

MARYLAND · ELECTRIC UTILITIES · CAPITAL BRIEFING

Maryland imports 40% of its power — and the capacity to cover the gap just got roughly eight times more expensive.

Maryland leans on imported electricity more than almost any state, so when PJM's capacity market spikes, it lands hard on Baltimore, Washington-suburb, and Eastern Shore bills. Data centers are pulling in new transmission, offshore wind is stalled, and Annapolis is rewriting the rules with the Next Generation Energy Act. Each of those forces reorders the projects on your list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision.

~40%¹	\$466.35²	~8x³	\$424M⁴
Share of the electricity Marylanders use that is generated out of state — the state consumes far more than it produces.	Per MW-day PJM capacity price in the BGE zone for 2025/2026 — above the \$269.92 RTO-wide record and up from \$28.92 a year earlier.	Rise in PJM's total capacity cost to more than \$16 billion, from \$2.2 billion the prior auction.	Contract value of the Maryland Piedmont Reliability Project, a 70-mile 500 kV line PJM ordered largely for data-center load.

Last updated September 2026 · 16 sourced references

THE MARYLAND LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

DEMAND — LOAD GROWTH

Data centers are pulling in new wires

PJM ordered the 70-mile, 500 kV Maryland Piedmont Reliability Project — a roughly \$424 million line across Baltimore, Carroll, and Frederick counties — largely to serve surging data-center and AI demand.⁴

Across PJM, tightening supply and demand drove the region's first-ever failure to procure 100% of the capacity it needs, and interconnection delays alone are projected to cost consumers billions.³ Every large new customer is a capacity commitment competing for the same capital.

RELIABILITY — CAPACITY & IMPORTS

Import dependence meets a scarcity market

Maryland generates only about 35 million MWh but consumes roughly 59 million MWh — importing on the order of 40% of its electricity.¹ That leaves the state exposed when PJM's capacity market signals scarcity.

In the 2025/2026 auction the BGE zone cleared at \$466.35/MW-day — above the \$269.92 RTO-wide record and up from \$28.92 the year before — as PJM's reserve margin slipped to 18.5%.² RTO-wide, total capacity costs climbed roughly eightfold to more than \$16 billion.³

GENERATION — THE TRANSITION

Nuclear anchor, stalled wind, a new state playbook

Calvert Cliffs — Maryland's only nuclear plant, at 1,718 MW across two reactors — is the backbone of in-state carbon-free generation, operated by Baltimore-based Constellation.⁵ Offshore wind was meant to add gigawatts, but US Wind's roughly 1,056 MW off Ocean City still needs remaining state permits, and Ørsted's 966 MW Skipjack project was repositioned after its offtake was terminated.⁷⁸

The 2025 Next Generation Energy Act now pushes new nuclear and dispatchable generation while reshaping cost recovery — changing what utilities can build and bill for.⁶

CAPITAL — TRANSMISSION

A contested line, a long approval clock

The Maryland Piedmont Reliability Project would run 500 kV across three counties at a roughly \$424 million contract value, but it faces fierce opposition — more than 10,000 residents organized against it, all three affected counties passed opposing resolutions, and the Office of People's Counsel argues the state needs no new transmission to meet demand through 2042.⁴

With no PSC decision expected before early 2027, the timing risk sits squarely on the capital plan. New obligations don't replace the backlog — they stack on it, and something has to move.

WHO RUNS MARYLAND'S GRID

Exelon-owned investor utilities, FirstEnergy in the west, and member-owned coops

Maryland's distribution grid is carried mostly by three Exelon utilities and FirstEnergy's Potomac Edison, all regulated by the Public Service Commission, alongside large electric cooperatives governed by their members. The pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the Maryland PSC

Baltimore Gas & Electric (BGE) 1.3M+ electric customers (Exelon)⁹ · Baltimore & central Maryland¹⁰

Pepco 965,500+ electric customers in Maryland & DC (Exelon)⁹

Delmarva Power 561,500 electric customers in Delaware & eastern Maryland (Exelon)⁹

Potomac Edison Western & central Maryland (FirstEnergy)¹¹

Baltimore-based Constellation Energy operates Calvert Cliffs and is signing power deals with data-center operators — a reminder that Maryland's generation and load stories are converging.¹²

Cooperatives & public power

Governed by members & boards, not PSC rate cases

Southern Maryland Electric Cooperative (SMECO) ~161,000 customers · southern Maryland¹³

Choptank Electric Cooperative 52,000+ members · nine Eastern Shore counties¹⁴

Municipal utilities Easton, Hagerstown, Berlin, Thurmont & others

Coops and munis face the same PJM capacity costs as the IOUs, but recover them through boards and members rather than a PSC rate case.

Every capital dollar has to be defensible

Whether you answer to the Public Service Commission or a member board, the question is the same: why this project, why now, why at this cost?

Maryland Public Service Commission (PSC) regulates rates, capital cost recovery, and resource planning for BGE, Pepco, Delmarva Power, and Potomac Edison¹⁵

Next Generation Energy Act (SB 937, 2025) — signed May 20, 2025 — directs the state to pursue new nuclear generation, opens the door to new dispatchable capacity, and reworks cost recovery and ratepayer protections as bills climb⁶

The Maryland Piedmont Reliability Project is before the PSC — a ~\$424 million PSEG line with no decision expected before early 2027, opposed by the Office of People's Counsel, which contends no new transmission is needed through 2042⁴

PJM capacity costs are flowing onto Maryland bills — the BGE zone cleared at \$466.35/MW-day for 2025/2026, part of a region-wide surge to more than \$16 billion, sharpening scrutiny of every rate request²³

The money is moving — can your plan absorb it?

Maryland's grid capital is being pulled in several directions at once — offshore generation, contested transmission, and new state financing. The constraint is readiness: which projects are shovel-ready, which qualify, and how the timing lines up.

Offshore wind: US Wind's roughly 1,056 MW off Ocean City won federal approval in 2024 but still awaits remaining state permits; Ørsted's 966 MW Skipjack was repositioned after its offtake ended — billions in planned generation now uncertain⁷⁸

The POWER Act (2023) restructured Maryland's offshore wind procurement and directed the PSC to have PJM study transmission upgrades to carry it — shaping where future grid capital lands¹⁶

Transmission build-out: the ~\$424 million Maryland Piedmont Reliability Project is the near-term flashpoint, but PJM's queue and reliability needs point to more transmission capital ahead⁴

State financing & federal credits: the Next Generation Energy Act channels ratepayer relief through the state's energy fund, while IRA elective-pay tax credits put utility-scale solar and storage in closer reach for member-owned coops like SMECO and Choptank⁶¹³

MARYLAND'S GRID, IN BRIEF

Questions Maryland utility leaders are asking

Short, sourced answers — the same facts we dig into with utilities looking at their capital programs.

Why are Maryland electric bills rising so fast?

Maryland imports roughly 40% of its electricity, so PJM's capacity-market spike hits hard: the BGE zone cleared at \$466.35/MW-day for 2025/2026 — up from \$28.92 a year earlier — as region-wide capacity costs climbed to more than \$16 billion¹²³

What is the Next Generation Energy Act?

Signed in May 2025, it directs Maryland to pursue new nuclear generation, opens the way for new dispatchable capacity, and reworks cost recovery and ratepayer protections in response to rising bills and supply concerns⁵

What is the Maryland Piedmont Reliability Project?

It is a proposed 70-mile, 500 kV transmission line by PSEG — contract value about \$424 million — that PJM ordered largely for data-center demand. It faces heavy local opposition and is before the PSC, with no decision expected before early 2027⁴

What's happening with Maryland offshore wind?

US Wind's roughly 1,056 MW project off Ocean City won federal approval in 2024 but still needs state permits, and Ørsted's 966 MW Skipjack project was repositioned after its offtake agreement ended — leaving a large piece of planned generation uncertain⁷⁸

Who regulates Maryland's electric utilities?

The Maryland Public Service Commission regulates rates, capital recovery, and resource planning for the investor-owned utilities — BGE, Pepco, Delmarva Power, and Potomac Edison. Cooperatives such as SMECO and Choptank are governed by member-elected boards³⁵

How does Invizion help Maryland electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a capacity-price shock, a stalled offshore-wind approval, or a contested transmission line reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the PSC or your board.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

1. U.S. Energy Information Administration — Maryland Electricity Profile 2024: net generation ~35.4M MWh vs. retail sales ~59.0M MWh; nuclear the leading in-state source; 15.04¢/kWh average price. www.eia.gov
2. PJM Inside Lines — 2025/2026 Base Residual Auction: \$269.92/MW-day RTO-wide (from \$28.92), BGE zone \$466.35/MW-day, 18.5% reserve margin, 2024. insidelines.pjm.com
3. PJM Interconnection (Wikipedia) — capacity costs above \$16 billion vs. \$2.2 billion prior (~8×); first-ever shortfall in procuring 100% of needed capacity; interconnection-delay costs. en.wikipedia.org
4. Maryland Piedmont Reliability Project (Wikipedia) — PSEG, 70 miles, 500 kV, \$424M contract, Baltimore/Carroll/Frederick counties, PJM-ordered for data-center demand, opposition, PSC review, no decision before early 2027. en.wikipedia.org
5. Calvert Cliffs Nuclear Power Plant (Wikipedia) — 1,718 MW, two reactors, Maryland's only nuclear plant, operated by Constellation. en.wikipedia.org
6. Maryland General Assembly — SB 937, Next Generation Energy Act (2025), approved May 20, 2025 (Ch. 625): new nuclear, dispatchable generation, cost recovery and ratepayer provisions. mgaleg.maryland.gov
7. US Wind (Wikipedia) — MarWin (248 MW) + Momentum Wind (808.5 MW) = 1,056.5 MW off Ocean City; BOEM approval Sept 2024; onshore work pending state permits. en.wikipedia.org
8. Skipjack Wind Farm (Wikipedia) — Ørsted, 966 MW serving Maryland; repositioned/paused after offtake terminated. en.wikipedia.org
9. Exelon Corporation — utility customer counts: BGE 1.3M+, Pepco 965,500+ (MD & DC), Delmarva Power 561,500 (DE & eastern MD) electric customers. www.exeloncorp.com
10. Baltimore Gas and Electric (Wikipedia) — serves Baltimore City and six central Maryland counties; subsidiary of Exelon. en.wikipedia.org
11. Potomac Edison (Wikipedia) — serves western and central Maryland; a FirstEnergy operating company. en.wikipedia.org
12. Constellation Energy (Wikipedia) — Baltimore-headquartered; operates Calvert Cliffs; power-supply deals with data-center operators. en.wikipedia.org
13. Southern Maryland Electric Cooperative (Wikipedia) — ~161,000 customers across Calvert, Charles, Prince George's, and St. Mary's counties. en.wikipedia.org
14. Choptank Electric Cooperative (Wikipedia) — 52,000+ members across nine Eastern Shore counties. en.wikipedia.org
15. Maryland Public Service Commission — regulates rates, cost recovery, and resource planning for the state's investor-owned electric utilities. www.psc.state.md.us
16. Maryland General Assembly — SB 781, Promoting Offshore Wind Energy Resources (POWER) Act (2023, Ch. 95): offshore wind procurement and PJM transmission analysis. mgaleg.maryland.gov

ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See how utilities keep capital plans current and defensible with Invizion.

Explore Invizion →