PJM Overview and Resource Adequacy

Mid-Atlantic States Joint Hearing
Energy Affordability and Reliability

October 28, 2025

What Is a Regional Transmission Organization?

An independent entity that is responsible for:

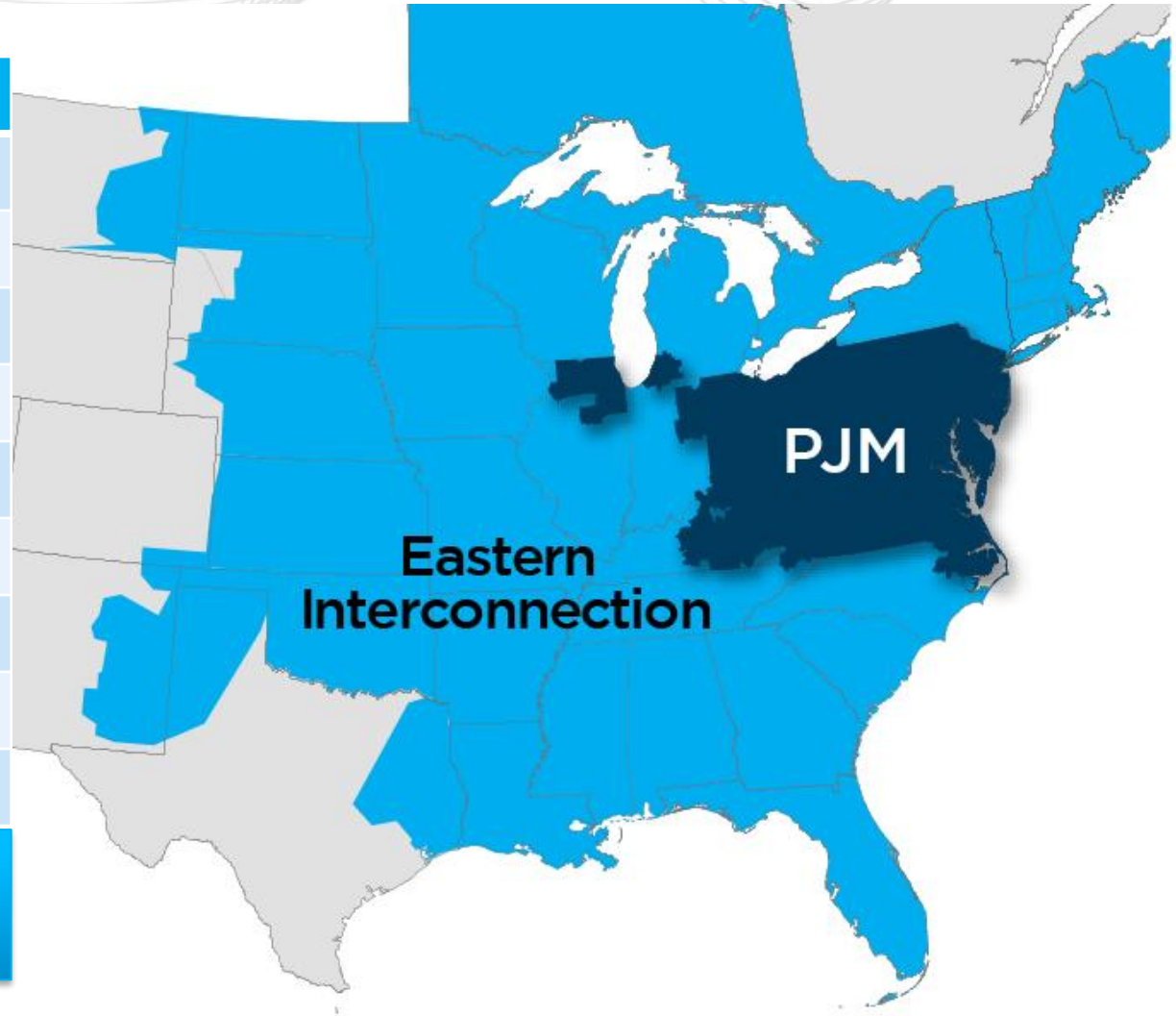
 Operating competitive wholesale markets	 Safe and reliable operation of regional power grid	 Ensuring competitive open access to transmission where no member or member group has undo influence

An RTO owns no transmission or generation assets and has no financial interest in the wholesale market or in any of the market participants

PJM as Part of the Eastern Interconnection

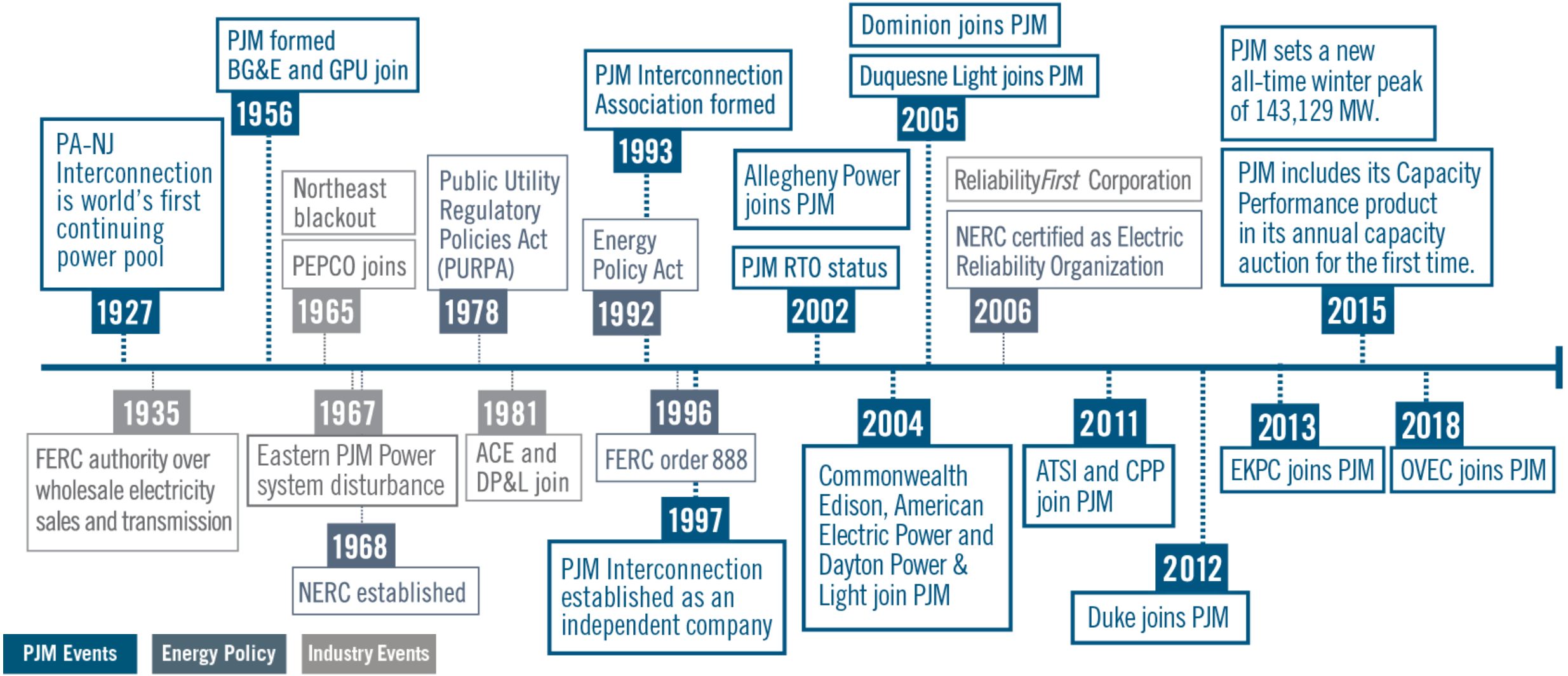
Key Statistics	
Member companies	1,110
Millions of people served	67+
Peak load in megawatts	165,563
Megawatts of generating capacity	182,036
Miles of transmission lines (BES)	88,333
Gigawatt hours of annual energy	800,004
Generation sources	1,486
Square miles of territory	369,054
States served	13 + DC

- 27% of generation in Eastern Interconnection
- 24% of load in Eastern Interconnection



As of 2/2025

The History of PJM



PJM as a Public Utility

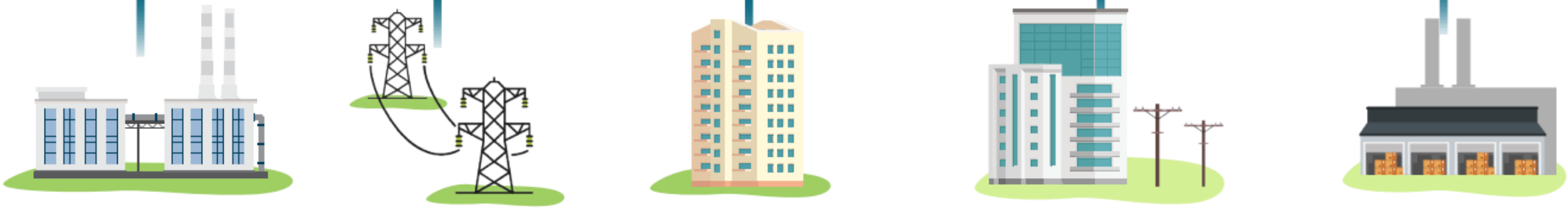
Operates As A Non-Profit
No Shareholders or Share Price
Federally Regulated (FERC)
Independent Board
Market Monitor
Mission-Driven

Independence and Governance Process

Independent Board of Managers

Market Monitor

Members Committee

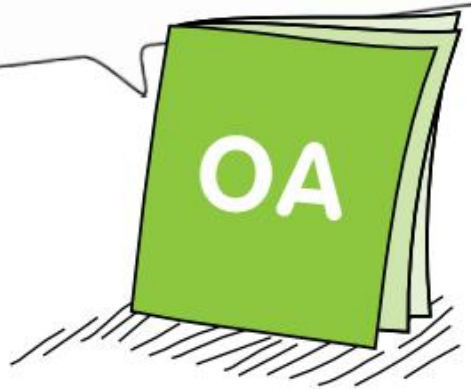


Generation Owners | Transmission Owners | Other Suppliers | Electric Distributors | End-Use Customers

- Independent Board of Managers
- Stakeholder process – provide balanced stakeholder input

PJM's Governing Documents

The OA is the Operating Agreement and is a foundational document for PJM.



The OATT is also called the Tariff and contains the rates, terms and conditions of transmission service.

The Reliability Assurance Agreement ensures that adequate capacity resources will be planned and made available.

The Consolidated Transmission Owners Agreement is an agreement among the transmission owners.

Joint Operating Agreements between PJM and each of our neighboring FERC-jurisdictional transmission-providing utilities to address cooperation and coordination

Resource Adequacy Overview

Four Basic Building Blocks of Reliability

Accurate Forecasting

Projection of future customer demand and system needs

Adequate Supply

Resources to reliably power the system and meet customer demand

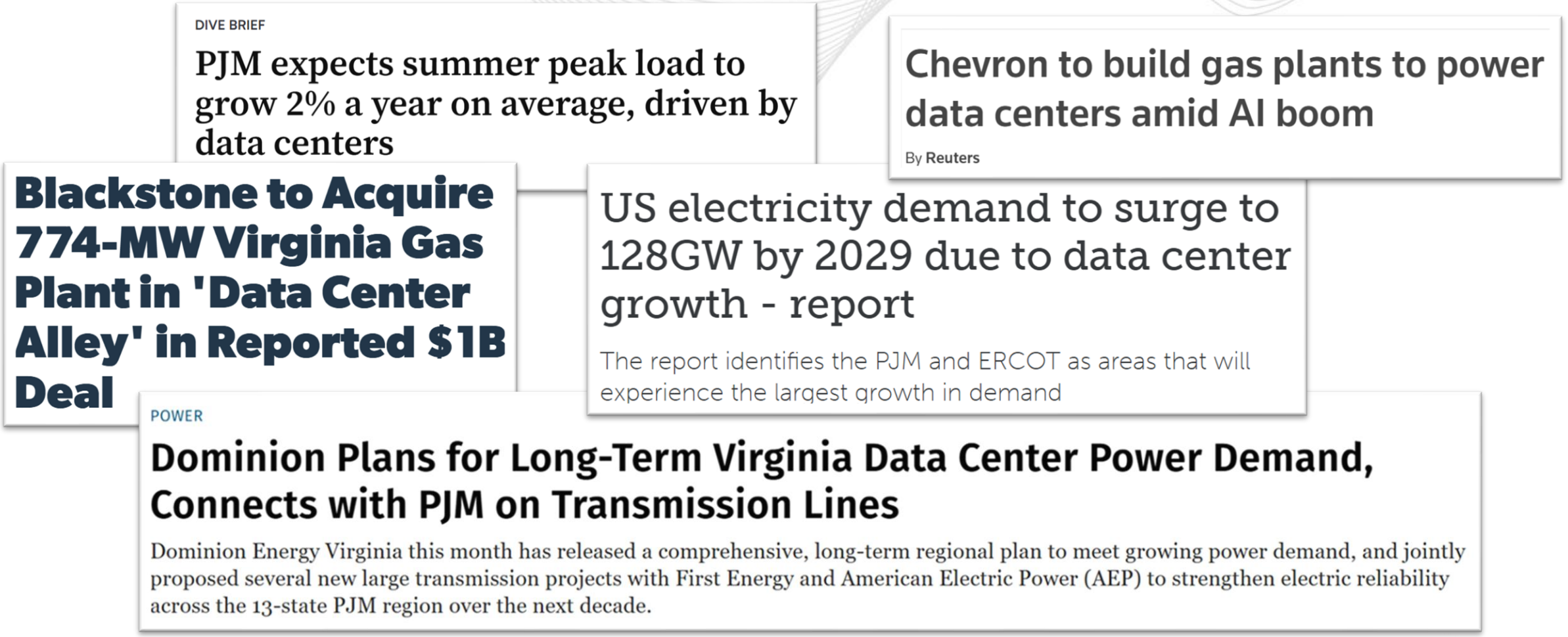
Robust Transmission

Reliable delivery of power across the grid, and to customers via local distribution companies

Reliable Operations

Monitoring and dispatch of the system by trained operators

Data Center Proliferation



2025 Long-Term Load Forecast Report Predicts Significant Increase in Electricity Demand

The annualized growth rate over the next 20 years for the summer peak is 2.0%, compared with the 2024 Long-Term Load Forecast, which saw a comparable growth rate of 1.6% through 2039. Similarly, the 20-year annualized growth rate in the 2025 Long-Term Load Forecast for the winter peak is up to 2.4%, compared with 1.8% for the previous 15-year forecast.

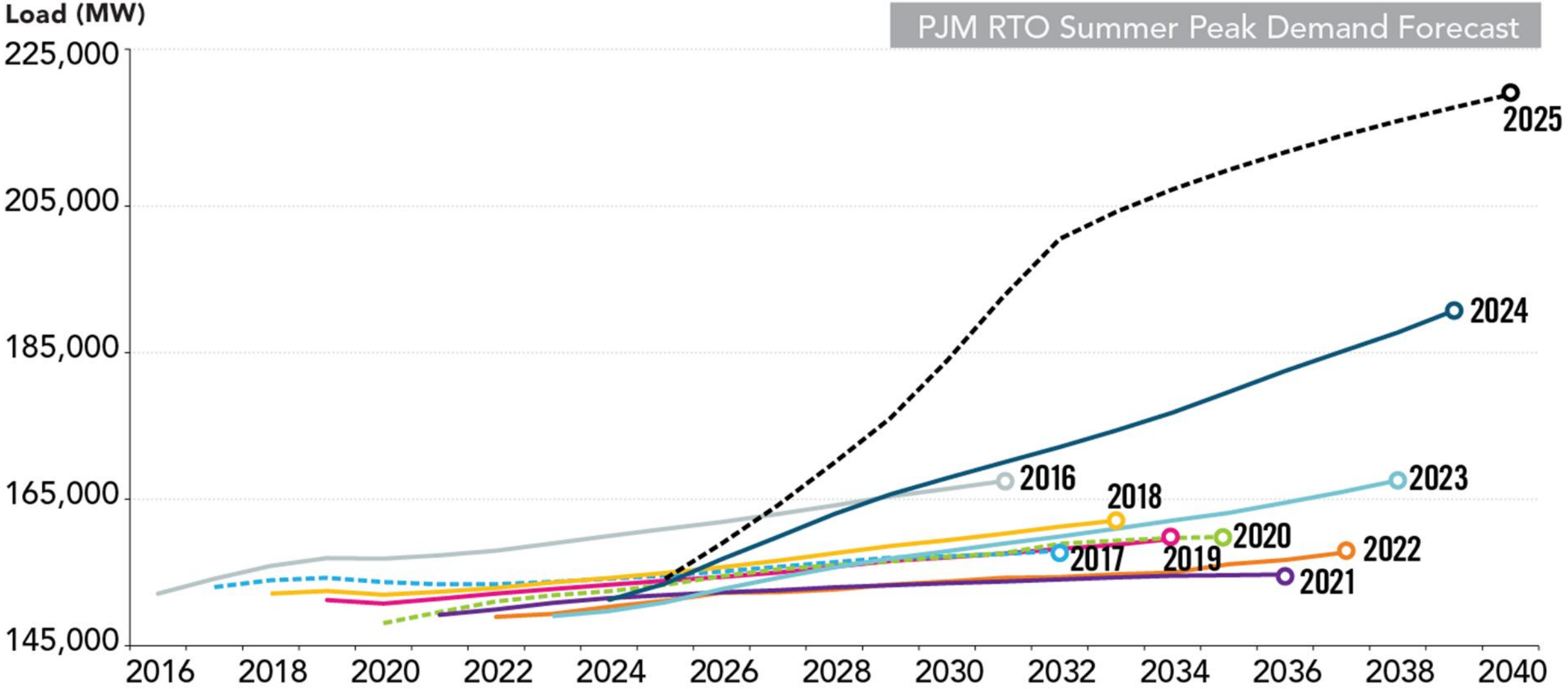
PJM expects its summer peak to climb about 70,000 MW to 220,000 MW over the next 15 years.

While winter peaks will remain slightly lower, the 2025 Long-Term Load Forecast shows winter closing the gap in peak electricity use, estimated at 210,000 MW by 2039.

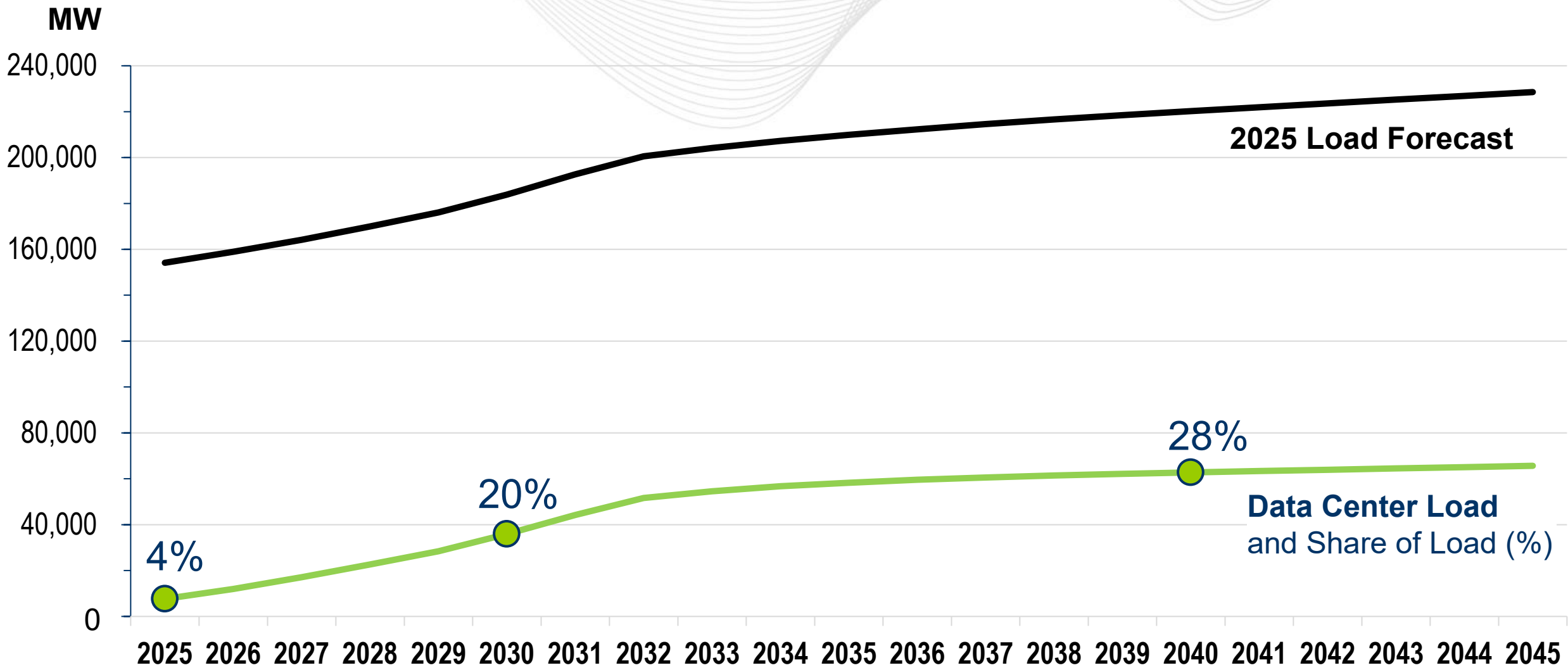
The demand for electricity is growing at the fastest pace in years, primarily from the proliferation of data centers, electrification of buildings and vehicles, and manufacturing.

https://insidelines.pjm.com/2025-long-term-load-forecast-report-predicts-significant-increase-in-electricity-demand/

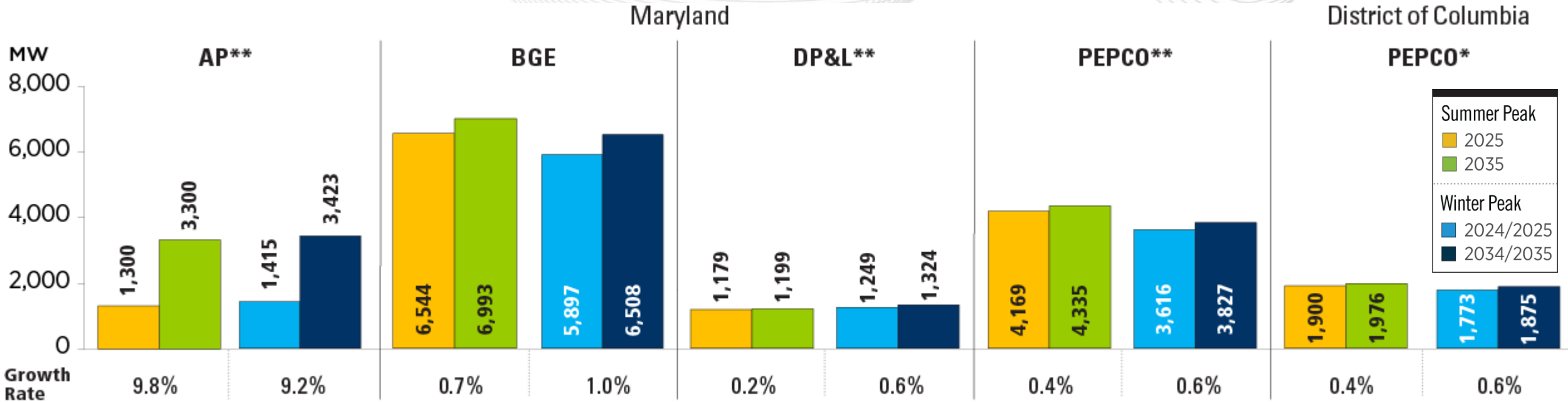
Electricity Demand Growth



2025 Load Forecast – Summer Peak (MW)



Maryland / D.C. – 2025 Load Forecast Report



**Serves load outside MD; *serves load outside D.C.

The summer and winter peak megawatt values reflect the estimated amount of forecast load to be served by each transmission owner in the noted state/district. Estimated amounts were calculated based on the average share of each transmission owner's real-time summer and winter peak load in those areas over the past five years.

PJM RTO Summer Peak

2025	2035
154,144 MW	209,923 MW

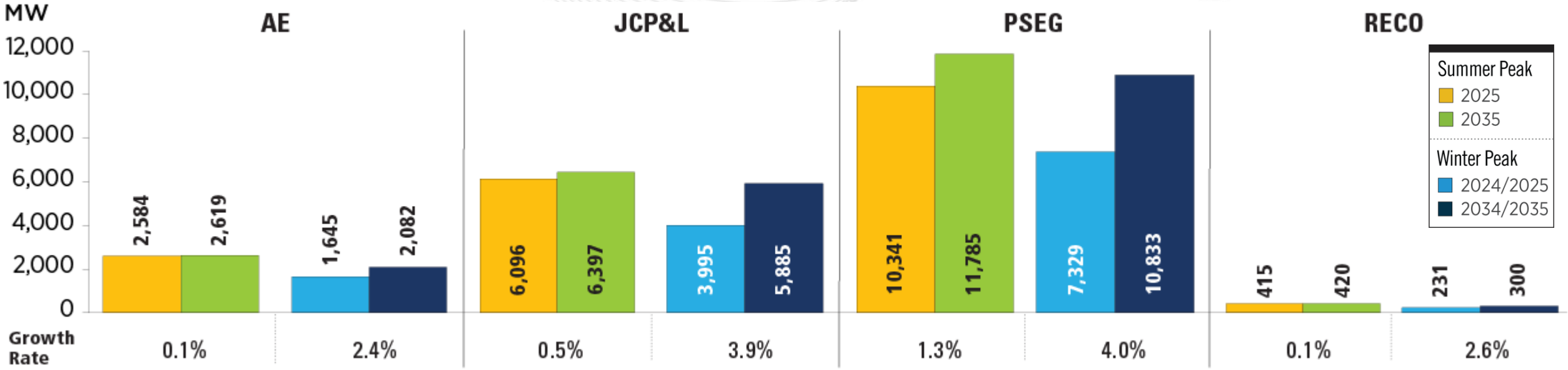
Growth Rate 3.1%

PJM RTO Winter Peak

2024/2025	2034/2035
136,127 MW	198,175 MW

Growth Rate 3.8%

New Jersey – 2025 Load Forecast Report



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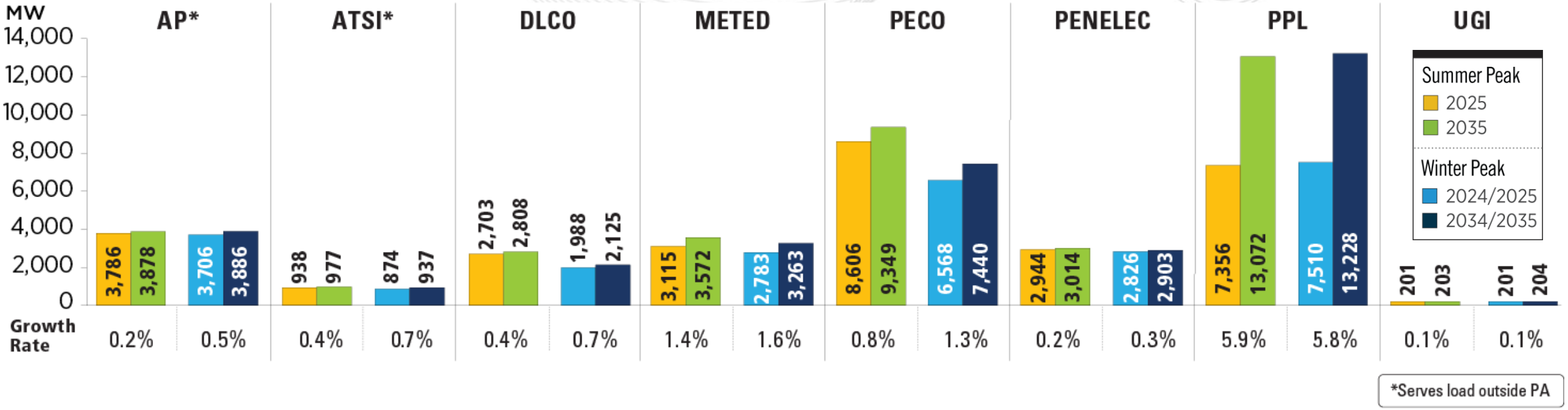
Pennsylvania – 2025 Load Forecast Report



*Serves load outside PA

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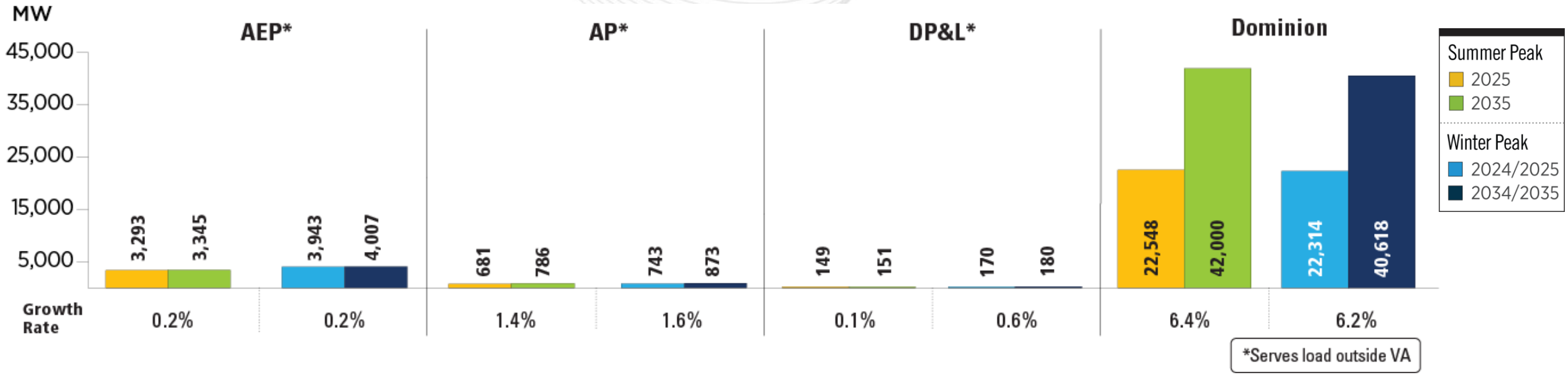
Virginia – 2025 Load Forecast Report



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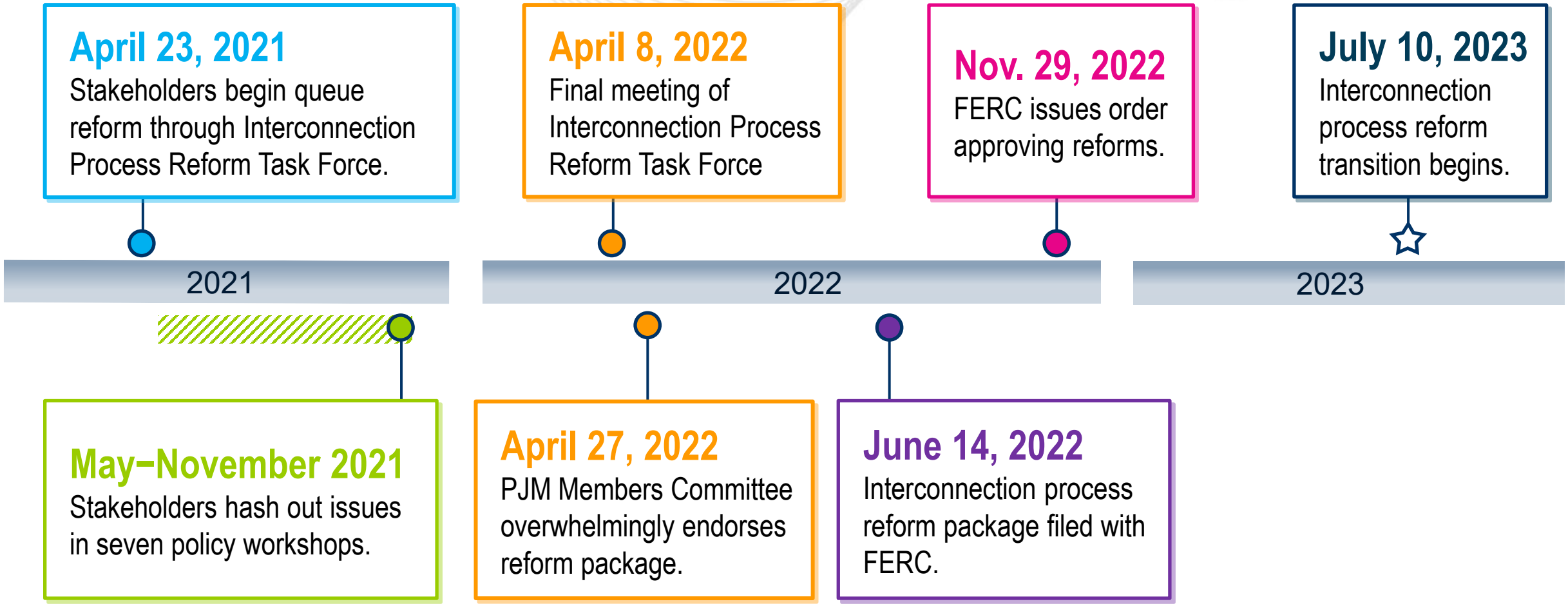
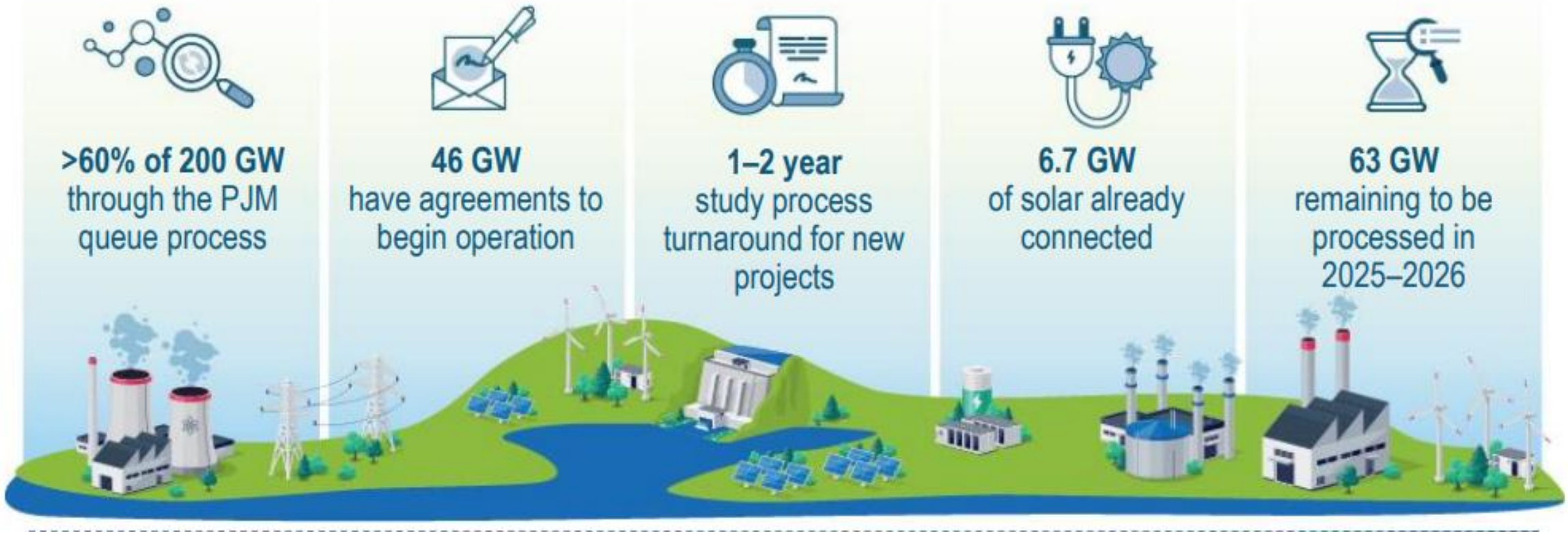
Implemented Interconnection Reforms



PJM Interconnection Process Reform

PJM's interconnection process reforms are working,
but that can only take us so far. Getting projects built and online requires your support.

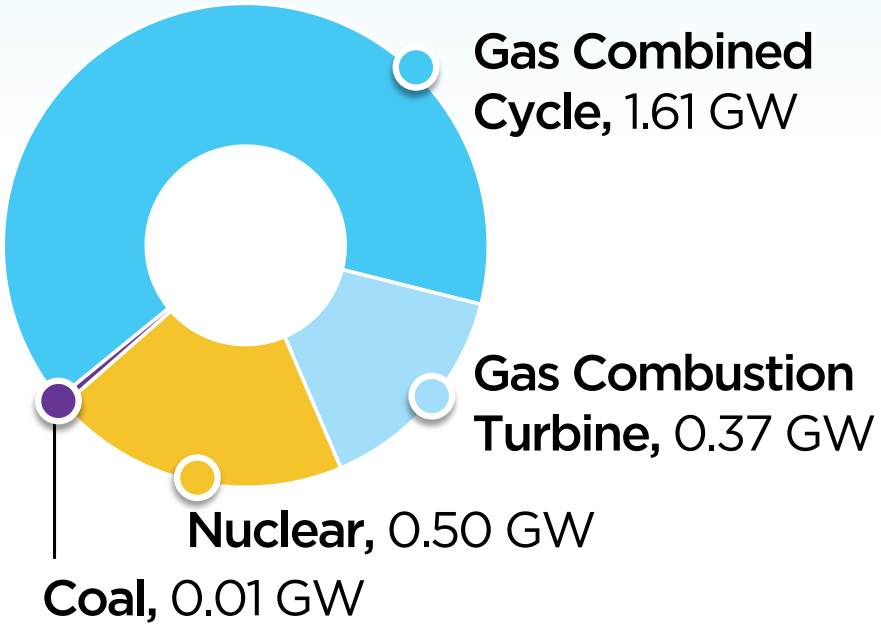


RRI: Jump-Starting Shovel-Ready Projects

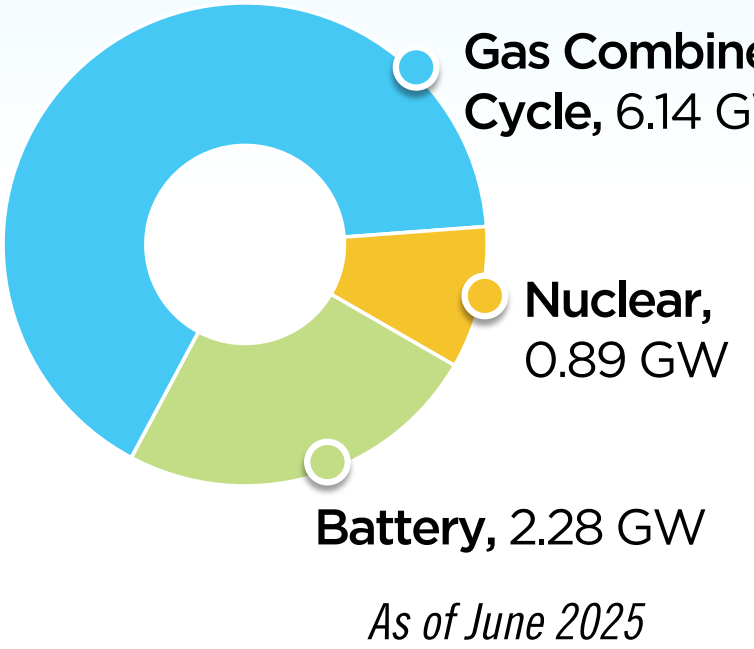
PJM created a one-time opportunity for projects with short turnaround times to join a transition cycle, where they will be studied as much as 18 months faster under the Reliability Resource Initiative (PDF).

These upgrades and new construction projects are expected to come online by 2030 and 2031.

Total Upgrades: 2.49 GW



New Construction Total: 9.31 GW



As of June 2025

Additional Measures PJM Is Taking To Advance Grid Connections

Partnered with Google and Tapestry in a multiyear collaboration to deploy AI-enhanced tools to further streamline PJM's planning process for connecting new generation resources

Significantly increased staffing and developed smart tools spanning the entire interconnection process to improve collaboration with project developers and automate internal processes

Pending FERC approval, reforming Capacity Interconnection Rights Transfer to make it faster and easier for a replacement resource to connect to the grid at the site of a retiring facility

Modified our Surplus Interconnection Service to further enable an additional resource (such as battery storage) to plug in to the unused portion of interconnection service for facilities that cannot or do not operate continuously

New Effort on Large Load Additions

Create ways for new large loads to connect as rapidly as possible and at the same time, determine a plan for how reliability is maintained in case there is a resource adequacy shortfall.

Create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs.

Enable more efficient utilization of the grid by increasing demand flexibility.

PJM seeks members feedback on these objectives.

Policy Takeaways

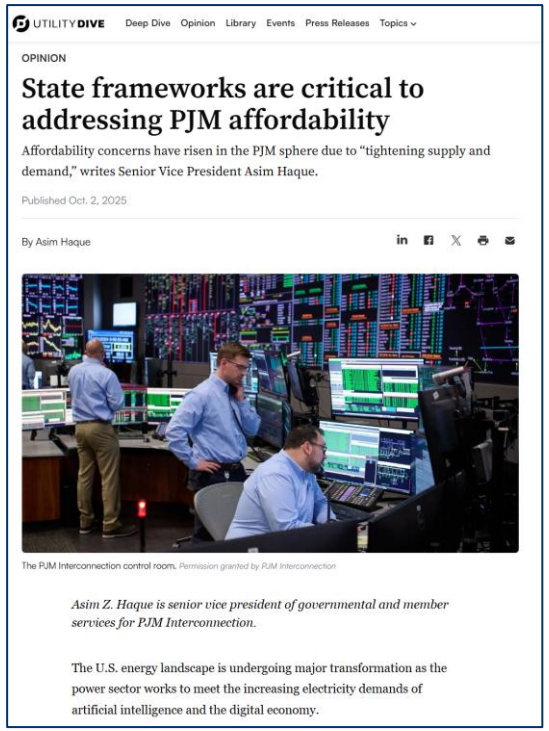
Policy Takeaways

Energy policy should avoid pushing *existing generation resources* off the system until an adequate quantity of replacement generation is online and has been shown to be operating

Energy policy should help to bring *new generation resources* onto the system as soon as possible

Energy Policy should address state and local challenges in the siting/permitting of all electricity infrastructure including *transmission infrastructure*

Affordability Concerns - Retail Related Recommendations



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OPINION

State frameworks are critical to addressing PJM affordability

Affordability concerns have risen in the PJM sphere due to "tightening supply and demand," writes Senior Vice President Asim Haque.

Published Oct. 2, 2025

By Asim Haque

The PJM Interconnection control room. *Permission granted by PJM Interconnection*

Asim Z. Haque is senior vice president of governmental and member services for PJM Interconnection.

The U.S. energy landscape is undergoing major transformation as the power sector works to meet the increasing electricity demands of artificial intelligence and the digital economy.

PJM Recommendations
Retail Cost Allocation – States ultimately have control over how costs are allocated to the various customer classes in utility tariffs. Costs can be allocated away from residential consumers and small businesses and toward other customer classes more directly driving the tightening supply-demand balance, including data centers. State programmatic rebates can be allocated to specific customer classes as well.
Data Center Entry Commitments – A number of our states are placing financial requirements and stricter entry commitments on data centers trying to connect through regulated utilities as a way to make sure that the data center is actually coming to that utility's service territory. This will, in turn, allow for utilities to submit more accurate data to PJM to better refine our load forecasts used on the wholesale side. Further, PJM is considering a period where states can review and provide feedback on requested large load additions in PJM's load forecast.
Default Service Procurement – Our restructured states are all utilizing default service procurement mechanisms to procure supply for consumers who are not shopping with a competitive retail supplier. It is worthwhile to analyze whether these procurement mechanisms are designed for a high-priced wholesale environment. In those states with especially low shopping statistics, consumers are deeply exposed to this high-capacity market price if default service procurement mechanisms are not designed to long-term hedge against that price.
Retail Shopping – Competitive suppliers may be able to offer better rates than what is being procured in default service auctions. This may be an opportunity for competitive suppliers, residential/small business consumers and state regulators to work collectively to enhance shopping while maintaining traditional consumer-protection oversight.
State Programs and the Total Bill – Knowing that the wholesale price for power will be higher in future years, the total bill can be analyzed to determine whether existing state programs that were initiated during times of lower wholesale pricing should continue, and again, if rebates should be allocated away from or to certain customer classes.
Demand Response and Energy Efficiency – Paying customers to reduce usage during system stress is a direct solution to reducing peak electricity demand. States can play a central role in developing and promoting robust demand response and energy efficiency programs.
Siting/Permitting – We need more energy infrastructure, both generation and transmission. States play a pivotal role in projects ultimately getting built through their siting/permitting processes. If energy infrastructure projects don't receive state permitting approvals, it won't matter how many projects PJM pushes through its generation interconnection queue.