Testimony of the Energy Association of Pennsylvania

Before the Senate Democratic Policy Committee

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Nicole W. Luciano, Director of Policy, Energy Association of Pennsylvania

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Chairman Miller and members of the Senate Democratic Policy Committee, I am Nicole Luciano, Director of Policy for the Energy Association of Pennsylvania ("EAP), a trade association representing the electric and natural gas distribution utilities operating across Pennsylvania. Thank you for this opportunity to address the critical intersection of data center development and Pennsylvania's energy future.

Today, I will address three interconnected challenges: the unprecedented scale of data center growth, the resulting strain on our electric grid, and the comprehensive policy solutions needed to capture economic opportunities while ensuring reliable, affordable electricity for all Pennsylvanians.

EAP wishes to commend the Pennsylvania Public Utility Commission ("Commission") for initiating various hearings this year to gather information on this issue from all stakeholders, including those here today, as well as engagement from the General Assembly, like this hearing, to take proactive steps to prepare the commonwealth.

The Scale of Pennsylvania's Data Center Opportunity

Pennsylvania is experiencing extraordinary data center growth. At the July 2025 Pennsylvania Energy and Innovation Summit alone, $90 billion in data center and energy investments were pledged, with demand projected to double or triple by 2028.[1] In PPL's service territory, energy demand projections jumped from flat growth to over 70% by 2031.[2]

At the Commission's *en banc* hearing earlier this year, the electric distribution companies reported interconnection requests that would:

- Add capacity equal to 30% of their current system peak load from a single facility
- Increase overall peak demand by 40% from advanced projects alone

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[1] U.S. Department of Energy, Lawrence Berkeley National Laboratory report on data center energy demand: https://www.energy.gov/articles/doe-releases-new-report-evaluating-increase-electricity-demand-data-centers

[2] Capacity Constraints in PJM have Grown Beyond Dominion

- In some cases, double entire system peak demand

These aren't traditional industrial loads. Data centers operate 24/7 with minimal seasonal variation and require transmission-scale capacity levels that fundamentally challenge how we plan and operate our electric grid.

The Resource Adequacy Challenge

The unprecedented demand growth is occurring precisely when our wholesale energy markets are under stress, as demand is outpacing the rate at which new dispatchable generation is coming online. Recent PJM capacity auction results tell this story clearly: capacity costs (what we pay power plant owners to make generation available when we need it) jumped from $2.2 billion to $16.1 billion over that past two auctions – a 632% increase that Pennsylvania families and businesses will ultimately pay in their electric bills.

This dramatic price increase signals that our regional electricity market is struggling to maintain adequate supply to meet current demand, let alone the projected growth from data centers and other economic development.

Pennsylvania’s Comprehensive Energy Challenge

Forecasted growth from data centers is part of a broader resource adequacy challenge facing Pennsylvania. Our state, like many others, is experiencing unprecedented electric demand growth from electrification and energy-intensive industries, while the existing market structures struggle to ensure adequate supply.

EAP has identified seven critical areas requiring immediate attention to ensure Pennsylvania’s energy security:

First, the Commission should complete a focused assessment of resource adequacy to evaluate the current and projected generation resources against short, medium, and long-term demand growth, including supporting transmission infrastructure.

Second, we must enhance procurement options in Pennsylvania, including long-term contract flexibility to support reliable, affordable, and sustainable supplies for Pennsylvania customers.

Third, if adequate supply gaps are identified, the Pennsylvania Public Utility Commission should have authority to consider regulated utility investment in generation as a reliability backstop when competitive markets fail to deliver.

Fourth, we should explore state policy options to retain existing baseload generation and facilitate new dispatchable generation development.

Fifth, we need to modernize policies ensuring all users equitably share grid maintenance costs while streamlining permitting processes for critical infrastructure.

Sixth, we should authorize policies supporting grid optimization and advanced technology deployment for better resource integration.

Finally, we must explore enhanced energy efficiency and demand response programs.

Data Center-Specific Framework

For data center development, EAP recommends a balanced approach grounded in four principles.

- Accurate impact assessment. Regulatory frameworks must evaluate the actual system impacts of each data center project rather than relying on models designed for traditional industrial loads.
- Flexible implementation. Given the diverse characteristics of data center customers – from AI facilities to cloud storage – our approach must be adaptable.
- Leverage existing expertise. Rather than creating new bureaucratic layers that delay critical data center projects, we should build on established utility relationships and coordinate effectively with federal regulatory frameworks.
- Cost Causation with System Benefits Recognition. Data center customers should pay for the incremental grid costs they create while receiving credit for legitimate system benefits they provide. This balanced approach protects ratepayers from inappropriate subsidization while maintaining fair treatment that supports economic development.

The Need for Coordinated Action

Pennsylvania's electric utilities have the privilege and legal obligation to serve every customer. While they don't own generation, when the lights go out or prices spike, customers contact them – not regional grid operators or power plant owners.

Many large-load interconnection issues involve both state and federal jurisdiction. The Federal Energy Regulatory Commission oversees transmission facilities and wholesale markets, while the Pennsylvania Public Utility Commission regulates distribution-level service. All stakeholders – state and federal policymakers, utilities, regulators, and regional grid operators – must work together to ensure coordinated approaches that recognize these overlapping jurisdictions.

We appreciate this Committee's engagement and the General Assembly's consideration of comprehensive solutions, including House Bill 1272 and Senate Bill 897, which could

provide additional tools for managing large-load growth while maintaining appropriate oversight and ratepayer protections.

Conclusion

EAP remains committed to working with this Committee, the Commission, and all stakeholders to ensure Pennsylvania captures the data center opportunity while maintaining the reliable, affordable energy our residents and our businesses deserve.

Pennsylvania can lead in both economic development and energy policy through comprehensive planning, balanced cost allocation, enhanced procurement flexibility, and coordinated action across all levels of government and industry.

Thank you. I'm happy to answer questions about how we can successfully manage Pennsylvania's data center future.