SENATE ENERGY COMMITTEE
SENATOR BRIAN CHAVEZ, CHAIRMAN

TESTIMONY OF
JOHN SERYAK, PE
OMA ENERGY ENGINEER
JUNE 9, 2026

Chairman Chavez, Vice Chair Landis, Ranking Member Smith, and members of the Energy Committee:

Thank you for the opportunity to provide interested party testimony on House Bill 646, legislation that would create a Data Center Study Commission.

My name is John Seryak, and I am the founder of Runnerstone, an energy consultancy providing accurate, unbiased information on energy policy, regulations, and market matters, and also Go Sustainable Energy, which provides energy management advice to customers. I serve as the energy engineer to both The Ohio Manufacturers' Association (OMA) and the OMA Energy Group, and it is on the OMA's behalf that I testify today.

The OMA represents energy-intensive businesses that rely on affordable, reliable electricity to compete in national and global markets. For manufacturers and other large employers, electricity costs are not marginal; they are foundational to job creation, capital investment, and long-term economic growth in this state.

There have been policy debates driven by various looming electricity crises in Ohio for over a decade, since well before House Bill 6. Our most recent debatable crisis is that of new data centers, especially those employing artificial intelligence technology. As we've asked with each of the previously purported crises - is it true?

As the Committee considers House Bill 646, the OMA encourages members to look beyond surface-level explanations and examine what is truly driving rising electricity costs, and account for the many financial interests at play. Focusing blame on a single energy-intensive industry risks putting the cart before the horse, and risks creating solutions that don't address the root-cause of the problem. The more fundamental issue before us is ensuring that Ohio families and businesses have access to electricity that is both reliable and affordable.

The future price of electricity in Ohio will be highly dependent on the cost of transmission and generating capacity. To that end, future electricity prices will be driven by load forecasts made by electric utilities today, of data center power use in many years from now. It's important to note that electric utilities are the ones determining how much power data centers will need years from now, even though it is not their area of expertise. Equally important, utilities are financially incentivized to forecast high power needs, which drives infrastructure buildouts, from which they profit.

To protect Ohio's manufacturers from unnecessary price increases, our team of engineers at RunnerStone have been studying utilities' load forecasts of data center power needs, how these utility forecasts create costs to customers, and if customers are being protected from these rising costs. And if customers aren't being protected, we are evaluating what can be done to do so.

Accurate electric load forecasts are paramount in protecting customers from excessive, unnecessary costs. Currently, our electricity utilities submit "large load adjustments" to their load forecast to grid operator PJM Interconnection. These load forecasts directly influence capacity market procurement and transmission expansion planning.

Unfortunately, PJM has generally accepted utility-authored forecasts despite a track-record of over-estimates by utilities. Over-estimating can be costly: for example, PJM's Independent Market Monitor has found that forecasts of unbuilt data centers increased electricity capacity costs by more than $21 billion over a three-year period, as compared to just a couple of billion dollars attributable to built data centers. When forecasts exceed actual demand, customers bear the cost.

Additionally, we've found that data center developments are almost certainly being over-counted by electric utilities in forecasts they've submitted to PJM. Another issue, AEP utility forecasts appear to fail to account for the significant amount of behind-the-meter power generation being sited in their service territory. Thanks to House Bill 15, over 5 Gigawatts of new behind-the-meter power generation is being sited to serve data centers. We need to ensure that utility load forecasts account for this new generation in order to save ratepayers money.

We also found that AEP's Data Center Tariff is not proven to protect customers. Instead, it may be costing customers, as it has been used to justify load forecast increases of about 40% per data center.

Meanwhile, customers continue to see significant increases in their electric transmission costs, which are embedded in retail electric rates. The driver of these costs historically has been "supplemental" transmission project investment, largely from AEP Transmission. Supplemental projects have minimal review or regulations by PJM or the FERC, since such projects are not needed for system reliability. The graph in Appendix A shows that Ohio utilities continue to pour hundreds of millions of dollars into transmission projects at the expense of customers.

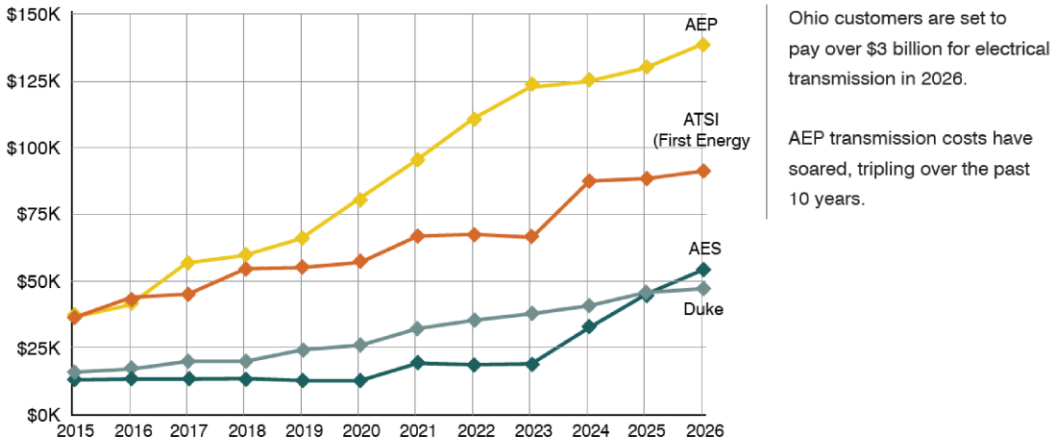
In other words, electricity prices were on the rise long before data centers came along. It's urgent that we understand all the drivers of electricity price increases if we are to bring those prices down.

As this Committee evaluates HB 646, the OMA recommends the following should be included in the study:

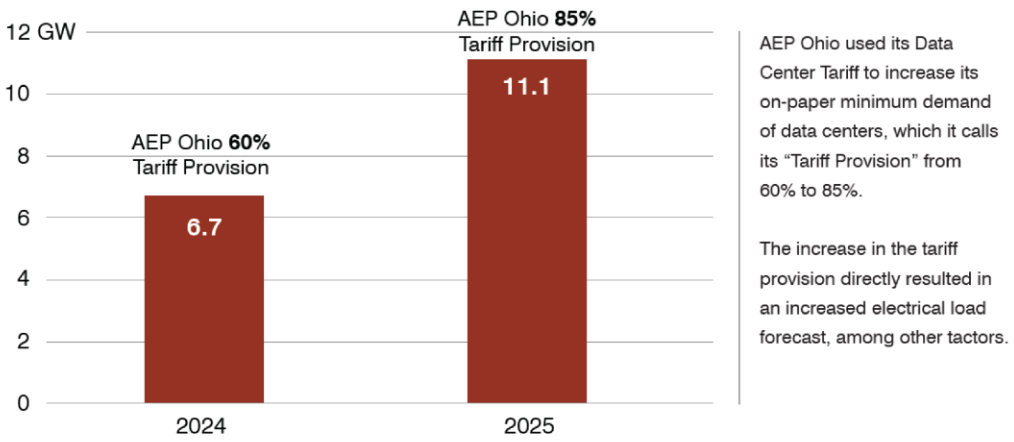
- Evaluation of how utility load forecasts impact transmission and capacity costs.
- Evaluation of behind-the-meter generation sited for data centers and other large electricity users can alleviate generation constraints.
- Fact finding of how PJM's stalled generation interconnection queue and capacity auction delays drive up electric capacity prices.
- Consideration of how data centers paying for their own transmission upgrades can lower transmission rates.

Thank you for your consideration of this testimony. I would be happy to answer any questions.

Appendix A: Transmission Prices



Appendix B: AEP 2024 and 2025 Large Load Addition Forecast to PJM



The Ohio Manufacturers' Association

Retooling OHIO

OUR TAKE ON ISSUES AFFECTING OHIO'S COMPETITIVENESS

FEBRUARY 2026

Inflated Ohio Utility Load Forecasts Drive Electric Prices Higher

Summary

The electric industry is undergoing rapid changes to how electricity is generated, stored, delivered, and used, after operating in much the same way for over 100 years. The recent rapid technological changes and innovations are disruptive, but they create real opportunities, as well as risks. Planning for future electric infrastructure through regulation and policymaking has become genuinely more difficult due to the rapid changes that are occurring. On any given aspect of electricity, there is a wide range of probable future outcomes, a low-to-high set of scenarios that may occur. These aspects include but aren't limited to how much renewable energy will be developed and placed on the grid, how much baseload generation will be developed and placed on the grid, where new generation will be located, how many electric vehicles are built and sold, and how many AI data centers will come online. Whether energy-intensive companies will install generation behind their own meters and take themselves partially off the grid is a factor too. It is difficult to pinpoint exactly what will happen with technological changes in years to come and thus planning around exact and precise forecasts is inherently problematic.

Moreover, within this framework of an uncertain future, data provided by electric utilities, including Ohio utilities, is used by electric grid operators, such as PJM, for planning and is often skewed to the high end of scenarios or even outside of reasonable assumptions. This may be because electric utilities have financial incentives to estimate high load increases and overbuild electrical infrastructure. Similarly, grid operators are naturally risk averse and thus have an inherent incentive to estimate high future electricity use and to overbuild as well. But overestimates of future electrical load come with a cost, pushing up electricity prices to attract generators and electric transmission investment that may not be needed. That raises a key question: Who then bears the risk and cost? Competitive companies make these investments on their own judgement, with their shareholders at risk. Monopoly electric companies, however, make these investments comparatively risk free as their customers bear the risk and will cover any bad investment through increased electric rates. Whether PJM bears responsibility, risks or rewards for their decisions should be evaluated.

AEP Ohio's Data Center Tariff is Being Used to Legitimize Increased Load Forecasts Submitted to PJM

It is a long-standing concern that electric utilities are financially incentivized to forecast high demand and that this leads to overbuilding electrical infrastructure and driving up customers' electricity bills.

Key Points of OMA Analysis

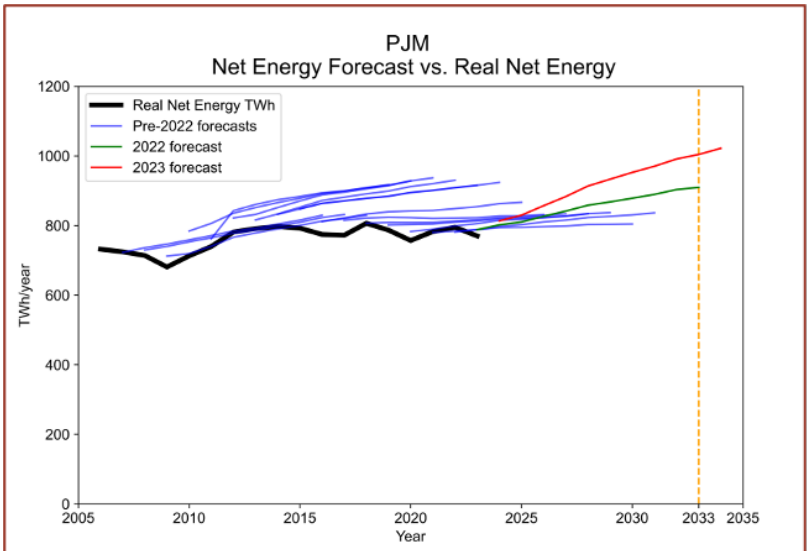
- AEP Ohio's data center tariff is being used to increase its PJM large load forecast by over 40% per data center.
- Increases to utility load forecasts signal new investments in electrical infrastructure are needed, raising electricity prices.
- Ohio utilities have been found overestimating small business load forecasts. The PUCO rejected an investigation into this matter.
- The Federal Energy Regulatory Commission is inquiring about electric load forecasting methods across the country.
- PJM's Independent Market Monitor found load forecasts of unbuilt data centers have raised electric capacity costs by $21.3 billion over a 3-year period.

This long-standing concern is heightened and emergent due to the rapid expansion in the number and size of interconnection requests from data centers, especially in AEP Ohio's territory. While AEP Ohio is seeing legitimate growth in requests for data center interconnection and energy usage, there is also supporting data that AEP Ohio is overforecasting in recent load forecasts. That is, there is evidence that AEP Ohio may be taking an already large potential load and making that load estimate even bigger.

HOW ELECTRIC UTILITIES SUBMIT DATA CENTER LOAD TO PJM

As an example, AEP Ohio's corporate parent, American Electric Power (AEP), submits several types of load forecasts to PJM, from which PJM plans transmission and electric generating capacity needs, and based on information from AEP Ohio and its distribution utilities in other PJM states. First, AEP submits its standard load forecast, which can be thought of as an electric utility's estimate of electricity growth or decline in future years. It's important to note that electric distribution and transmission utilities make their revenue based on how much infrastructure they build for the future, not how much electricity they sell in the future. This dynamic results in electric utilities having an inherent financial incentive to overestimate future electricity needs to justify building electric infrastructure, with little financial penalty if they overbuild. In fact, historical data shows that electric utilities almost always over forecast future electricity needs. Figure 1 below is from the Bipartisan Policy Center report "Electricity Demand Growth and Data Centers: A Guide for the Perplexed" and shows how actual electricity use has historically been far less than PJM's forecasts of future electricity use.

Figure 1: Historical Over-Forecast of Electricity Needs[1]



Source: https://www.ferc.gov/industries-data/electric/general-information/electric-industry-forms/form-no-714-annual-electric/overview

Second, AEP and other utilities separately provide adjustments to their load forecast to PJM called "large load additions." Large load additions allow utilities to add custom, one-off cases of electric load additions to their load forecast that they do not think are already captured in the standard forecast. Historically, there have been few large load additions, and the process has received relatively little scrutiny. However, with the growing popularity of data centers, large load additions have grown in frequency and size. As a result, large load additions are the primary way increased load is being accounted for by PJM.

1 "Electricity Demand Growth and Data Centers: A Guide for the Perplexed," Bipartisan Policy Center, Koomey Analytics, February 2025.

PJM has published guidelines for how to account for large load additions, though utilities do not have consistent methods for following these guidelines. PJM lists these guidelines in its Manual 19.[2] Critical guidelines for single facilities include:

- The large electric load addition should be publicly acknowledged through a press release or regulatory process.
- The utility should have also adjusted its financial planning forecast for the load.
- The potential customer should have a Letter of Agreement (LOA) or Electric Service Agreement (ESA) in place with the distribution utility.
- Behind-the-meter generation at the large load should be accounted for.
- The electric utility should provide "any available" independent analysis of the large load addition.

PJM then states it acquires the following data, presumably to evaluate the veracity of the large load addition:

- Hourly load history of the proposed load, or request expected hourly load of the potential customer.
- Extended forecasts of the large load adjustment.
- "If available," a high/low scenario of the load adjustments.

However, if there is an "industry-level load change," PJM uses a different set of criteria that are much less stringent. In fact, PJM requires very little to authenticate "industry-level load change" except that the utility has changed its own financial planning forecasts and that expected near term growth is supported by contracts in place. Data center load could be deemed an industry level load change, therefore PJM could accept utility large load adjustments of data center load without following its own guidelines for individual large load adjustments.

From the research, it does not appear that AEP follows the Manual 19 guidelines for accounting for individual large loads or that PJM asks AEP to do so. For example, press releases of the large loads are not included by AEP with their forecast, independent analyses are not provided, and even though there is ample evidence of behind-the-meter fuel cell and gas-fired generation being built to supply the data centers in AEP Ohio's territory, there is no indication that the load reduction expected from behind-the-meter generation is being taken into account in the AEP load forecasts.

HOW PJM USES LOAD FORECASTS FOR PLANNING AND ITS EFFECTS ON ELECTRICITY PRICES

PJM reviews large load additions to load forecasts submitted by utilities and can revise these forecasts prior to accepting them into their planning load forecasts. In practice, PJM often makes only small changes, and largely accepts what utilities provide. As shown above in Figure 1, historically this has led to PJM using forecasts of future power increases that never materialize. Within Figure 1 the 'Pre-2022 Forecast' lines represent many years of overforecasting that did not accurately represent true demand shown with the 'Real Net Energy' line.

PJM uses load forecasts in various ways for system planning. For example, PJM uses its estimate of future power load in its capacity auctions. The capacity auctions are intended to procure enough power capacity for PJM to meet all power load needs at all hours of the year. So, if load forecasts increase, PJM will increase the amount of generation it procures in the capacity auction for that year. This in turn can increase prices in the capacity auction. For example, a recent study by PJM's Independent Market Monitor found that forecasts of data center load increased electricity capacity costs by $21.3 billion over a three-year period, compared to an increase of $1.8 billion for built data centers. In other words, the load forecast is a far larger driver of increased electric capacity costs currently than real data centers.[3]

PJM also uses forecasts of future power needs to plan for transmission expansion in its Regional Transmission Expansion Planning (RTEP) process. PJM runs power flow simulations for the transmission system at the forecasted load to determine if there will be any physical limitations with existing transmission facilities delivering power at peak times. Importantly, PJM

2 PJM Manual 19: Load Forecasting and Analysis, Revision 37, December 18, 2024.
3 Monitoring Analytics, "Analysis of the 2027/2028 RPM Base Residual Auction, Part A," Table 1.

considers physical limitations not just in standard operating conditions but also models whether there are limitations under conditions where part of the transmission system has already failed. If there are physical limitations in this planning scenario, PJM identifies "solutions" to alleviate the physical constraint. Solutions can range from changes to system controls to miles-long extra-high voltage transmission lines. Solutions are constructed by electric transmission utilities. The costs of the transmission system upgrades are then charged through utility bill rates for many years. Generally speaking, the higher a utility's load forecast, the more physical limitations that are identified, and hence the greater the spending on transmission infrastructure to fix the limitation.

In summary, higher load forecasts will generally result in higher capacity prices and higher transmission prices for customers and greater profits for owners of transmission utilities.

HOW AEP USES ITS AEP OHIO DATA CENTER TARIFF TO CHANGE ITS DATA CENTER LOAD FORECAST TO PJM

In the spring of 2024, AEP Ohio filed for a new Data Center Tariff (rate plan) with the Public Utilities Commission of Ohio (PUCO). Typically, new tariffs and amendments to existing tariffs are filed and approved in a utility's distribution base rate case, which includes a cost-of-service-study (COSS). OMA Energy Group argued that it was both unusual and inappropriate for AEP Ohio to file a new Data Center tariff independently, especially because AEP Ohio filed a distribution base rate case soon after in early 2025. A COSS was not included in the standalone Data Center Tariff case and should have provided critical analysis to understand what cost data centers are creating with the electric system. The COSS would have provided a rationale for how to design a tariff specific for data centers.

When AEP Ohio filed its Data Center Tariff, the utility also announced that it had a moratorium in place on new data center interconnections to the grid. The moratorium had been in place for a year with no announcement, filing or PUCO approval, and AEP Ohio made clear that the moratorium would stay in place until its proposed tariff had been approved. AEP Ohio's moratorium was problematic, as electric utilities have a legal obligation to serve customers. Customers do not have an opportunity to choose their electric distribution and transmission utility, since the state has granted the utility a monopoly franchise in a certified territory. In exchange for being given monopoly status, the utility is not authorized by law to deny a customer electric service unless justified. AEP Ohio's unapproved moratorium on all data center interconnections without proper justification was likely improper. The unusual unilateral actions taken by AEP Ohio without PUCO approval may have created unfair bargaining power with the parties.

A primary outcome of AEP Ohio's Data Center Tariff was a key change to how it forecasts large load additions that are submitted to PJM by its parent company. In 2024, prior to the passage of the Data Center Tariff, AEP would multiply its estimates of potential data center interconnection requests by 60%. AEP would then submit that value as a large load addition to PJM. In documents to PJM, AEP described the 60% as a "tariff provision."[4] The 60% tariff provision is called a minimum demand ratchet. A minimum demand ratchet basically sets a monthly minimum charge for certain components of a customer's power bill and does not reflect PJM's load forecast methodology.

Nonetheless, instead of creating a more accurate way of forecasting data center load, AEP Ohio proposed to use the Data Center Tariff to increase its data center load forecasts by increasing the "tariff provision" from 60% to 90%.[5] By doing so, it could immediately inflate its PJM load forecast.

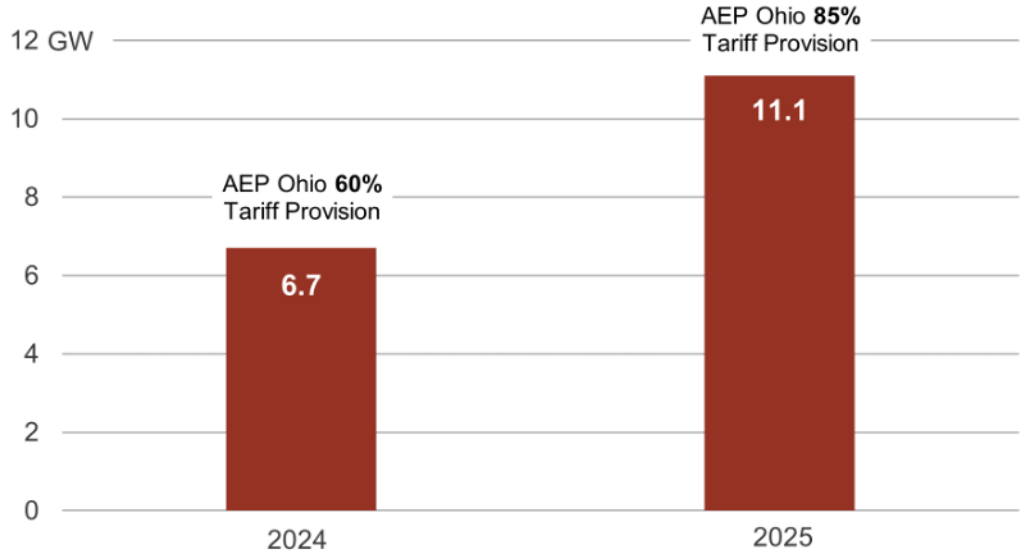
While AEP Ohio's Data Center Tariff case is being contested to the Supreme Court of Ohio, a settlement was reached between AEP Ohio and several parties that was approved by the PUCO. In that settlement, parties agreed to allow AEP Ohio to increase the minimum demand ratchet for data centers to 85%. AEP immediately changed the "tariff provision" value

4 AEP 2024 Load Forecast Adjustments, PJM Load Analysis Subcommittee, Oct. 25, 2024.
5 Application for Approval of New Tariffs by Ohio Power Company, 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.

it uses to submit load forecasts to PJM from 60% to 85%, as shown in Figure 2. This results in AEP being able to forecast a data center's power usage 40% higher than it was previously doing.[6]

This change alone has resulted in AEP inflating its load forecast by at least 3.3 gigawatts (GW) to PJM for future data center load.[7] Figure 2 reproduces AEP's large load adjustment submissions to PJM, showing how AEP increased its load forecast by changing the 60% "tariff provision" to 85%.

Figure 2: AEP 2024 and 2025 Large Load Addition Forecast to PJM [8, 9]



AEP Ohio used its Data Center Tariff to increase its on-paper minimum demand of data centers, which it calls its "Tariff Provision", from 60% to 85%.

The increase in the tariff provision directly resulted in an increased electrical load forecast, among other factors.

WHY PUCO APPROVAL OF THE DATA CENTER TARIFF MATTERS AT PJM

AEP is clearly using the tariff provision changes from the Data Center Tariff case to increase its load forecast to PJM. However, while the tactical change to the "tariff provision" percentage that AEP was using is incredibly important, just as important is using the PUCO process to legitimize the large load forecast increase. Recall that electric utilities already are inconsistent with how they forecast large load additions, that PJM already accepts inconsistent forecasts from utilities, and that it is common knowledge in the electric industry that future data center power needs are highly uncertain. In the context of this high uncertainty, receiving regulatory approval from a state agency creates an important perception of authentication. PUCO approval suggests legitimacy and oversight. The public may instinctively assume that a regulatory agency is scrutinizing what it approves. Thus, an approved tariff is likely given considerable weight in other regulatory jurisdictions. In other words, staff and parties at PJM may assume that the PUCO scrutinized and reviewed how the minimum demand provision in the Data Center Tariff was going to affect AEP's load forecast to PJM. However, this scrutiny did not occur in the data center case.

Unfortunately, the Data Center Tariff approval from the PUCO may be legitimizing the inflated load forecasts AEP submitted to PJM. In turn, PJM's acceptance of the AEP load forecast can then be cited by other regulatory agencies, including the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), and Department of Energy, all of whom rely on these same load forecasts for their planning and policy judgements. Multiple regulatory agencies' use of utility load forecasts can create an echo chamber that legitimizes the untested information.

6 For example, consider a 100 MW prospective data center: (100 MW x 85% tariff provision = 85 MW) - (100 MW x 60% provision = 60 MW) = 25 MW increase; 25 MW increase / 60 MW initial forecast = 42% increase

7 Load forecast impact from the Data Center Tariff minimum demand provision: (13 GW x 85% = 11.1 GW) - (13 GW x 60% = 7.8 GW) = 3.3 GW

8 Application for Approval of New Tariffs by Ohio Power Company, 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.

9 AEP 2024 Load Forecast Adjustments, PJM Load Analysis Subcommittee, Oct. 25, 2024.

OTHER CRITICAL ISSUES WITH AEP OHIO'S LOAD FORECASTS OF DATA CENTER LOAD

AEP Ohio's change to its minimum demand tariff provision is just one issue with data center load forecasts. AEP Ohio is not alone, as other electric utilities are also employing similarly unsophisticated forecasts of future data center load, nationwide. Additionally, AEP Ohio's and its parent company's fundamental approach to data center load forecasts are problematic.

First, AEP states that it begins with a "queue," which its parent company currently states to PJM is 38 GW across its multi-state PJM footprint. The "queue" description is misleading. It is not known what criteria AEP uses to tally the projected load numbers that are in its queue, and the "queue" may simply be "inquiries" by companies looking to locate in various locations, depending on interconnection costs and economic development packages.[10]

Next, AEP narrows this "interconnection queue" to data centers that have requested an interconnection engineering study, which it currently estimates to PJM as 13 GW.[11] Interconnection engineering study requests are an early investigation step by a customer in determining whether they will locate at a specific location, but they are not assurance of interconnection. AEP has provided no indication of why 25 GW of data centers have not requested an interconnection study.

One could consider the 13 GW of data centers receiving an interconnection study as a qualified lead. Meaning, it is likely that some of the interconnection study requests will convert to receive energized utility service. However, there are several go/no-go decision points for the prospective data center business between the interconnection study request and energizing. For example, after the interconnection study is completed, the prospective data center has a choice on whether to sign an Electric Service Agreement (ESA) and Letter of Authorization (LOA) to proceed. After an ESA and LOA are signed, data centers then have to provide security or collateral to retain their spot in the interconnection queue. Data centers may choose not to proceed if the timeline or cost of interconnection or collateral is greater than at a competing location. Then, if the data center does energize, its actual electric load may be less than it anticipated for some time.

Unfortunately, AEP does not consider or apply conversion percentages for each of these decision-making stages. Instead, AEP simply multiplies its qualified lead list, meaning the interconnection study requests, by the 85% minimum tariff provision in its Data Center Tariff. As a result, AEP is almost certainly overcounting its future data center load.

Other reasons that estimates of future load should be discounted from 85% of maximum power demand from data centers that may come online include:

- Data centers demonstrate sophisticated energy management capabilities and may reduce their future peak loads with behind-the-meter generation, battery storage, peak load management, and energy efficiency. For example, in Ohio over 1.8 GW of gas-fired power generation is being planned to supply data centers with behind-the-meter power, much of it in AEP Ohio territory.[12] Also, multiple data centers have announced that they will use fuel cells to meet their power needs.[13]
- Data center business service prospects have a wide range of adoption estimates. While public consensus is that artificial intelligence services are transformational and have solid business prospects, tech-driven business cycles are also notorious for having investment-driven booms followed by market contractions when actual revenue is needed to support business expenses.
- While computing technology services have expanded rapidly and consistently for decades, so too has computing efficiency, as described by Moore's Law and Koomey's Law.

To be fair, data centers could also continue rapid expansion for some years to come. Thus, it is important to acknowledge that data center power use in the future will fall within a wide range of outcomes.

10 https://www.utilitydive.com/news/aep-ohio-data-center-crypto-rates-puc/716150/
11 AEP 2025 Load Forecast Adjustments. PJM Load Analysis Subcommittee, Sept. 16, 2025.
12 Ohio Power Siting Board, Gas Generation & CHP Case Status. Approved and Pending Gas Generation & CHP Facilities
13 PUCO Approves Onsite Power Project for Data Centers https://www.aep.com/news/stories/view/10262/

Policymakers and industry leaders should continue to narrow the range of realistic outcomes with analysis while advancing policies that work under the full range of outcomes.

Potential Electricity Cost Increases from AEP Ohio's Data Center Tariff to Other Customers

AEP Ohio's Data Center Tariff increases costs to other customers in at least the following ways:

- Increases future capacity prices by increasing the AEP load forecast submitted to PJM.
- Increase transmission costs if baseline transmission upgrades are triggered in planning from overstated load forecasts.
- Creates upward pressure on transmission rates as most data center interconnection costs are 100% socialized to all customers as "supplemental transmission" projects, and data centers have little financial incentive to reduce their interconnection costs.
- AEP Ohio's transmission cost allocation is structured in a way that inhibits the data center tariff from protecting other classes of ratepayers, including residential, secondary (small business), and primary service classes. Instead, the minimum demand provision only creates a protective effect for other customers within the same class, largely other data centers.

Data Centers are Unique and Load Forecasts May Be Overestimated Nationwide

Many utilities forecast data center electrical load based on the interconnection inquires to the utility, not based on the data center's investment plans or independent market assessments. This is problematic, as data centers can inquire with multiple utilities across the nation, or even the globe, for placement of one data center but each utility starts planning for each data center request it receives. Utilities nationwide, in aggregate, are likely forecasting load based on the number of sites data centers are considering, not the number of data centers that will be built.

Data centers are unique as compared to other large electricity users. Importantly, some data center computing usage can be time and location independent. In other cases, data centers can move their processing needs, and thus their energy use, between locations or at different times as they are processing data. Eventually, AI businesses may conduct significant amounts of computing at places and times of lowest electricity cost. Remarkably, AI tech company Amazon's founder Jeff Bezos has speculated that AI data centers will be space-based and 100% solar-powered within "the next couple of decades."[14]

The ability for data centers to select where and when they process some of their data is unlike any other large industrial user of electricity. Traditionally, access to natural resources, supply chain businesses, workforce, housing, water, transportation infrastructure, etc., have meant that energy-intensive industrial users evaluate a relatively small number of geographic locations for development. In contrast, data center developers have considerably more choices on where to locate and operate their businesses, such that the cost of electric interconnection, the speed of electric interconnection, and the ongoing reliability and cost of electricity could become important determining factors. These energy needs and costs for a potential data center customer could vary widely from state to state and utility to utility, as these utility costs are often not market-based but instead determined through labyrinthian and opaque regulatory processes. Electric regulatory costs and risks are not transparent, standardized, or easily understood.

As a result, data center businesses likely have more ability to consider multiple interconnection locations for their business and have more need to compare electric regulatory structures for their business. Lowering the cost of regulation and utility interaction becomes a business necessity for data centers.

In other words, data centers are much more likely to shop broadly for their electric utility provider as compared to other types of large industrial electricity users. Consequently, they are more likely to submit multiple inquiries and interconnection study requests with multiple utilities in order to solicit enough information to compare utility costs and services. This ability and need are new and unusual for utility interconnection and planning processes.

14 https://www.reuters.com/business/energy/data-centres-space-jeff-bezos-thinks-its-possible-2025-10-03/

In aggregate, the nation's utility load forecasts of data center power could be significantly overblown. Indeed, a recent study from London Economics International claimed that the aggregate utility load forecasts of data center power demand "exceeded the capability of global chip manufacturers."[15]

Ohio Utilities are Inflating Load Forecasts for Small Businesses

Data center load forecasts are a primary concern nationwide. However, AEP Ohio has recently significantly and inexplicably overestimated electric load from other customer classes as well.

In a 2025 filing at the PUCO, AEP Ohio included workpapers to show how it calculates rates to charge customers for one of its types of electricity charges, called the Basic Transmission Cost Rider (BTCR). To calculate the BTCR rates, AEP Ohio shows how it spreads the total cost of transmission across customer classes, by dividing cost per class by the amount of electricity or power use of that class. In this case, AEP Ohio increased the amount of its forecast for the load of its Secondary Service class of customers from 2024 to 2025 by 27%. Secondary service customers are smaller businesses, such as restaurants, small manufacturers, office buildings, churches, and schools.

AEP Ohio's estimate of a 27% increase in the usage of the Secondary Service class is demonstrably incorrect. OMA technical experts at RunnerStone found that AEP Ohio significantly overestimated the usage of the Secondary Service. Table 1 presents AEP Ohio's increased load forecast of its Secondary Service class and Table 2 presents a comparison of this forecast to RunnerStone's estimates of actual Secondary Service load.[16]

Table 1: AEP Ohio Secondary Service Percent Increase

Year	GS Secondary			
	kW	kW Increase	kWh	kWh Increase
2023-24	32,154,826	-4.9%	11,009,267,355	-4.5%
2024-25	35,273,075	9.7%	11,961,741,643	8.7%
2025-26	44,809,138	27.0%	15,170,132,088	26.8%

Table 2: Comparison of Secondary Service Load versus AEP Ohio's Forecast

GS Secondary	Quarter 2			
	Apr 25	May 25	June 25	Total
Forecasted Bill Determinant (kW)	2,854,228	3,596,920	3,483,550	9,934,699
Actual Billing Determinant (kW)	2,578,410	2,687,244	2,790,442	8,056,096
Difference between Forecasted and Actual (kW)	275,818	909,676	693,108	1,878,603
Percentage Difference (%)	9.7%	25.3%	19.9%	18.9%

15 "Uncertainty and Upward Bias Are Inherent in Data Center Electricity Demand Projections," London Economics International, prepared for Southern Environmental Law Center, July 7, 2025.
16 Motion to Intervene, Comments, And Motion to Open an Investigation in AEP Ohio's Load Forecasts of The Ohio Manufacturers' Association Energy Group, In the Matter of the Application of Ohio Power Company to Update Its Basic Transmission Cost Rider. Case No. 25-735-EL-RDR.

It is important to note that a 27% increase in Secondary Service power use would be unprecedented. It should have been immediately rejected by the PUCO as inaccurate, as historic Secondary Service power consumption has changed very little from year to year. Instead of rejecting this forecast, the PUCO accepted it on the condition "that AEP file an interim update by July 15, 2025, with rates effective October 1, 2025, for a review of billing determinants and over/under reconciliations."[17]

AEP Ohio did not follow the PUCO directive and refused to submit actual Secondary Service meter readings in its updated filing. Troublingly, AEP Ohio also filed its updated workpapers in this matter in an entirely new case at the PUCO. By filing the workpapers in an entirely new case, interested parties with legal standing in the original case, including the OMA Energy Group, the Ohio Energy Leadership Council and the Ohio Consumers' Counsel, were deprived of being served notice of the updated filings and were deprived of receiving discovery requests and responses between PUCO staff and AEP Ohio pertaining to the issue of over forecasting load. These discovery requests could have been put into the record of the case in a demonstrable and factual way, which would have demonstrated that AEP Ohio is overforecasting its load. Such an egregious error warrants further investigation to determine if AEP Ohio is using the same inflated load forecast for the Secondary Service class with grid planning forecasts its parent company submits to PJM, or if other customer classes are similarly over forecasted.

Federal Interest in Load Forecasts

On Sept. 18, 2025, Chairman Rosner of the Federal Energy Regulatory Commission (FERC) issued a letter to the nation's electric system operators, including PJM, requesting additional information on how they accept forecasts of data center loads. Chairman Rosner rightly noted that small changes in load forecast amounts "can impact billions of dollars in investments and customer bills."[18]

Shortly thereafter, PJM made suggestions in a stakeholder meeting on how to "enhance" the review process of large load forecasts. PJM suggested including an "added step for state commission opportunity to review" large load adjustments prior to the load forecast being released, as well as a requirement that utilities ask large loads if their interconnection request is duplicative.[19]

PJM's proposal is underwhelming. It is essentially shifting responsibility of reviewing load forecasts to state commissions. This reinforces the suspicion that electric utility load forecasts have not been reviewed sufficiently by PJM. Additionally, PJM's suggestion to ask a customer if its interconnection request is duplicative relies on hope of an honest answer. Moreover, guidelines are needed on how to forecast data center load no matter the data center's response.

More recently, the White House's National Energy Dominance Council issued a Statement of Principles Regarding PJM. The principles include "Improve Load Forecasting," and are signed by the US Secretary of Interior, the US Secretary of Energy, and a bipartisan group of 13 governors of PJM states, including Governor DeWine.

Recommendations

Utility load forecasts can have a significant and costly impact on electric transmission and power generation planning. The load forecasts are now a critical assumption of utility planning that has received little attention despite chronic over forecasting by electric utilities who have a clear financial interest to over forecast growth. Now, AI data centers are using

17 PUCO Finding & Order 25-0050-EL-RDR, https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A25C19B41737J00844
18 Chairman Rosner's Letter to the RTOs/ISOs on Large Load Forecasting, September 18, 2025.
19 PJM Large Load Additions CIFP Update, Oct. 1st, 2025, slide 4, https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20251001/20251001-item-04---cifp---lla-updates---pjm-presentation.pdf

incredible amounts of electricity and have created unprecedented uncertainty on how to forecast future load. Accordingly, action by policymakers and regulators is warranted. The OMA offers the following recommendations:

- The PUCO should open a docketed investigation into all utilities' load forecasts immediately. The investigation should follow at a minimum PJM Manual 19, Attachment B guidelines for Single Large Load changes, and others, including:
  - Investigate why the Secondary Service class load forecast is so high in AEP Ohio's BTCR filing, evaluate other class forecasts for similar risks, and evaluate whether AEP is including these same class forecasts to PJM.
  - Ensure AEP Ohio includes only data center large load additions that have been publicly acknowledged, as suggested in PJM Manual 19, Attachment B. The public notices should be published clearly in the public investigation report.
  - Ensure that AEP Ohio has included the load forecasts in its financial planning as reported to shareholders. The statement to shareholders should be included in the investigation.
  - Ensure that each single large load has a signed ESA and LOA.
  - Ensure that behind-the-meter generation plans have been solicited and accounted for in the load forecast.
  - Require that high, low, and medium scenario load forecasts are included with clear assumptions for each scenario.
  - Ensure that only coincident peak load estimates are used in AEP Ohio's forecasts, backed by hourly load history of like customers.
  - Order that AEP Ohio and AEP rescind its large load adjustments to PJM that use the 85% data center tariff minimum demand provision and provide a copy of this order to PJM and FERC.
  - Calculate the extent to which AEP Ohio's load forecasts have increased prices in PJM's capacity auctions.
- Electric utilities have an inherent financial interest in forecasting high loads. As such, Ohio should delegate an independent body to investigate and submit load forecasts to the PUCO.
- The PUCO should hold a hearing to consider the load forecasts proposed by both the Ohio utilities and the independent body and allow stakeholders to weigh in on the forecasts submitted. The PUCO should then consider the two load forecasts and adopt the most reasonable and accurate forecast, or a modified forecast prior to authorizing the utility to submit the approved forecast to PJM.
- Ohio policymakers should consider a "truth in public messaging" law that requires Ohio's electric utilities to be transparent and share consistent forecast data and claims with regulatory bodies, shareholders, and policymakers.