

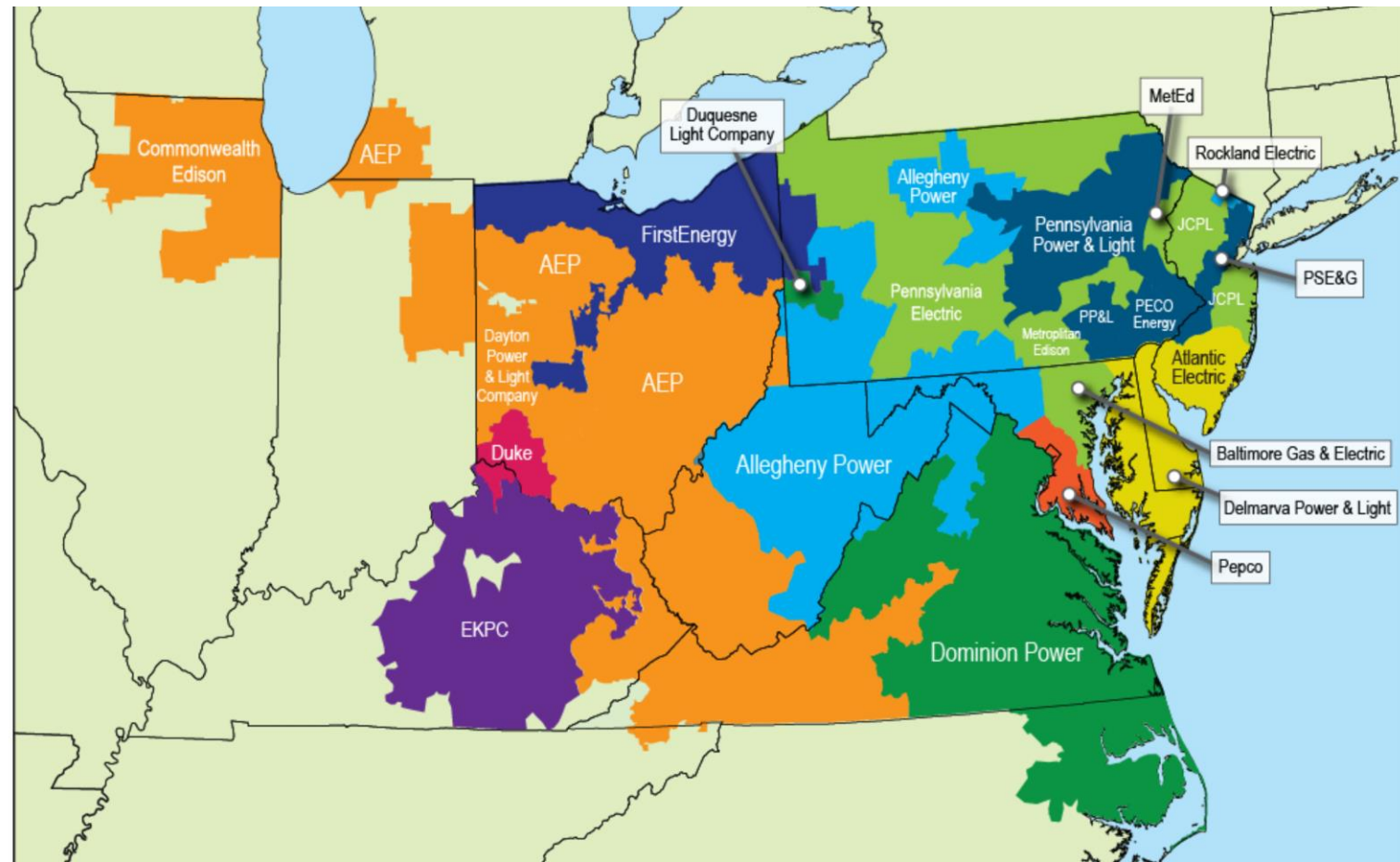


Meeting Emerging Power Demand

Glen Thomas
October 16, 2024

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



Energy Prices— 2022 Average Retail Rates

New York – 18.33 cents/kwh

New Jersey – 14.80 cents/kwh

Maryland – 13.32 cents/kwh

Pennsylvania – 11.86 cents/kwh

Ohio – 10.64 cents/kwh

National Average - 12.36 cents/kwh

Source: https://www.eia.gov/electricity/annual/html/epa_02_10.html

Total Power Production— 2022

Pennsylvania – 229 million MWHs

Illinois – 185 million MWHs

Ohio – 135 million MWHs

New Jersey – 65 million MWHs

Maryland – 37 million MWHs

National Total - 4.2 billion MWs

Source: https://www.eia.gov/electricity/annual/html/epa_03_07.html

Net Generation from Renewable Energy (excluding Hydro)– 2022

Pennsylvania – 5.4 million MWHs

Ohio – 4.6 million MWHs

Illinois – 25.3 million MWHs

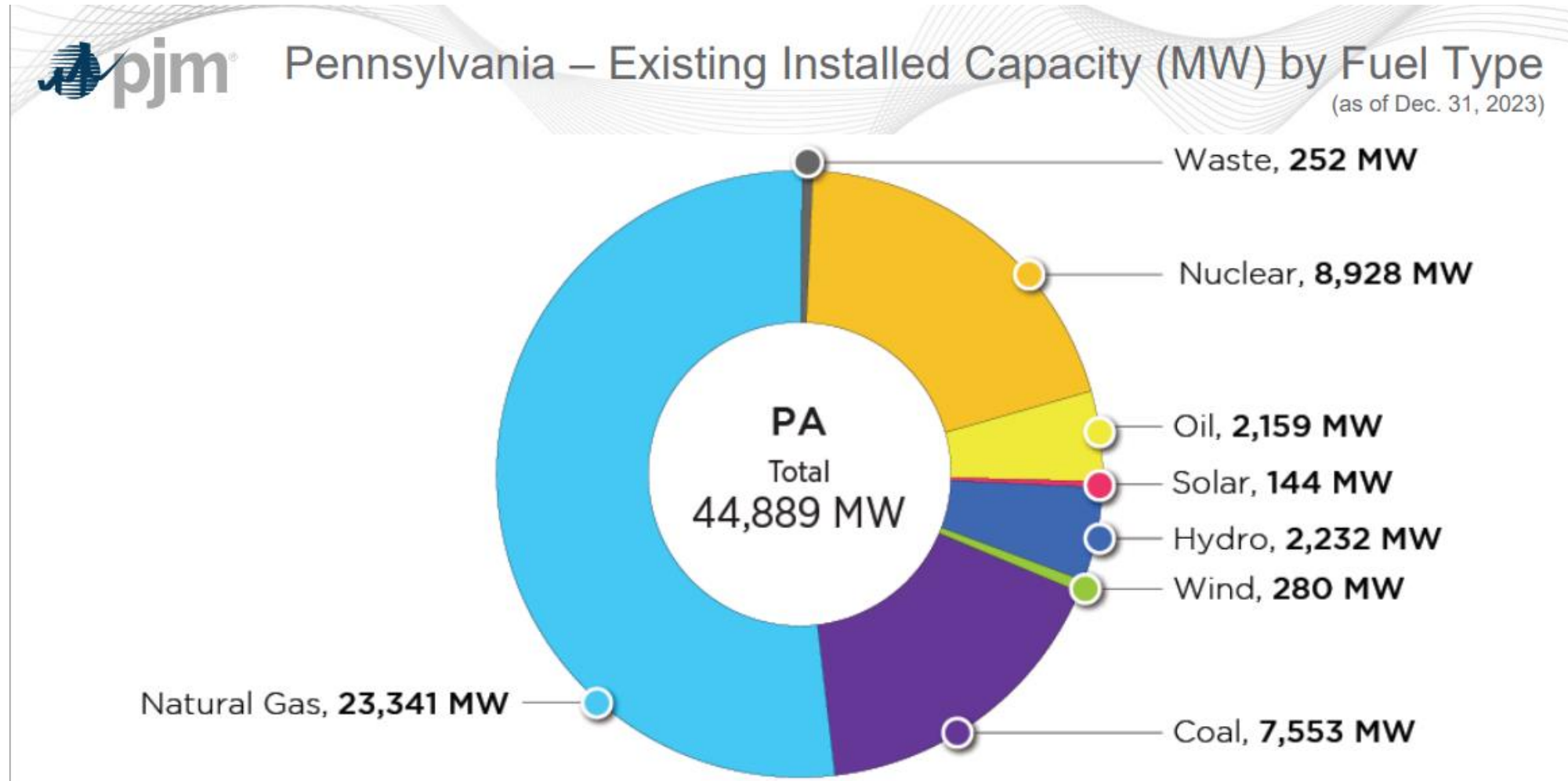
New Jersey – 2.2 million MWHs

Maryland – 1.5 million MWHs

National Total - 646 million MWHs

Source: https://www.eia.gov/electricity/annual/html/epa_03_15.html

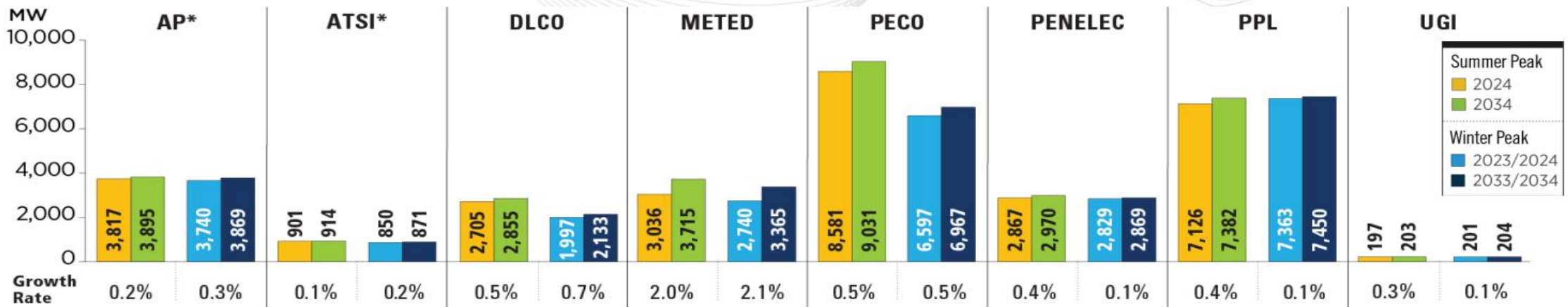
Pennsylvania's Generation Surplus



Pennsylvania's Generation Surplus



Pennsylvania – 2024 Load Forecast Report



*Serves load outside PA

The summer and winter peak megawatt values reflect the estimated amount of forecast load to be served by each transmission owner in the noted state/district. Estimated amounts were calculated based on the average share of each transmission owner's real-time summer and winter peak load in those areas over the past five years.

PJM RTO Summer Peak



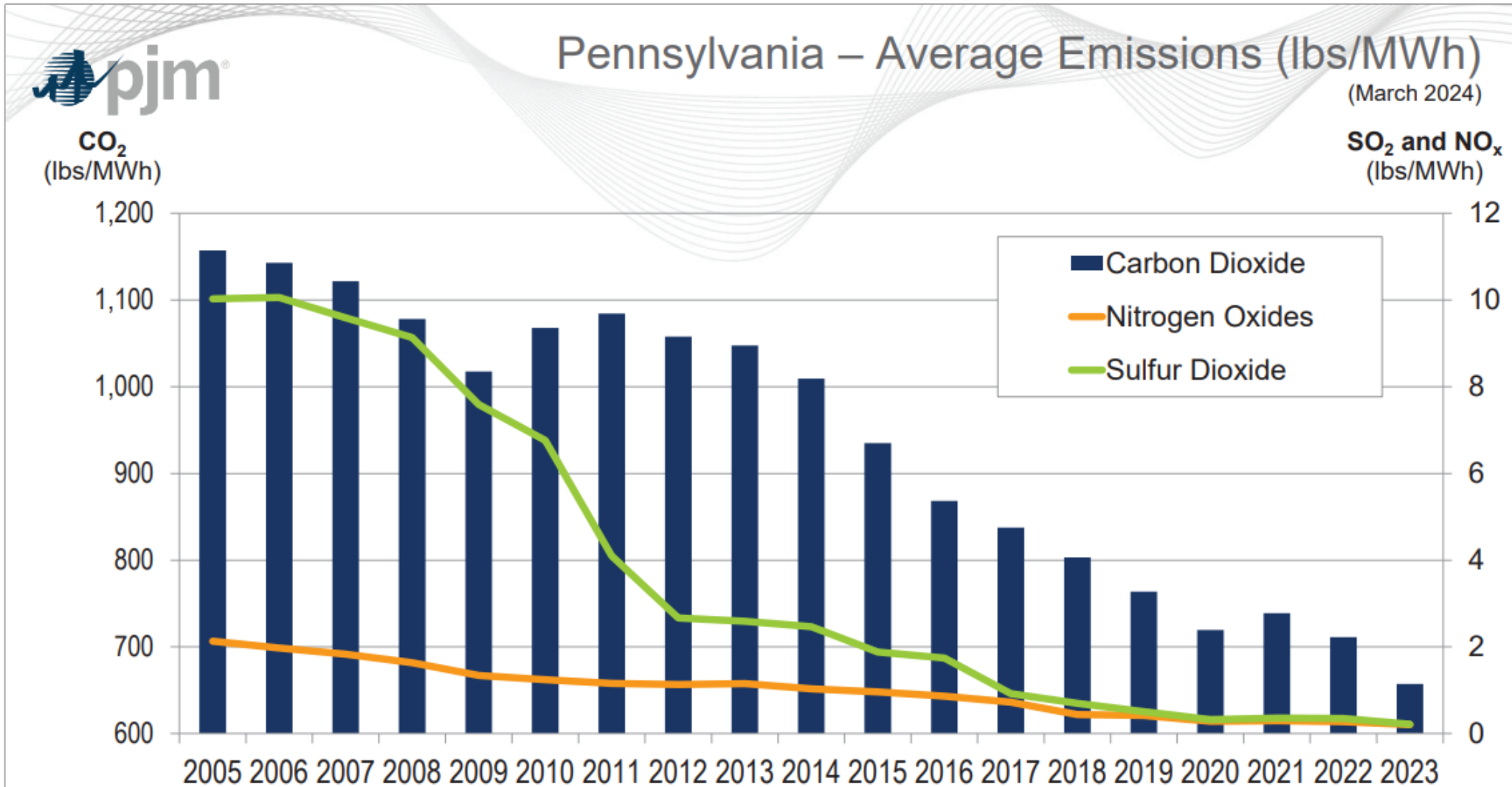
Growth Rate 1.6%

PJM RTO Winter Peak



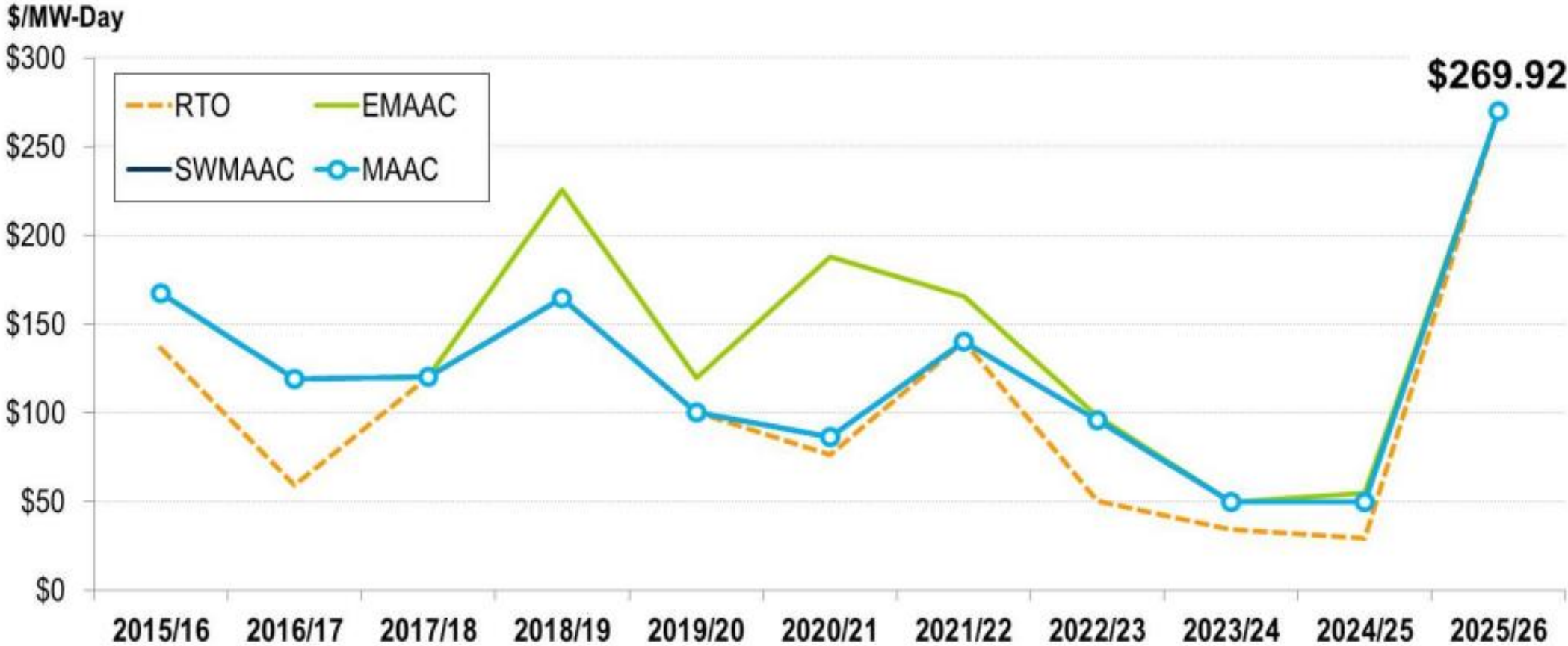
Growth Rate 1.9%

Pennsylvania Emissions



PJM Capacity Market Prices

Figure 1. BRA Clearing Prices by Delivery Year for Major LDAs



Response to Capacity Price – Post Auction

- **Calpine Announced Acceleration of PJM Development Program**

- <https://www.calpine.com/calpine-accelerates-pjm-development-program/>.

- **Middle River Power Withdrew Deactivation Notice of IL Peakers (480 MW)**

- <https://www.pjm.com/-/media/planning/gen-retire/deactivation-notice/elgin-deactivation-withdrawal.ashx>

- **Constellation Entered Deal To Restart TMI (over 800 MW)**

- <https://www.constellationenergy.com/newsroom/2024/>

- **Longview announced it was seeking an extension to build a gas plant in WV (1200 MW)**

- <https://www.dominionpost.com/2024/10/11/longview-power-daughter-companies-ask-psc-for-extensions-to-build-and-begin-operating-g>

Table 1

RTO RESULTS					
RPM Delivery Year	Annual Clearing Price (\$/MW-day)	Net CONE (UCAP, \$/MW-Day)	Annual Per Cent of RTO Net CONE	Target Installed Reserve Margin for the RTO	Realized RTO Reserve Margin
2007/2008	\$ 40.80	\$ 161.27	25%	15%	19%
2008/2009	\$ 111.92	\$ 161.71	69%	15%	17%
2009/2010	\$ 102.04	\$ 161.71	63%	15%	18%
2010/2011	\$ 174.29	\$ 163.47	107%	16%	16%
2011/2012	\$ 10.00	\$ 171.40	64%	16%	18%
2012/2013	\$ 16.46	\$ 276.09	6%	16%	21%
2013/2014	\$ 27.73	\$ 297.92	9%	15%	20%
2014/2015	\$ 125.99	\$ 343.23	37%	15%	19%
2015/2016	\$ 136.00	\$ 320.63	42%	15%	19%
2016/2017	\$ 59.37	\$ 330.53	18%	16%	20%
2017/2018	\$ 120.00	\$ 351.39	34%	16%	20%
2018/2019	\$ 164.77	\$ 300.57	55%	16%	20%
2019/2020	\$ 100.00	\$ 299.30	33%	17%	22%
2020/2021	\$ 76.53	\$ 292.92	26%	17%	23%

RPM Delivery Year	Annual Clearing Price (\$/MW-day)	Net CONE (UCAP, \$/MW-Day)	Annual Per Cent of RTO Net CONE	Target Installed Reserve Margin for the RTO	Realized RTO Reserve Margin
2021/2022	\$ 140.00	\$ 321.57	44%	16%	22%
2022/2023	\$ 50.00	\$ 260.50	19%	15%	20%
2023/2024	\$ 34.13	\$ 274.96	12%	15%	20%
2024/2025	\$ 28.92	\$ 293.19	10%	15%	20%
2025/2026	\$ 269.92	\$ 228.81	118%	18%	19%
Average to 2024-2025	\$ 89.94	\$ 265.69	37%		
Average Full Range	\$ 99.41	\$ 263.75	42%		
Average 2025-26			34%		
Average as % of 2025 Net CONE			39%		
Average as % of Average Net CONE over Range			34%		