure. Recommendations from this working group would then establish the basis for standards that large load customers and EDCs would follow.

Wholesale Market Impacts

A proposed intervention commonly discussed around data center load growth is co-location with generating facilities. However, according to PJM this could reduce capacity available in the wholesale market, thus increasing wholesale beyond the price surge we recently witnessed during the most recent PJM capacity auction.[4] Furthermore the latter price surge was largely an outcome of projected data center growth, irrespective of the degree to which co-location with generating resources would take place. The conundrum of wholesale market impacts demonstrates why the PUC must orient its policy deliverables in a way that accounts for generating capacity supply versus anticipated demand. This means facilitating opportunities for added generating capacity to come online at a pace that matches demand, and to do so without compromising energy affordability and environmental health.

One primary way that the PUC can blunt the potential impacts of wholesale market price increases would be facilitating opportunities for the rapid deployment of energy efficiency measures and distributed energy resources (DERs). DERs deployed at scale can reduce demand for wholesale market energy supply, thereby suppressing wholesale market price increases. The PUC should establish DER incentive programs and funding streams that capitalize on data center proliferation. On its own, DER deployment would not completely make up for the impact of large load data center growth, but it would blunt the price impacts of this growth. Data centers must be held accountable for the increased energy costs they will contribute by paying for new clean energy generation and energy efficiency measures. Therefore, these requirements would not be discriminatory, because these large load entities would be paying for the costs that they contribute through the realization of more clean energy and efficiency.

There are multiple avenues the PUC could explore to facilitate increased energy efficiency and DER deployment concurrent with data center proliferation, such as applying a societal benefit charge to large load tariffs, and funds from this charge could be used for efficiency and DER incentives, especially amidst a volatile federal incentive landscape. This is just one possible avenue among several by which data centers can account for their impacts on electricity price by paying for additional clean energy. Another could be requiring contributions to aid in construction (CIAC) for system upgrades that can open

[4] Monitoring Analytics LLC, "Quarterly State of the Market Report for PJM: January through September 2024," November 2024, *PJM*.

circuits to DER interconnection. Furthermore, to maintain ratepayer affordability and to align with common practice, CIAC assets would not be ratebased. These are just some examples among numerous that are being explored nationally and must be fashioned to apply to Pennsylvania's energy landscape.

Determining how data centers can account for price impacts by paying for additional clean energy supply must be done through an iterative and collaborative multistakeholder process in line with the working group structure Vote Solar recommends.

Demand Flexibility

It is vital for PA PUC to pursue a policy agenda of mandatory load flexibility to minimize the need for additional generating capacity and the physical, environmental, and financial costs this added infrastructure would require. Load flexibility initiatives have been demonstrated to reduce the need for generating capacity and associated infrastructural needs.

A 2025 study from Duke University demonstrated that up to 18 GW of load could be integrated in the PJM region through curtailment strategies without significant capacity expansion.[5] The level of projected integration in PJM was the highest among all grid balancing authorities (such as Regional Transmission Organizations and Independent Service Operators). Given the immense potential that curtailment strategies can have at protecting ratepayers from added costs due to rapid load expansion, this strategy must be embraced in Pennsylvania.

Identifying best practices for load curtailment strategies through demand response and other interventions must be deliberated on through an inclusive and iterative process, ensuring that best practices are not only identified but made locally relevant through participatory policy design. Curtailment through demand flexibility strategies should be a key priority that would be given due diligence through an inclusive standing working group in line with Vote Solar's primary recommendation for next steps in this proceeding.

Conclusion

Vote Solar is grateful to the PA PUC for initiating critical conversation on this important issue. Our primary recommendation to the Commission is to establish a formal and inclusive working group that prioritizes participation from frontline stakeholders. This working group would engage in ongoing deliberations on policy design related to large load entities, provide guidance to the Commission on relevant decision-making, and engage in iterative refinement of policies during the course of implementation.

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[5] Norris, T. H., T. Profeta, D. Patino-Echeverri, and A. Cowie-Haskell, "Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems," February 2025, *Nicholas Institute for Energy, Environment & Sustainability, Duke University*.

Transparency, consensus on cost causation methodologies, ratemaking, wholesale market impacts, and demand flexibility are just some examples of critical issues that necessitate further deliberation through an iterative and inclusive working group process. This will ensure that speculative load growth brought on by the technology sector does not compromise the capability of the energy grid to serve all customers without compromising access and affordability for the many at the behest of the speculative few.

Vote Solar looks forward to continued engagement with the Commission on this important issue, and welcomes any follow-up discussion and/or questions.

Sincerely,

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