



# **PJM Update: PJM's Economic and Reliability Analysis of the EPA's Clean Power Plan (CPP)**

Craig Glazer

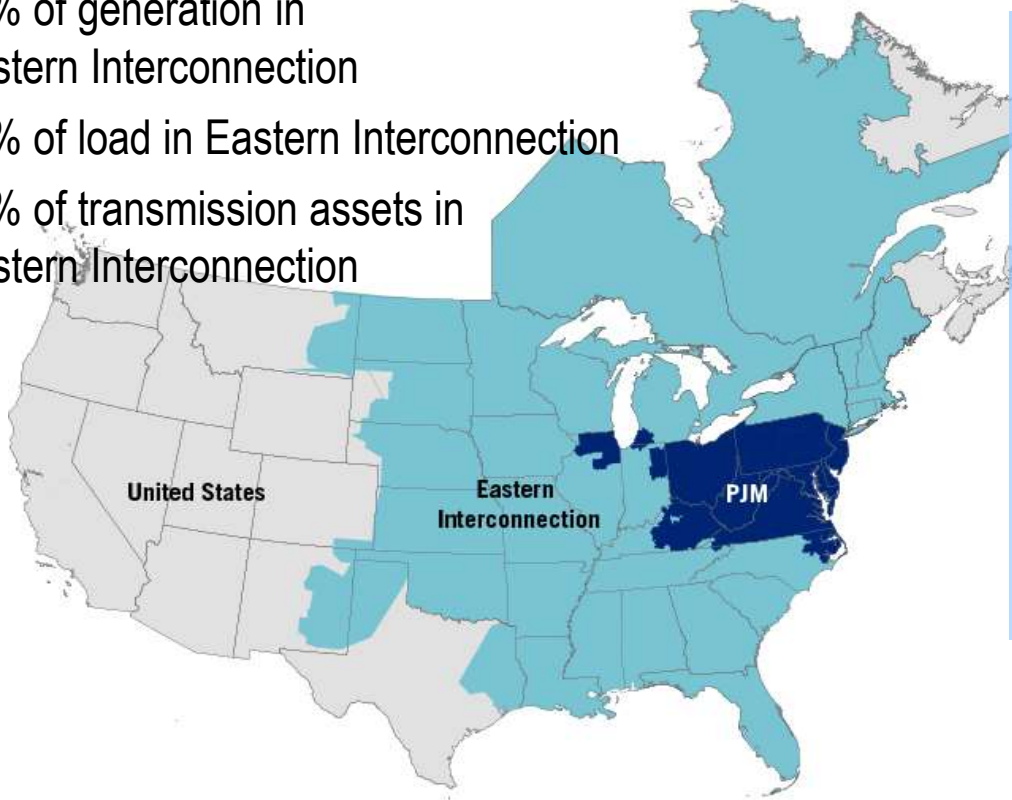
Vice President - Federal Government Policy

PJM Interconnection

Washington, D.C.

August 2015

- 27% of generation in Eastern Interconnection
- 28% of load in Eastern Interconnection
- 20% of transmission assets in Eastern Interconnection



## KEY STATISTICS

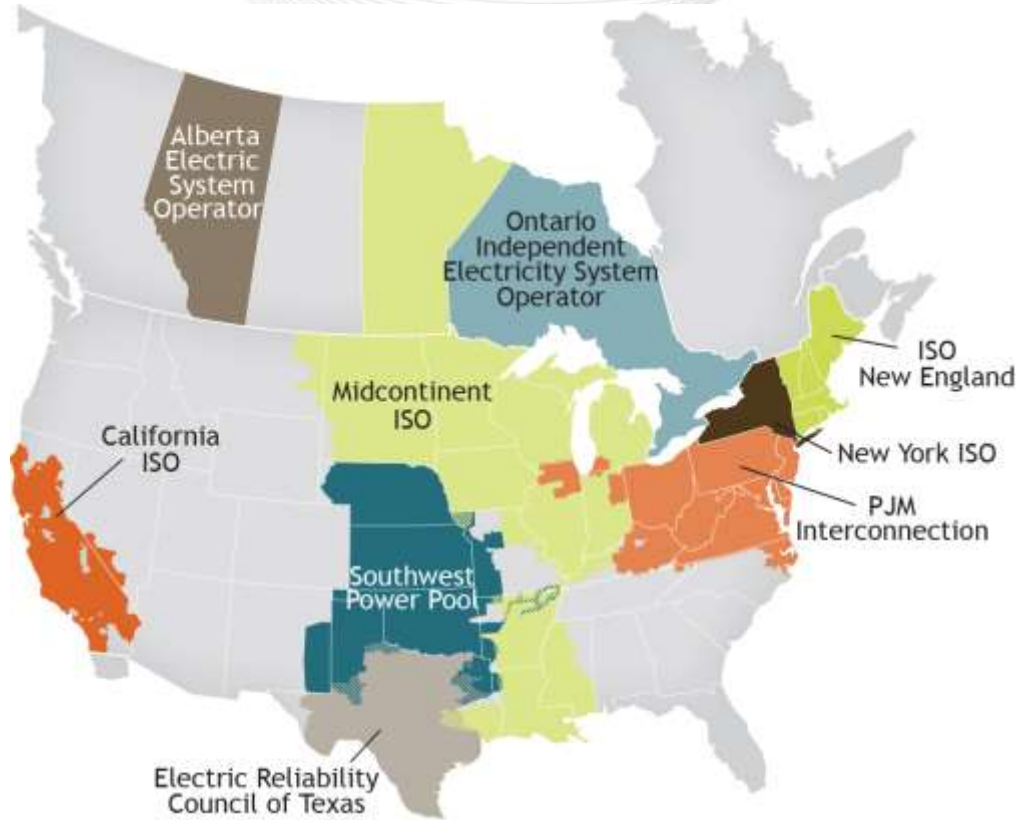
PJM member companies	940+
millions of people served	61
peak load in megawatts	165,492
MW of generating capacity	183,604
miles of transmission lines	62,556
2014 GWh of annual energy generation sources	797,461
square miles of territory	243,417
area served	13 states + DC
externally facing tie lines	191

**21% of U.S. GDP  
produced in PJM**

As of 06/2015



*Delivering the energy  
needs of today and beyond...*



## Reliability

- Grid Operations
- Supply/Demand Balance
- Transmission monitoring

1

## Regional Planning

- 15-Year Outlook

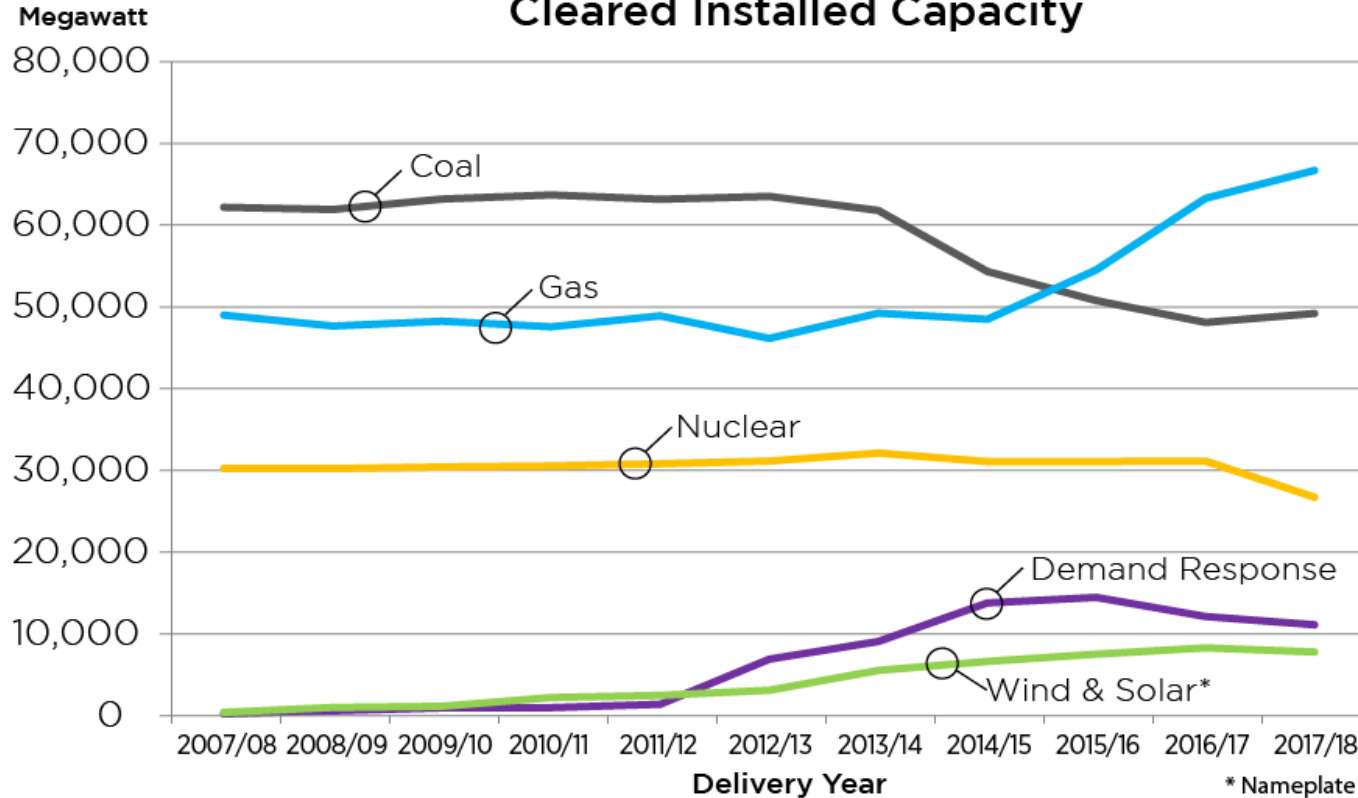
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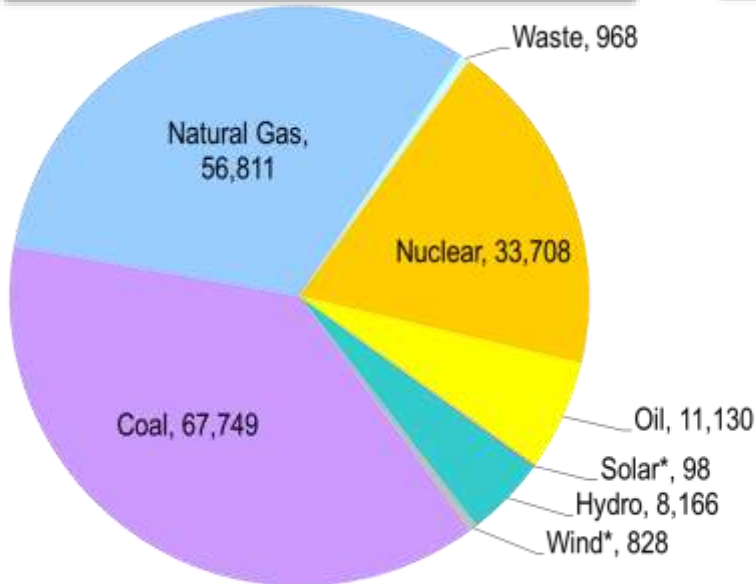
## Market Operation

- Energy
- Capacity
- Ancillary Services

## Cleared Installed Capacity

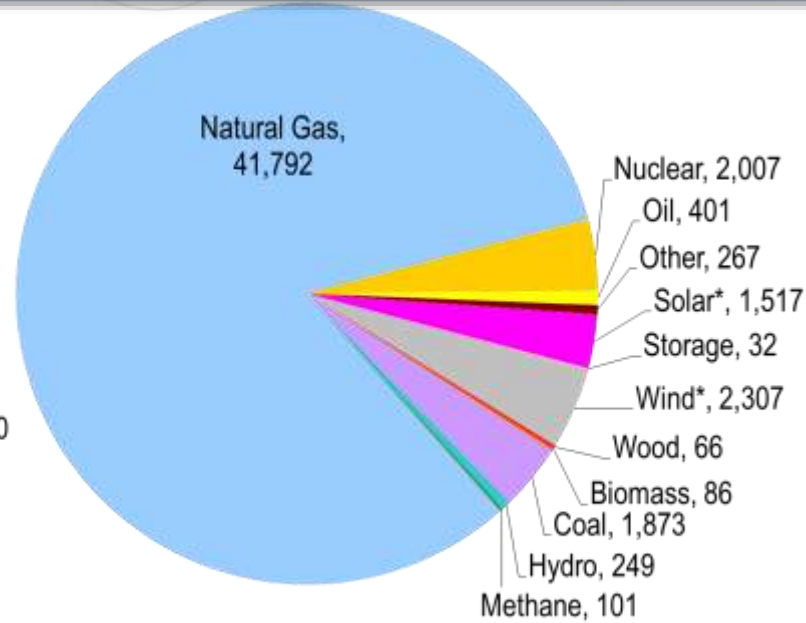


## Existing PJM Installed Capacity



\* Dependable

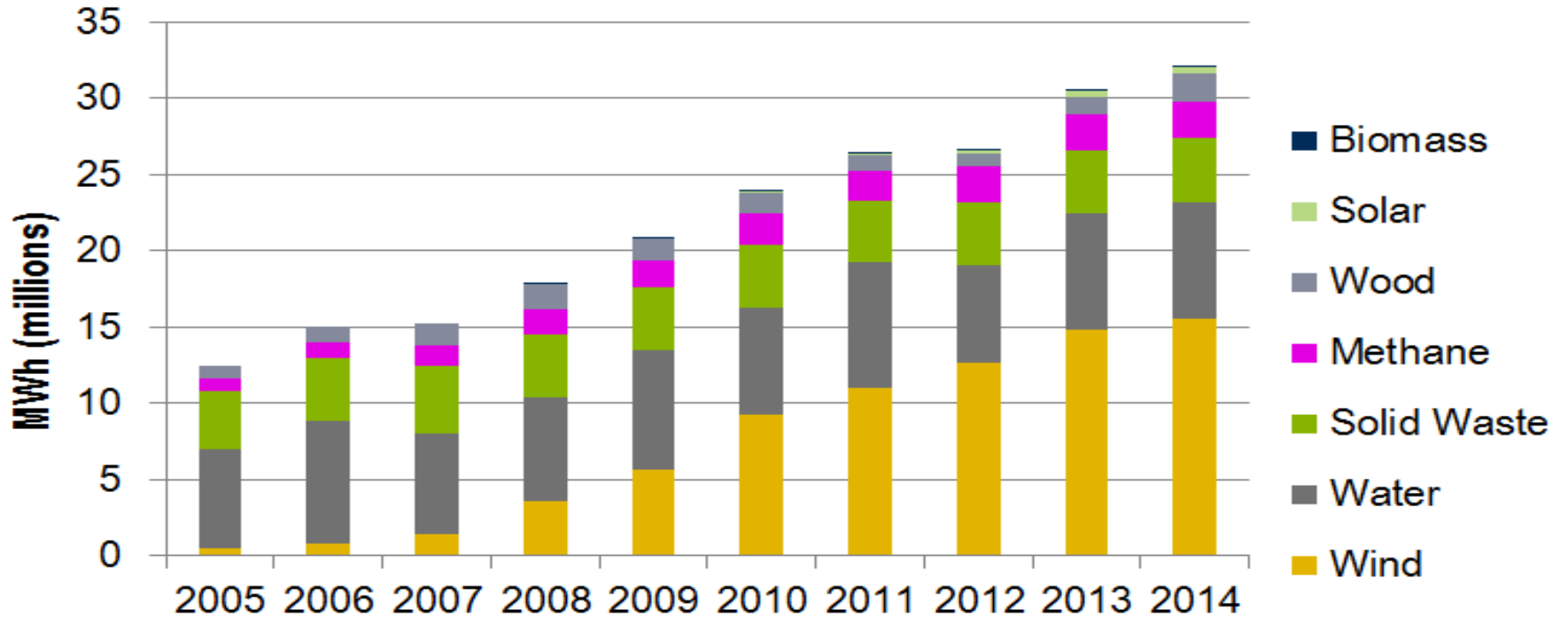
## PJM Queued Interconnection Request Capacity



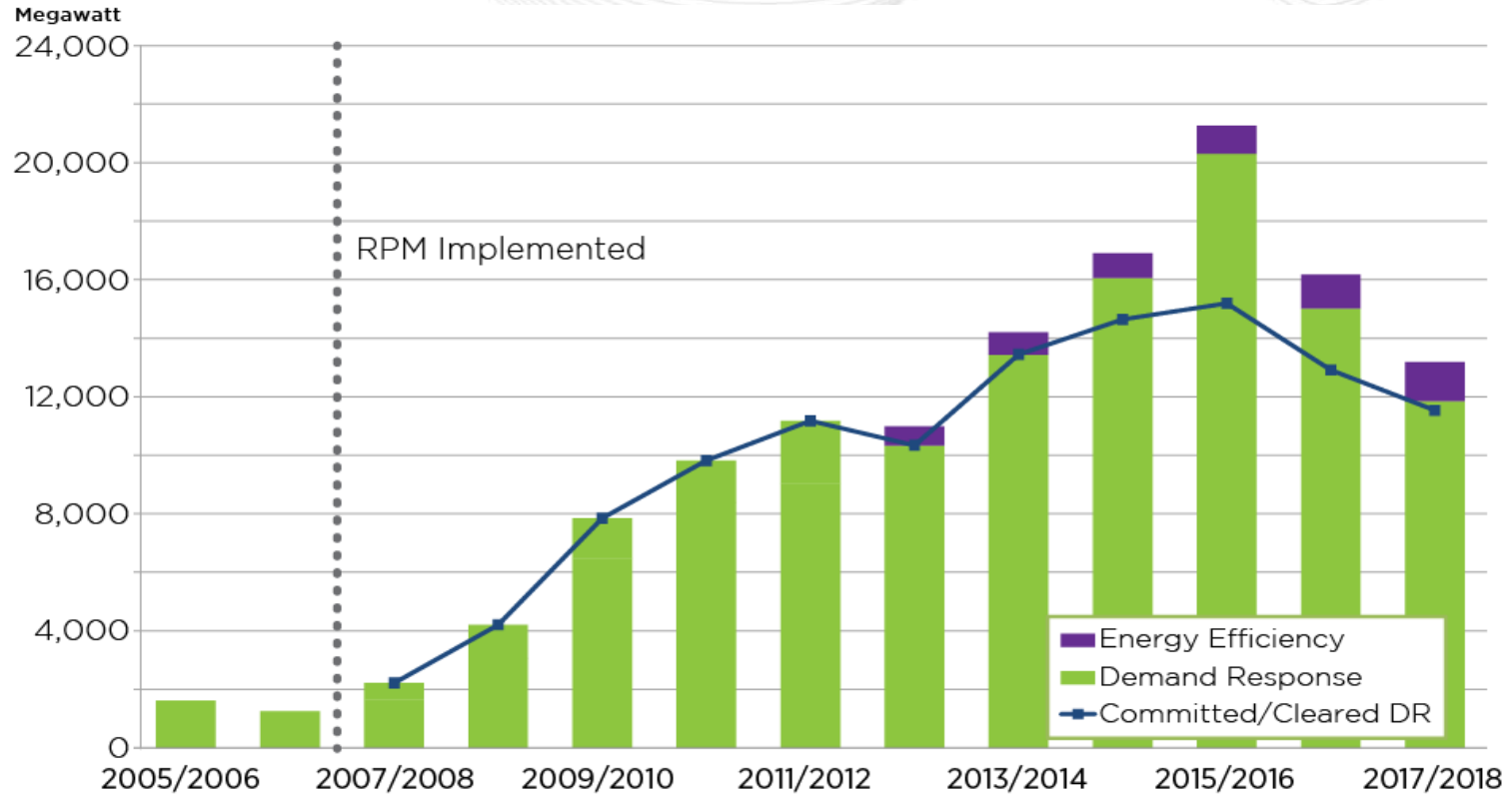
Solar Nameplate Capacity, 2,908 MW

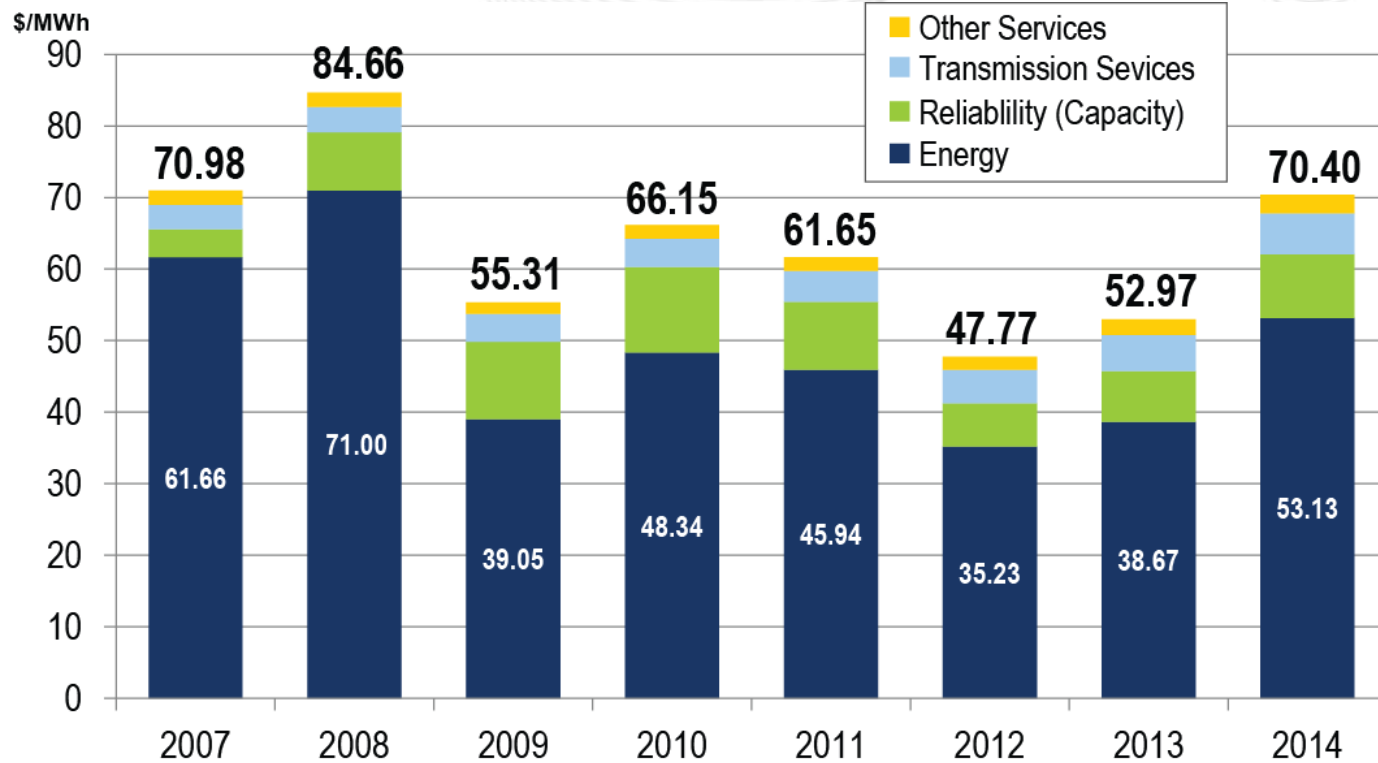
Wind Nameplate Capacity, 15,647 MW

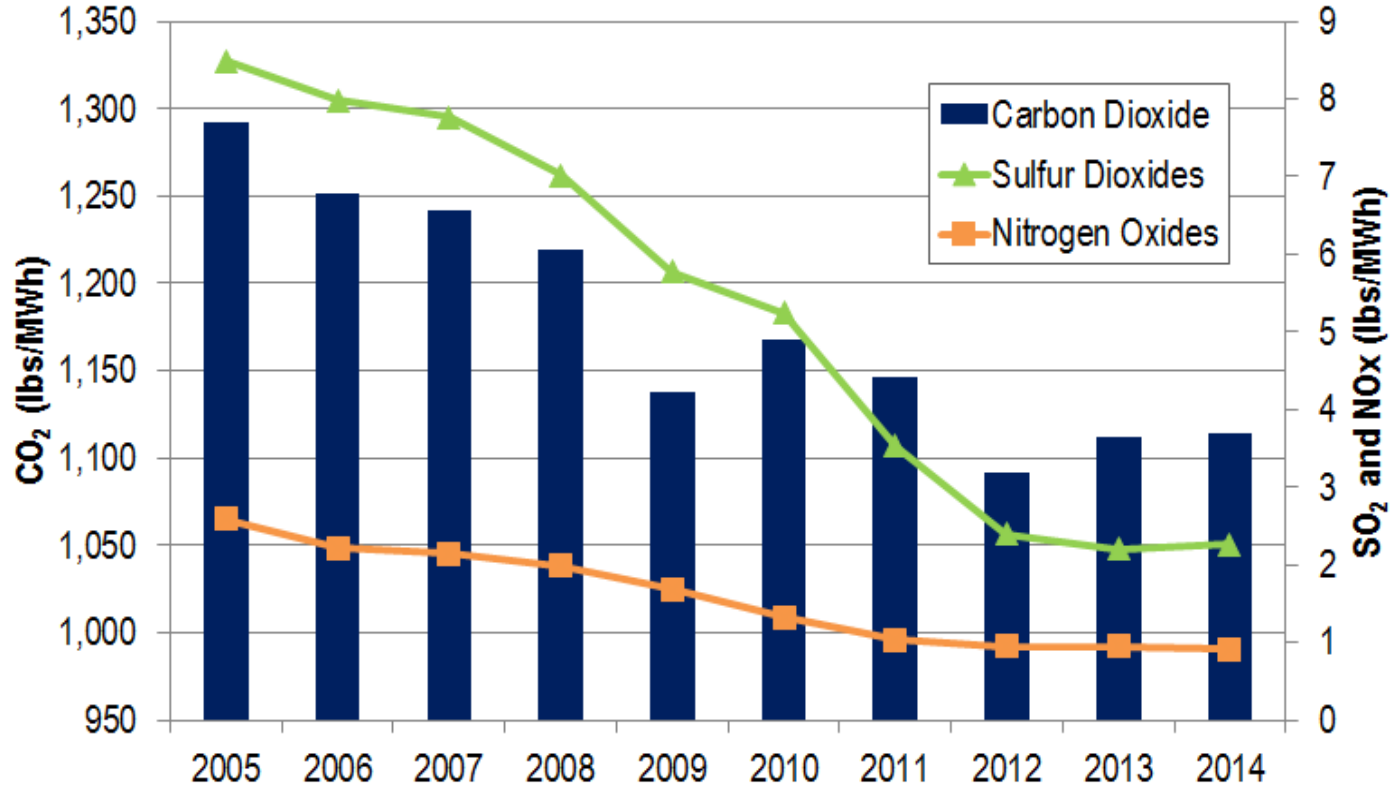
Dec. 31, 2014













# EPA Clean Power Plan

PJM has been tasked with assessing potential impacts of the EPA Clean Power Plan Proposal on PJM states; however, as an RTO, PJM:


- Maintains neutrality on CO<sub>2</sub> policy
- Acts as an independent source of information on CO<sub>2</sub> policy implications
- Does ***not*** forecast market outcomes but rather models outcomes based on a specific set of assumptions



## Needed Issues to Address in the Final Rule: PJM List

- Up-front reliability review of submitted State plans
- Reliability Safety Valve if implementation affects reliability
- Better incentives for cross-border coordination Among States
- Avoid State compliance traps: e.g. The “No Backsliding” provision



A central graphic on a light purple grid background. It features a magnifying glass with a black handle and frame, focusing on a sharp peak of an orange line graph. A purple line graph with a large arrow pointing up and to the right is also visible. Below the magnifying glass, a green dashed line graph with a large arrow pointing right is shown. A semi-transparent grey banner with the title text is overlaid across the center of the graphic.

# Economic Analysis: The Bottom Line



... how key questions are answered in the final rule



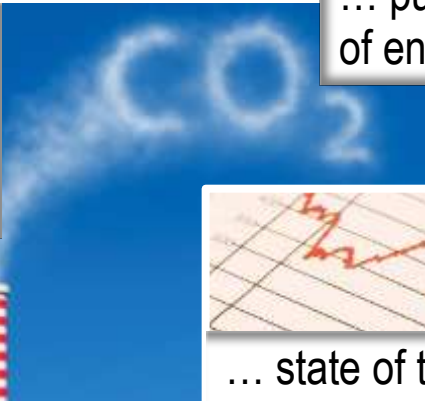
... future gas prices



... individual state vs. regional compliance



... success of allowance trading programs



... public acceptance and enforceability of energy efficiency programs



...the Courts



... state of the economy





An Added Complication:

*Who Decides?*



## States

- State Energy Policies: Governors/legislators
- State PUCs



FERC



## Environmental Agencies

- Federal/ State
- RGGI et al.

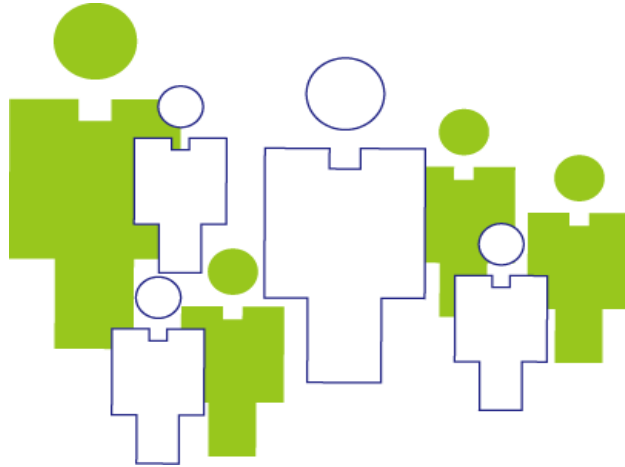


*“Hanging in mid-air”*: a dangerous place



# A restructured industry or “Golden memories of yesteryear...”

- The choice is ours



## LET'S TALK...



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