

PJM Overview & Discussion

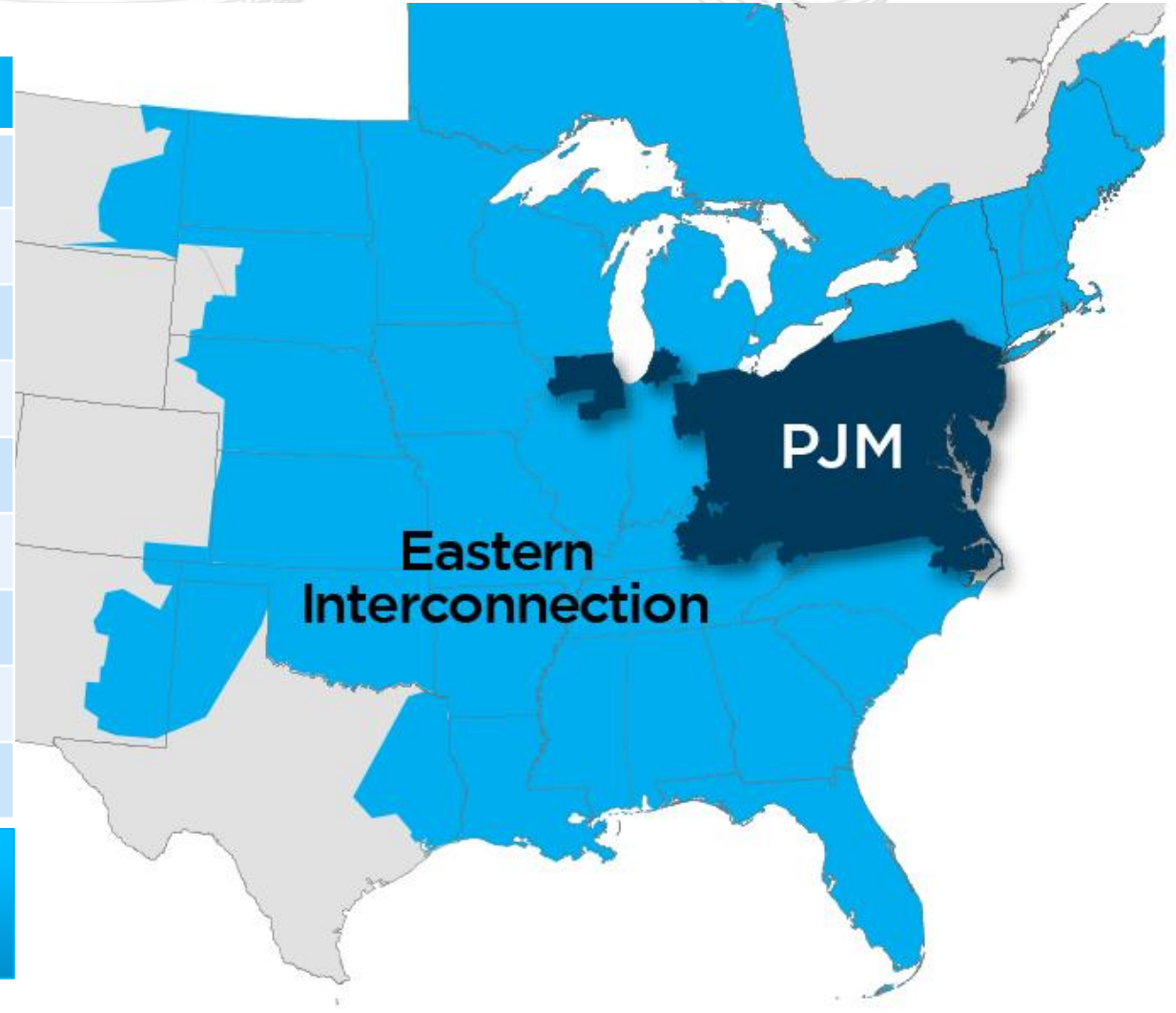
Aftab Khan
Chief Strategy Officer
PJM Interconnection

University of Pittsburgh
Infrastructure Sensing Collaboration
June 2, 2026

Key Statistics

Member companies	1,116
Millions of people served	67+
Peak load in megawatts	165,563
Megawatts of generating capacity	185,989
Miles of transmission lines (Bulk Electric System)	88,417
Gigawatt hours of annual energy	828,161
Generation sources	1,673
Square miles of territory	368,906
States served	13 + DC

- 25.6% of generation in Eastern Interconnection
- 25.2% of load in Eastern Interconnection



As of 2/2026



PJM's Role as a Regional Transmission Organization

PLANNING



Planning for the future like...



OPERATIONS



Matches supply with demand like...



MARKETS

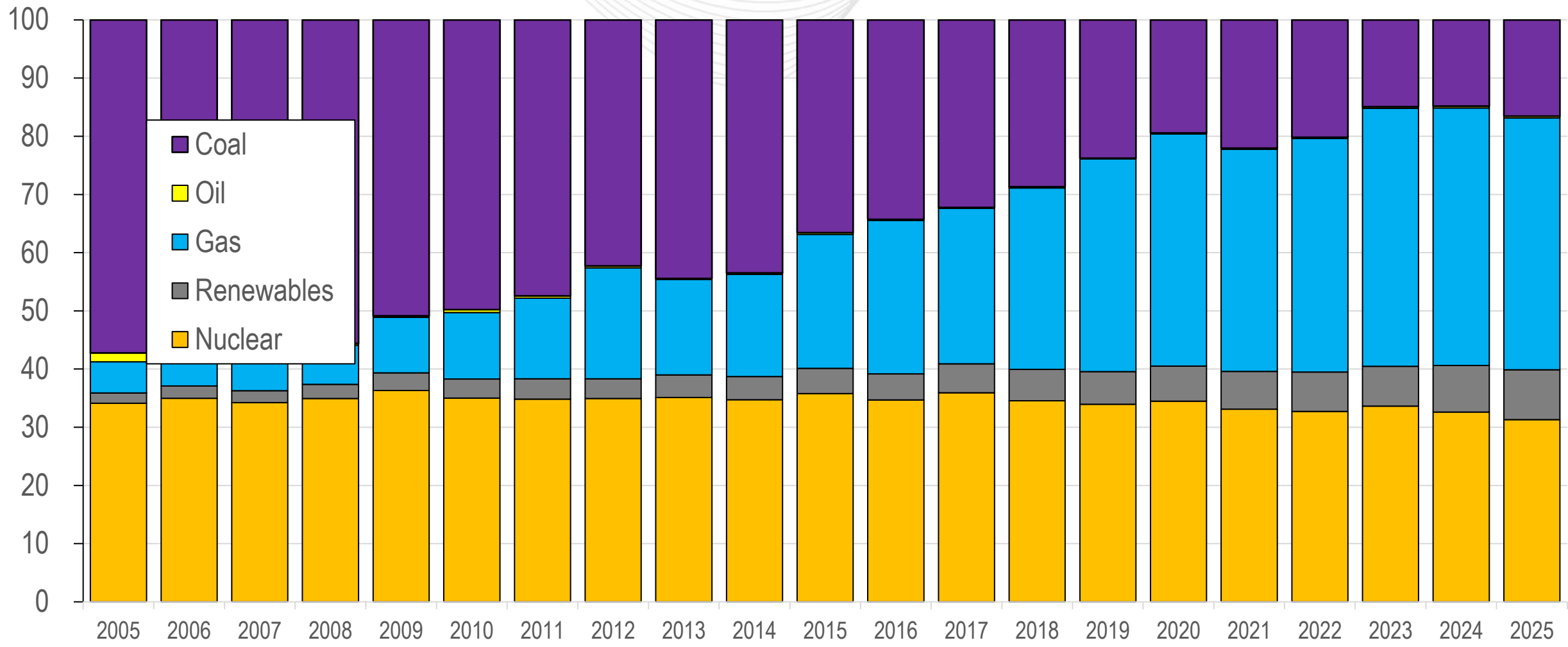


By Zone	
AE	\$20.59
AFP	\$25.55
APS	\$25.18
ATSI	\$25.46
BC	\$37.91
COMED	\$25.68
DAYTON	\$26.22
DFOR	\$25.38

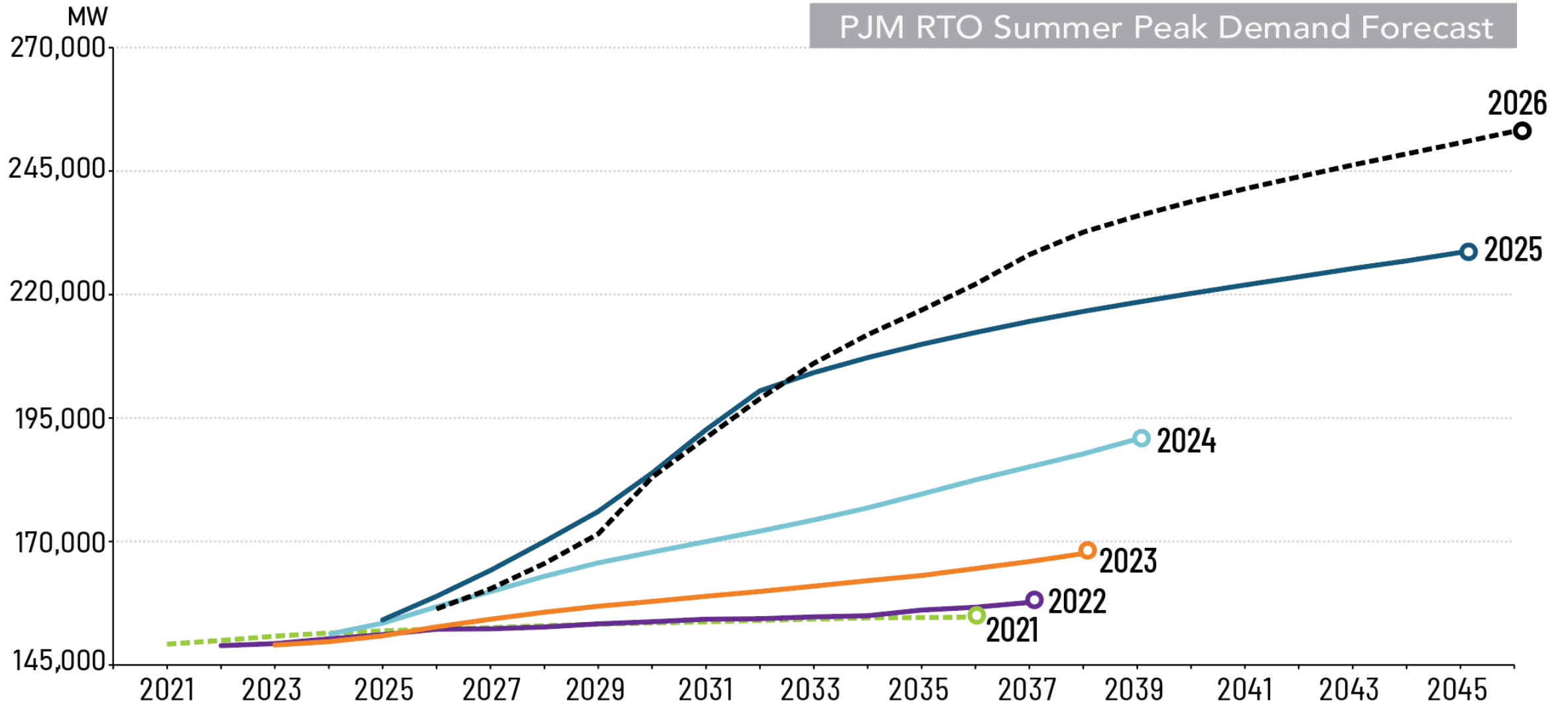
Energy Market Pricing like...

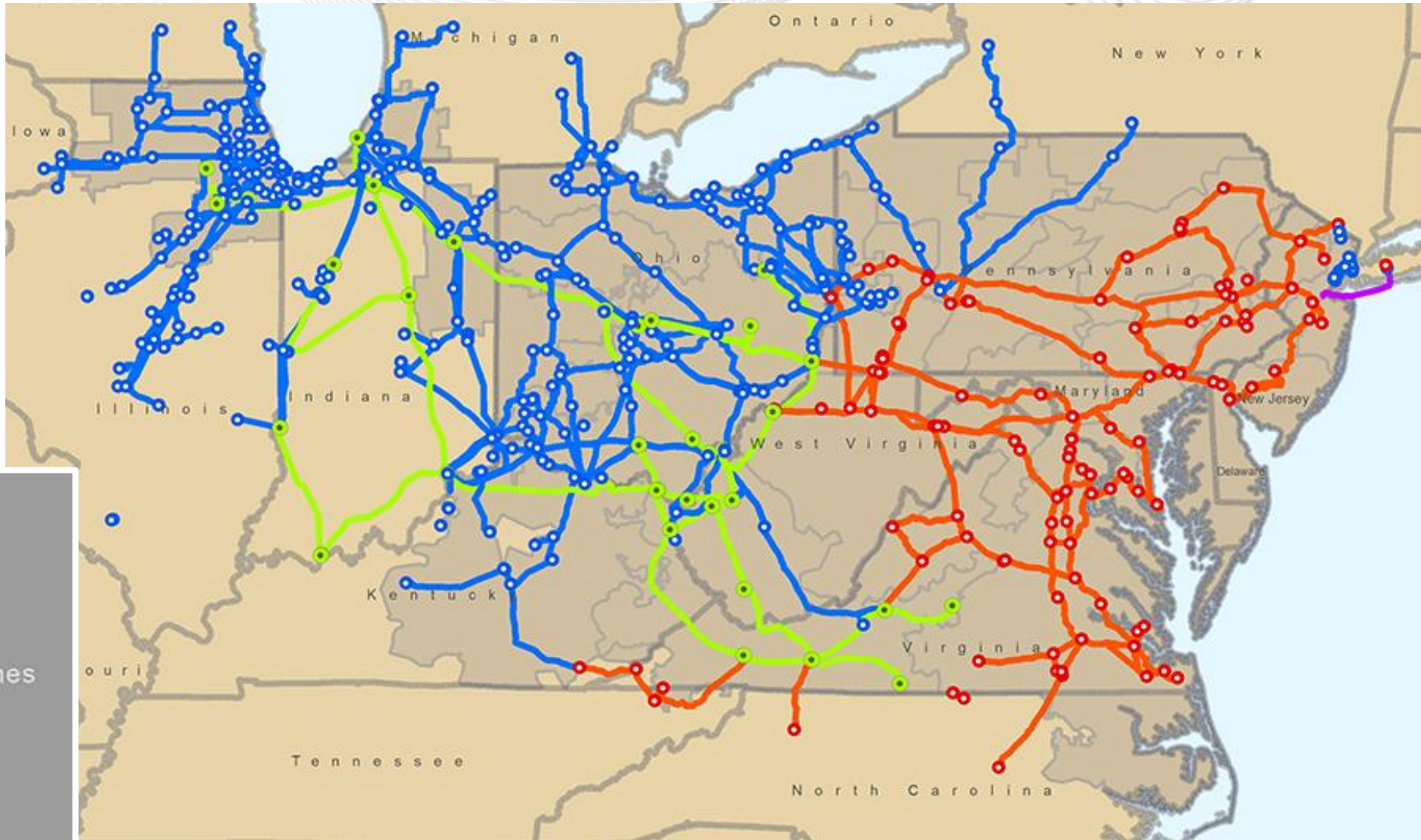


Percent

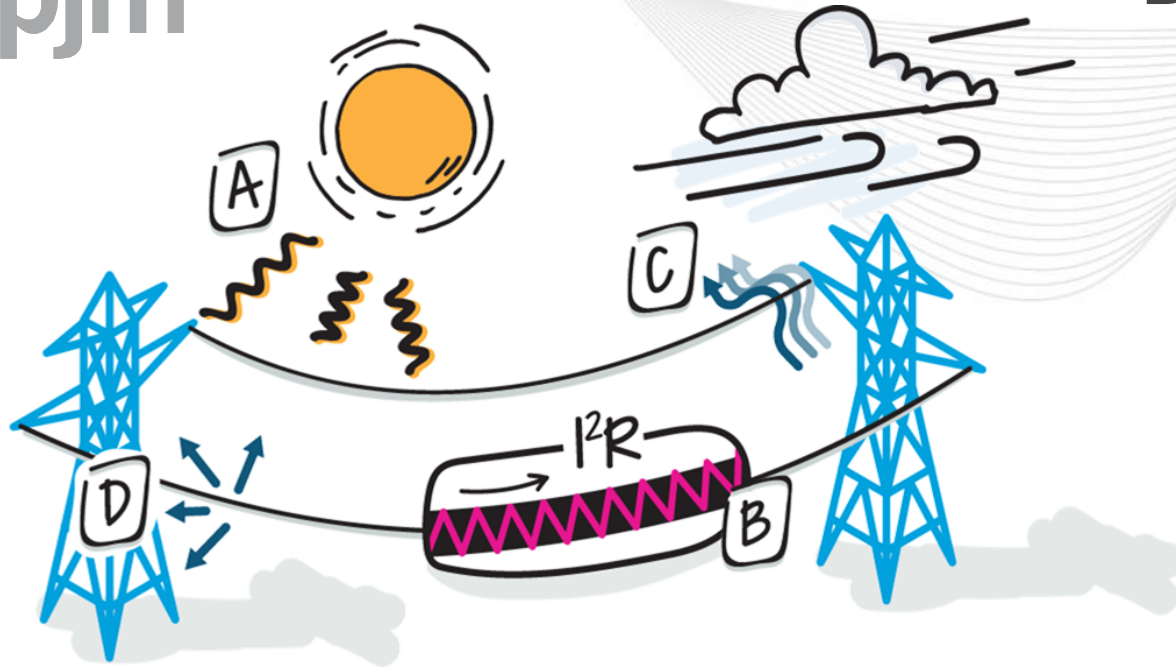


Electricity Demand Growth (2021–2026)





Dynamic Line Rating Technology



- Uses advanced sensors and software to monitor real-time conductor temperature along a transmission line
- Uses this data to calculate an actual rating for the line based on environmental conditions

A

Solar heating – Just as the sun warms the air and the earth’s surface, heat from the sun’s rays will raise the temperature at the conductor’s surface.

B

Resistive heating – As current passes through the conductor, heat is generated inside the conductor by electrical losses.

C

Radiative cooling – Even with no wind, transmission lines lose a portion of their heat to cooler ambient air.

D

Convective cooling – Nearby wind carries away warm air surrounding the conductor and can cause a dramatic cooling effect along the transmission line.

966 

Total PMUs
including external
companies

~42 

of PMU data
storage daily

(real time – 4 TB for 90 days)

----- Calculated Values -----

Real time: 7 TB for 90 days

3-Year Archive: 80 TB

687 

PMUs installed
within PJM

 30x

per second
sampling rate

263 

Substations
with PMUs installed