

# Maryland Needs Energy Infrastructure

## Overview

Energy generation and delivery require infrastructure, both generation facilities to produce power and transmission facilities to move that power to the consumers that need it.

For decades, Maryland has been importing electricity produced in others states to meet its electricity needs. In addition, much of the eastern part of the state is devoid of bulk transmission infrastructure, so moving power across the region is challenging.

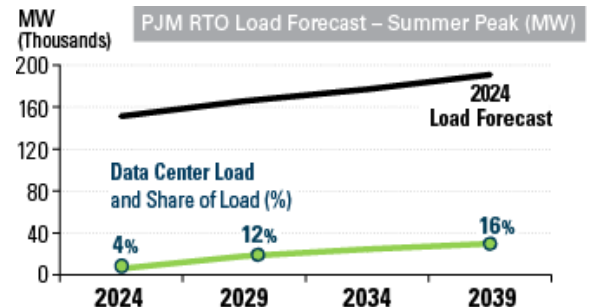
Pricing in Maryland from PJM's most recent capacity auction indicates the need for both generation and transmission facilities to relieve congestion and maintain the reliability of the grid.

## What Factors Are Influencing Maryland's Energy Landscape?

### Increasing Electricity Demand

Maryland's future electric demand is growing due to the increase of electrification and attracting new businesses (e.g., data centers).

**Takeaway:** Electric load is likely to rise due to the electrification of residential and commercial heating and commercial fleets; the resurgence of manufacturing; and the increase of other large electric loads, including data centers.



### Generators Retiring Without Replacement Resources

Generators are retiring in Maryland due to a mixture of economic and policy justifications and without replacement generation in place.

**Takeaway:** Maryland, already an importer of power, has seen the retirement of 6,000 MW of resources since 2018 and the addition of only 1,600 MW of resources during that time frame.

### Generation Retirements & Additions Since 2018



### Overreliance on Power Importation

Historically, Maryland has imported about 40% of its annual electric needs from other states. For example, in 2023 hourly imports were between 1,000 MW and 6,000 MW.

**Takeaway:** The lack of economic, in-state supply of locally available power makes Maryland more vulnerable to higher capacity prices.



## High-Voltage Electric Transmission Infrastructure Enhancements Are Presently Limited

The western part of the state enjoys access to a robust electric transmission system, but the central and eastern parts of the state have limited access. This increases the reliance on extensive power transfer imports to the zones where capacity shortfalls may exist.

**Takeaway:** This results in local congestion pricing increases in Maryland's central/eastern zonal energy market.

### Projects With Executed Interconnection Agreements

As of July 25, 2024

| By State | # of Projects | Total Nameplate Capacity (in MW) | By State | # of Projects | Total Nameplate Capacity (in MW) | By State | # of Projects | Total Nameplate Capacity (in MW) |
|----------|---------------|----------------------------------|----------|---------------|----------------------------------|----------|---------------|----------------------------------|
| DE       | 11            | 419                              | MD       | 35            | 1,338                            | OH       | 82            | 9,164                            |
| IL       | 24            | 3,741                            | MI       | 2             | 250                              | PA       | 109           | 3,952                            |
| IN       | 21            | 3,493                            | NC       | 17            | 1,731                            | VA       | 95            | 7,426                            |
| KY       | 13            | 881                              | NJ       | 37            | 3,579                            | WV       | 11            | 2,397                            |

Total: 457 Projects | 38,371 MW

### Projects To Clear PJM Interconnection Process in 2024 and 2025

(Updated for Transition Cycle #1)

| By State | # of Projects | Total Nameplate Capacity (in MW) | By State | # of Projects | Total Nameplate Capacity (in MW) | By State | # of Projects | Total Nameplate Capacity (in MW) |
|----------|---------------|----------------------------------|----------|---------------|----------------------------------|----------|---------------|----------------------------------|
| DE       | 1             | 120                              | MD       | 6             | 1,245                            | OH       | 62            | 7,829                            |
| IL       | 62            | 10,862                           | MI       | 8             | 887                              | PA       | 91            | 3,696                            |
| IN       | 63            | 11,569                           | NC       | 21            | 1,543                            | VA       | 107           | 11,968                           |
| KY       | 33            | 3,569                            | NJ       | 20            | 1,205                            | WV       | 14            | 1,154                            |

Total: 488 Projects | 55,646 MW

## Areas for Action

Maryland needs both generation and transmission. The state's policymakers should focus their efforts on several key areas:

- Work with generation developers on any state/local challenges in constructing projects that are already through the PJM queue.
- Avoid efforts meant to push generation off the system until an adequate quantity of replacement generation is online and operating.
- Allow for the construction of transmission infrastructure that can relieve constraints.

