



PJM CAPACITY PRICE INCREASE

A Whitepaper



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Impact on Pennsylvania Electric Consumers and Future Grid Reliability Challenges

An Analysis of the 800% Capacity Cost Increase, Its Causes, and Long-Term Implications for Pennsylvania's Electricity Market

INTRODUCTION

Pennsylvania electric consumers have experienced rising electric prices the past several years, and unfortunately that trend is set to continue for at least the next two years.

LOOKING BACK

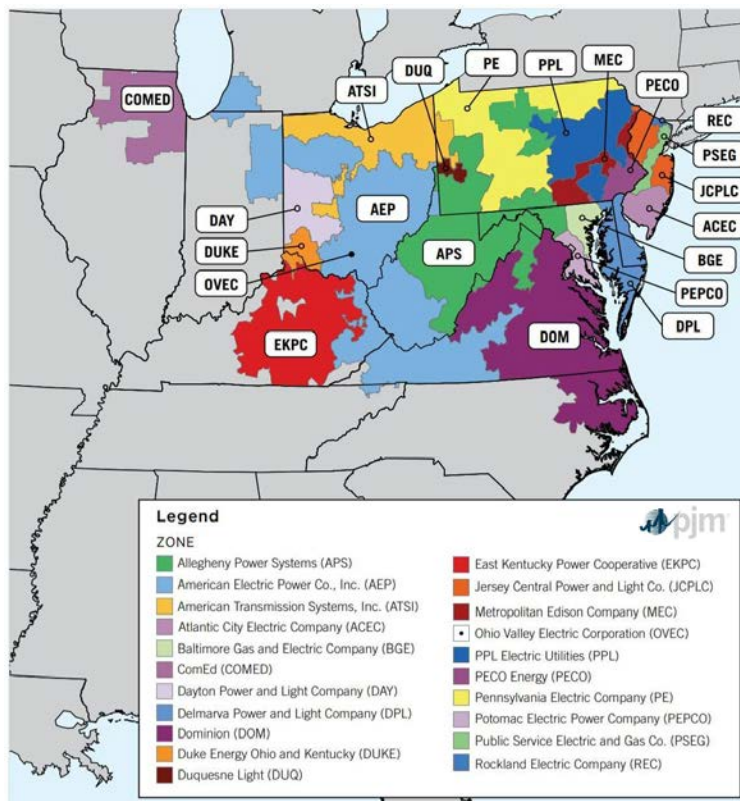
Previous electric rate hikes were the result of local utilities conducting multi-year upgrades to their transmission systems - an initiative which raised the rates which utility companies charge energy suppliers for transmission service by as much as four-fold.

Simultaneously, the cost energy suppliers incur to meet the renewable energy requirement in Pennsylvania has also climbed.

LOOKING FORWARD

Further, if PA House bill 2277 from the 2024 legislative session is enacted, electric suppliers will be required to significantly increase the amount of renewable energy they use, thus further increasing supply costs which ultimately will be passed on to the consumer.

Unfortunately, even more challenging times are ahead for all state electricity consumers, when the results of the July 2024 PJM Capacity Market Auction are implemented.



ABOUT PJM & THE CAPACITY AUCTION

In the United States, most major utility providers are backed by a Regional Transmission Organization (RTO). An RTO is an organization that manages and coordinates the flow of electricity across large areas. The RTO ensures electricity gets from power plants to homes and businesses smoothly, balancing supply and demand to stabilize the power grid. It decides which routes to send electricity along to keep power reliable and affordable across huge regions and also ensures supply meets demand by managing electricity transmission over high-voltage power lines.

PJM Interconnection is the largest RTO in the country. It manages the flow of electricity to over 65 million people across 13 states and the District of Columbia. PJM ensures the electric grid's reliability by managing the buying and selling of electricity in real-time and long-term markets.



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To ensure a reliable energy supply, PJM conducts annual capacity auctions to make sure they will have enough power to meet peak demand during the hottest and coldest days of the year. Power plants bid in this auction, guaranteeing they'll be available when needed most, and customers pay a fee to cover these "capacity commitments."

In July 2024, PJM's capacity auction for the 2025-2026 period stunned the industry with a massive price hike. The total cost of capacity rose to nearly \$14.7 billion (from \$2.2 billion the prior year that will be passed on to customers starting June 2025, effectively increasing electric across 13 states, including Pennsylvania).

Under PJM, competitive electric suppliers are required to purchase enough generation capacity to fulfill the needs of the customers they are serving. Even customers on fixed cost electric supply contracts likely will be affected since most suppliers will treat the capacity price increase as a "regulatory change" and pass the higher cost through to their customers. The effective rate increase will range from 1.25 cents/kWh for a three-shift manufacturing facility to 2.75 cents/kWh for a commercial business or school, open mostly during daytime hours.

2027 AND BEYOND

Unfortunately, the reasons behind the large jump in PJM-capacity are not readily resolved even three or four years out. Primary causes for the capacity increase are:

- The retirement of coal fired baseload generating plants across the grid
- PJM's inability to approve new generation interconnections in a timely manner
- Unexpectedly rapid growth of energy demand across the grid due to new crypto and AI related data centers.

In fact, PJM is warning that the grid may be capacity deficient as early as June 2026 which means the power grid may need to rely on emergency procedures, such as rolling blackouts during peak demand hours on the system. Because there is no quick fix to rapidly expand the electric generating capacity of the power grid, high-capacity costs and supply uncertainty are likely to exist for the foreseeable future.

SECURING THE FUTURE

The energy market's unpredictability will lead to skyrocketing energy prices and long-term reliability concerns. For organizations and building owners, this volatility highlights the need to embrace proactive energy strategies, such as energy efficiency and self-generation, to protect themselves against rising prices and reliability issues.

FURTHER READING

- [Tri-State Alert, Shapiro and PJM...hopefully stopping runaway prices, January, 28, 2025](#)
- [UtilityDive.com, PJM Capacity Auction, July 31, 2024](#)
- [PAHouse.com, Lawmakers Introduce Landmark Energy Bills, May 8, 2024](#)

CREDITS

This whitepaper was written in collaboration with Stephen Russial, Manager-Business Development, New Horizons Energy Services LLC | www.newhorizonsenergyservices.com.

ABOUT CM3 BUILDING SOLUTIONS, INC.

CM3 Building Solutions, Inc. helps organizations obtain a strategic view of their facilities to create a long-term facility modernization and maintenance plan. With a team of nearly 200 people, we help explore, define and achieve goals around energy efficiency, operational savings, building health, and building adaptability.

Our performance contracting, energy, and building solutions specialists, in combination with a network of trusted partners, enable us to deploy a comprehensive range of products, services, and technologies, delivering total turnkey facility modernization. Leveraging 20 years' experience across a range of building technologies, we maximize the comfort, safety, and efficiency of facilities.



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