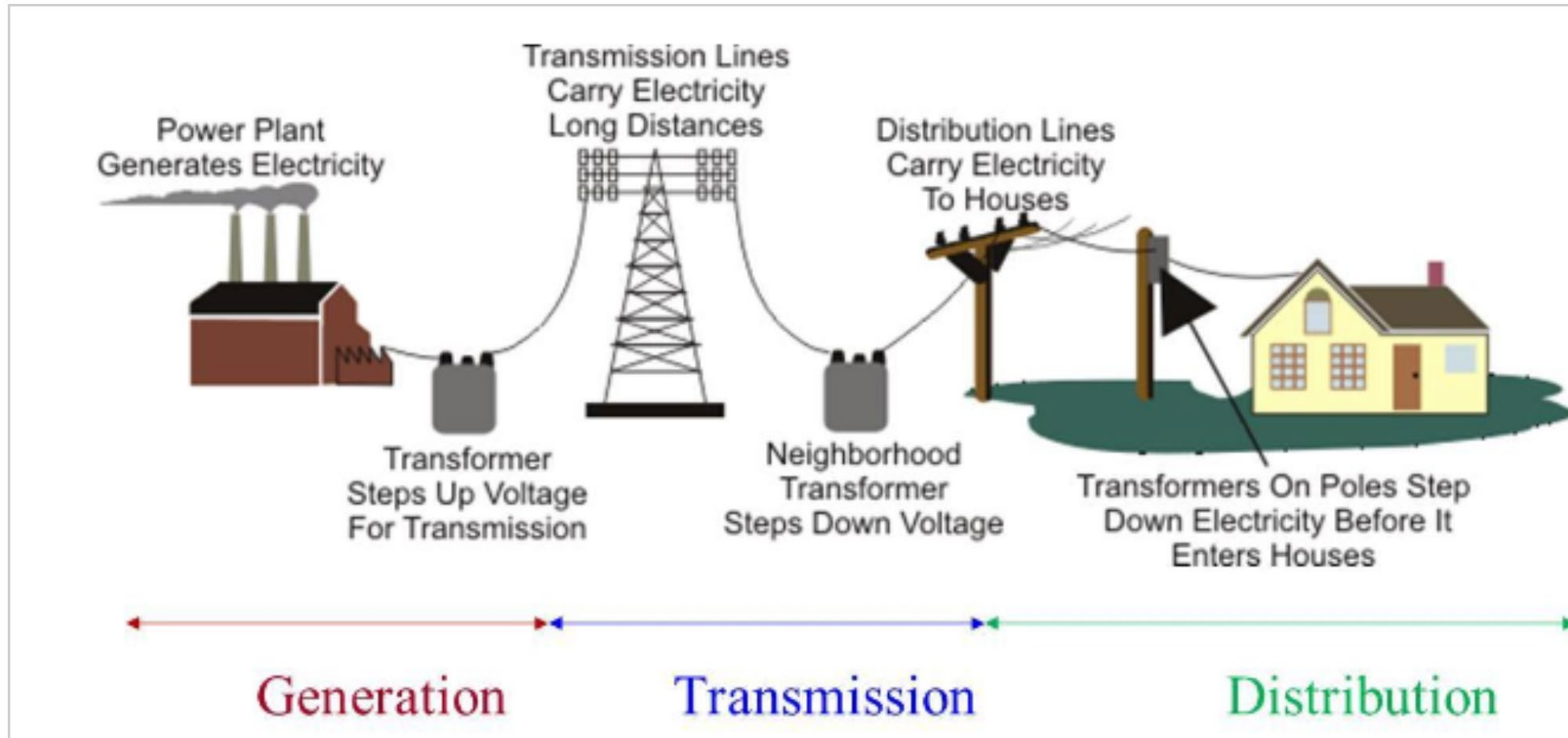




# Pennsylvania's Competitive Energy Policy at Risk

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September 2021

# The Power Industry – Pre-1996



# Power Market – Post-2001



## Generation

- no longer utility only
- no longer regulated
- suppliers compete

## Transmission

- remains utility only
- lines open to all suppliers

## Distribution

- remains utility responsibility
- service remains the same
- rates remain regulated

## Customers

- choose generation suppliers

# Why did Pennsylvania Restructure in 1996?

- PA was in competition with other states – power prices were an important economic development driver.
- Technology and regulatory changes allowed for competition.
- Belief that empowered consumers could drive down prices and improve services.
- Desire to shift investment risk for new capacity from consumers to market participants.
- Governor Ridge's vision to make PA a leader among states and competitor among nations.

## Concerns at the Time

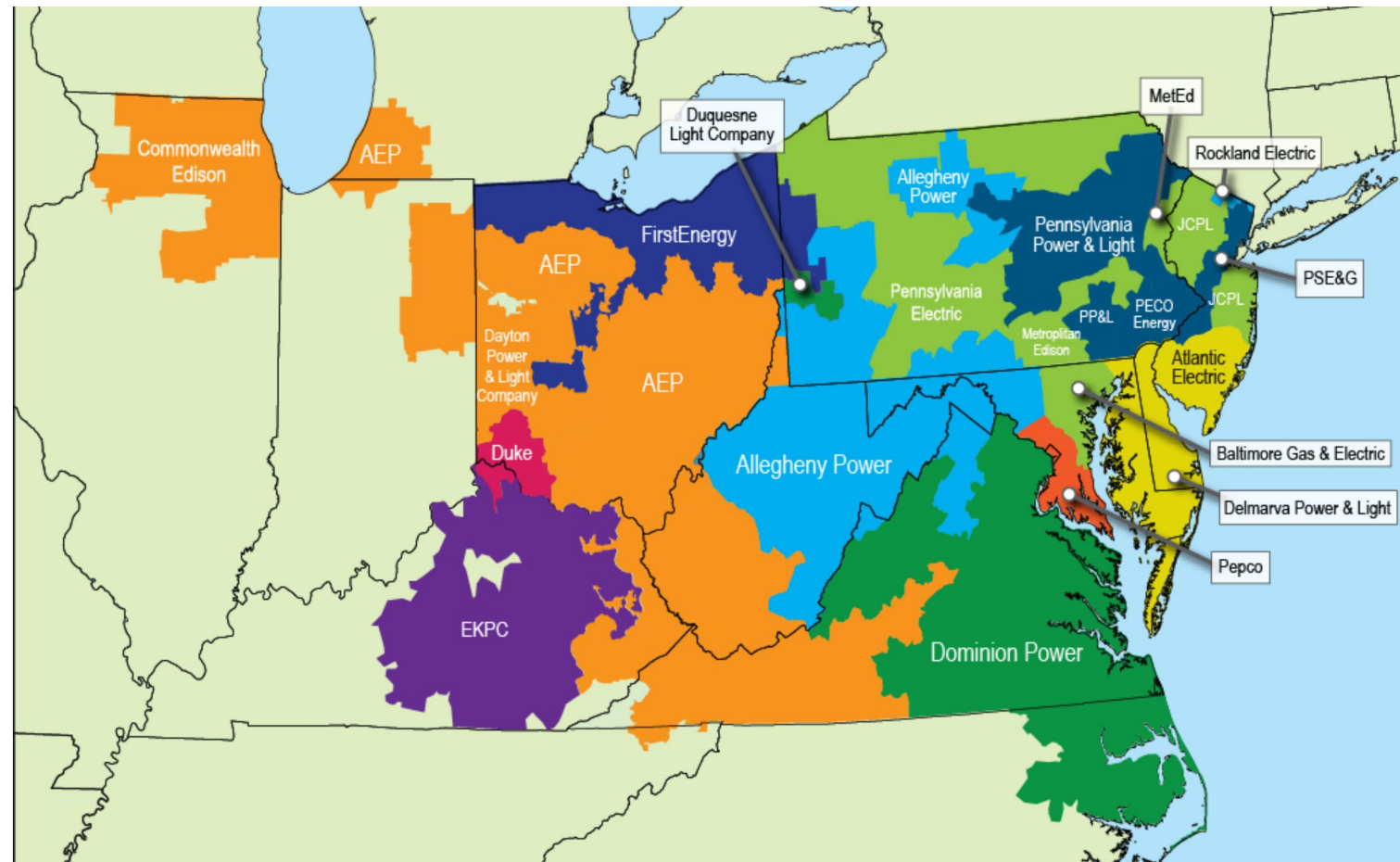
- How would reliability be achieved on a sustainable basis?
- Were there sufficient consumer protections?
- Would Pennsylvania's embrace the opportunity to shop?
- Could Pennsylvania's consumers effectively be educated on this new ability to shop?
- Could the regional wholesale market be molded to support Pennsylvania's goals?

# How would new power generation be built?

- In vertically integrated monopoly, there was a regulatory process by which power generation was built and paid for.
- In competitive market, market forces would dictate what generation would be built.
- How could policymakers have confidence that reliability would be maintained?
- The PJM capacity market would answer that question.

# What is PJM?

- Joined in 1927
- Joined in 1956
- Joined in 1965
- Joined in 1981
- Joined in 2002
- Joined in 2004
- Joined in 2005
- Joined in 2011
- Joined in 2012
- Joined in 2013



# What is the PJM Capacity Market?

- The PJM Capacity Market is the tool by which PJM ensures that there will be enough generation to meet consumers' needs.
- PJM projects its needs three years forward and then procures commitments from capacity resources to meet demand.
- Consumers pay for these commitments; generators are obligated to produce electricity when called upon.
- Pennsylvania capacity resources compete in the same market with out of state resources.



# How is capacity different than energy?

- **Capacity**

- A commitment of a resource to provide energy during PJM emergency under the capped energy price.
- Capacity revenues paid to committed resource whether or not energy is produced by resource.
- Daily product.

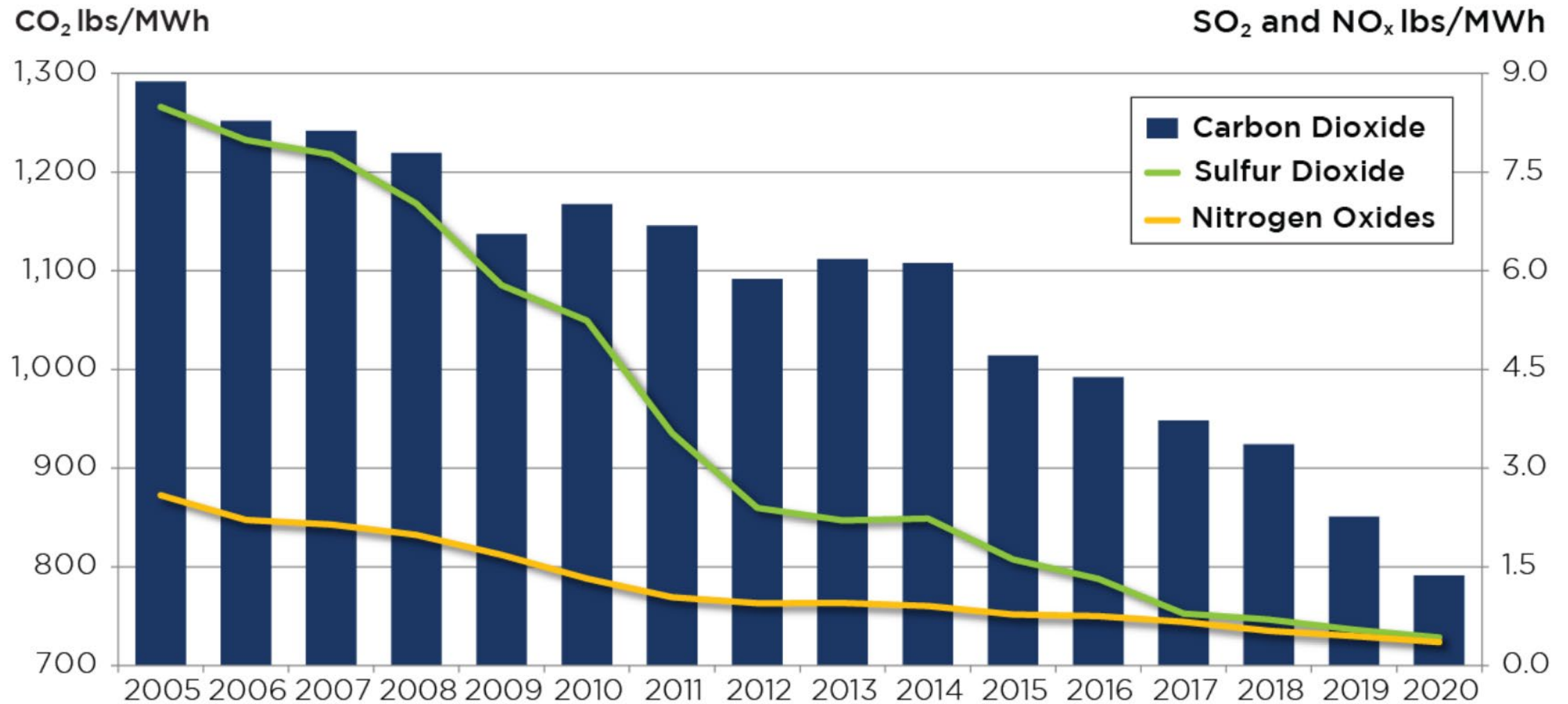
## **Energy**

- Generation of electrical power over a period of time
- Energy revenues paid to resource based on participation in PJM's Day-Ahead & Real-Time Energy Markets
- Five-minute product.

# Has the PJM Capacity Market worked?

- PJM has robust reserve margins and there is a very low risk of CA or TX style shortages.
- Energy and capacity prices are at historic lows.
- Pennsylvania's electricity rates that were once 15-20% above the national average are now consistently below the national average.
- NOx, SOx and Carbon emissions have plummeted in PA and PJM.
- For a list of power stations in PA:  
[https://en.wikipedia.org/wiki/List\\_of\\_power\\_stations\\_in\\_Pennsylvania](https://en.wikipedia.org/wiki/List_of_power_stations_in_Pennsylvania)

**Figure 1. PJM System Average Emission Rates**



# What is the Minimum Offer Price Rule (MOPR)?

- The MOPR is a tool that PJM has historically employed to protect the integrity of capacity market pricing.
- The MOPR requires that subsidized resources bid into the market at levels that are consistent with competitive market bids.
- Without the MOPR, subsidized resources could bid in at below market prices and suppress prices for non-subsidized resources.
- The MOPR protects against the exercise buyer market power.

# Why is PJM proposal to gut the MOPR such a problem?

- PJM filed proposed rule changes at FERC in July that would effectively eliminate the protections that the MOPR provides to unsubsidized resources and the market in general.
- If approved, the PJM market rules will incent generators to pursue subsidies rather than become more efficient through competition.
- It creates an uneven playing field for competitive resources in Pennsylvania that must compete against subsidized resources in other states.

# New Jersey's Energy Policy

- Under current law and executive order:
  - New Jersey's nuclear units (3500 MW), that are directly competing with PA nuclear units, are receiving a subsidy of \$300 million through at least 2025.
  - New Jersey plans to support 7500 MW of offshore wind by 2035 with out of market subsidies.
  - New Jersey has a goal of 2000 MWs of energy storage by 2030 (financing has yet to be determined)
  - New Jersey requires 35% of the energy sold in the state come from qualifying energy sources by 2025 and 50% by 2030.

# Maryland's Energy Policy

- Maryland will require that 50% of electricity consumed in the state be from renewable energy resources.
- Maryland contracted for 368 MW of Offshore Wind capacity and is currently considering proposals for an additional 1200 MW of OSW.
- Maryland does not provide subsidies for its nuclear plants.

# Illinois' Energy Policy

- Illinois will require all private natural gas-fired units to reach zero emissions by either 2030, 2035 or 2045, depending on location and rates of emissions.
- Illinois will provide \$700 million over the next 5 years to subsidize nuclear facilities in the state.
- Illinois will provide \$580 million a year to support wind and solar development.



Energy  
Prices  
around PA—  
2019  
Average  
Retail Rates

Maryland – 11.24 cents/kwh

New Jersey – 13.24 cents/kwh

New York – 14.34 cents/kwh

Pennsylvania – 9.81 cents/kwh

Ohio – 9.58 cents/kwh

National Average - 10.54 cents/kwh

*Source: <https://www.eia.gov/electricity/state/>*

# Why is Pennsylvania's Energy Policy at Risk?

- Pennsylvania is in an interstate grid (PJM) with 12 other states and Washington, DC.
- Historically, Pennsylvania has benefitted from being in this grid because of the ability to export power out of the state and import power when it was needed. Pennsylvania's energy industry has flourished, and consumers have benefitted enormously from lower prices, reduced emissions and high reliability.
- PJM's proposed MOPR reforms currently pending at FERC upset a delicate balance and will effectively allow the policies of other states that are actively subsidizing significant amounts of generation to export their decisions to Pennsylvania and undercut Pennsylvania's competitive market policy.