

March 6, 2023

VIA ELECTRONIC MAIL

Mr. Mark Takahashi, Chairman
Mr. Manu Asthana, President and CEO
PJM Board of Managers
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

RE: PJM Coal Retirements

Dear Chairman Takahashi, Mr. Asthana, and the PJM Board of Managers:

I am writing to commend PJM for its analysis highlighted in the February 24 white paper “Energy Transition in PJM: Resource Retirements, Replacements & Risks” and to provide information we hope will be helpful to PJM as it considers how to prevent reliability problems as thermal resources, particularly coal-fired generation, continue to retire at an alarming pace.

According to the PJM website, future coal deactivations total 4.2 gigawatts (GW).¹ Some 3.8 GW (seven units) are deactivating in 2023 and 0.4 GW (one unit) are deactivating by the end of 2026. The white paper mentions 5.8 GW of announced deactivations over the same time frame², but we use deactivations listed on the website to explain our point: ***near-term coal retirements could exceed PJM’s forecasted coal retirements by a wide margin.***

The white paper provides a “forecast” of retirements that total 40 GW for all resources, not just coal, during 2022-2030 and 34 GW during 2023-2030.³ If 60 percent of total retirements are coal, then coal retirements during the eight-year period are 20.4 GW.⁴

- PJM forecast for all retirements 2022-2030 40 GW
- PJM forecast for all retirements 2023-2030 34 GW
- PJM forecast for coal-only retirements 2023-2030 20.4 GW

¹ <https://www.pjm.com/planning/services-requests/gen-deactivations.aspx> Accessed on March 3, 2023. For simplification, we round generating capacities to the nearest 0.1 GW (100 MW).

² White paper, page 6.

³ White paper, page 2.

⁴ See slide 3 of February 23 presentation (“PJM Energy Transition: Resource Retirements, Replacements and Risks”) by PJM staff.

The forecasts above do not include all EPA regulations of interest or the Inflation Reduction Act (IRA).

America’s Power keeps track of “announced” coal retirements nationwide and in regions with significant coal-fired generation, such as PJM. We define announced as a public statement, media report, or formal filing by the generation owner indicating their intent to retire a coal unit in a particular year. We recognize that an announced retirement, as we define it, does not ensure that a unit will retire on the future date. However, our experience is that the vast majority of announced retirements occur as their owners have indicated.

Currently, announced coal retirements in PJM total 17.3 GW during 2023-2030. However, these announced retirements do not reflect six EPA regulations that will have a major impact on the coal fleet, whereas the PJM coal retirements forecast includes three of the six regulations.⁵ Approximately 14 GW of the PJM coal fleet lacks advanced emission controls for SO₂ and NO_x, which means almost one-third of the fleet is at risk of having to either install more controls or retire prematurely rather than incur the expense of these controls.⁶ We estimate that EPA regulations will have their greatest impact on the coal fleet during 2026-2028.⁷ Furthermore, neither announced retirements nor PJM’s forecasted retirements include the effects of the IRA. Our own internal analysis, as well as analysis by EPA and others, suggest the IRA could cause 50-65 GW of additional coal retirements nationwide by 2030.⁸

During 2023-2025, announced PJM coal retirements total 10 GW. By comparison, PJM forecasts 3.8 GW of coal retirements in 2023 and none in 2024 or 2025.⁹

- **Forecasted coal retirements 2023-2025 per PJM** **3.8 GW**
- **Announced coal retirements 2023-2025 per America’s Power** **10 GW**

Forecasted and announced retirements above do not include all EPA regulations of interest or the IRA.

⁵ The six EPA regulations are the Coal Combustion Residuals rule, Effluent Limitations Guidelines, Ozone Transport Rule, revised Mercury and Air Toxics Standards, a replacement for the Affordable Clean Energy rule, and the Regional Haze Rule.

⁶ The coal fleet has installed various types of emission controls over the years. At risk for further controls refers to a coal plant that lacks selective catalytic reduction (SCR) to reduce NO_x emissions, wet or dry flue gas desulfurization (scrubbers) to reduce SO₂ emissions, or both types of controls.

⁷ Our estimated timeframe is based on when compliance decisions will have to be made by the owners of coal plants. We expect coal retirements due to these EPA regulations to peak during 2026-2028. However, EPA regulations are expected to cause retirements prior to and after 2026-2028.

⁸ Modeling done for America’s Power, based on simplifying assumptions, estimated that IRA tax credits could cause an additional 19,000 MW of coal retirements in 2025 and 65,000 MW in 2030. EPA’s initial modeling results show roughly 30,000 MW of additional coal retirements in 2025 and 50,000 MW in 2030 due to the IRA. The EPA analysis was presented at a February 15 Resources for the Future event, “Future Generation: Exploring the New Baseline for Electricity in the Presence of the Inflation Reduction Act.”

⁹ White paper, Figure 1.

If 10 GW of coal retire, coal retirements will be approximately three times greater over the next three years than PJM is considering. ***This discrepancy suggests that the reliability challenges facing PJM, especially in the very near term, could be even more serious than the white paper's forecast.***

We want to be helpful in addressing the reliability challenges facing PJM and look forward to continuing to work with PJM and its stakeholders to find viable solutions. For example, the white paper mentions “markets ... sending price signals to build new generation for reliability needs.”¹⁰ ***Price signals also should incent the retention of existing thermal resources that are needed for reliability.*** In the meantime, please do not hesitate to contact us if you have any questions.

Sincerely,



Michelle Bloodworth
President and CEO

Copy to:

Stu Bresler, PJM Senior Vice President – Market Services

Mike Bryson, PJM Senior Vice President – Operations

¹⁰ White paper, page 16.