

Be Part of the Bigger Picture!

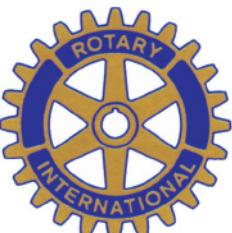
The Pottstown Rotary Club Wants You!



Join Rotary's 1.2 million neighbors, friends, leaders, and problem-solvers who see a world where people unite and take action to create lasting change — across the globe, in our communities, and in ourselves.

Please call Amira Heim at **610.416.2999 to learn more!**

Rotary



www.pottstownrotary.org



PHOTO BY ALAN WOOTEN / THE CENTER SQUARE

NEW YEAR, OLD CHALLENGES AS AI FACES UNCERTAIN PATH TO POWER

By Lauren Jessop,
The Center Square Contributor

Pennsylvania's electrical grid sits at a critical crossroads, buckling under the pressure of rising demand with not enough supply or time to stabilize it.

Those concerns — reliability and affordability — dominated the last year for PJM Interconnection, the regional grid operator serving 67 million people across 13 states and the District of Columbia. Long-standing generation is retiring faster than replacements can come online, while demand — driven largely by AI-powered data centers — is increasing.

The path ahead appears as uncertain as the one before it.

Demand surge intersects with supply crunch

Energy leaders spent much of 2025 warning that Pennsylvania, and the broader PJM region, are entering an era defined by rapid load growth. Projections tied to data center expansion alone put anticipated new demand at roughly 22 to 30 GW — enough electricity for more than 10 million homes — while expected new supply is closer to 6 to 12 GW.

That widening gap has been a key driver behind record-high capacity prices, with experts warning that consumers will ultimately pay the difference through multi-year bill impacts.

Pennsylvania's challenges are a part of a broader national story, but PJM's near-term imbalance made the region a focal point. A separate forecast from consulting and technology firm ICF projects U.S. electricity demand will rise 25 percent by 2030 and as much as 78 percent by 2050, with peak demand growing 14 percent and 54 percent over those same periods.

Capacity prices and ratepayer guardrails

Last April, the Federal Energy Regulatory Commission, or FERC, approved a settlement setting guardrails for the 2026-2028 auctions: a \$325 price cap and a floor of \$125.

In PJM's report on the 2027-2028 Base Residual Auction, the grid operator said it procured 134,479 MW of unforced capacity at \$333.44 per MW-day — a 1.3 percent increase over the prior year. Still, PJM said committed supply fell 6,623 MW short of its stated reliability requirement once the Fixed Resource Requirement is included — a shortfall roughly equivalent to powering about 6.6 million homes.

Stu Bresler, PJM's incoming chief operating officer, said customers shouldn't assume the worst, noting the region still holds reserves designed to meet the "once-in-10-year" reliability standard — though extreme weather or shifting market conditions can still test the system.

A statewide poll found most respondents worried about utility bills and wanting lawmakers to intervene, while governors across the PJM region pushed for stronger state voice in its governance.

"It has proven, over the last number of years, too darn hard to get enough new generation projects off the ground because of how slow PJM's queue is," said Gov. Josh Shapiro. He added they are exploring all options, including leaving PJM.

The governor's comments followed a complaint he filed with federal regulators to compel PJM to adjust the math used in its power pricing auctions and speed approval for new generation projects.

Shapiro and allies argued that without changes, PJM-related costs would have surged — estimates at the time suggest increases as high as 800 percent, with

Turning Visions Into Reality.

NOW OFFERING EXPANDED FIRE, POLICE, & EMS LIGHTING SERVICES.

When you're the first on scene, your lighting isn't a feature—it's a lifeline. Our business understands the critical nature of reliable, high-performance safety, including emergency lighting systems for fire, EMS, and law enforcement.

We don't just install lights; we provide peace of mind. We service work safety and emergency lighting too.

Contact our team to build a custom vehicle to fit your daily work needs. We are happy to service any vehicles in your fleet too.



3417 Pricetown Road, Fleetwood, PA
610-944-7455 • www.levanmachine.com

YOUR WORK TRUCK & CNC MACHINING DESTINATION!



utility bills rising by roughly 30 percent, according to multiple estimates.

Democratic governors in four other states in the power grid's territory, as well as consumer protection organizations, backed the complaint. Eventually, PJM submitted a price cap adjustment that would lower the cost from \$500 per megawatt day to \$325.

"It shouldn't take going to court to have our voices and the voices of 67 million who are served by the PJM grid heard by PJM's leadership," Shapiro said. "We need to be in the room to make sure our citizens have a seat at the table."

Shapiro drew criticism from some Republican lawmakers. Sen. Gene Yaw, who chairs the chamber's Environmental Resources and Energy Committee, for example, noted that PJM is powerless to change state policies that focus on climate action targets and are outpaced by growing demand.

Competing narratives on affordability

One line of argument emphasized high electricity rates and broader affordability worries. Another highlighted that, when adjusted for inflation, Pennsylvanians may be paying less than they did nearly 30 years ago due to deregulation and the competitive market.

Meanwhile, industry groups offered a different message about long-term price trajectory.

A joint statement from the Electric Power Supply Association and PJM Power Providers Group warned that customers enjoyed record-low supply prices over the last decade, however, a new era has dawned and there is a cost to building the projected necessary resources on the timeline required.

Reliability issues

A PUC report found a record number of reportable outage events in the commonwealth in 2024, driven largely by severe storms and vegetation-related damage, and compounded by the challenges of an aging grid.

Forecasting how much power the region will need is tied to nearly every debate over cost and reliability.

PJM said its peak load forecast is about 5,250 MW higher than in the 2026-2027 capacity auction, with nearly 5,100 MW of that increase attributable to data center demand. The cleared resource mix for the auction year illustrated the current balance of the system: 43 percent natural gas, 21 percent nuclear, 20 percent coal, five percent demand response, four percent hydro, two percent wind, two percent oil and one percent solar.

At the same time, policymakers and analysts raised concerns about "ghost projects" — speculative or duplicative interconnection requests that inflate

forecasts, complicate planning, and can lead to overbuild risk, stranded asset concerns, and contentious arguments over who should pay for upgrades.

PJM has also pointed to significant supply in the pipeline: as of August, it said about 46,000 MW of new generation had signed interconnection agreements and were ready to construct — enough, once operational, to supply as many as 46 million homes. But many of those projects face headwinds outside PJM's direct control, including siting and permitting challenges, supply chain delays, and difficult financing conditions.

Possible solutions

Making the most of existing generation became a topic of discussion.

"Make no mistake. Transitioning the energy mix isn't a simple task," said Diane Holder of Reliability First, at a House Energy Committee meeting last May. "It's not a shift from one resource to another. It's a monumental change to how the bulk power system operates and it will take careful planning — and we risk blackouts if we don't get this right."

Witnesses also stressed that the transition to more wind and solar adds complexity because many renewable resources do not automatically provide the same stabilizing grid services as traditional plants unless paired with storage and grid-forming technologies.

The hearing reflected growing consensus around "high-impact, lower-friction" upgrades: grid-enhancing technologies such as dynamic line ratings, advanced conductors, and other upgrades that can increase transfer capability on existing lines.

One example cited dynamic line ratings applied to 11 major transmission lines, with an estimated \$23 million per year in congestion savings. "NextGen Highways" — the concept of co-locating high-voltage transmission along highway corridors — was presented as one pathway to reduce siting conflict and speed project development.

Pennsylvania's grid is among the oldest in the country, making efficiency crucial, Chris D'Agostino of Advanced Energy United told The Center Square.

Integrated energy planning, he said, while still new is viewed as a key innovation to optimize utility operations and investments. But, making overlapping electric and gas functions work together takes coordination and communication.

D'Agostino compared planning to a potluck dinner: without coordination, two people might bring the same dish. Likewise, poor coordination risks duplication of investments and unnecessary spending.

(Continued on page 46)



Lezzer Lumber
BUILDING MATERIALS CENTERS

NOW STOCKING A FULL LINE OF

Milwaukee®
POWER TOOLS

3171 Morgantown Road, Mohnton, PA
Mon- Fri 6:30am - 4:30pm • Sat 8am -12pm

LezzerLumber.com



aceco
AMERICAN CRANE & EQUIPMENT CORP.

ALWAYS LIFT. NEVER QUIT.™

The heritage of American Crane & Equipment Corp. remains steadfast. Its mastery fuses the dependability of the past with the pioneering spirit of the future. A tribe of those willing to forge ahead, whatever the obstacle, elevated to a category that few family-owned businesses can boast: built to last for generations.

Learn more at **AMERICANCRAKE.COM**
Your Trusted Leader in Overhead Lifting Equipment Since 1972

CMAA **WOMEN OWNED** **WBENC**

NOW HIRING!
Scan here to browse available positions

ALWAYS LIFT  NEVER QUIT™

AI FACES UNCERTAIN PATH TO POWER

(Continued from page 45)

Large load policy

Connecting large load customers like data centers sits at the center of the affordability and reliability discussion.

The PUC launched a series of public hearings aimed at developing a model tariff to guide interconnection and rate structures for large load customers. Vice Chair Kim Barrow framed the moment as one requiring "radical transparency," noting the challenges of base load needs, climate-driven storms, infrastructure constraints, and unprecedented demand growth.

Data center companies and trade groups — including representatives from Amazon Data Services, Google, Vantage Data Centers and the Data Center Coalition — emphasized that tariffs should be fair, transparent, and grounded in cost-causation principles. Utilities and data center representatives also raised the need for clear rules around co-location and interconnection to reduce uncertainty and protect existing customers from stranded costs.

On the PJM side, the debate intensified through the Critical Issues Fast Path

process — a fast-track effort launched in August to address large-load growth and co-located data centers.

A coalition of state legislators submitted a "Protecting Ratepayers Proposal" aimed at ensuring households aren't subsidizing new data center demand from Fortune 500 companies. Consumer advocates and the NRDC supported related concepts, pushing for "bring your own" or curtailment-first approaches that would require large loads to manage their impact on the grid.

But the process ended the year without a clear winner. At PJM's November 19 meeting, none of 12 proposal packages received the votes needed to pass. Stakeholders acknowledged the proposals were complex and some arrived late, requiring more development.

Following the meeting, FERC directed PJM to establish transparent rules to facilitate service of AI-driven data centers and other large loads co-located with generation facilities.

As we enter 2026, Pennsylvania still seeks answers on how to deliver a reliable energy future — and who pays for it.