

**Pennsylvania House Environmental Resources and Energy Committee**

**“PJM: Meeting Emerging Electricity Demand”  
Wednesday, October 16<sup>th</sup>, 2024**

**Testimony of Rob Gramlich  
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**I. Introduction**

Chair Vitali, Republican Chair Causer, and Members of the Committee, thank you for the opportunity to testify. I am Rob Gramlich, Founder and President of Grid Strategies, a power sector consulting firm based in the Washington DC area. Our dozen independent experts research power systems and contribute to electricity policy and market design in federal, state, and regional proceedings. I can offer a perspective with some distance from the PJM battlefield since I have had little direct recent engagement with PJM recently. In 1999 I helped start the market monitoring function of PJM (as Senior Economist working for Joe Bowring) and monitored the early PJM capacity market. And from 2001-2005 I was Economic Advisor to the FERC Chairman when FERC encouraged PJM to become an RTO and approved its original functions and structure. I pay attention to most US regional markets and market structure and design in the US and around the world.

**II. Real power supply and demand factors pose challenges for the PJM region**

As we articulated a year ago in our report “The Era of Flat Power Demand is Over,”<sup>2</sup> power demand growth is real, and the PJM region is experiencing it. Northern Illinois and Northern Virginia in particular are national hot spots for data centers, and non-data center manufacturing as well as electrification in most states are driving demand across the region. Higher demand estimates contributed to the recent high PJM capacity prices.

On the supply side, PJM’s downward adjustment of the contribution of fossil generation was also a real factor based on real reliability analysis in my opinion. Fossil units should not be assumed to always be available since they do not always perform well. We are long past the days when “baseload generation” had any meaning. No resource is always available so probabilistic estimates must be made and updated as experience

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<sup>1</sup> Grid Strategies’ current and recent clients include clean energy industry associations, consumer advocates, RTO/ISOs, national labs, project developers, industrial customers, grid technology providers, new large customers, utilities, universities, and environmental NGOs working in every region of the US, and some work in Canada and South America.

<sup>2</sup> As cited in the [Wall Street Journal](#), [New York Times](#), [Fox](#), [Washington Post](#), and numerous other publications, <https://gridstrategiesllc.com/wp-content/uploads/2023/12/National-Load-Growth-Report-2023.pdf>.

accumulates for all resources including renewables and fossil generation. That necessary adjustment reduced supply and contributed to a higher capacity clearing price.

The energy transition is also real. Like other regions, PJM can continue to decarbonize and do it reliably and affordably, if states, utilities, and the PJM Interconnection plan for it. But we should not be surprised that capacity prices are higher than their low historic levels. High capacity prices is natural in a more renewable energy heavy portfolio (reflecting the value of resources available when wind and solar are not operating), and the large historic generation reserve margins were unlikely to continue indefinitely.

So, regardless of the potential role of market design and market power factors, we should acknowledge that real supply and demand economic fundamentals are significant contributors to higher capacity prices.

### **III. Structural flaws to revisit**

A few mistakes were made in the original process of restructuring the electric industry in the late 1990s which should be revisited to benefit electricity consumers going forward:

1. States went too far getting completely out of the business of generation. Load-serving entities should procure energy and capacity on a long-term basis under the oversight of state regulatory commissions. This “hedging” function is missing from PJM and other Northeastern power markets. It is notable that capacity resources such as nuclear plants have been sitting for years without any LSE contracts. Now large buyers are buying it up. The new large buyers should not be blamed for procuring power that was sitting there and available in the market for anyone else to buy. If small residential and commercial customer load needed that power, their LSE should have procured it for them five or ten years ago and their PUC should have put in place the policies for that to occur. States get to choose whether to have retail competition or have their load served by regulated utility suppliers, but in either case they should make sure retail load is hedged.<sup>3</sup> California famously learned that lesson the hard way and suffered a 3x increase in wholesale power prices from 1999 to 2000 and California ratepayers were completely unhedged. No state should allow their retail load to be unhedged. Nothing in the Federal Power Act gives FERC or RTOs that responsibility; it is for the states. Longer term contracting would reduce the price risk (for both consumers and investors) from over-dependence on the central RTO market and reduce the opportunity for market power to be exercised there.
2. RTO Governance placed too much power in the hands of incumbent suppliers. Competition from new technologies and importers from neighboring regions tends to be hindered through dozens of subtle market rules that run through and

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<sup>3</sup> See <https://gridstrategiesllc.com/wp-content/uploads/2024/05/whos-the-buyer.pdf>

- incumbent-biased stakeholder voting processes.
3. Transmission planning was never really started in PJM. Around 2003, FERC initially rejected PJM's RTO application on the basis of insufficient transmission planning. While it added a narrow short-term economic planning feature at that time, to this day, PJM's approach is reactive, short-term, and narrow compared to other RTOs and industry best practice.<sup>4</sup> PJM inherited a robust 500 and 765 kV backbone from proactive planning in the 1970s, so it probably needed less network investment than other regions when restructuring began. But now that transmission capacity is constrained, it is past time to plan ahead. The lack of new supply is in part due to excessive focus on cost responsibility for each individual generator. This has proven to be penny-wise and pound-foolish, as interconnecting more generation in recent years (even renewables with their limited capacity value) would have reduced prices for consumers.

#### IV. Guidance for states

States in other regions like MISO and SPP have a much greater role in setting electricity policy.<sup>5</sup> PJM states like Pennsylvania could:

- Make sure their public utility commissions are ensuring retail customers are being served by suppliers that have the capability and responsibility to procure long term supplies to serve them.<sup>6</sup> As one model, California's PUC, with technical input from the ISO, requires the various load-serving entities (utilities, competitive suppliers, community choice aggregators) to procure firm power sufficient to meet their load and hedge against price risks. Australia's regulator similarly oversees firm resource procurement and economic hedging in their energy-only market.
- Support competitive markets and refrain from throwing the baby out with the bathwater.
  - States should not heed utilities' calls to get back into the business of owning generation. Hundreds of independent power producers are capable of developing and owning whatever generation is needed, as long as there is competitive procurement and good wholesale market design.
  - Maintain open access. Recent calls for fast-tracking only favored resources could do irreparable harm to power markets and consumers in the long run. Such proposals will also face years in court so they are also impractical if they are intended to speed anything up. Open access has been a core FERC value for almost 30 years as the relevant courts know well.
- Engage in and support long-term multi-purpose transmission planning. FERC's

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<sup>4</sup> PJM received a D+ on its planning methods in our report card. [https://gridstrategiesllc.com/wp-content/uploads/2023/06/ACEG\\_Transmission-Planning-and-Development-Report-Card.pdf](https://gridstrategiesllc.com/wp-content/uploads/2023/06/ACEG_Transmission-Planning-and-Development-Report-Card.pdf).

<sup>5</sup> See <https://gridstrategiesllc.com/wp-content/uploads/2024/05/a-new-state-federal-cooperation-agenda-for-regional-and-interregional-transmission.pdf>.

<sup>6</sup> <https://gridstrategiesllc.com/wp-content/uploads/2024/05/whos-the-buyer.pdf>.

Order 1920 provides an unprecedented opportunity that states should not pass up. Other regions like SPP have very active state involvement in transmission planning, cost allocation, and resource adequacy. By comparison, PJM states have no meaningful input. States should also support permitting that affects regional reliability. Pennsylvania's recent rejection of a line into Maryland is inviting federal intervention using new authorities in the bipartisan Infrastructure Investment and Jobs Act. Interregional transmission planning and/or independent transmission developments bring in imports that could reduce PJM capacity prices.

## V. Guidance for PJM

Everyone in the PJM region should be proud of the reliability and economic savings that PJM Interconnection and the regional electricity structure have achieved over the years. Prices for generation (energy, capacity, ancillary services) have fallen over the last 15 years because the markets can be brutally efficient. I know from working at PJM and interacting with staff that the organization is made up of incredibly dedicated and competent public servants. I also know that PJM Interconnection is only one of the relevant institutions, and there are important roles for states, utilities, FERC, consumers, and various stakeholders and sometimes functions are inappropriately given to the RTO. The region is unfortunately stuck right now with a structure that is sometimes unfriendly to new supply and new load, which will harm economic development, reliability, and the environment. PJM and its board and stakeholders can:

- Finalize interconnection agreements with at least 50 GWs of new supply this year and next, and report on progress. It is encouraging that about 25 new GWs should have signed interconnection agreements by the end of 2024 and another 26 GWs should have signed interconnection agreements by late 2025. PJM should retain open access non-discriminatory policies for interconnection so that clean energy is not slowed in the process and endless litigation does not ensue. It should improve energy-only ("ERIS") service and surplus interconnection service interconnection products.
- Plan transmission proactively, immediately. FERC Order 1920 is very clear about its requirements. This will save consumers money in capacity and energy markets.
- Enable imports by accelerating HVDC and AC connections to neighboring regions. These lines, just like any internal generator, provide significant capacity value that can be probabilistically assessed, and yet they are assigned no capacity value presently.
- Improve the capacity market design. I will leave details to others, but here are some suggestions:
  - The design can be made more "granular" to account for seasonality of supply and demand. At least it should recognize winter capabilities for capacity accreditation since most of the risk is now in winter.
  - Refrain from bringing back MOPR in any form or charging consumers twice for the same capacity.

- Enable and foster more long-term contracts as CAISO, ERCOT, and Australia do (all three have very robust bilateral power markets that complement and do not harm the central clearing market).
- Include all supply including units retained under RMR agreements. PJM’s statement on the subject represents an inappropriate bias towards a desired price outcome: “PJM remains concerned that forcing RMR units into the supply stack as a matter of policy could put downward pressure on the capacity price signal at the very time that new capacity is needed.”<sup>7</sup>

Thank you for the opportunity to share these suggestions.

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<sup>7</sup> P. 1 <https://www.pjm.com/-/media/library/reports-notice/reliability-pricing-model/20241011-response-to-imm-25-26-bra-report.ashx>