

Retooling HIO

OUR TAKE ON ISSUES AFFECTING OHIO'S COMPETITIVENESS

SEPTEMBER 2025

Strengthen Ohio's Economy: Choose Competitive Energy Over Entrenched Interests

A persistent truth of the last few years is that energy businesses are investing in growth and seeking communities that will welcome their investment. Ohio is attractive, both to our rejuvenated domestic manufacturing and to new energy-intensive industries like artificial intelligence (AI) data centers. These growing energy intensive loads are in turn attracting investment in electric generation in Ohio.

But investors have a choice of where to locate and will come to the state that can hold itself to the standards of business. The business need now is for speed and innovation, which is the domain of American enterprise and competitive markets. In contrast, the status quo for our electric utility systems is the slow speed of electric regulation. Fortunately, Ohio's General Assembly took an important step to put the state in a competitive position with the recently passed House Bill 15 (HB 15).

HB 15 harnessed the speed and fair play of markets with the following critical law changes:

- Levels the playing field by repealing subsidies for certain coal and solar power plants, saving Ohioans hundreds of millions of dollars,
- Reduces tangible personal property tax on new generation, pipelines and transmission lines,
- Promotes energy infrastructure development projects on brownfields,
- Encourages customer-sited power by allowing generation facilities to be located off-site.
- Repeals Electric Security Plans (ESPs) and with it the above-market-rate fees known as "riders" that utilities have used to derive billions of dollars from customers on their power bills, and
- Requires electric utilities to publish electric grid heat maps. These maps will identify where the electric system has room for new load and reduces red tape for customers so they can assess economic development opportunities quickly.

For these reasons, HB 15 was supported by a wide breadth of business groups, customer watchdogs, competitive power producers, free-market advocates and environmental groups, and passed Ohio's House and Senate chambers by a combined vote of 127-2.

Some tempering of HB 15's excitement is warranted, however. An esoteric provision was included in the law allowing electric utilities to use "forecasted test years" in their ratemaking. Now the electric utilities trumpet this provision to their shareholders, saying,

"AEP Ohio's transition from ESPs...expires concurrently when the forward looking test year rate case will take effect. This is very positive for AEP Ohio".

Investors lauded the profit potential as well: "...but given we're going to a test year, hopefully, in Ohio... the overall trajectory on the ROE (Return on Equity) trend from that ...should push higher as well." The inscrutable part of HB 15 is clearly viewed by electric utilities as creating profits for their shareholders.

¹ American Electric Power Company Q2 2025 Earnings Call, https://seekingalpha.com/article/4806289-american-electric-power-company-aep-q2-2025-earnings-call-transcript 2 ld.





For all the good of HB 15, forecasted test years may come back to haunt. Cloaked as an abstruse inside-baseball term in utility ratemaking, a fully forecasted test year could essentially allow a utility to make up how much money it wants to spend and collect.

Ohio Can Be a Global Leader in Attracting Power Generation

Let there be no doubt that Ohio has the resources to attract investment in power generation of all types. And welcome news has paralleled the passage of HB 15, as significant investment in new power generation is coming to Ohio. This includes:

- 2,980 MW across three new natural gas fired power plants³ built in recent years, enough to power 2.3 million homes,
- 3,363 MW of new gas plants and existing plant uprates recently selected by the multi-state grid operator PJM for quick interconnection⁴, enough to power 2.7 million homes⁵,
- Over 3,700 MW of utility-scale solar has come online in Ohio within the past 4 years, another 5,100 MW of utility-scale solar is approved for construction, and still 835 MW is waiting for approval at the Ohio Power Siting Board⁶,
- 690 MW of approved electric batteries⁷, and
- 1,536 MW of natural gas behind-the-meter power submitting applications for approval at the Ohio Power Siting Board 8.

Combined with Ohio's existing nuclear, coal, and wind power generation, and customers' management of their peak power, the projects give Ohio a diverse, reliable, increasingly clean, and growing power portfolio.

Looking further out, Ohio is also well positioned for innovation and could use pilot and demonstration projects to welcome emerging and promising energy technologies, many of which are made in Ohio. These technologies include small modular nuclear reactors made by Akron's Babcock and Wilcox, microgrid controllers made by Cleveland's Eaton, energy efficiency products made by Owens Corning and Copeland, long duration vanadium flow redox energy storage supplied by Cambridge's AMG Vanadium, vehicle-to-grid virtual power plants by Honda and GM, and load response residential and business virtual power plants, among many other Ohio-made energy innovations.

With so many emerging competitive services and products, Ohio legislators should be ready to protect markets by closing any loopholes that utilities could create or exploit to own or operate emerging competitive services. Emerging technologies can also be initially expensive, and some will remain expensive and fail in the market. Small modular nuclear reactors, for example, while technically feasible, have not demonstrated economic viability yet, being quite large and expensive⁹.

For this reason, allowing utilities to own or operate emerging technologies, or subsidizing emerging technologies with taxpayer or ratepayer dollars, could stick ratepayers with the bill for failures. Emerging technology financial support is best provided by investors or federal policy, and monopoly electric utilities should be banned from participating in these nascent competitive markets.

Key Points

- Ohio has a diverse mix of resources – natural gas, solar, wind, nuclear, coal, batteries, load response.
- Ohio is home to innovating companies with energy products.
- Protect markets by closing loopholes that could allow utility ownership.
- Some products fail in a market – protect customers by avoiding subsidies.

³ Ohio Power Siting Board, Gas Generation and CHP Map and Statistics

⁴ PJM's Reliability Resource Initiative, https://insidelines.pjm.com/pjm-chooses-51-generation-resource-projects-to-address-near-term-electricity-demand-growth/ and https://www.pjm.com/-/media/DotCom/committees-groups/committees/pc/2025/20250506/20250506-rri-addendum---post-meeting.pdf

⁵ Assuming 1.25 kW per home

⁶ Ohio Power Siting Board, Solar Farm Map

⁷ Ohio Power Siting Board, Battery Storage and Facilities Map

⁸ Ohio Power Siting Board, Gas Generation and CHP Map and Statistics

⁹ https://ieefa.org/resources/eye-popping-new-cost-estimates-released-nuscale-small-modular-reactor

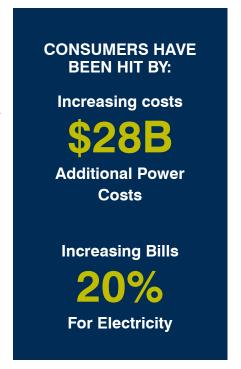


Reform Needed at PJM to Keep Electricity Affordable

Yet, more can be done to attract power generation and more may be needed. Certainly, Ohioans are already paying handsomely to attract power. Ohio is part of a multi-state competitive regional electric grid called PJM, which will have an additional \$28 billion available for power generation over the next two years¹⁰. PJM's lucrative payments to power plants are expected to stay elevated, providing billions of additional dollars in revenue for new power plants for years to come. The lucrative power payments are raised from utility fees on Ohio's citizens and businesses, and Ohio should compete to bring this money back into our economy.

In the meantime, Ohioans are contributing to the \$28 billion in additional electric revenue that generators are receiving. That's about a 20% increase on manufacturer utility bills. The \$28 billion is also revenue at stake and Ohio can compete for if it can attract generation. Legislators should be ready to open opportunities for investment that can move quicker than the bottlenecked and stalled PJM interconnection queue, which continues to throttle new power generation to a trickle, despite record high prices.

HB 15's innovative change to allow behind-the-meter generation to be located off-site is already yielding over 1,500 MW of new gas generation. This initial momentum can be built upon by promoting competitive microgrids, allowing customers to purchase transmission service at the same rate as our electric distribution utilities, and by creating competitive distributed energy resource aggregators for PJM's markets. And, while interconnection to PJM's electric transmission system is bottlenecked, interconnection to Ohio's electric distribution utilities does not need to be. Ohio's electric distribution system is ripe to host local generation and can be done by Ohio leaders, including the General Assembly, Public Utilities Commission of Ohio (PUCO), and the Ohio Power Siting Board. As technological advances have allowed power generation sizes to scale down, the electric distribution grid can become a sought-after interconnection point that could lead to a rapid expansion in local power generation.



Bringing local power plants back to our communities can be a force multiplier: it creates economic investment, lowers utility costs, improves reliability, and yields environmental benefits. Ohio can open these new markets by creating open-access utility interconnection processes and clarifying and streamlining standards with distribution utilities. All this can be done while supporting needed reforms to competitive regional electric markets, and without reverting to the slow, monopolycontrolled generation that thwarts competitive investment.

Concerns over Future Demand are Overblown

There have been claims of Ohio facing an imminent power shortage due to increased demand from new technologies and the uptick in data center sites locating to the state. However, Ohio's power supply is not in crisis. In fact, regional grid operator PJM Interconnection reports a reserve margin of roughly 19%. This is more than enough to handle current demand and growth from data centers and electric vehicles over the next few years. And while demand may rise after years of decline, forecasts of data center energy use are considered by many to be overblown. Instead, our rising utility bills right now stem from a flawed system that rewards inefficiency, blocks competition, and allows questionable, subsidized transmission projects with little oversight.

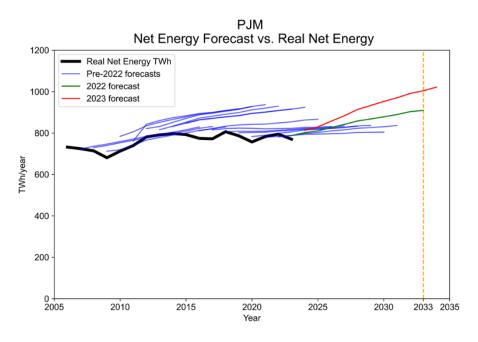
^{10 \$30.8} billion total for 2025/26 and 2026/27 delivery years as compared to \$2.2 billion for 2023/24 and 2024/25 delivery years. See Table 2 in PJM 2026/2027 Base Residual Auction Report.



Confusion on future energy needs stems from a lack of scrutiny at our PUCO and at PJM of utility load forecasts, which could put Ohio's businesses on the hook for un-needed infrastructure. While AI data centers do indeed use prodigious amounts of electricity, electric utilities have overcounted data center development, under counted behind-the-meter generation, and don't have to account for computer chip efficiency gains or AI adoption risks. For example, our utilities and PUCO are not accounting for behind-the-meter gas, fuel cells, and solar generation in utility load forecasts. And while computer chips are the poster child for how technologies can rapidly improve efficiency, as described by Moore's Law¹¹ and Koomey's Law¹², utilities don't account for these efficiency improvements in their load forecasts. The oversight by utilities has drawn critique from Koomey himself, who also points to utilities counting the same data center multiple times in their load forecasts as problematic, stating

"Data center developers consider multiple states as possible locations for data centers, and they query multiple utilities simultaneously for electricity rates and incentives prior to making a final selection. Therefore, counting data center project proposals to forecast load growth can result in the overestimation of data centers..." ¹³

The considerable evidence that utilities are over forecasting electric load matches their historical behavior as well. For decades, PJM has relied on utility load forecasts that are significantly wrong. Koomey's report for the Bipartisan Policy Institute documents PJM's long history of over-forecasting electricity growth, with actual energy use coming in considerably lower than forecasts.¹⁴



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

¹³ Koomey, J., Schmidt, Z., and Das, T. (2025) <u>Electricity Demand Growth and Data Centers: A Guide for the Perplexed.</u> Prepared for the Bipartisan Policy Institute with funding from NVIDIA and other data center interests. Page 10. 14 Id., Page 9.



¹¹ Moore's Law is an observed empirical trend that shows the number of transitors on an integrated circuit doubles about every two years. See: https://en.wikipedia.org/wiki/Moore%27s_law

¹² Koomey's law is an observed empirical trend that shows the number of computations per joule of energy doubles about every 2.5 years. See: https://en.wikipedia.org/wiki/Koomey%27s_law



Over-forecasting data center energy use creates phantom load that drives up capacity costs and creates unnecessary transmission infrastructure investments. These costs will be borne by manufacturers and other ratepayers, not data centers.

Energy-using customers are skeptical – the Electricity Customers Alliance joined with the Electricity Consumers Resource Council (ELCON), Industrial Energy Consumers of America (IECA), PJM Industrial Customer Coalition (PJM ICC), Coalition of MISO Transmission Customers (CMTC), and the National Association of State Utility Consumer Advocates (NASUCA) in a letter to the Federal Electric Regulatory Commission stating their concern that "artificially high forecasts risk overinvestment, unnecessary rate increases for already burdened customers, and stranded costs."¹⁵

Grid Operator PJM Needs to Be Held to Higher Standards

When businesses invest, be it manufacturers or data centers, they want to move quickly to receive a return on their investment. The underpinnings of speedy business are transparent information, choice in suppliers and technologies, and clear but robust regulatory processes and protections. To attract investment in energy using and producing businesses, Ohio must not rest on the success of HB 15 but instead should take quick action on additional legislation and regulatory rulings to open markets.

Ohio has competitive advantages on which to build. Ohio already has one of the most extensive and robust electrical transmission grids in the nation, for which customers have paid billions of dollars for in recent years. And businesses have been coming to Ohio because Ohio is starting with access to plentiful power - PJM has a reserve margin of about 19% — with about 178,400 MW of generation and demand response to handle its forecasted 154,000 MW of peak load¹⁶. But an important debate has emerged: how much more power will be needed? And will more power be

Key Points

- Customers and generators need quick grid interconnection.
- PJM's interconnection and delayed auctions have log-jammed new generation.
- Grid operators and regulators need held to account.

built? PJM has 230,000 MW of generators waiting in line to connect to the grid, and has for years¹⁷, and has raised the cost of electricity by tens of billions of dollars to attract investment in new power plants. Yet PJM warns of a crisis.¹⁸

The tale of an expensive crisis is familiar with the electric sector. For example, despite hundreds of millions of dollars of investment specifically for grid modernization, in addition to billions more to maintain and improve its distribution and transmission grid, Ohio's electric system's reliability has not improved in recent years. This reflects lack of accountability, a lack of oversight, and ineffective penalties and incentives for Ohio's electric utilities to perform. The lack of reliability improvement is underscored by the embarrassing absence of an open investigation into the June 2022 power outage in central Ohio. To be clear, Ohio's relative lack of natural disasters and abundant energy resources is one of the reasons that critical businesses want to locate here. But Ohio is not risk free. Summertime straight-wind derechos and winter polar vortexes have pushed our grid to the limits and caught our utilities unprepared, and regulators have not responded to this present threat with open investigations. The lack of oversight and lack of urgency to protect customers from blackouts needs an urgent response and an accompanying culture change within Ohio's government.

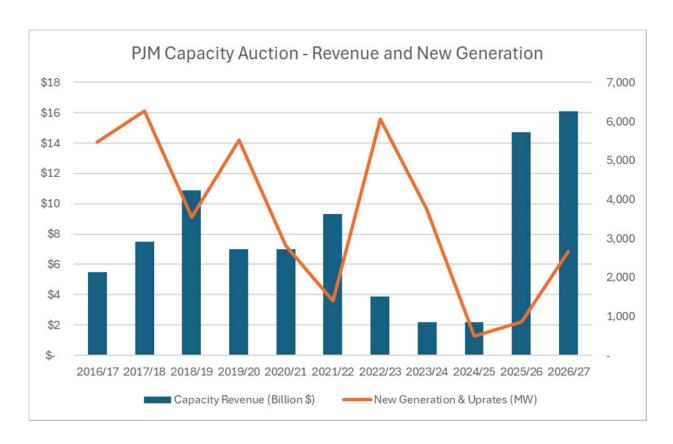
¹⁵ Joint Letter to the Federal Energy Regulatory Commission from the Electricity Customer Alliance, May 30, 2025.

¹⁶ PJM Summer Outlook 2025: Adequate Resources Available for Summer Amid Growing Risk | PJM Inside Lines

¹⁷ https://insidelines.pjm.com/pjm-reaches-next-milestone/



While PJM has raised compensation to attract generators with billions of additional dollars per year, paid for by manufacturers and other ratepayers, this potential for a generational investment in new power is falling flat, with only marginal amounts of new generation clearing PJM's capacity auction. 19



PJM's log-jammed interconnection gueue, its chronically delayed power auctions, ever-changing market rules, and crisis messaging have created significant uncertainty and the risk of being counterproductive. Let's be clear: PJM postponed interconnection requests of new power generation years ago. When FERC approved emergency interconnections earlier this year, it said PJM's interconnection queue solution:

"...includes the unfortunate feature of pausing study of all new interconnection requests while PJM implements its new, faster process. This pause remains in place today, more than two years after the Commission accepted PJM's queue reforms. The result? Developers' ability to respond to market signals by constructing new resources is severely limited." 20

Problems at PJM aren't a surprise, they're a natural consequence of poor decisions. And they add lengthy development time to other systemic headwinds such as supply chain issues, workforce availability, and local opposition to power plants, no matter the fuel. Simply put, PJM needs to do better,21 and Ohio lawmakers should call for such.

¹⁹ Graphic data compiled from PJM 2024/25 (Table 4), 2025/26 (Page 7), and 2026/27 Base Residual Auction Report (Page 7)

²⁰ Commissioner Phillips and Commissioner Rosner Concurrence Regarding PJM's Reliability Resource Initiative (RRI) Proposal (ER25-712-000)

²¹ Ohio Manufacturers' Association, Letter to PJM



PJM's recent Reliability Resource Initiative and Capacity Interconnection Rights rule changes, which allowed for speedier power generation interconnection, are good but common sense changes that should have been implemented years ago. However, PJM still turned away willing investments in this process. There's no reason to discriminate, new investments in gas power, batteries, and solar power will all help meet power needs, if in different ways.

The Next Steps for Ohio's Energy Transformation

Ohio's natural resources and competitive advantages are finally starting to be unlocked by key provisions of House Bill 15. But the work is not done. Ohio's political leaders need to engage with PJM and demand additional generation interconnection queue reform. PJM should be held to a high standard befitting its importance and it should quickly process any power generator connection request – this is not the time to bog down business with years-long approval processes or selecting some generators over others. PJM also needs to be held to account on its power auction timeline, as its many delays have made power development extremely challenging, even if tweaks to the auction rules offer improvements.

Our PUCO needs to step up to the moment and protect customers and open markets, not monopoly utility profits. The PUCO needs to enforce the creation of workable and valuable heat maps of the electric grid, as required by case settlements and now HB 15. The PUCO needs to follow through on the promise and spirit of the repeal of Electric Security Plans, and they need to ensure utility spending on distribution service yields benefits and is kept under control. A stiffer backbone is needed from the PUCO is necessary to prevent the "forecast test year" from becoming the next utility cash-grab.

Key Points

- Hold PJM accountable on interconnection queue reform and the capacity auction.
- PUCO action needed on forecast test years, utility load forecasts, and HB 6 refunds.
- Ohio General Assembly should pursue microgrids, behindthe-meter generation, and distributiongrid interconnected generation.

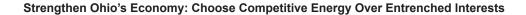
There must be more regulatory oversight of local transmission projects, called supplemental transmission projects, which cost Ohioans' billions of dollars annually with no clear reliability benefit and no true state or federal oversight. To accomplish this, the Ohio Power Siting Board (OPSB) needs to comply with Ohio law to review these projects to ensure that they serve the interests of electric system economy and reliability.²² The OPSB does not currently conduct an adequate economic or technical reliability review of utility transmission projects. The OMA has recommended²³ guidance on how supplemental transmission spending should be reviewed in order for the OPSB to comply with the law. Additionally, utilities should be required to invest in economic grid-enhancing technologies (GETS) when it's a cost-effective alternative to demonstrated needs to increase transmission system capacity.

Utility load forecasts need deep and open scrutiny, not a rubber stamp from the PUCO and PJM. In AEP territory alone, the PUCO failed to act on testimony that the utility is not accounting for behind-the-meter generation in its load forecasts and planning – a mistake on the scale of Gigawatts, certain to cause electric price increases.

Importantly, the PUCO needs to demonstrate its ability to hold utilities accountable with meaningful actions in the FirstEnergy House Bill 6 cases. The OMA's expert witness recommended that \$769 million of "free cash" collected by FirstEnergy be returned to ratepayers.

²² Ohio Revised Code Section 4906.10 (A) (4)

²³ Comments of the Ohio Manufacturers' Energy Group, In the Matter of the Ohio Power Siting Board's Review of Ohio Adm. Code Chapters 4906-1 through 4906-7, Case No. 21-902-GE-BRO





Ohio's legislature is just steps away from making Ohio a clear global leader on competitive energy investments. More can be done to create competitive microgrids, to encourage local generation projects that benefit our communities, and to reform customer billing to encourage behind-the-meter generation. Finally, Ohio's heritage of exploration and technical innovation makes us well suited to host pilot and demonstration projects of emerging energy technologies made by our own businesses.

It is this forward-looking vision of American entrepreneurialism, resourcefulness, and ingenuity that can support Ohio's manufacturing, businesses, and communities to become global leaders.

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