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

June 2025

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Executive Summary

2024 Virginia State Infrastructure Report

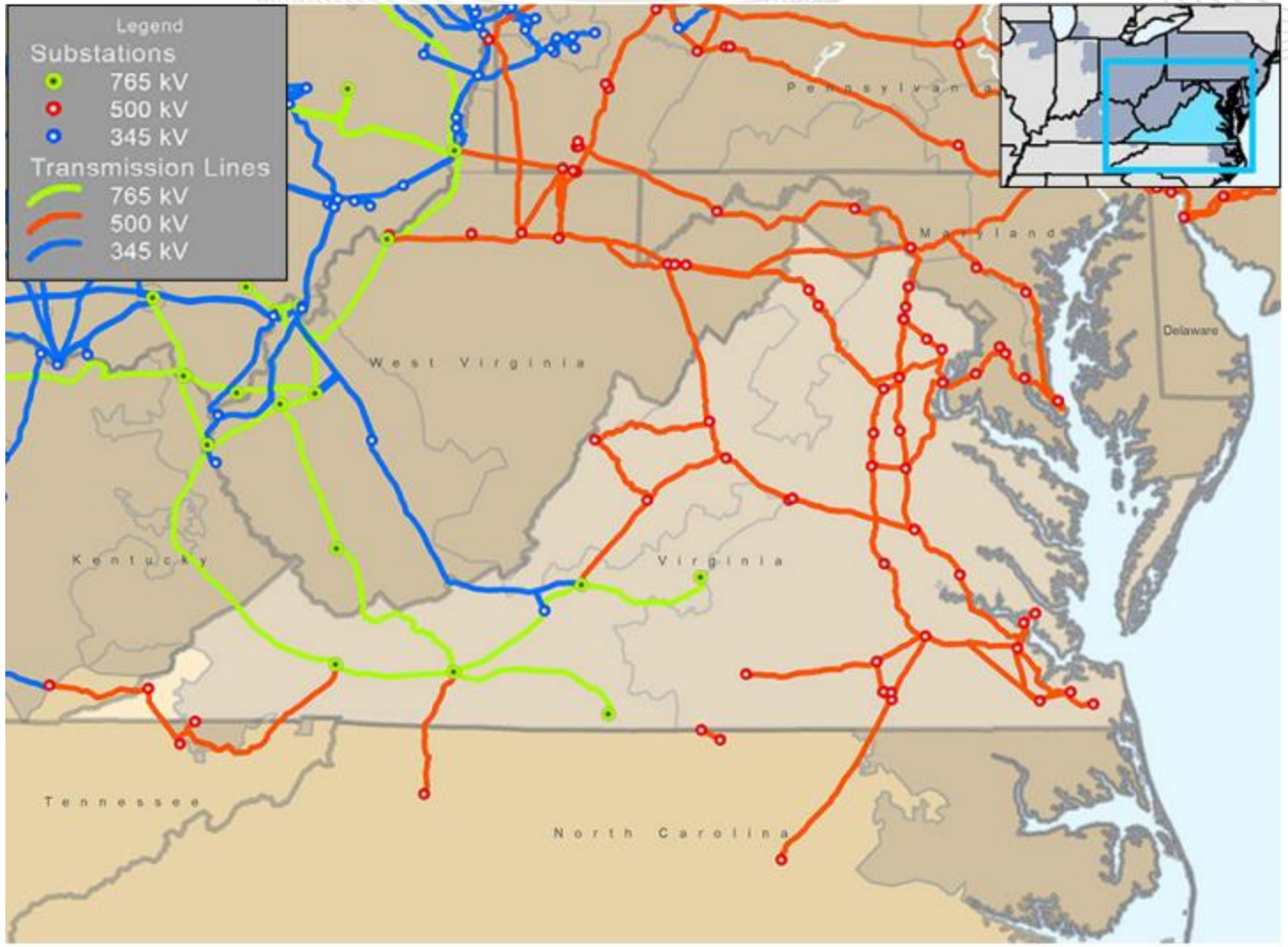
In the Virginia service territory:

Existing Capacity:	• In Virginia, natural gas represents 52% of the total installed capacity while hydro represents 15% and nuclear 14%. • In PJM, natural gas and coal are 49% and 21% of total installed capacity, while nuclear represents 18%.
Interconnection Requests:	• Solar represents 41% of new interconnection requests while storage represents 33% of new requests.
Deactivations:	51 MW deactivated in Virginia in 2024.
RTEP 2024:	Virginia's 2024 RTEP project total represents approximately $7.18 billion in investment.

In the Virginia service territory:

Load Forecast:	Virginia's summer peak load is projected to increase by 0.1% to 6.4% annually over the next ten years, while the winter peak is projected to increase by 0.6% to 6.2%, depending on the transmission zone.
Capacity Market:	Virginia's service territory cleared at the Dominion Zone clearing price, $444.26, for the 2025/2026 Base Residual Auction.
Market Performance:	Virginia's average hourly LMPs were above the PJM average hourly LMP.
Emissions:	Virginia's average CO_2 emissions increased in 2024 compared to 2023 levels

PJM Service Area in Virginia

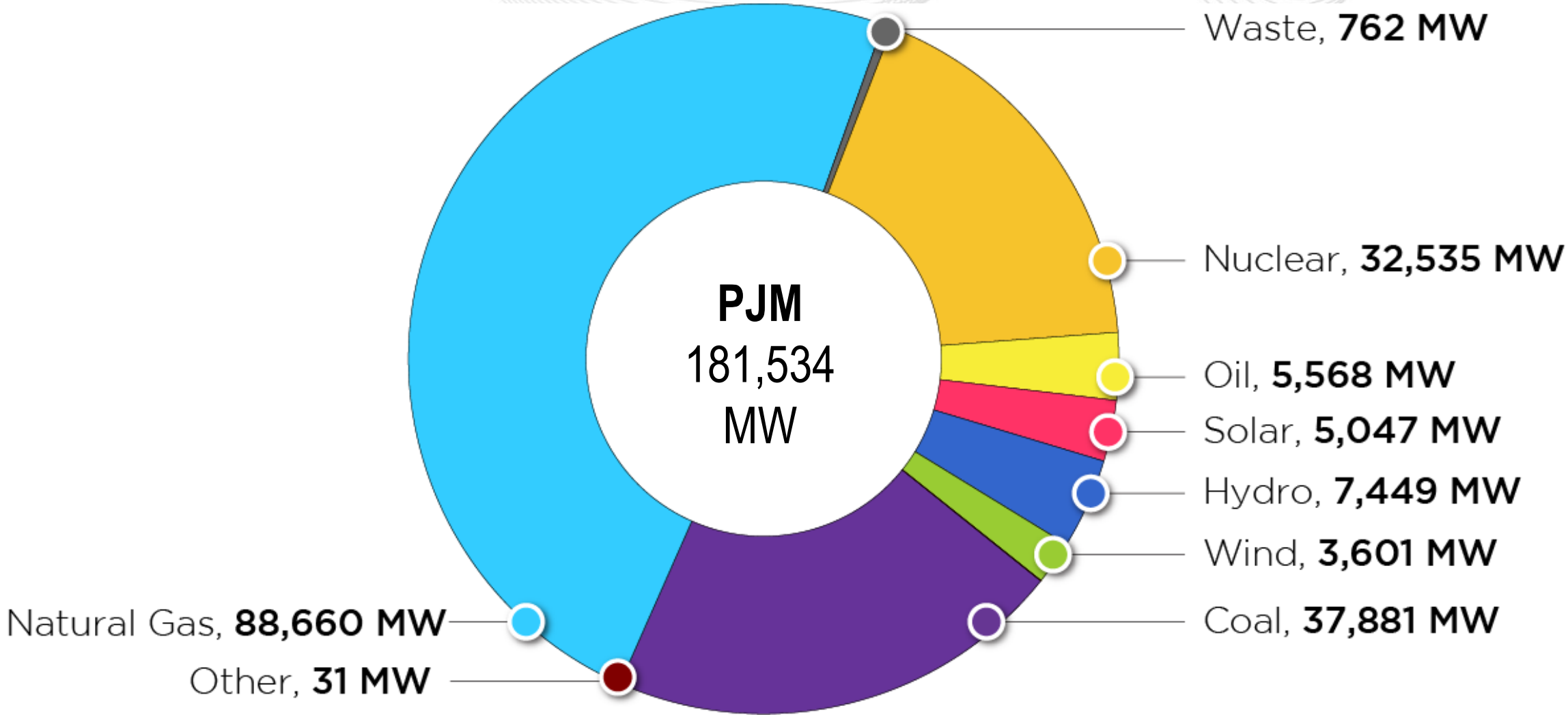


Planning

Generation Portfolio Analysis

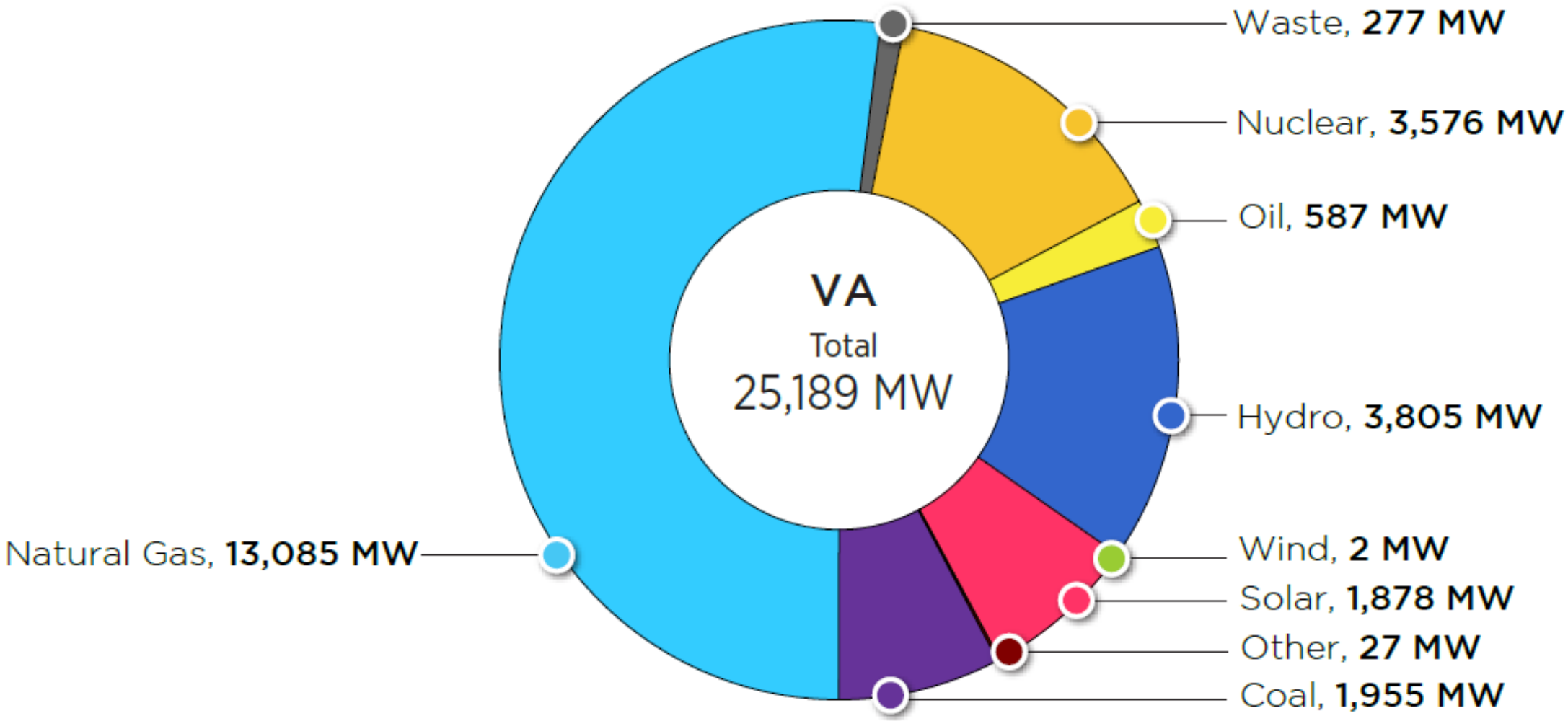
PJM Existing Installed Capacity Mix

(CIRs – as of Dec. 31, 2024)



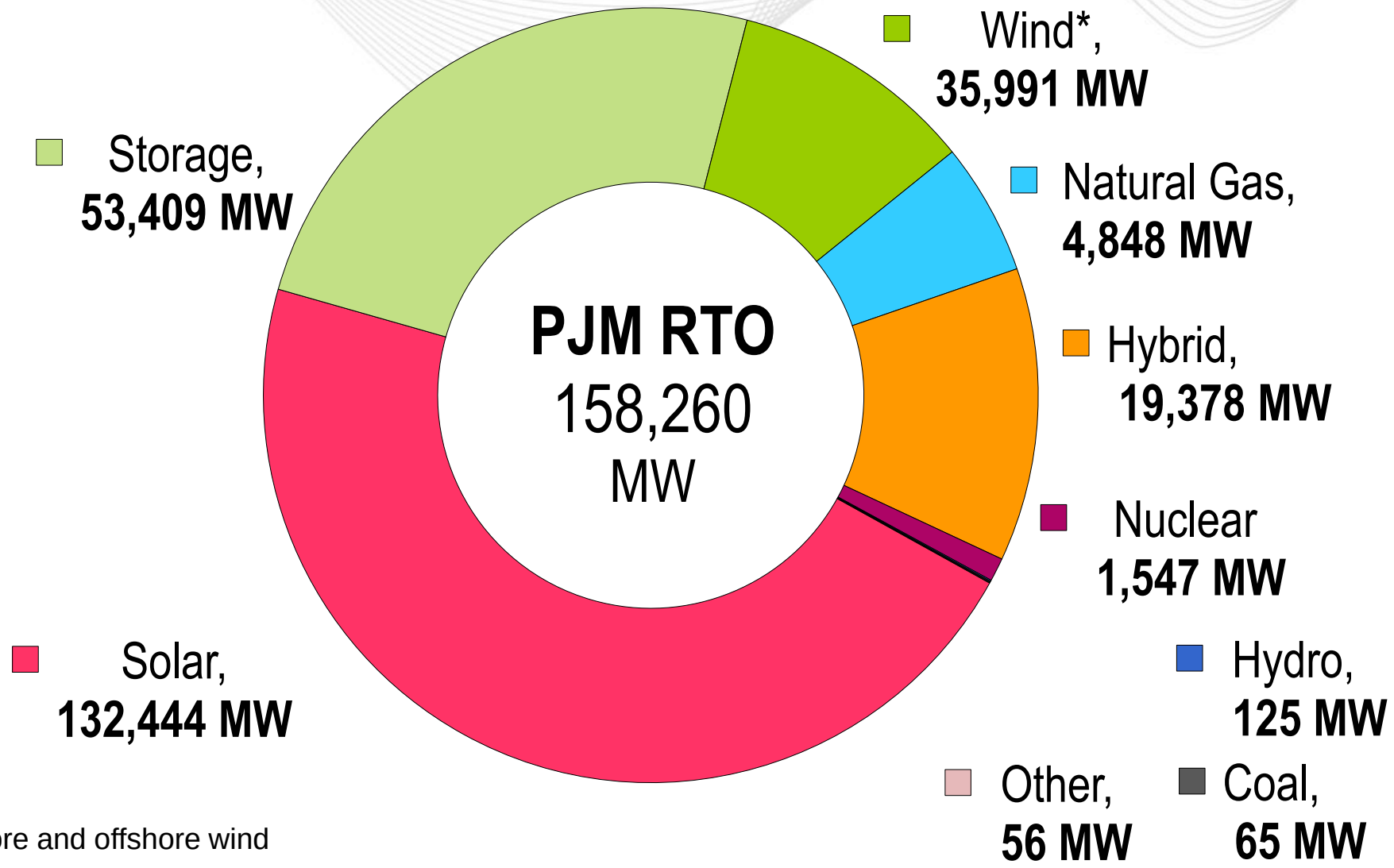
Virginia – Existing Installed Capacity (MW) by Fuel Type

(as of Dec. 31, 2024)



PJM Queued Capacity (Nameplate) by Fuel Type

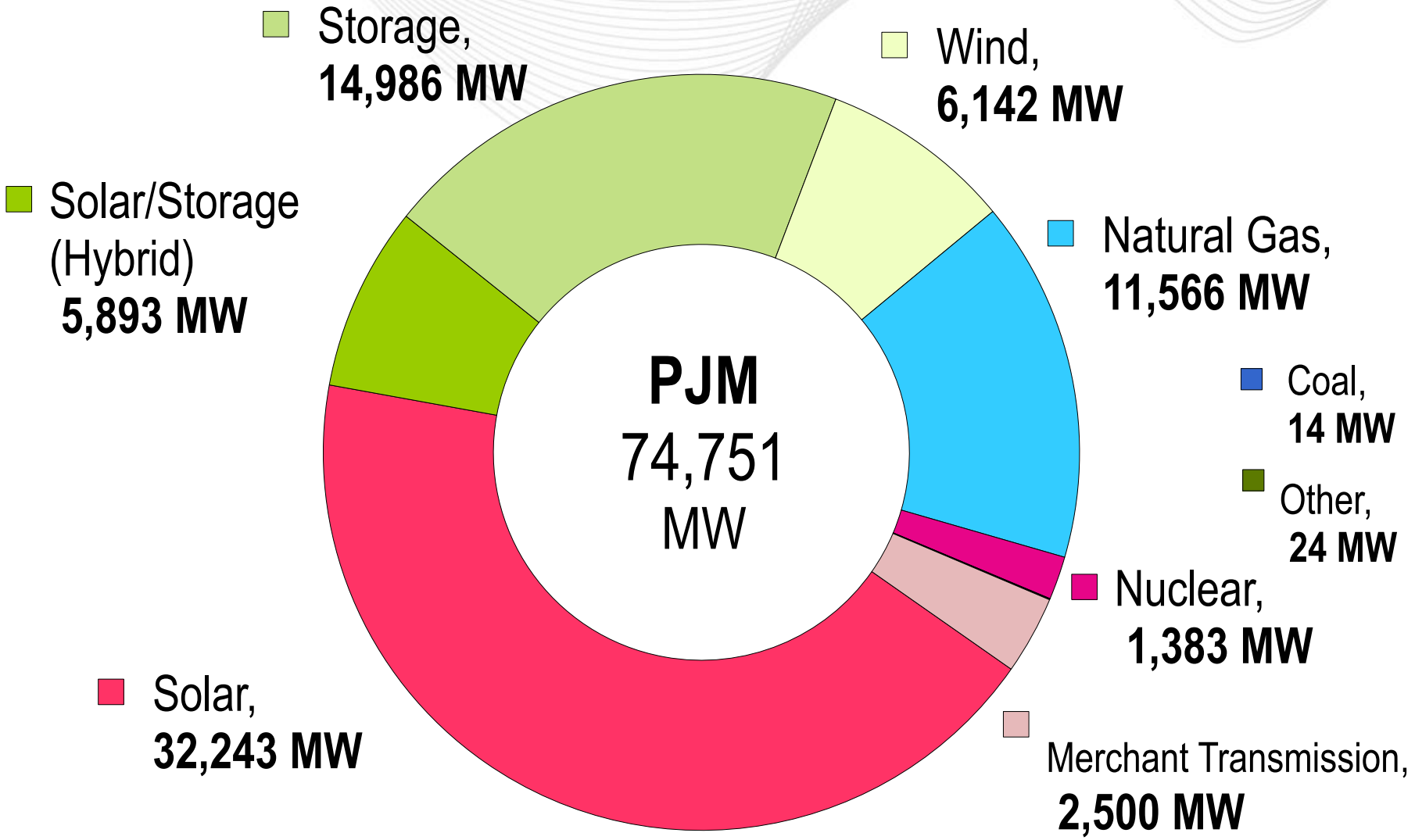
(All “Active” projects and projects with an interconnection agreement but not yet in service, as of May 7, 2025)



*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)



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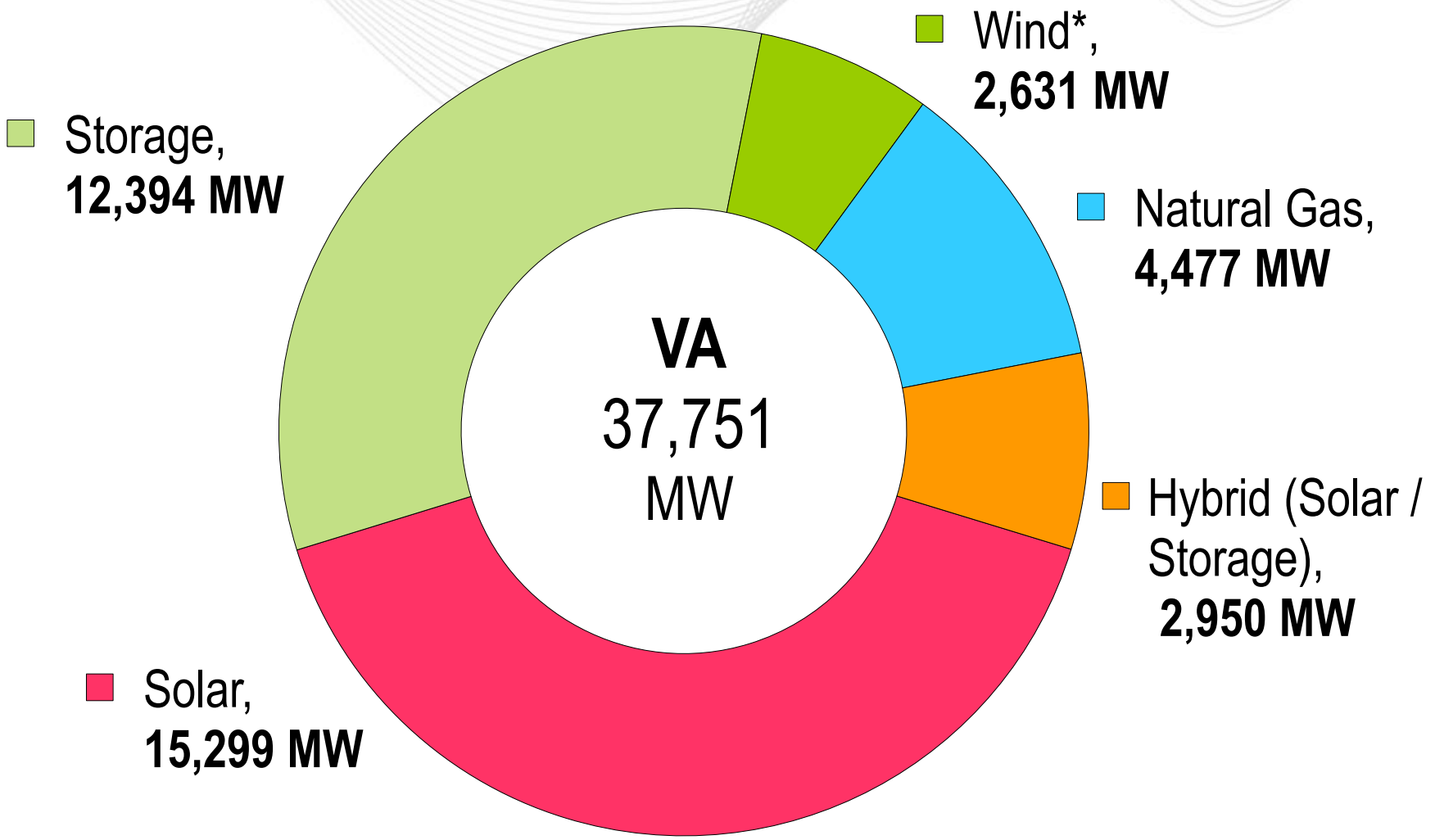


*Wind includes both onshore and offshore wind

Virginia – 2024 Generator Deactivations

Unit	TO Zone	Fuel Type	Request Received to Deactivate	Actual or Projected Deactivation Date	Age (Years)	Capacity (MW)
VP Gosport 1 F	Dominion	Biomass	7/11/2024	7/15/2024	36	40
Virginia Beach Landfill		Methane	12/8/2023	4/1/2024	18	11

Planning

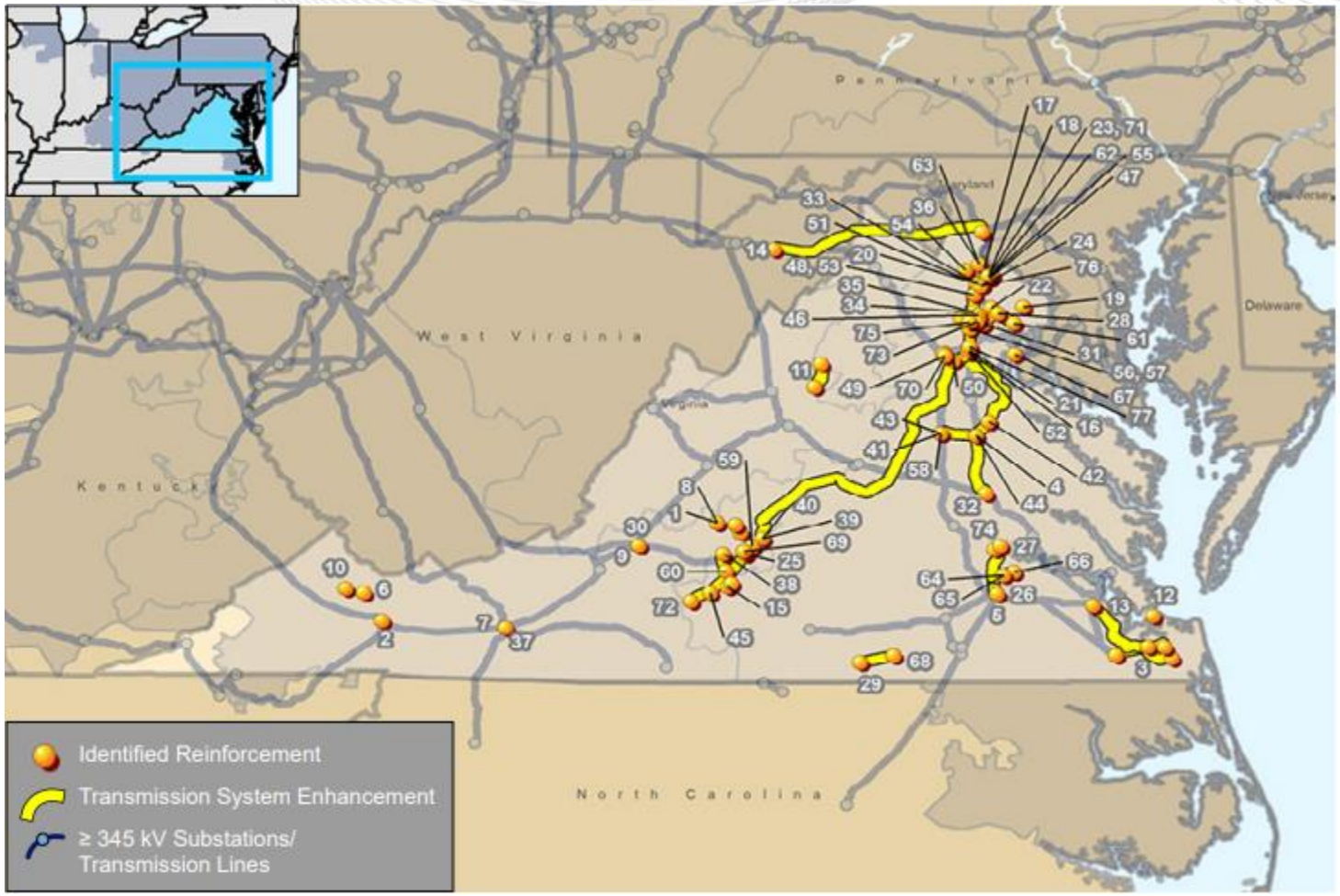
Transmission Infrastructure Analysis

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.

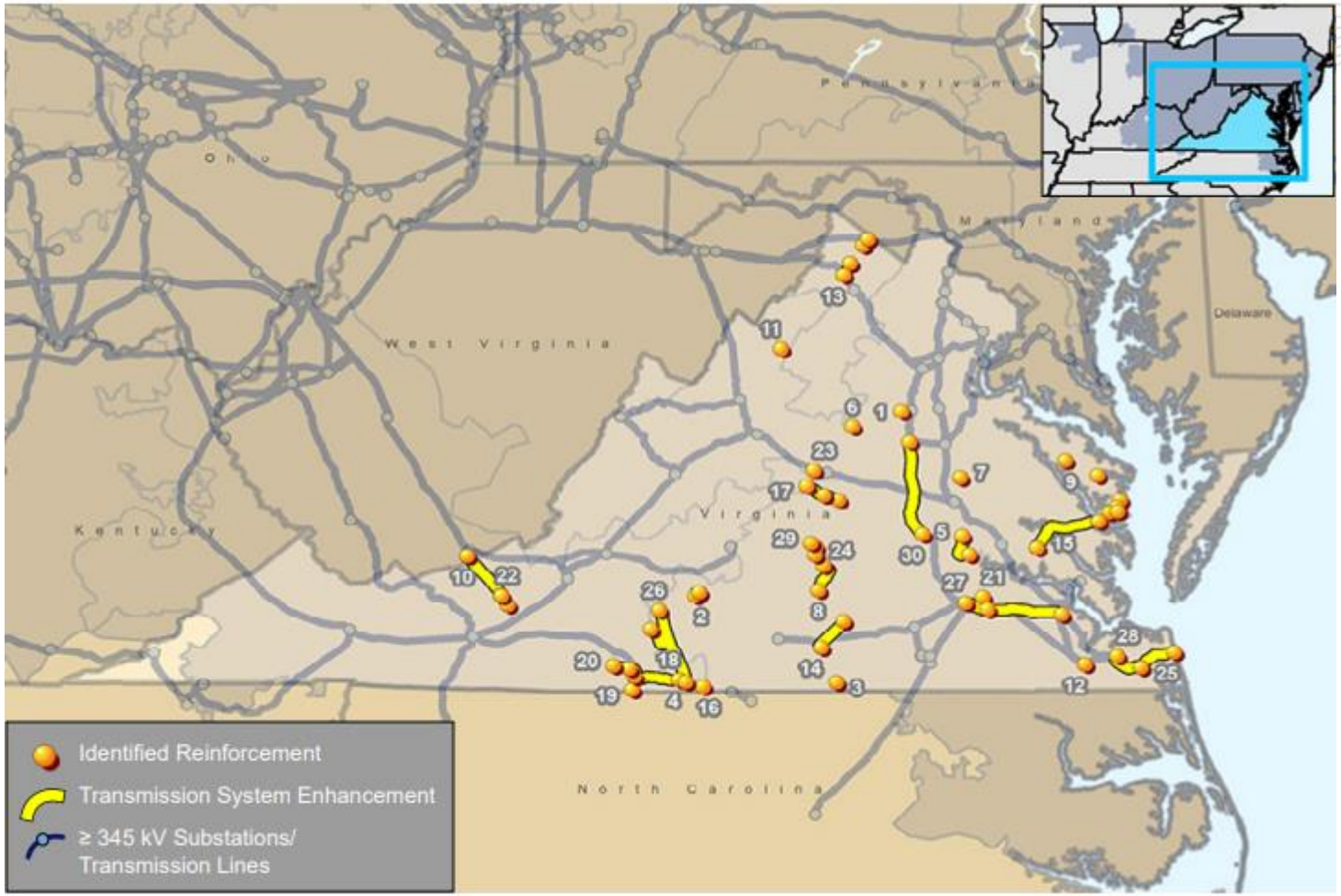
Virginia Baseline Projects



The 2024 RTEP has $3.639 billion in baseline projects located in 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.

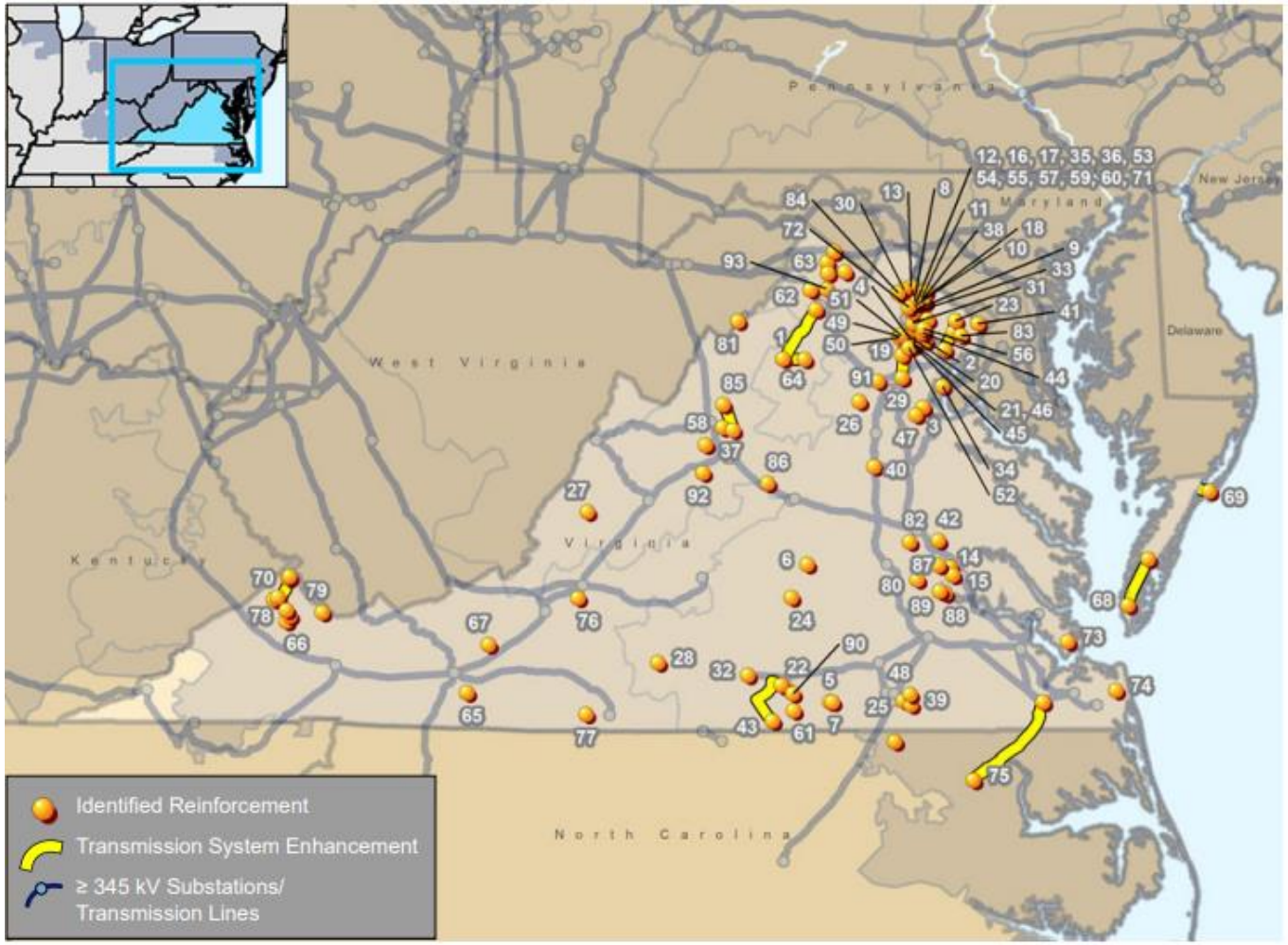
Virginia Network Projects



The 2024 RTEP has $1.236 billion in network projects located in 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.

Virginia Supplemental Projects

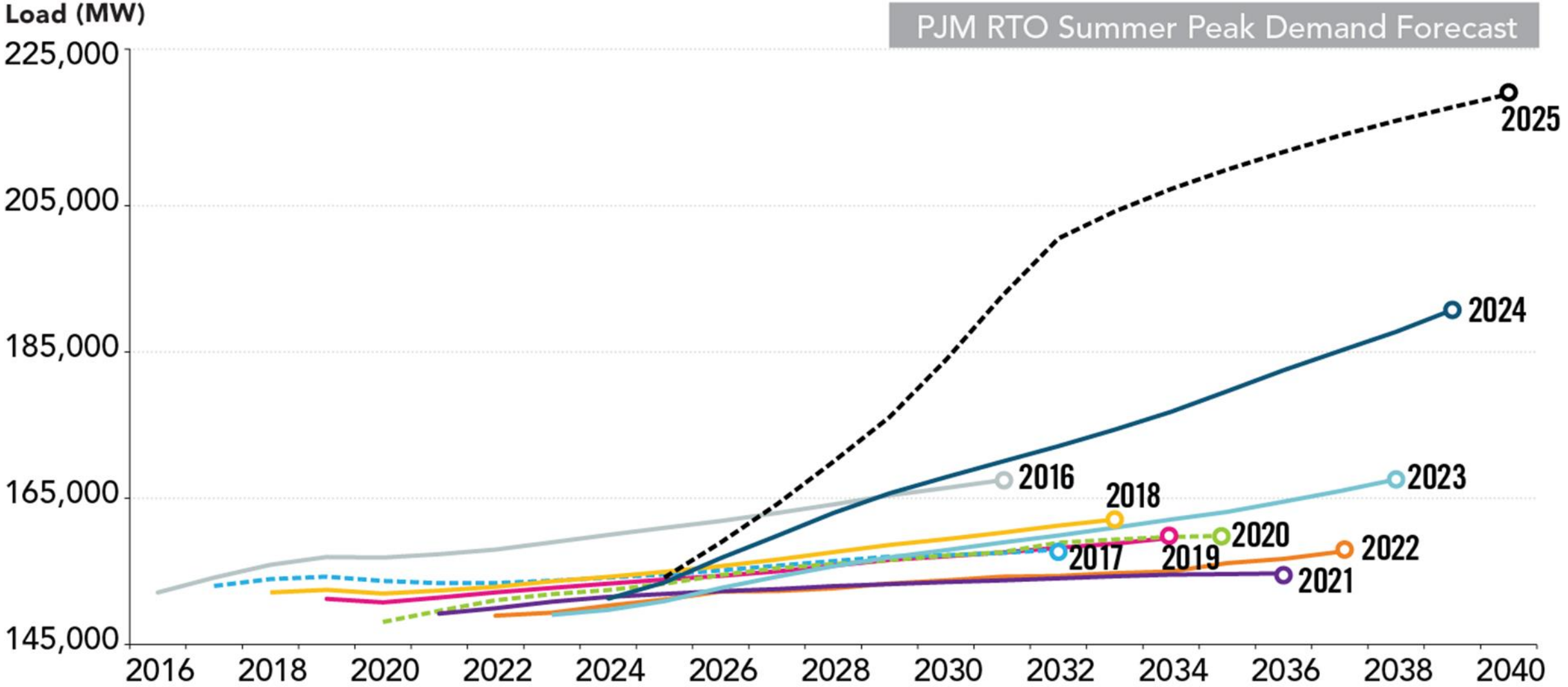


The 2024 RTEP has $2.304 billion in supplemental projects located in Virginia.

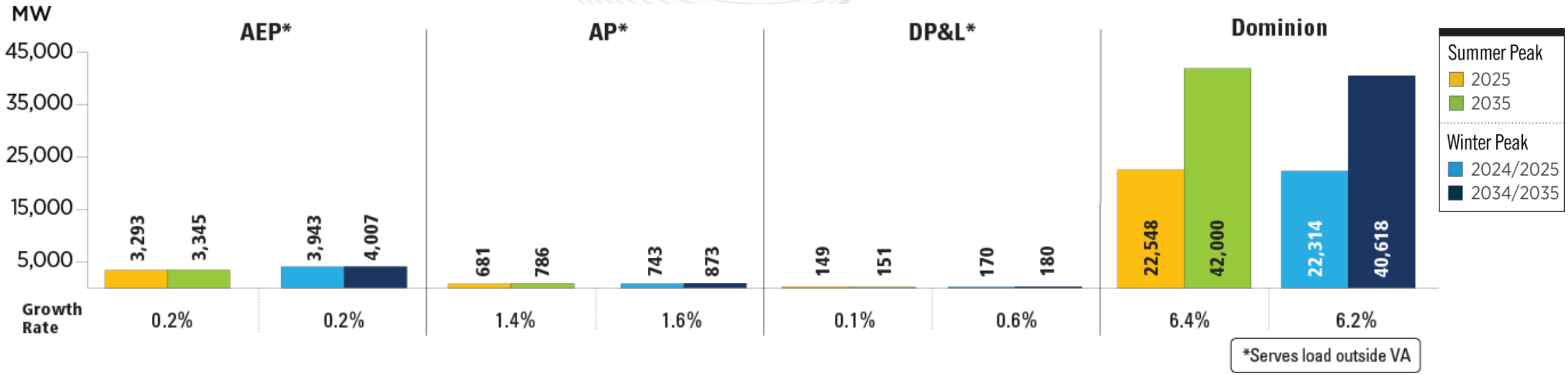
Note: Supplemental projects are transmission expansions or enhancements that are not required for compliance with PJM criteria and are not state public policy projects according to the PJM Operating Agreement. These projects are used as inputs to RTEP models, but are not required for reliability, economic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

Planning
Load Forecast

PJM Electricity Demand Growth



Virginia – 2025 Load Forecast Report



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

2025	2035
154,144 MW	209,923 MW

Growth Rate 3.1%

PJM RTO Winter Peak

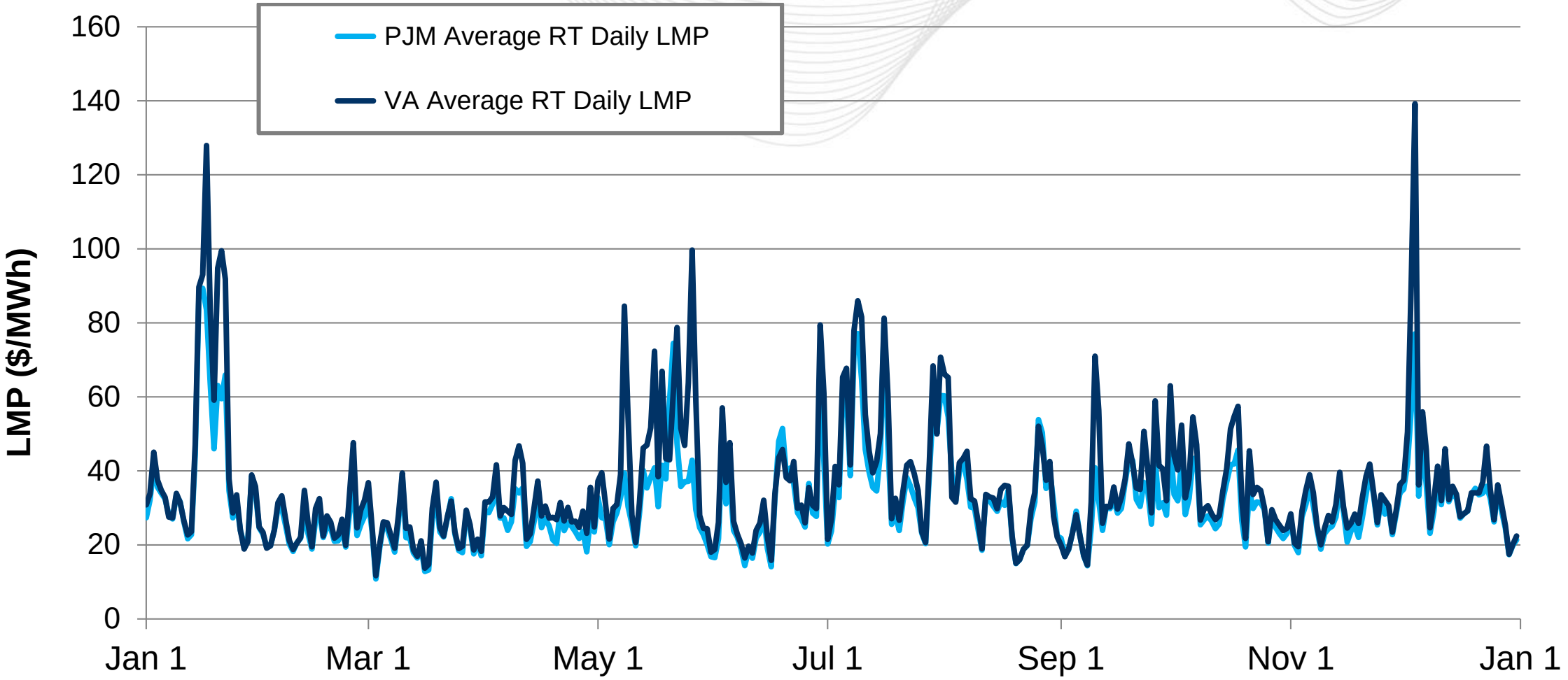
2024/2025	2034/2035
136,127 MW	198,175 MW

Growth Rate 3.8%

Markets
Market Analysis

Virginia – Average Daily LMP

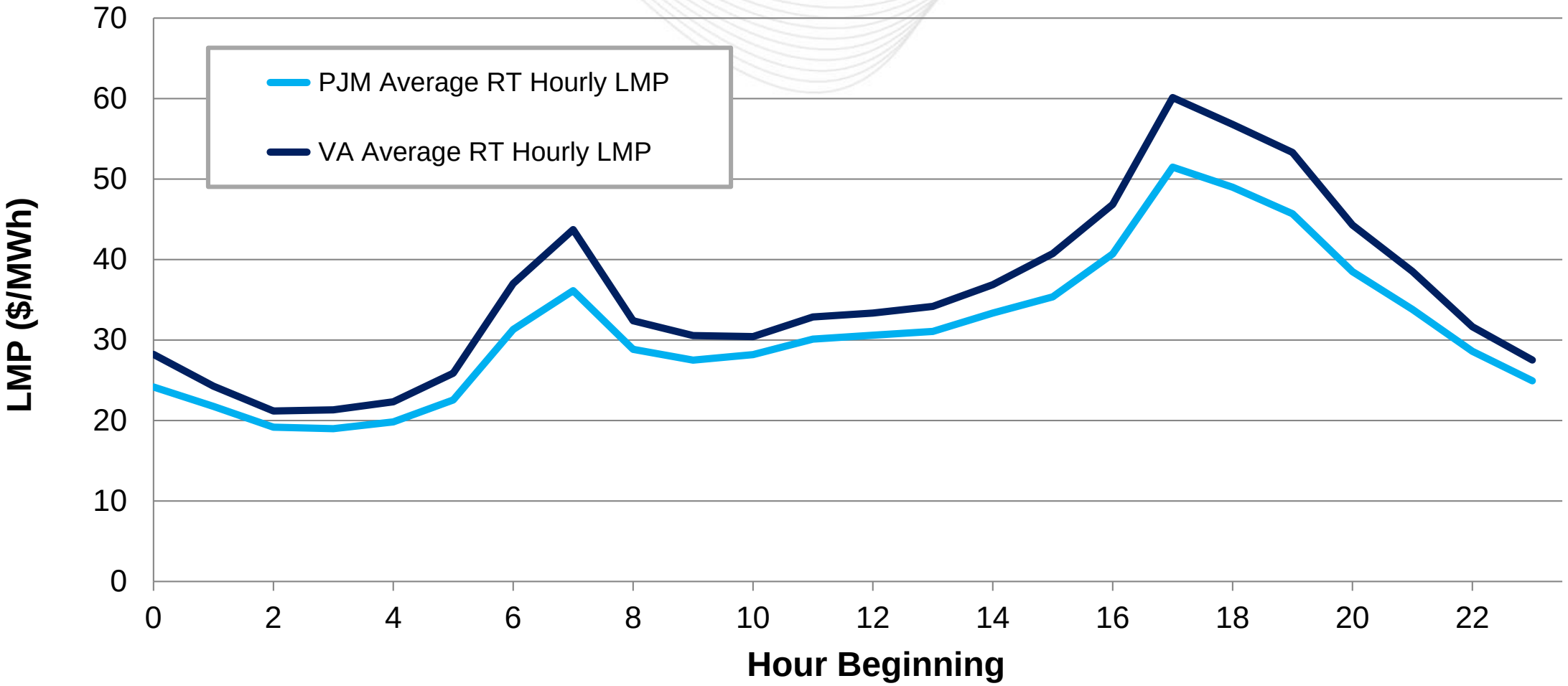
(Jan. 1, 2024 – Dec. 31, 2024)



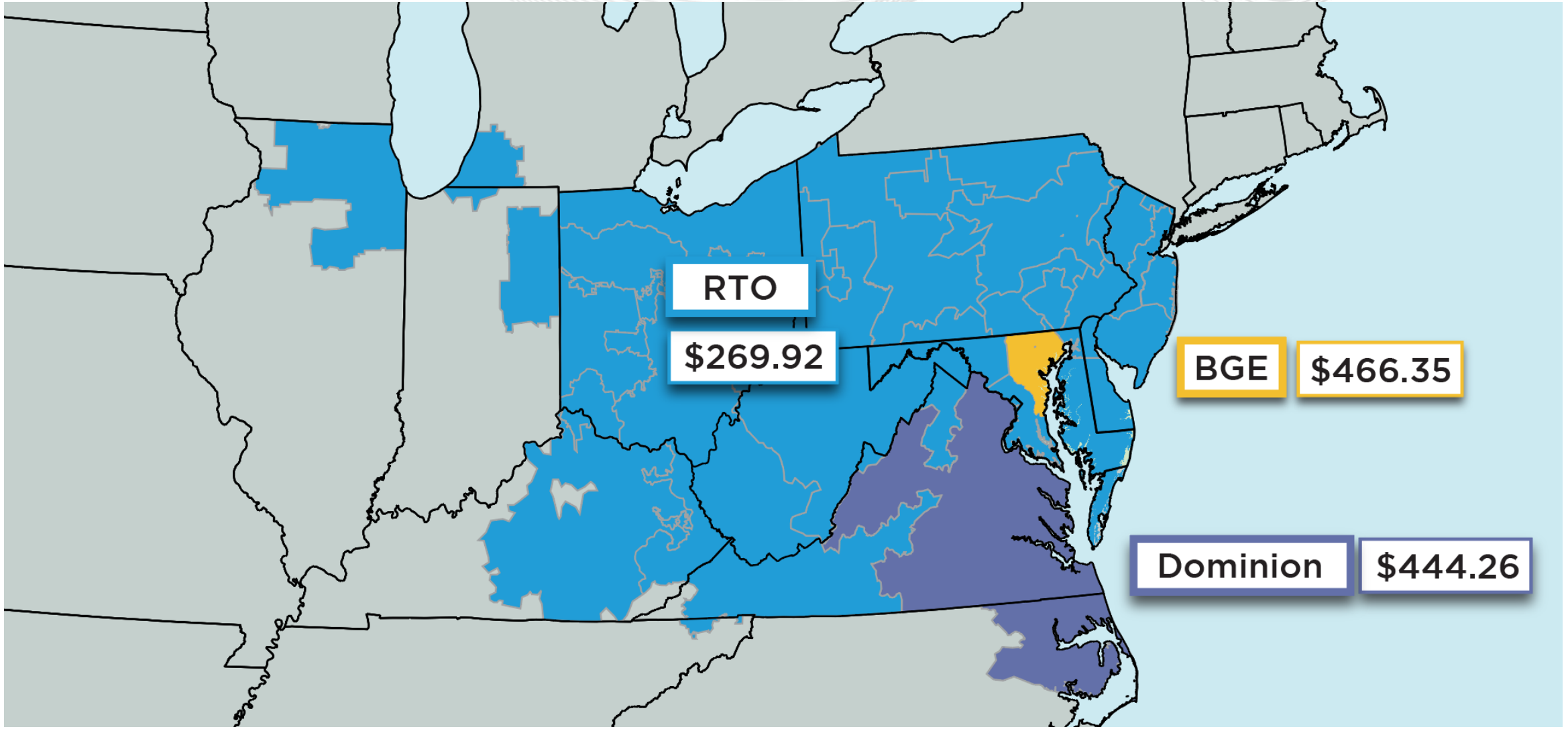
Virginia – Average Hourly LMP

(Jan. 1, 2024 – Dec. 31, 2024)

Virginia's average hourly LMPs were higher than 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

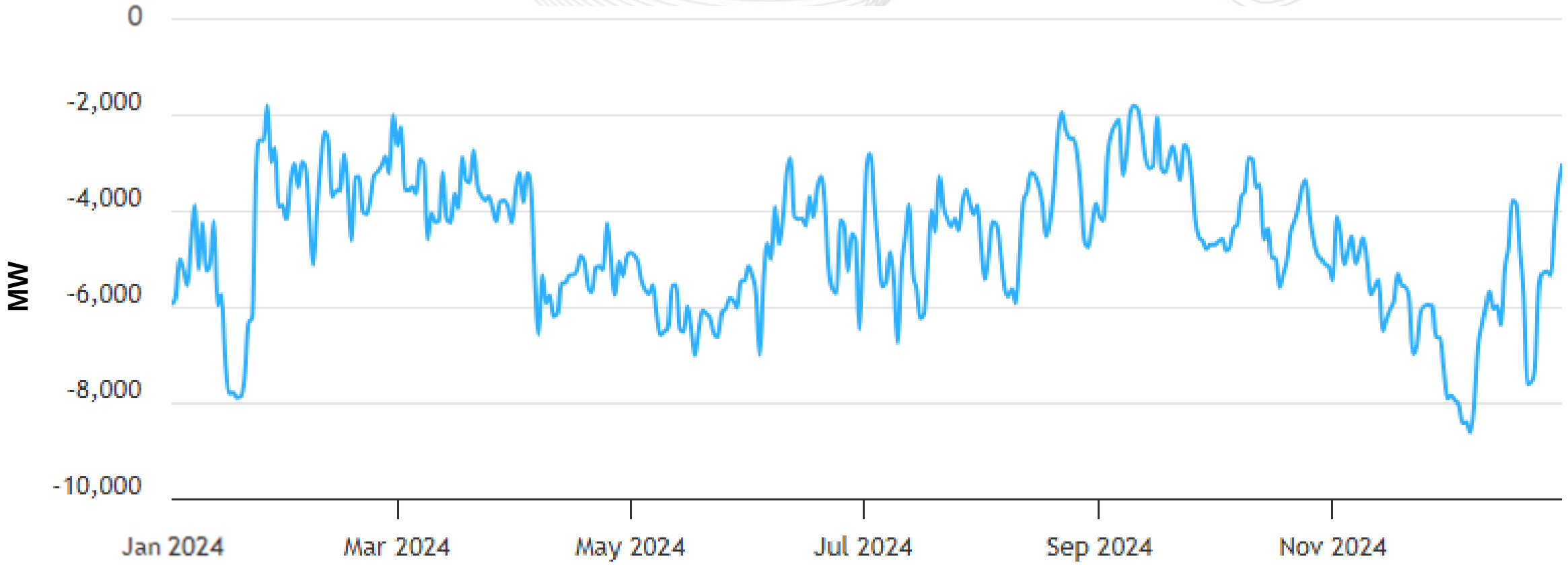
CAPACITY PERFORMANCE

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**

Virginia – Net Energy Import/Export Trend

(Jan. 2024 – Dec. 2024)

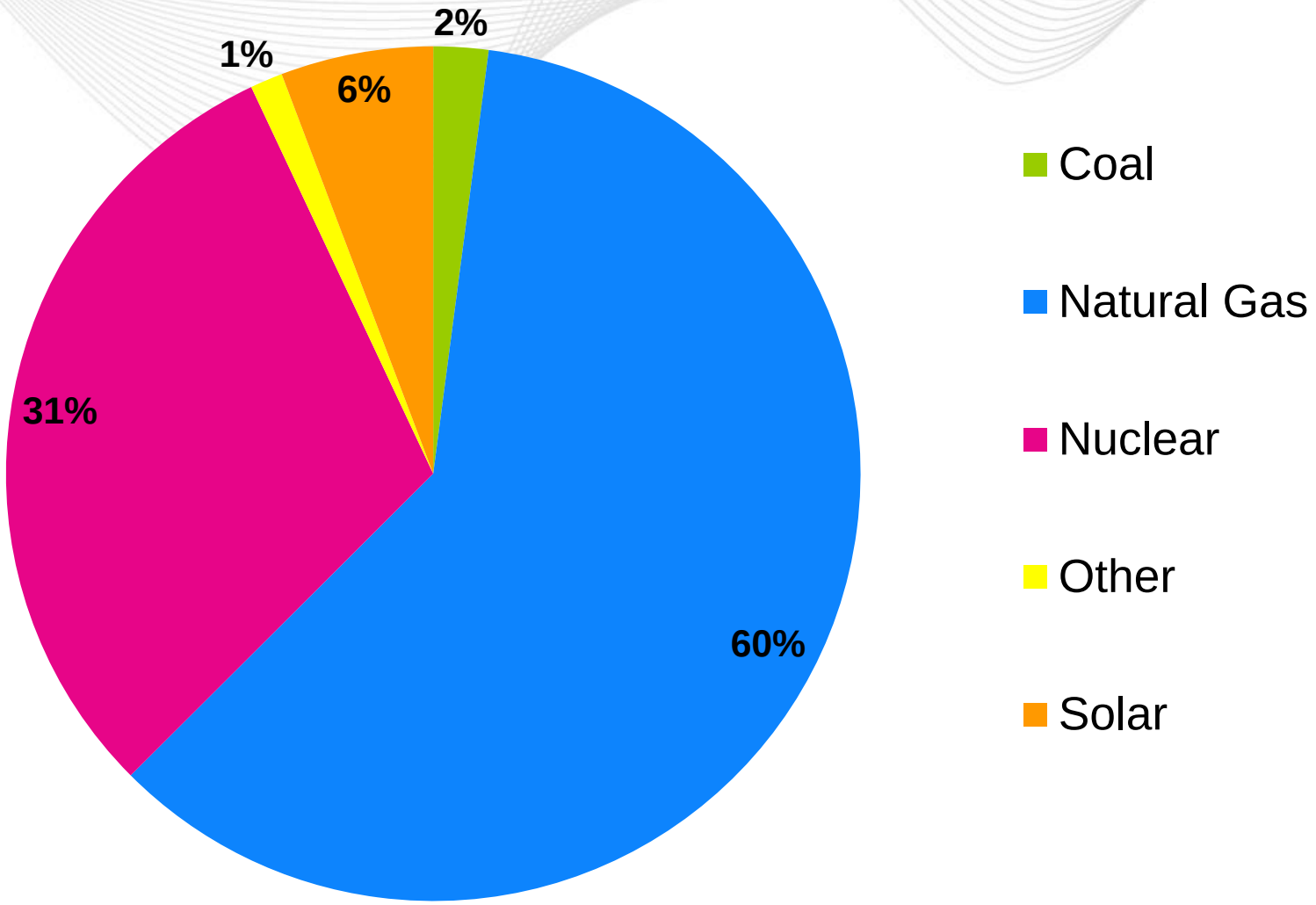


This chart reflects the portion of Virginia that PJM operates. Positive values represent exports and negative values represent imports.

Note – A significant amount of generation from units owned by Virginia jurisdictional utilities and included in regulated rates charged to Virginia customers are physically located outside of Virginia. They are categorized as imports in the chart.

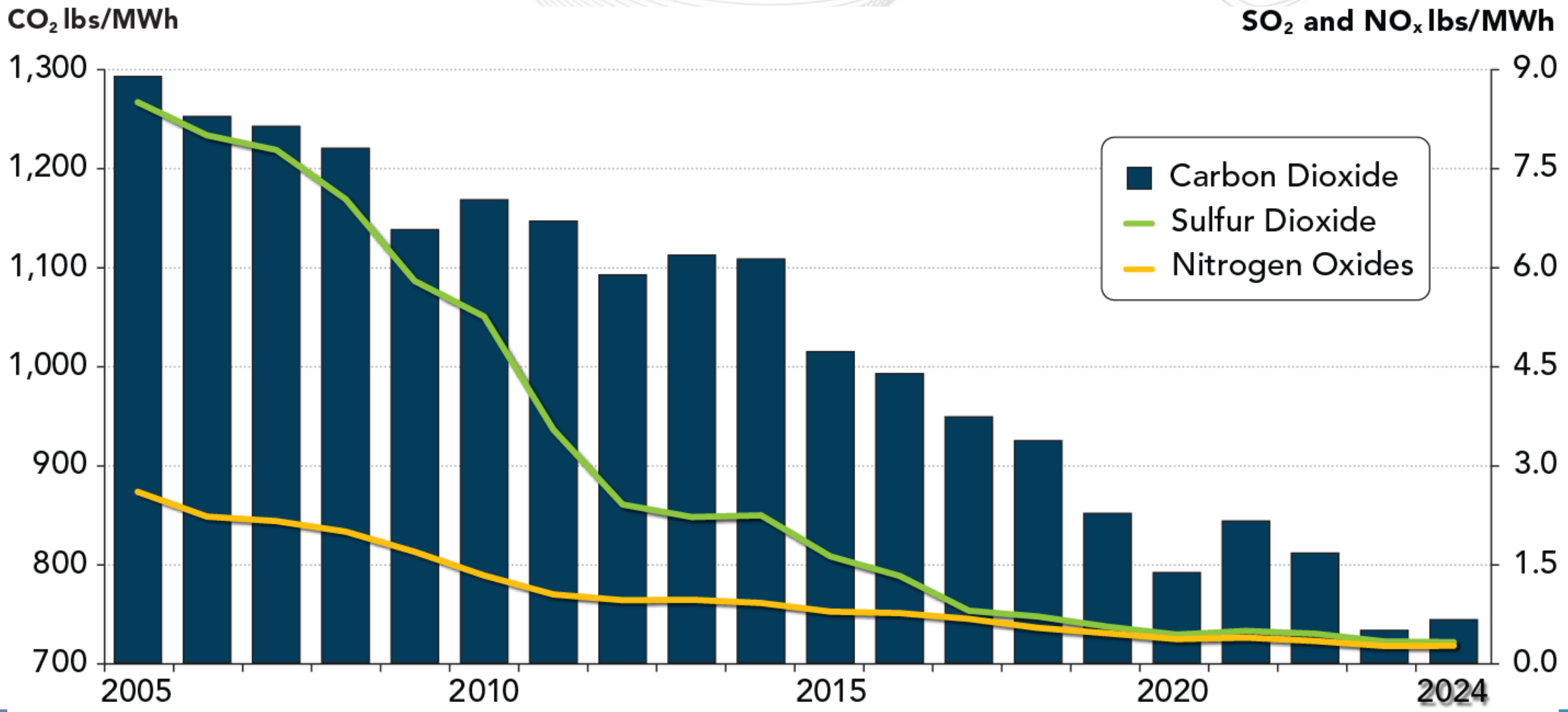
Operations

Virginia – 2024 Generator Production



The data in this chart comes from EIA Form 923 (2024) and represents only generators physically located within Virginia.

PJM System Average Emission Rates



Virginia – Average Emissions (lbs/MWh)

(Feb. 2025)