2024 West Virginia State Infrastructure Report (January 1, 2024 – December 31, 2024)

June 2025

Table of Contents

Executive Summary

2024 West Virginia State Infrastructure Report

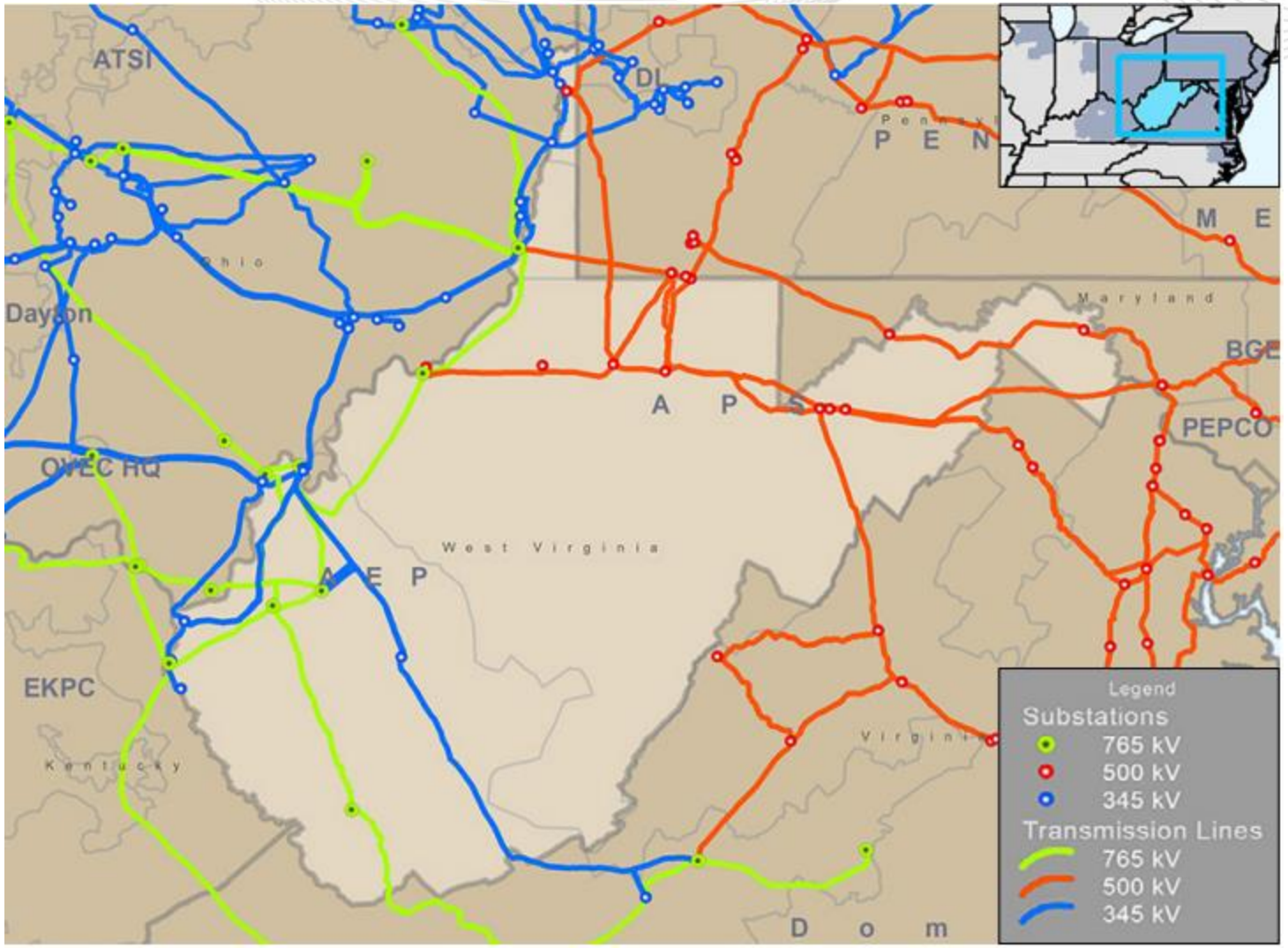
In the West Virginia service territory:

Existing Capacity:	• In West Virginia, coal represents approximately 89% of the total installed capacity while gas represents approximately 8%. • In PJM, coal and natural gas are 89% and 8%, respectively, of total installed capacity.
Interconnection Requests:	• Natural gas represents 42% of new interconnection requests while solar represents 28% of new requests.
Deactivations:	No generation in West Virginia deactivated or gave notice of deactivation in 2024.
RTEP 2024:	West Virginia's 2024 RTEP project total represents $2.497 billion in investment.

In the West Virginia service territory:

Load Forecast:	West Virginia's summer peak load is projected to increase by 0.8% to 1.2% annually over the next ten years, while the winter peak is projected to increase by 1% to 1.1%, depending on the transmission zone.
Capacity Market:	West Virginia's service territory cleared at the RTO clearing price, $269.92, for the 2025/2026 Base Residual Auction.
Market Performance:	West Virginia's average hourly LMPs aligned with the PJM average hourly LMP.
Emissions:	West Virginia's average CO_2 emissions slightly increased in 2024 compared to 2023 levels.

PJM Service Area in West Virginia

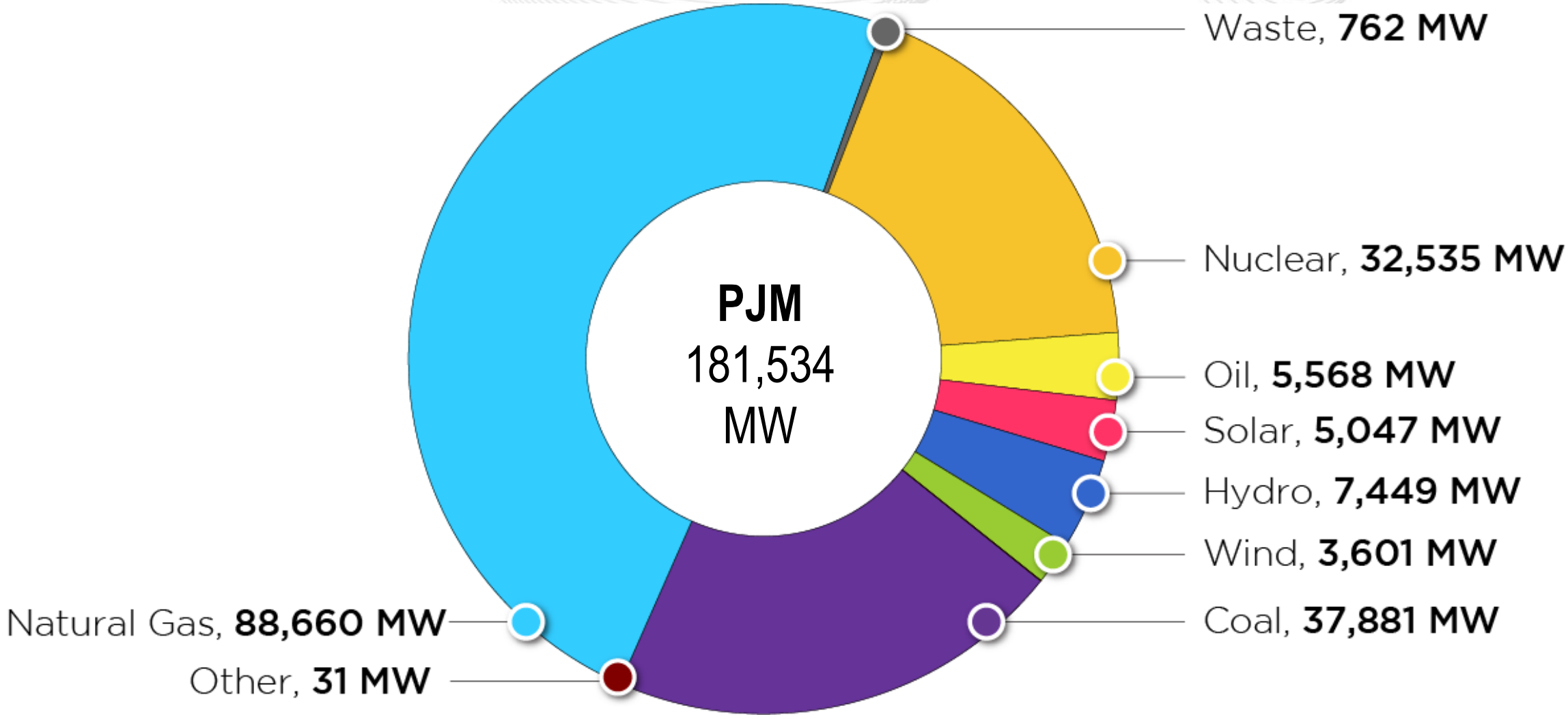


Planning

Generation Portfolio Analysis

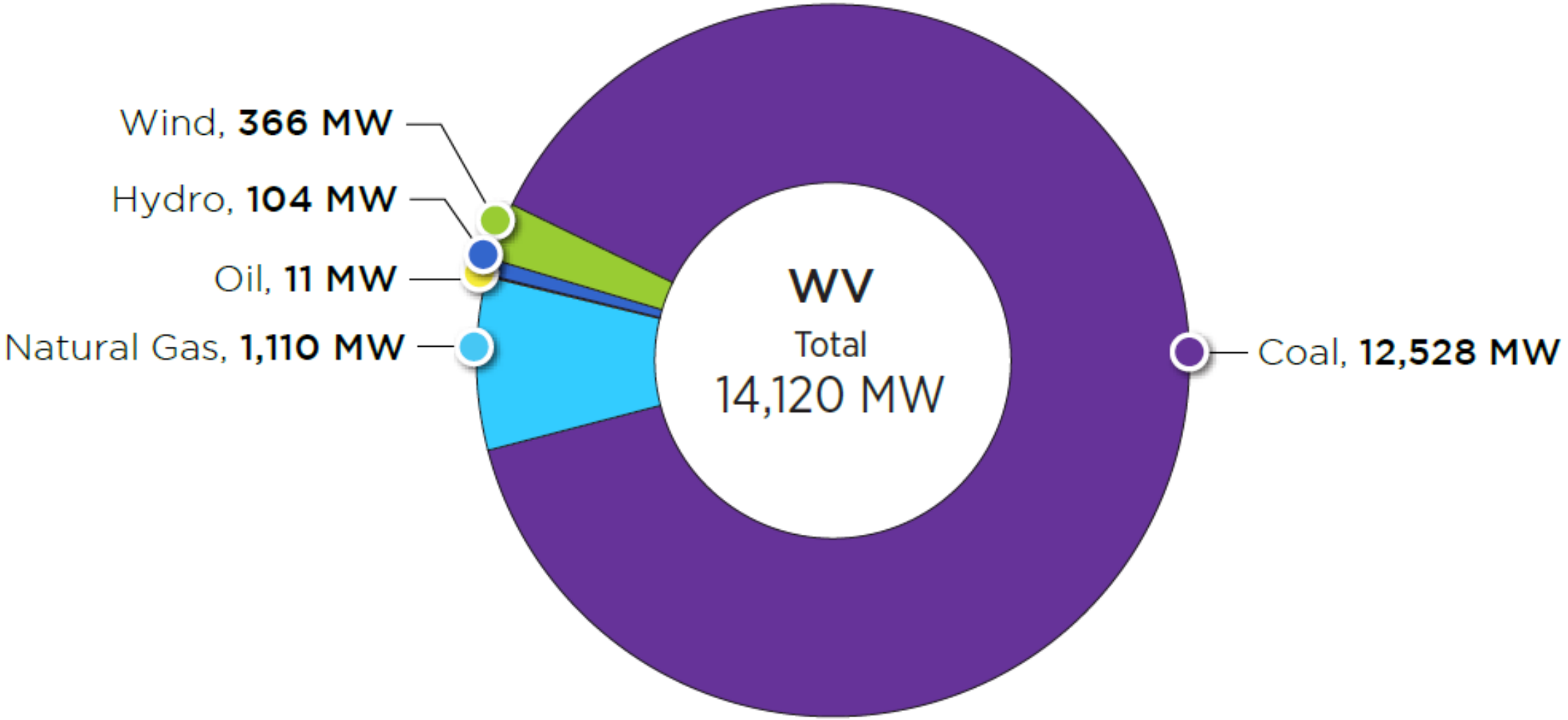
PJM Existing Installed Capacity Mix

(CIRs – as of Dec. 31, 2024)



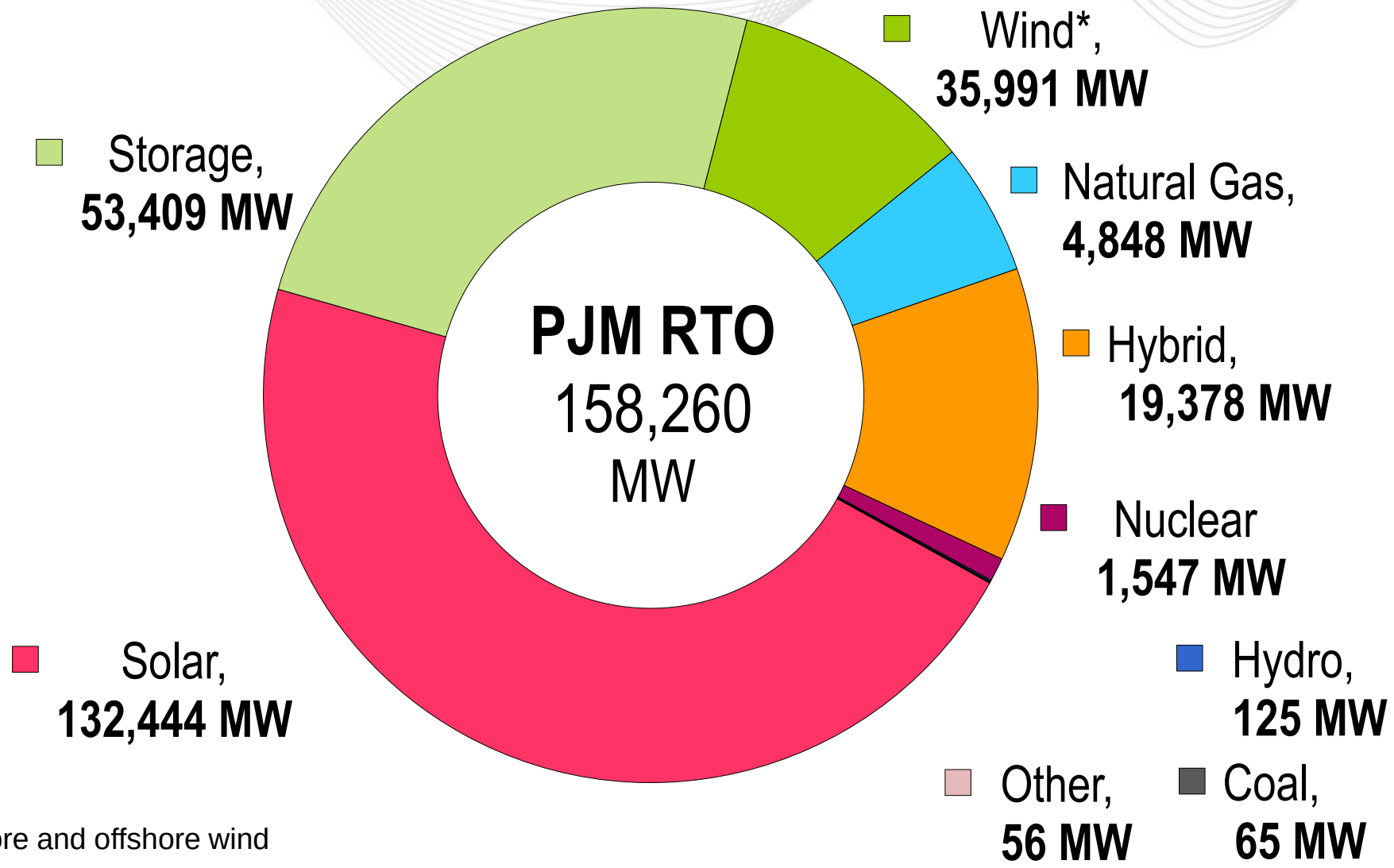
West Virginia – Existing Installed Capacity (MW) by Fuel Type

(CIRs- as of Dec. 31, 2024)



PJM Queued Capacity (Nameplate) by Fuel Type

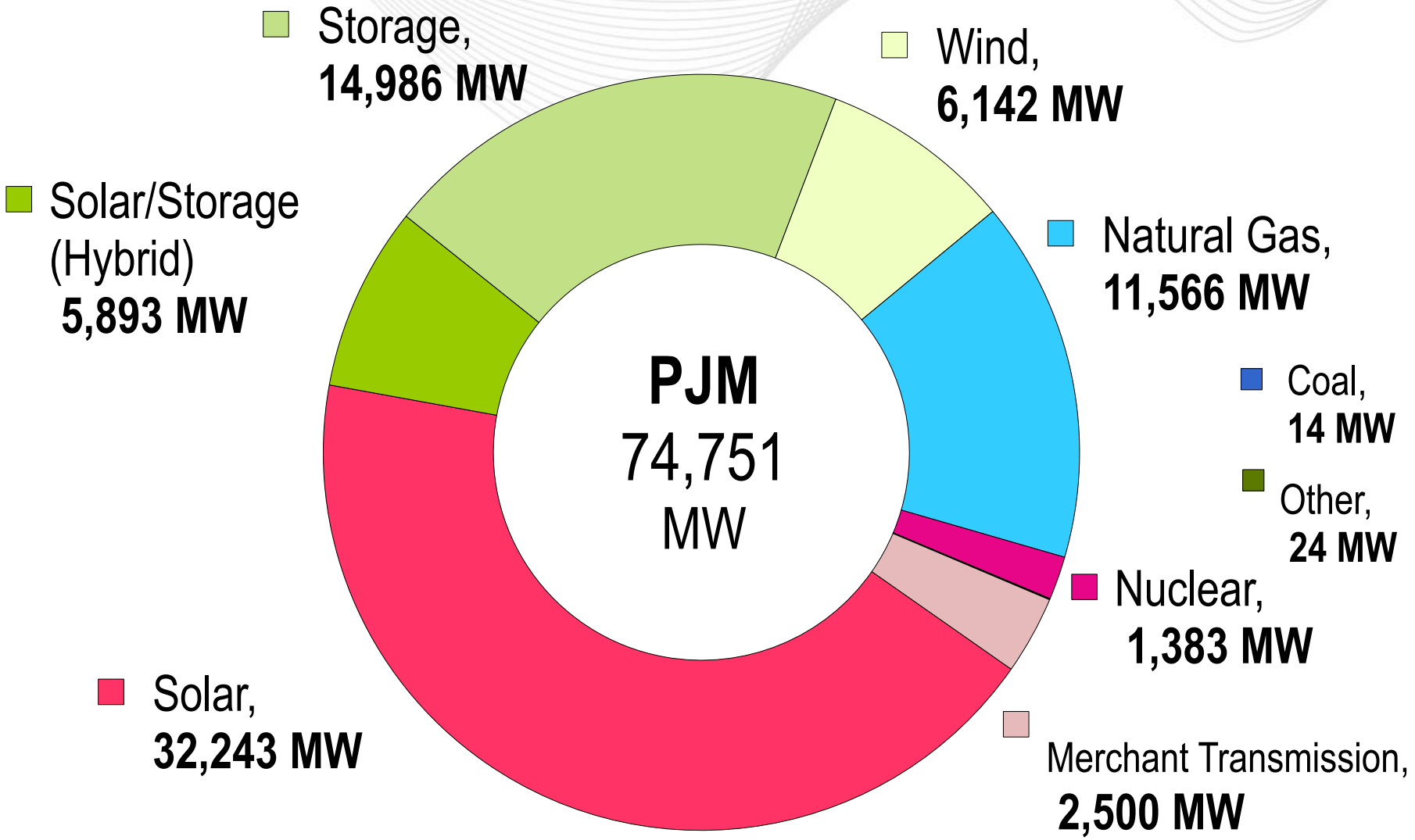
(All “Active” projects and projects with an interconnection agreement but not yet in service, as of May 7, 2025)



*Wind includes both onshore and offshore wind

PJM Interconnection Queue Transition

Projects remaining in Transition Cycle 1 and Transition Cycle 2, including projects selected through the Reliability Resource Initiative (June 2025)



West Virginia Queued Capacity (Nameplate) by Fuel Type

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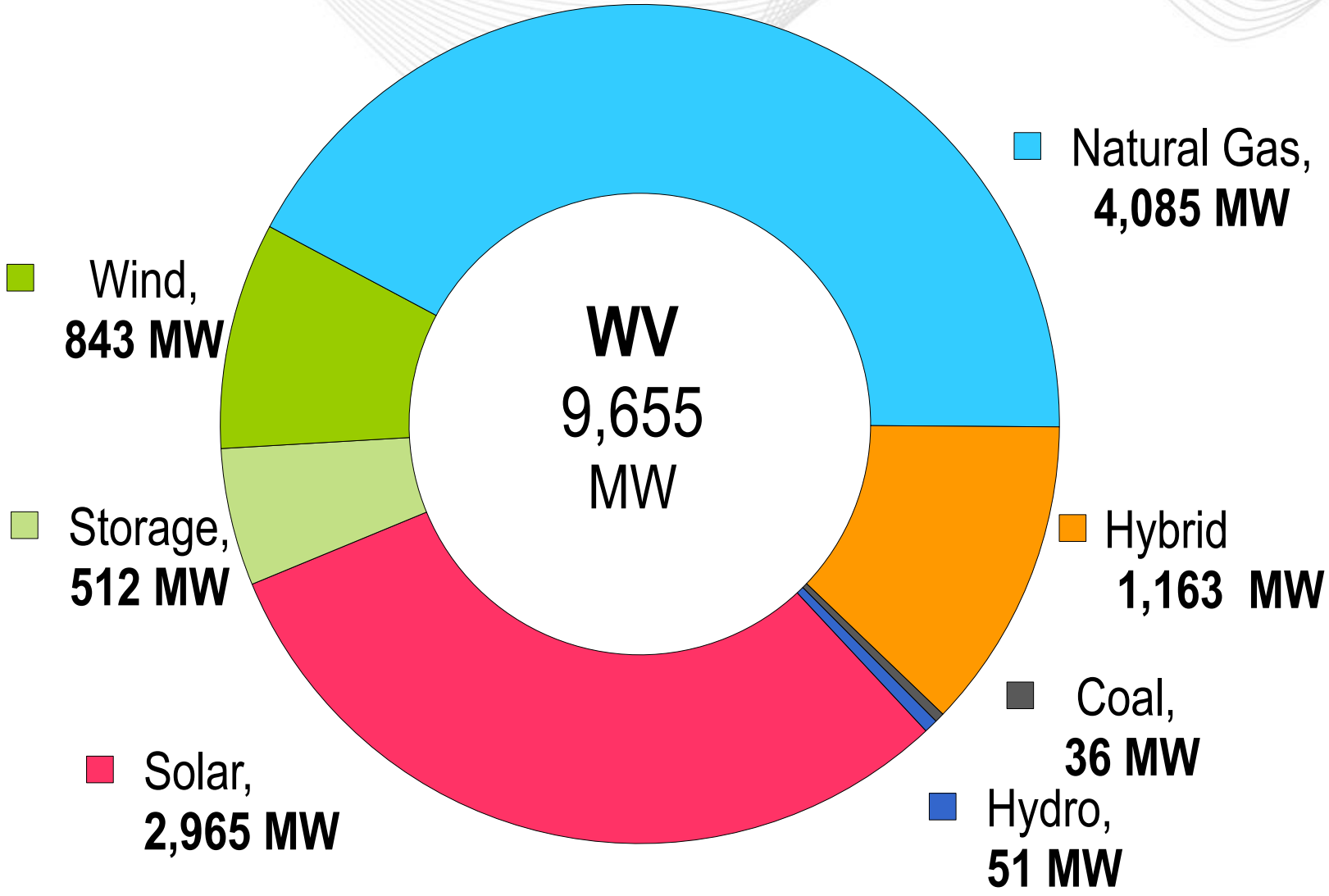


West Virginia – 2024 Generator Deactivations

West Virginia had no generators deactivate or give a notice of deactivation in 2024.

Planning

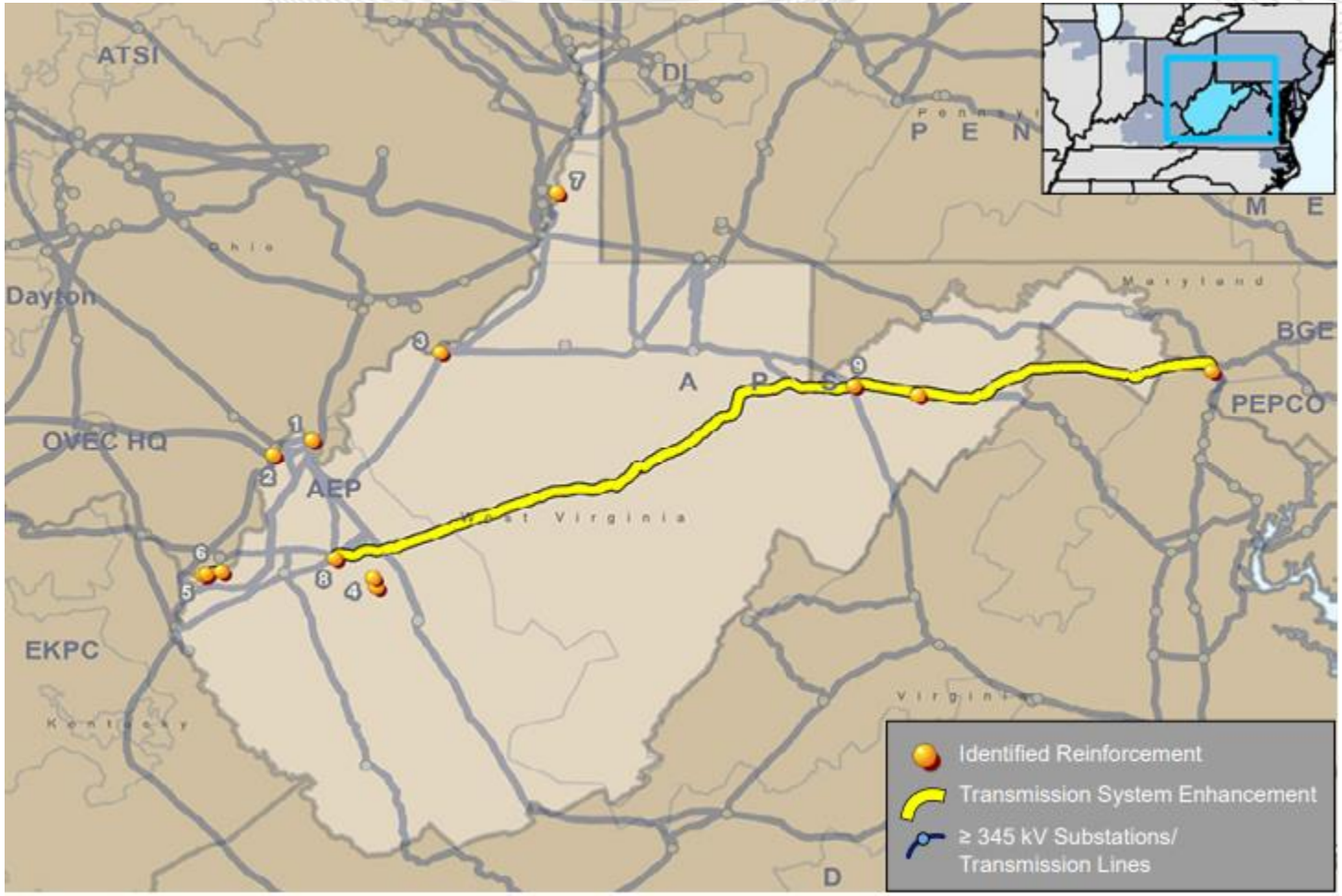
Transmission Infrastructure Analysis

For reporting purposes, the 2024 state infrastructure reports provide maps displaying all baseline, network, and supplemental projects for the respective state. The reports also include aggregated project costs for each type of project within each state. The costs listed in the state infrastructure reports and 2024 Annual RTEP Report are not indicative of each project's cost allocation.

For a detailed list of each project shown on a state's project map, please see that state's section in the **2024 Annual RTEP Report** on PJM.com: https://www.pjm.com/-/media/DotCom/library/reports-notices/2024-rtep/2024-rtep-report.pdf

The complete list of all RTEP projects in PJM, including those from prior years, can be found at the **RTEP Upgrades & Status – Transmission Construction Status** page on PJM.com: https://www.pjm.com/planning/m/project-construction.

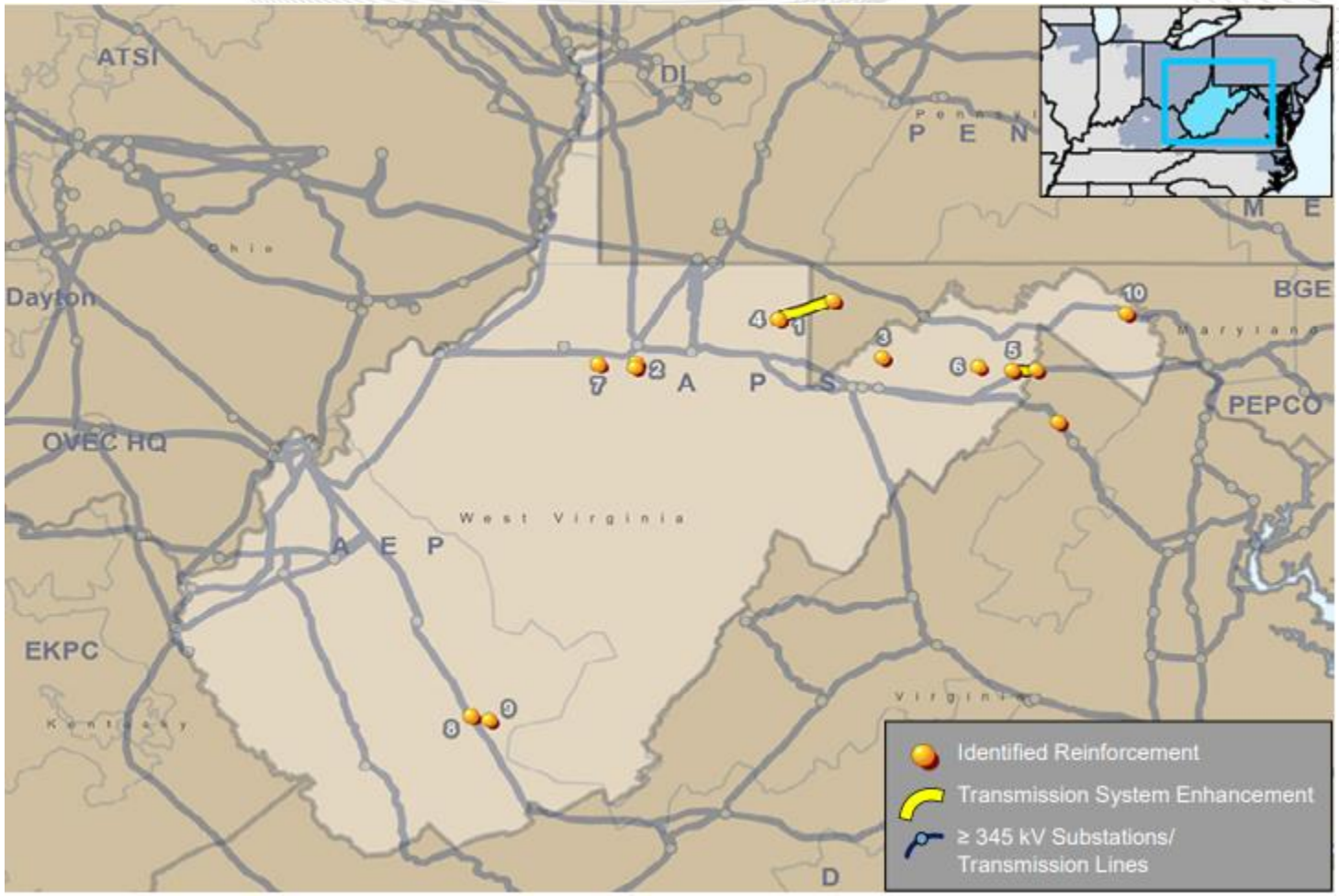
West Virginia Baseline Projects



The 2024 RTEP has $1.528 billion in baseline projects located in West Virginia.

Note: Baseline upgrades are those that resolve a system reliability criteria violation. Baseline projects listed in the annual RTEP report reflect project costs within a specific location and are not indicative of the project's cost allocation.

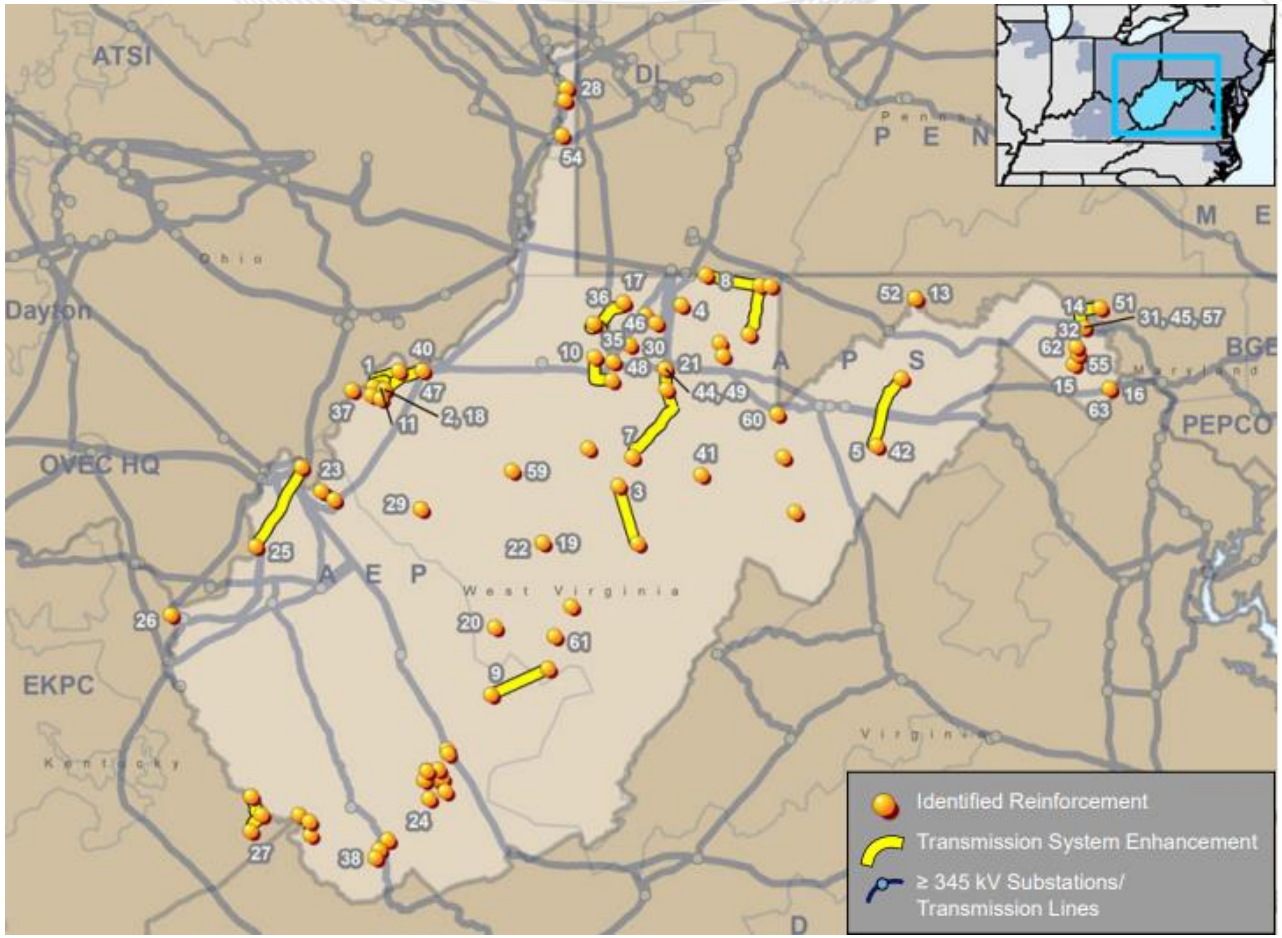
West Virginia – RTEP Network Projects



The 2024 RTEP has $43.61 million in network projects located in West Virginia.

Note: Network projects are new or upgraded facilities required primarily to eliminate reliability criteria violations caused by proposed generation, merchant transmission or long-term firm transmission service requests, as well as certain direct connection facilities required to interconnect proposed generation projects. The costs of network projects are borne by the interconnection customer.

West Virginia Supplemental Projects

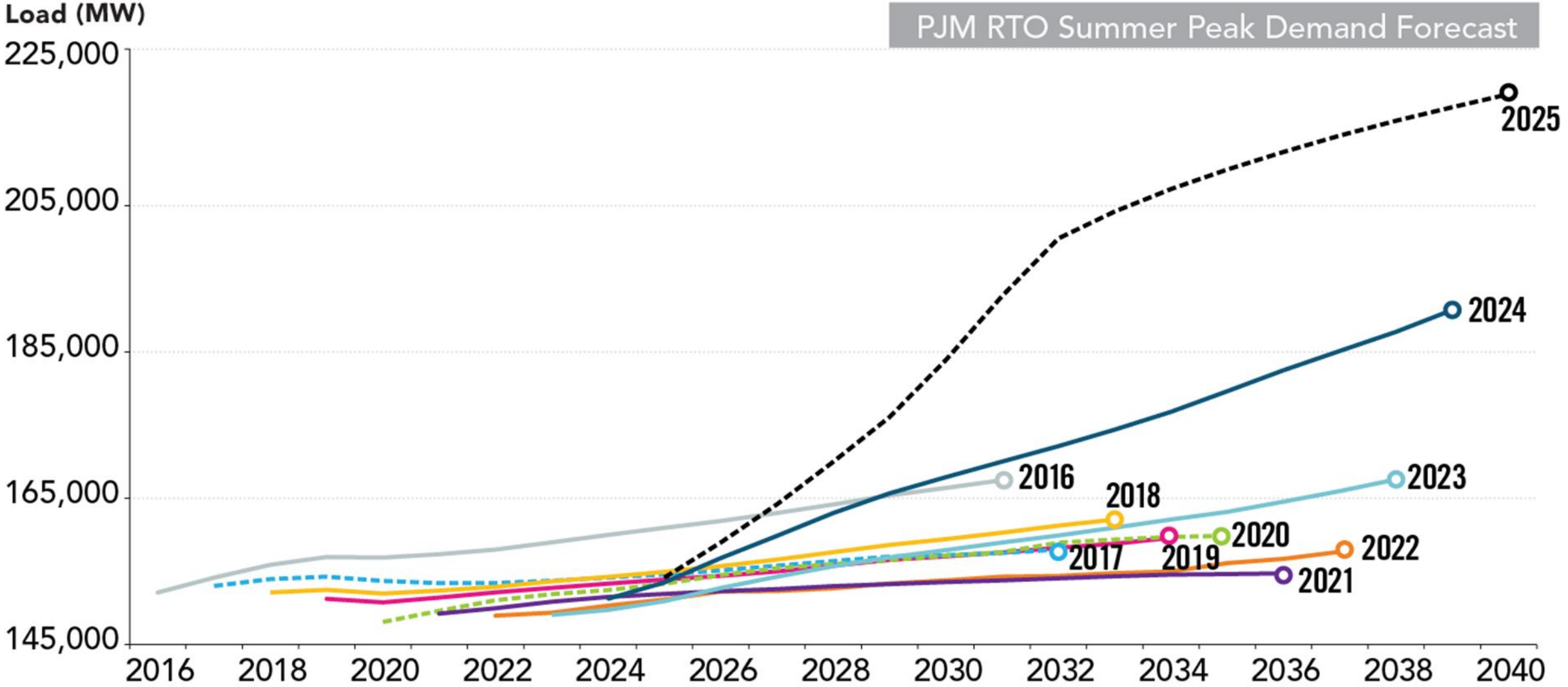


The 2024 RTEP has $925.43 million in supplemental projects located in West Virginia.

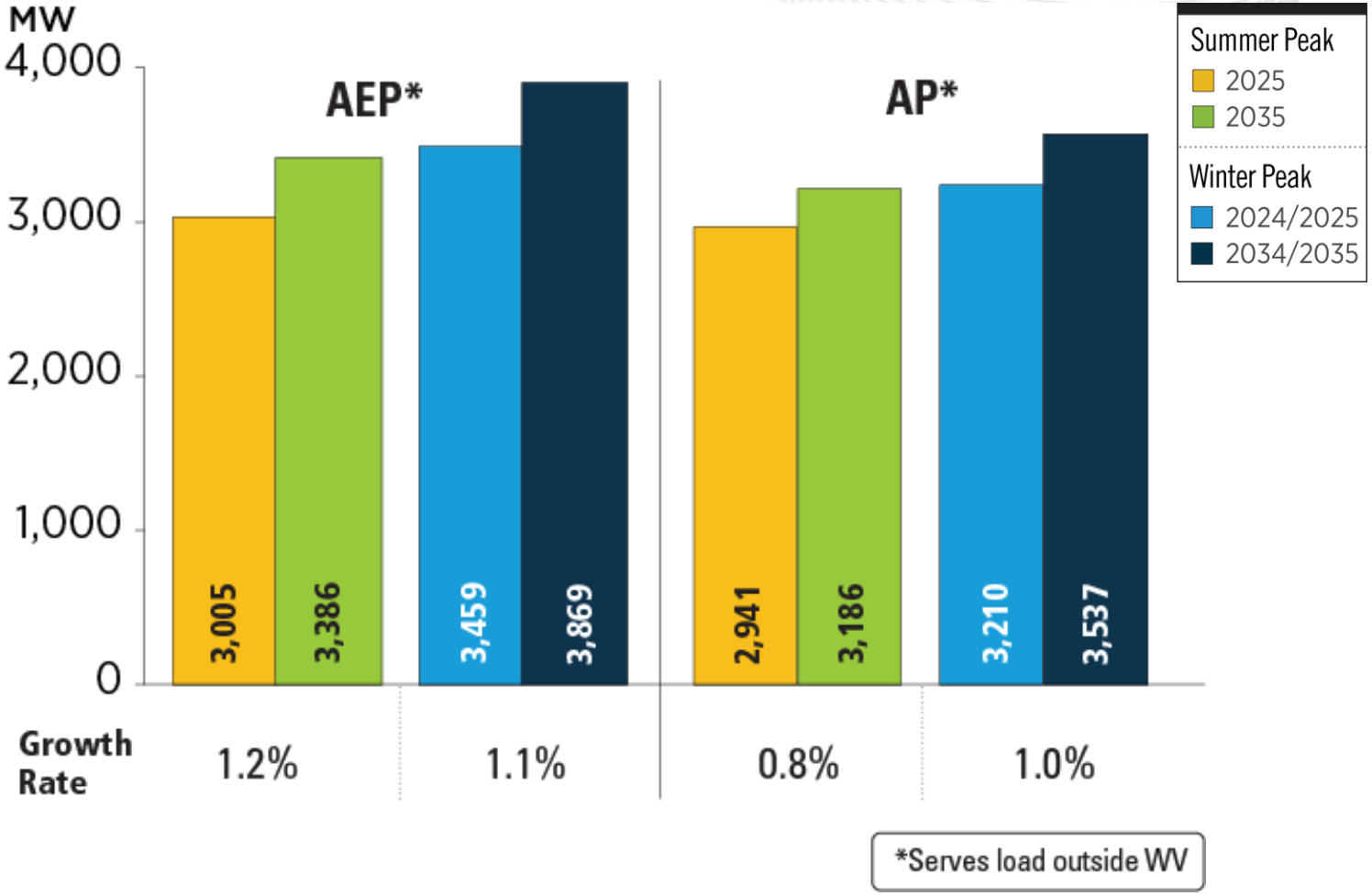
Note: Supplemental projects are transmission expansions or enhancements that are not required for compliance with PJM criteria and are not state public policy projects according to the PJM Operating Agreement. These projects are used as inputs to RTEP models, but are not required for reliability, economic efficiency or operational performance criteria, as determined by PJM.

Planning
Load Forecast

PJM Electricity Demand Growth



West Virginia – 2025 Load Forecast Report



PJM RTO Summer Peak

2025	2035
154,144 MW	209,923 MW

Growth Rate 3.1%

PJM RTO Winter Peak

2024/2025	2034/2035
136,127 MW	198,175 MW

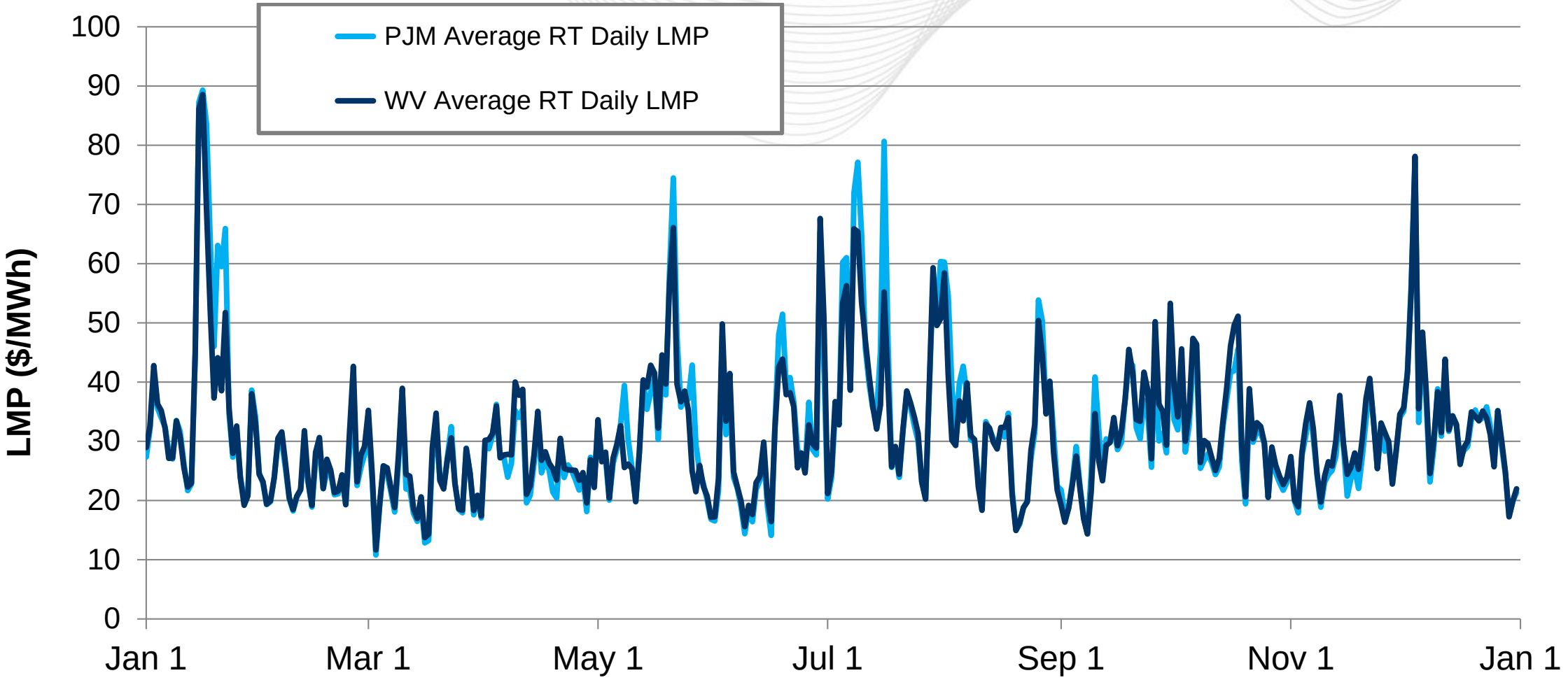
Growth Rate 3.8%

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.

Markets
Market Analysis

West Virginia – Average Daily LMP

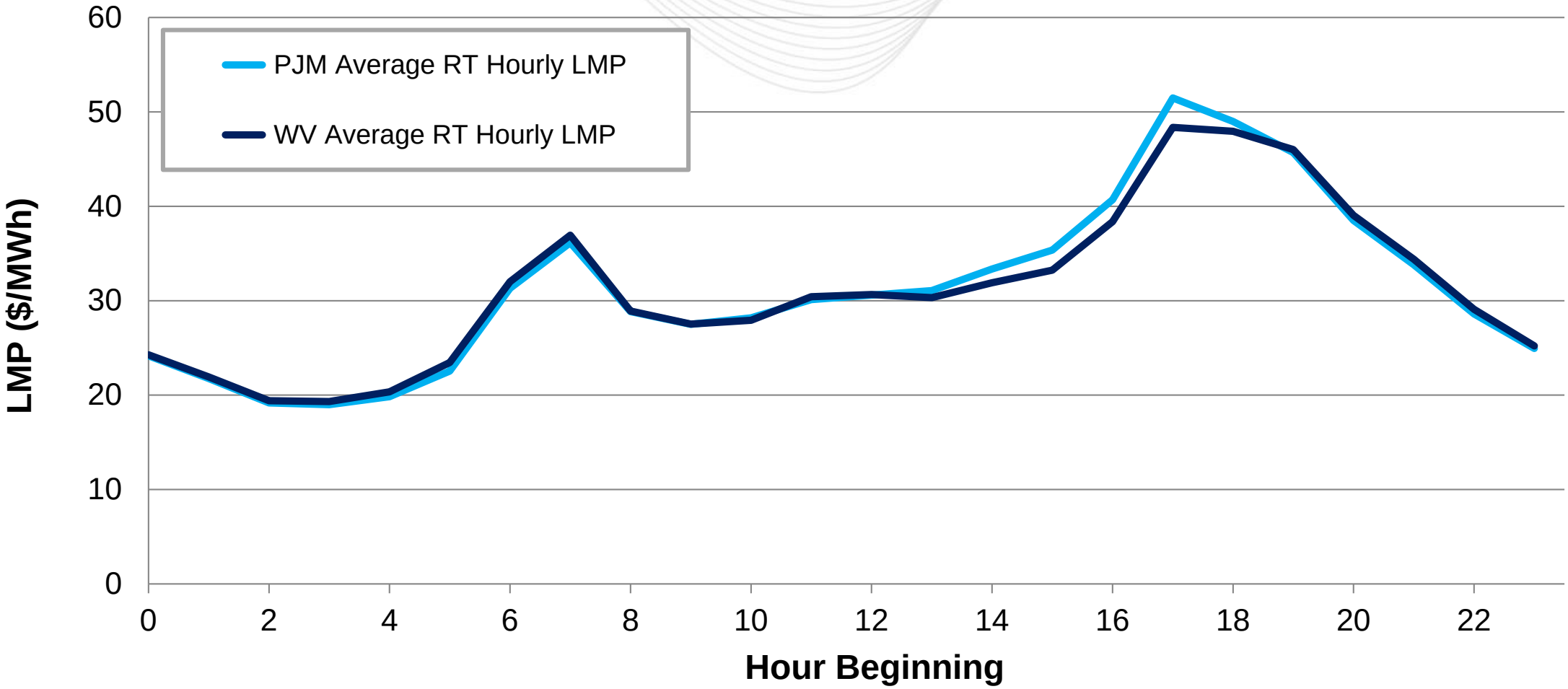
(Jan. 1, 2024 – Dec. 31, 2024)



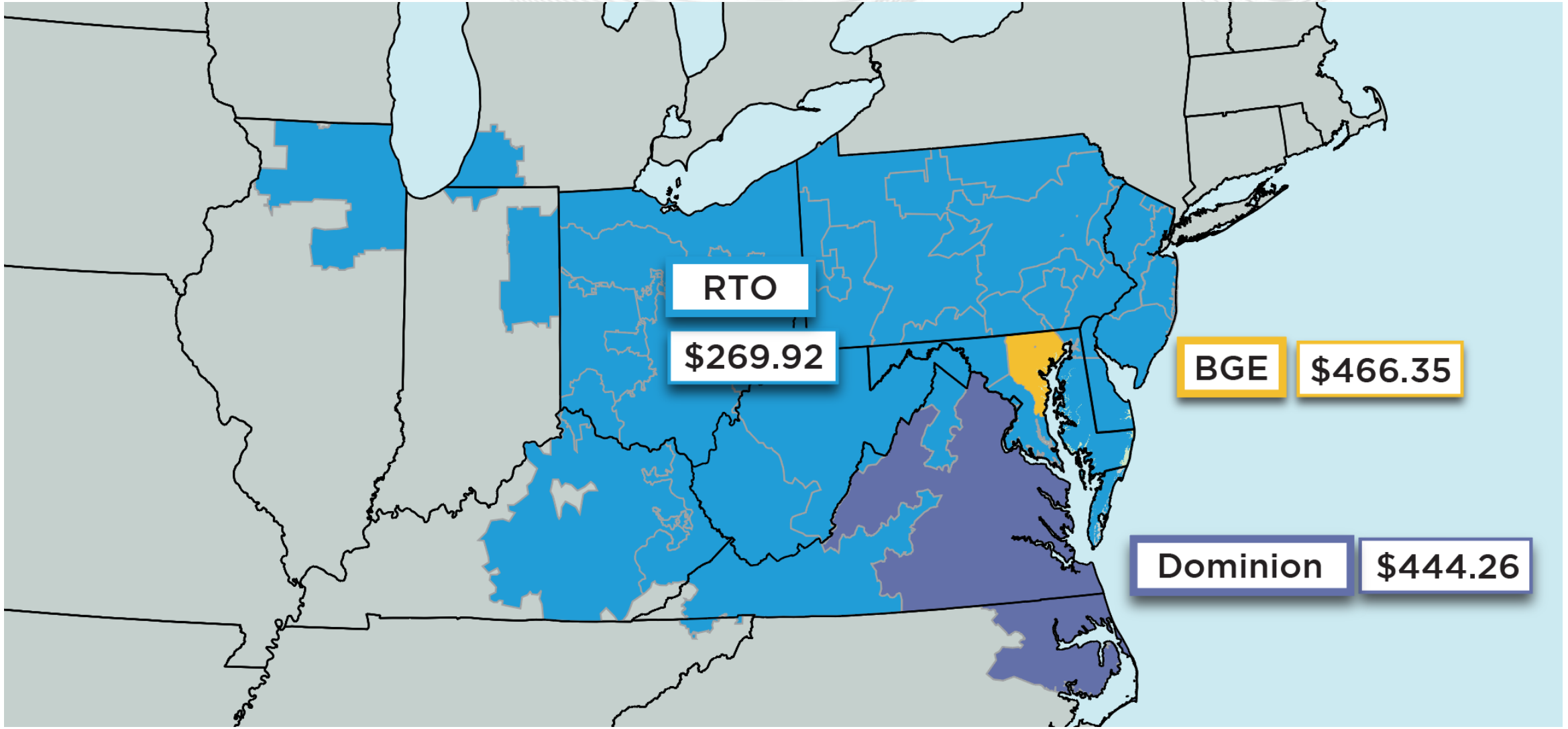
West Virginia – Average Hourly LMP

(Jan. 1, 2024 – Dec. 31, 2024)

West Virginia's average hourly LMPs were consistent with the PJM average hourly LMP.



2025/26 Base Residual Auction Clearing Prices ($/MW-Day)



2025/2026 BRA Final Clearing Prices and MW Quantities

(Unforced Capacity)

LDA	Offered MW*	Cleared MW**	Clearing Price
DOM	20,100.2	20,049.6	$444.26
BGE	612.9	606.9	$466.35
RTO	137,152.1	135,684.0	$269.92

** Offered MW values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers.*

*** Cleared MW values include Annual and matched Seasonal Capacity Performance sell offers within the LDA.*

Locational Price Adder is with respect to the immediate parent LDA

2025/2026 Cleared MW (UCAP) by Resource Type

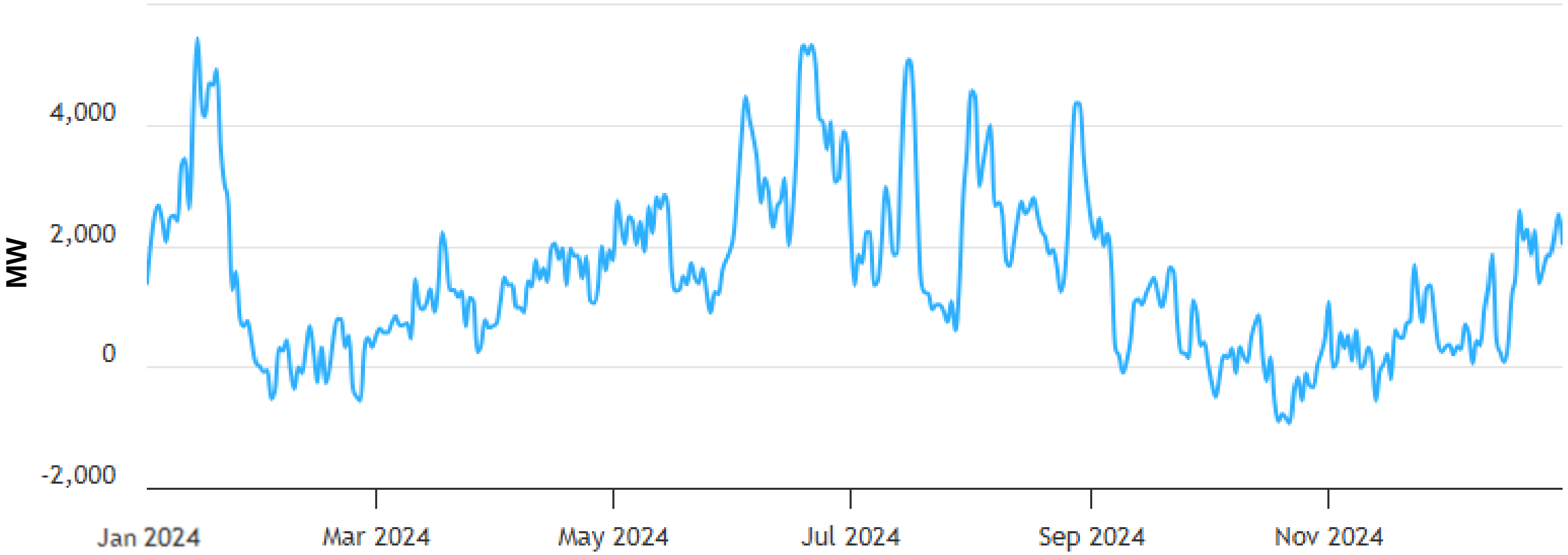
CAPACITY PERFORMANCE

Cleared MW (UCAP)

Resource Type	ANNUAL	SUMMER	WINTER
Generation	128,114.5	45.0	448.0
DR	5,942.4	122.3	-
EE	1,179.1	280.7	-
PRD	210.2	-	-
Total (MW)	**135,446.2**	**448.0**	**448.0**

West Virginia – Net Energy Import/Export Trend

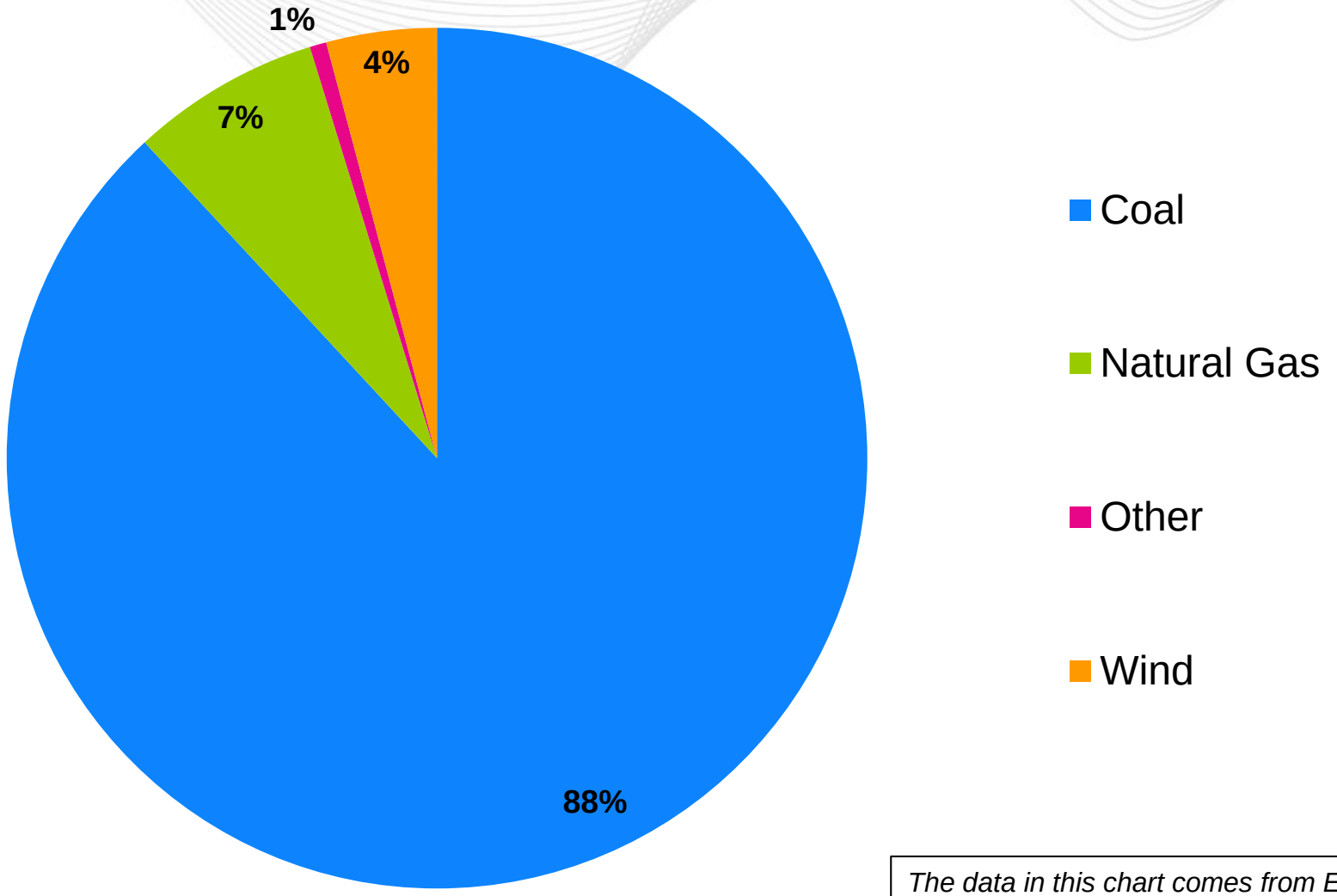
(Jan. 2024 – Dec. 2024)



Positive values represent exports and negative values represent imports.

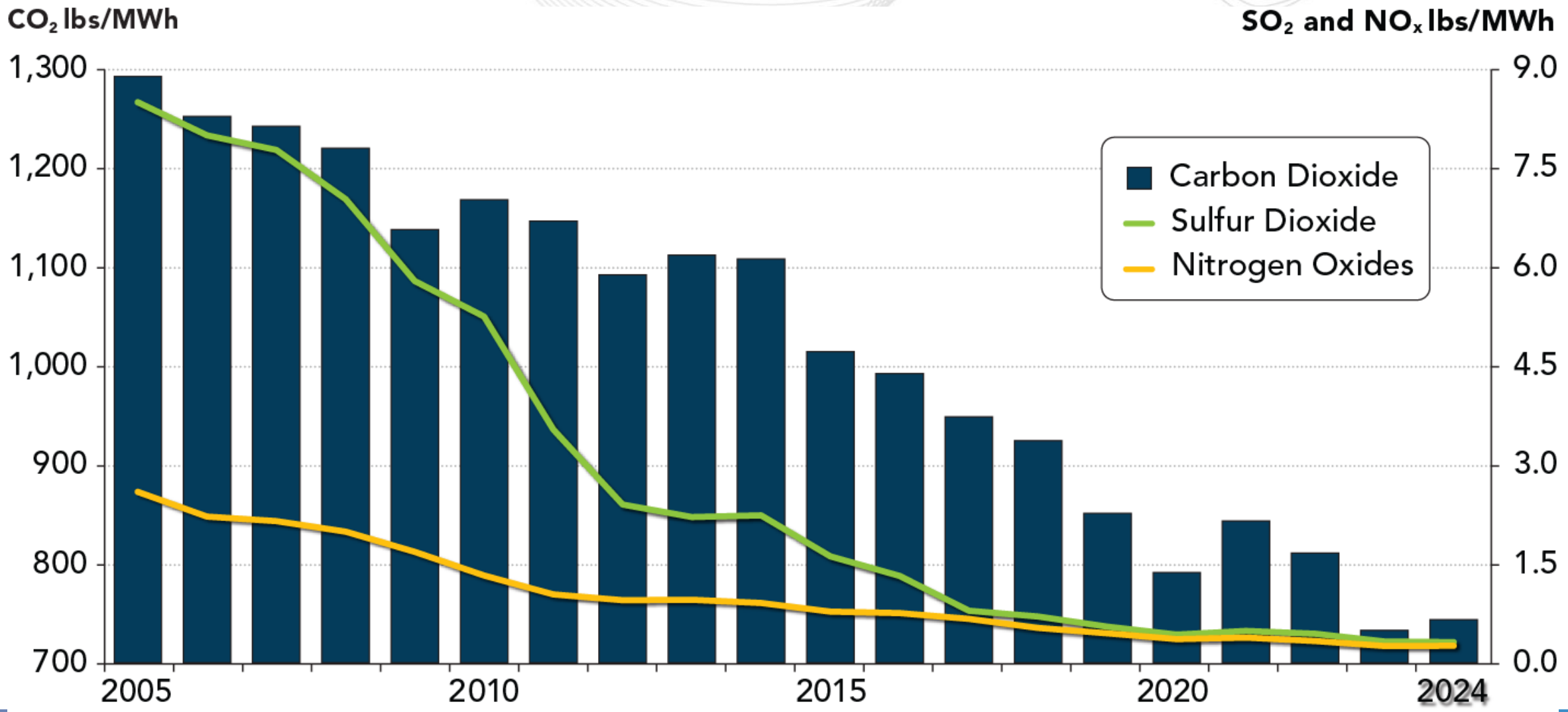
Operations

West Virginia – 2024 Generator Production



The data in this chart comes from EIA Form 923 (2024).

PJM System Average Emission Rates



West Virginia – Average Emissions (lbs/MWh)

(Feb. 2025)