HOUSE ENVIRONMENT AND TRANSPORTATION COMMITTEE

Delegate Marc Korman, Chair
Delegate Michele Guyton, Vice Chair

January 28, 2026
1:00 PM
House Office Building, Room 250

Maryland's Energy Landscape - Part 4

AGENDA

I. Introductory Remarks

II. Maryland Clean Energy Center
- Katherine Magruder, Executive Director
- Pamela Powers, Director of Government & Industry Relations

III. Solar, Wind, and Storage Industry Representatives
- Robin Dutta, Executive Director, Chesapeake Solar and Storage Association
- Evan Vaughan, Executive Director of Mid-Atlantic Renewable Energy Coalition Action
- Leah Meredith, Director, State Affairs, Mid-Atlantic Region, Solar Energy Industries Association
- Jen Brock, Chief Development Officer, Oceantic Network

IV. Environmental Advocates
- Brittany Baker, Maryland Director, Chesapeake Climate Action Network Action Fund
- Josh Tulkin, Director, Maryland Sierra Club
- Emily Scarr, Senior Advisor, Maryland Public Interest Research Group
- Rebecca Rehr, Director of Climate Policy & Justice, Maryland League of Conservation Voters

V. Questions

VI. Concluding Remarks

BRIEFING for the ENVIRONMENT & TRANSPORTATION COMMITTEE

01.28.2026

I. Katherine Magruder
Executive Director

Pamela Powers
Director of Government & Industry Relations

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Distinguished University Professor
University of Maryland, College Park

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Main Factors Driving Utility Affordability

- Greater and Increasing Demand versus Available Supply
- Inadequate Transmission Capacity to serve Required Load
- Weather Extremes

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Improving Affordability

Need to:

- Emphasize Energy Efficiency and Building Energy Performance Solutions
- Deploy a variety of Distributed Generation Solutions
- Adopt more Battery Storage Capacity
- Provide Technical Support, Incentives & Low-cost Financing Solutions
- Bring Cutting-Edge Climate Technology to the Market Faster

Inform & Assist Consumers:

- RESIDENTIAL
- COMMERCIAL
- AGRICULTURAL
- INDUSTRIAL
- MUNICIPAL
- INSTITUTIONAL
- NON- PROFIT

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Addressing climate change goals and affordability considerations

- Communities with limited capacity need technical, procurement & financing assistance
- Shift in Federal Policy & Funding Priorities reduces access to resources
- State has a fractured and inefficient strategy for the use of limited Public Funds for Investment in Projects & Measures
- Target limited Public Investment to Leverage a Greater Share of Private Capital for Financing Solutions

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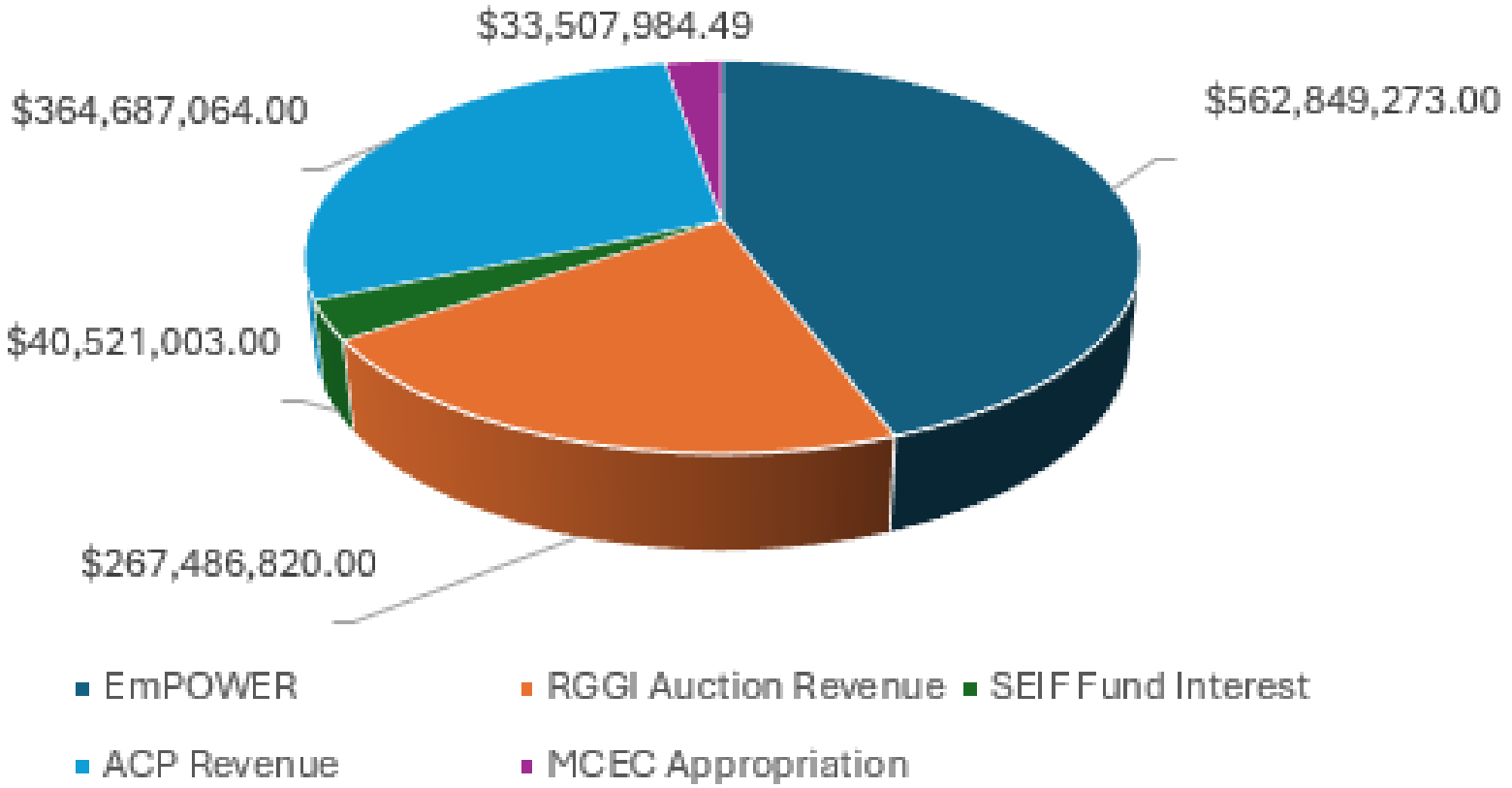
Maryland Climate & Clean Energy Funding

Over **$1.2B** to spend

Only **3%** currently funds green bank financing & leveraging



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What is a Green Bank and what does it do?

- Use public funding to crowd-in private capital for targeted investment of capital to achieve environmental goals and desired outcomes.
- Invest in underserved communities and assist consumers without the profit motive of traditional capital providers.
- Mitigate risk to entice capital providers who might not otherwise invest, and secure lower interest rates with advantageous terms for consumers to help achieve climate justice.
- Centralizes investment. Acts as a bridge between government, industry, utility, and academia to facilitate partnerships for desirable outcomes.

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MCEC Delivers ROI

ECONOMIC IMPACT Study by Salisbury State (BEACON)

Business and Community Outreach Network

With $28.7 million in total public funding received over a 17-year period*, investment in MCEC resulted in:

$621.5 Million in total statewide economic output

3,000 Jobs supported across the state

$236 Million in labor income generated

$82.2 Million in state and local tax revenue contributed

For every **$1 MCEC receives, $21 is returned** to the state's economy

Economic-Impact-MCEC.pdf

*2009-2025

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Cumulative Impact Metrics

- Tracked from FY2009 thru FY2025, MCEC considers economic, environmental and social impacts of investments
- **MCEC has leveraged approximately $240M in private investment generating a 10.2 to 1 return on the use of public funds**

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MCEC IMPACT METRICS	CUMULATIVE TOTALS
Leveraged Investment	$239.60M
Leveraged Ratio	10.24x
Total Number of Transactions	4614
Direct Lending Value	$912,956
Fee-for-Service Income Generated	$367,630
Total Value of Contract (Awards Internal & External)	$73.01M
Grant Funds Awarded	$136.12M
Energy Saved (kWh)	132.82M
Energy Cost Savings	$11.95M
Energy (BTU) Saved	1.96M
BTU Cost Savings	$950,120
Greenhouse Gas Reduction (Tons-Nox, Sox, Methane)	13
CO2 Avoided (MT)	17,279
Water/Sewer Conservation	111,606 Gallons
Water/Sewer Conservation Cost Savings	$543,794
Industry Job Hours Generated	2.36M

Provides Procurement & Technical Assistance Services

- MCEC managed **procurements have generated over $73M in contracts** and business supporting jobs in the marketplace
- MCEC EPC contracted services alone have resulted in **114M kWh of energy demand reduction** with **$8.63M in cost savings** for consumers, as well as **4,545 metric tons of C02 avoided**
- With **100% achievement of MBE contracting goals**

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PTAS Supported Projects

Energy & Sustainability Strategies

- Morgan State University
- Goucher College
- Baltimore County
- Maryland Port Administration
- Maryland “Cost of Climate Change” Study

Design Build Studies & Projects

- Chestertown Community Solar
- Easton Utilities Microgrid
- Howard County Microgrid
- Frederick County Microgrid
- Baltimore City Geothermal
- Takoma Park Solar
- Baltimore City Public Schools

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Mobilizes Capital with Innovative Financing

MARYLAND CLEAN ENERGY CAPITAL
providing financial solutions

Taxable and Tax-Exempt Bonds at advantageous rates to fund large scale projects, especially for municipal

$50 Million in transactions

MD PACE
Property Assessed Clean Energy Loans

Leverages private capital for loans with voluntary property tax lien for small business, commercial, industrial, agriculture and non-profit properties

Over $150M in transactions

C3 CLIMATE CATALYTIC CAPITAL FUND

$15M Public investment fund designed to leverage private investment and target underserved markets while achieving GHG reductions, since launch in 2024

$2.26M investments closed
$8.275M pending

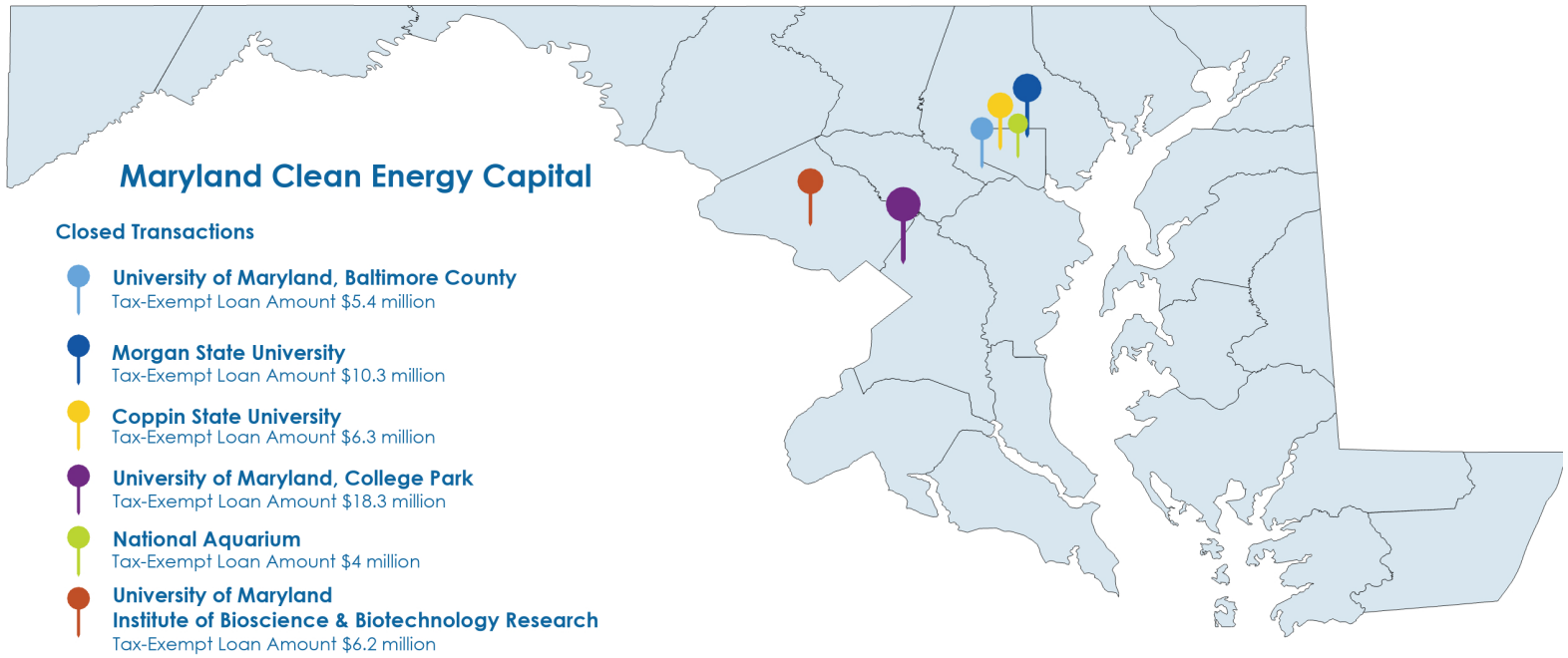
CLEAN ENERGY Advantage
FINANCING PROGRAM FOR ENERGY EFFICIENCY & RENEWABLES

Leveraged lending program provides access to capital for home energy improvements. Supported by EMPOWER Maryland and offered in partnership with Montgomery County Green Bank

$6.5M in Loans since 2022

Bond Financing for Large-Scale Projects

MARYLAND CLEAN ENERGY CAPITAL



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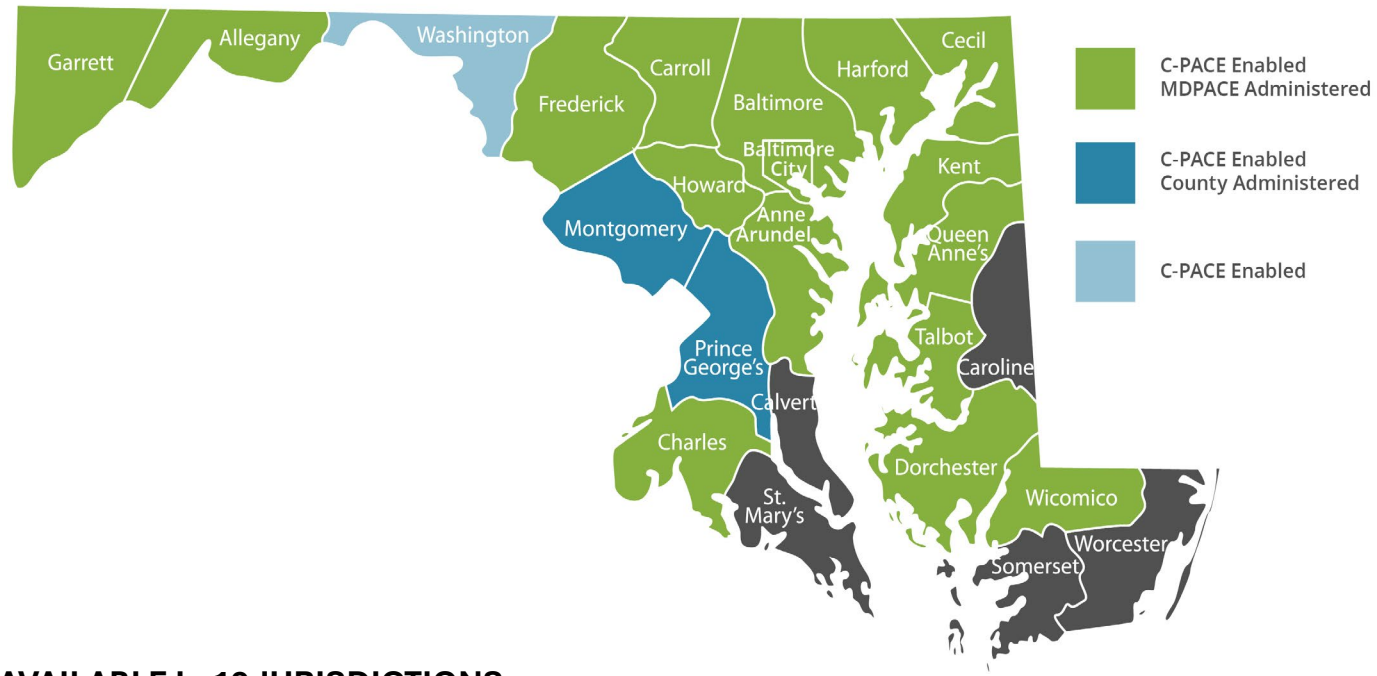
Central Program Administration for local JURISDICTIONS



MD PACE
Property Assessed Clean Energy Loans

AVAILABLE In 19 JURISDICTIONS

- Uses voluntary tax lien in advantageous construct to finance environmentally beneficial measures and project construction
- Solution for commercial, industrial and agricultural properties to reduce energy costs and improve resilience

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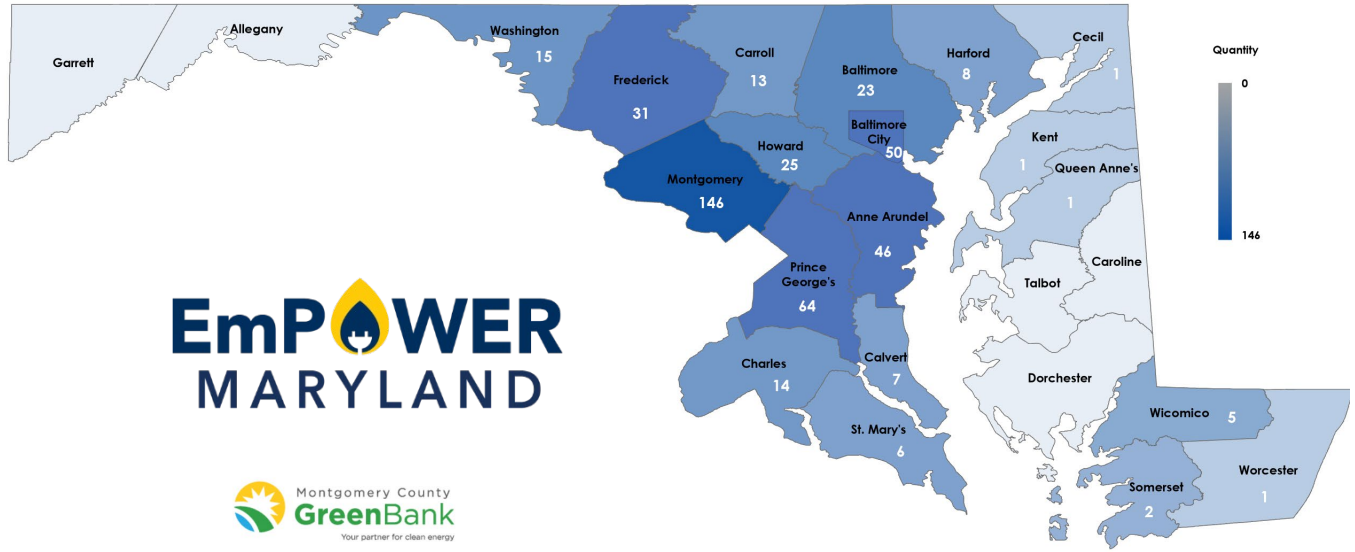
Loans for Qualified Maryland Homeowners
0% for up to 24 months!

CLEAN ENERGY Advantage

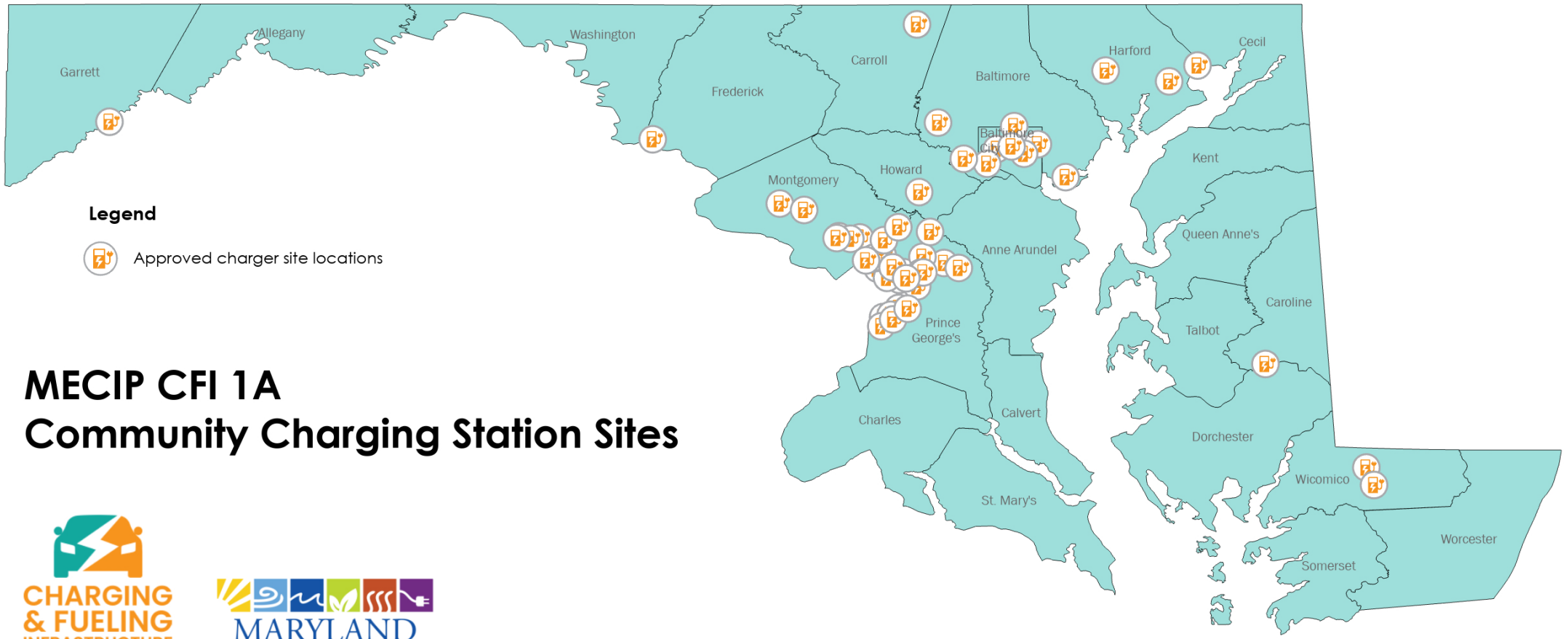
FINANCING PROGRAM FOR ENERGY EFFICIENCY & RENEWABLES

- Credit Scores as low as 580
- Pairs with Utility EmPOWER rebates
- Pilot Program Leverages investment from the Clean Energy Credit Union



The CEA Loan Pilot Program is administered, in partnership, by the Maryland Clean Energy Center and the Montgomery County Green Bank and authorized by the Maryland Public Service Commission (PSC) to fund the program. EmPOWER Maryland programs are funded by a charge on your energy bill. EmPOWER programs can help you reduce your energy consumption and save you money.

Grant Funded EV Charging Infrastructure Deployment



MECIP CFI 1A
Community Charging Station Sites

CHARGING & FUELING INFRASTRUCTURE MARYLAND

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Commercializes Innovative Technologies to Create Jobs

MARYLAND ENERGY INNOVATION ACCELERATOR
A PROGRAM OF THE MARYLAND CLEAN ENERGY CENTER

Jobs & Economic Development

- Jobs Created: **291**
- New Companies Started: **9**
- Cumulative Patents: **229**

Entrepreneur & Startup Engagement

- Program Participants: **152**
- Startups supported through MEIA programs: **55**
- Executives in Residence engaged: **158**

Investment & Funding Leverage

- CTFF Commitments made: **$200,000**
- Total money brought in to Maryland by supported companies: **$255.8M**

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Climate Tech Companies & Technologies

Buildings

LIATRIS

InventWood

Sustainabli

PULSEIQ!

Energy

Pirl

TERRA FUSION

OASIS ENERGY PARTNERS

ARCHER POWER SOLUTIONS, LLC.

ENERYTICS ENERGY ANALYTICS

FlexiCharge

Materials

HighT-Tech

EDACLabs

NewCopper

FORAGER STATION

ALCHEMITY

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Current vs. Proposed Green Bank Funding

	Operating	Climate Catalytic Capital (C3) Fund	Climate Tech Founders Fund	Clean Energy Advantage (CEA) Consumer Loans	Other
CURRENT	**$1.2M** **Annual Operating Budget from RGGI**	**$15M FY 24 thru FY26** **Climate Catalytic Capital Fund, $5M appropriation each year. Ends this fiscal year without additional funding**	**$5M FY25 thru FY28** **Climate Tech Founders Fund, FY25 thru FY28, supports from unused Video Lottery Terminal Fund. Also, in part supports MEI2**	**$2M** **EmPOWER funds granted in 2012 to support Pilot Loan Program. Has Leveraged $6M+ since 2022**	**$10M** Solar Investment Funds includes MEA Grant Funded Strategic Revolving Fund (SRF) $5M, and Bridge Financing Facility (BFF) $5M, launched in FY26.
PROPOSED	**$4M** **MCEC annual Operating Fund Budget from $1.2M to $4M from RGGI, to manage existing and new projects, programs & investments** • **HB 119 proposes $1.5M annually, to create a Project Navigators team to assist locals** • **Plus $1.3M**	**$15M FY27 thru FY29** **Continue funding C3 fund.** • **Governor's Budget commits $5M just in FY27** • **SB 23 GREEN Bill would add $10M more, dedicated to loans for Non-Profits in FY28 & 29**	**$2M** **Propose future continued annual appropriation to Climate Tech Founders Fund, beginning in FY29 from VLT Funds**	**$50M** Deploy one-time leveraging fund investment, allow for low-cost loans for solar and storage for single and multi-family homes and other financing strategies, possibly from ACP • **Legislation proposed**	**$15M** Transfer Lawton Loan Program from MEA to MCEC, along with associated SEIF Funding per • **SB223/ HB245 funds loans for energy efficiency for state agencies and non-profits.**

SAVE THE DATE

Playing to Win

SUSTAINABLE POWER & ECONOMIC GROWTH

Evening of February 19, 2026

2026 MCEC Legislative Reception
The Governor Calvert House
Annapolis, Maryland

Contact Us

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MARYLAND
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28 January 2026

Delegate Marc Korman
Environment & Transportation Committee
Room 251
House Office Building
Annapolis, Maryland 21401

Briefing for the House Environment & Transportation Committee

Written Testimony, Robin Dutta, Executive Director, Chesapeake Solar and Storage Association

Chair Korman, Vice Chair Guyton, and members of the Environment & Transportation Committee, thank you for the opportunity to share not only some of the new realities facing the solar and storage industries, but also the energy realities facing Marylanders.

I am Robin Dutta, the Executive Director of the Chesapeake Solar and Storage Association (CHESSA). Our association advocates for our member companies who represent all market segments across the solar and energy storage industries. Many members are Maryland-based. Others are regional and national companies with an interest and/or business footprint in the state. Our purpose is to promote the mainstream adoption of local solar, large-scale solar, and battery storage throughout the electric grid to realize a stable and affordable grid for all consumers. We are the regional affiliate of the national Solar Energy Industries Association.

I appreciate the opportunity to participate in this joint committee briefing and share some of the new realities of the solar and storage industries following federal budget and policy actions that have taken place in 2025.

Our industry is undergoing two major pivots: one, adapting business models to incorporate energy storage, and two, revamping go-to market strategies in order to adapt to the phase out of the Solar Investment Tax Credit. The goal is to provide value to customers and the grid that enables project financing and operational projects. These are adapting to account for the new storage opportunities but also to overcome the major hurdles presented by the passage of H.R. 1 and other federal actions.

Our new industry realities are occurring as Marylanders face higher energy prices and a broken system at the regional transmission level. Maryland imports more electricity than it consumes, and is increasingly reliant on the regional transmission system, PJM Interconnection, for securing enough electricity to meet communities' needs.

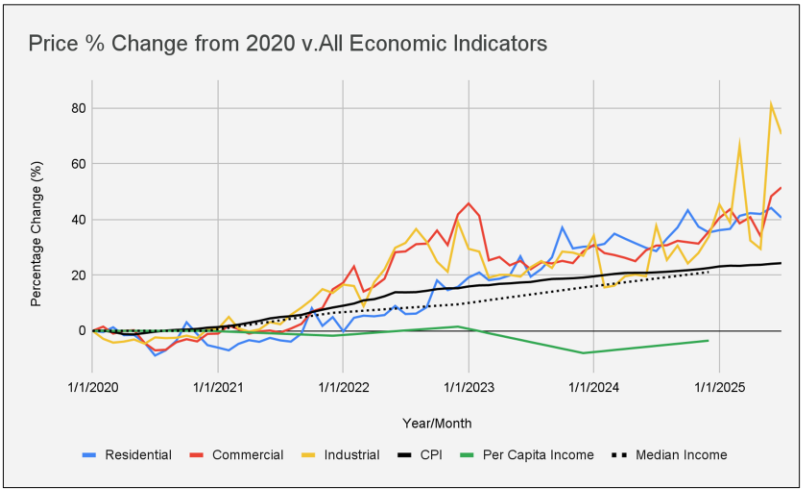
Our presentation in this briefing is meant to shed light on how this energy affordability crisis has formed, and to illustrate how Maryland solar and storage is already benefiting the electric grid. The slides presented are from a CHESSA webinar held on January 5, 2026, and a recording can be accessed through this link. The full slide deck is attached to this written testimony. Research included in this presentation was conducted by the independent company Align Energy Advisors for CHESSA in Q4 2025.

Increasing Costs for Electricity and the Electric Grid

Rising electricity prices has been a multi-year trend. From 2020, retail electricity prices in Maryland have outpaced average inflation (as measured by the U.S. Consumer Price Index) and the growth in Median Income and Per Capita Income, according to data from the U.S. Energy Information Administration and the FRED database at the St. Louis Federal Reserve Bank. Residential cost of electricity has increased about 40 percent since the beginning of 2020. The cost of electricity for commercial energy consumers have increased even higher, closer to 50 percent.

Setting the stage:

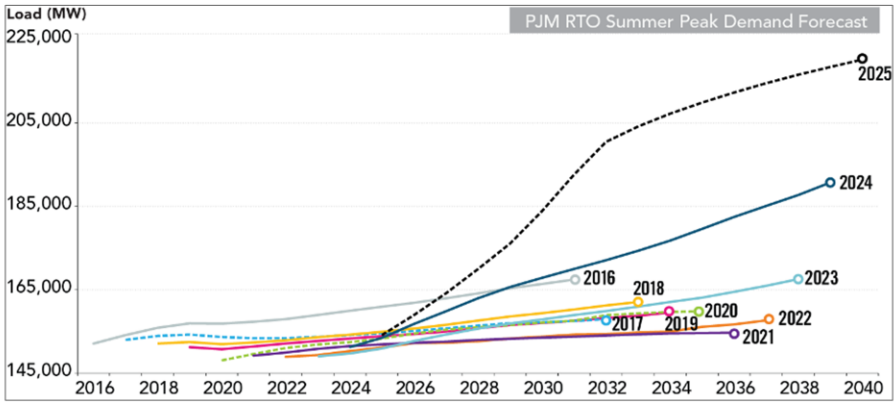
Maryland's cost of electricity is rising and incomes are struggling to keep up.



ALIGN ENERGY ADVISORS

Source: EIA Maryland Monthly Electricity Prices v. FRED Median Income as % of January 2020

Setting the stage: As demand continues to grow, the grid will need more resources.

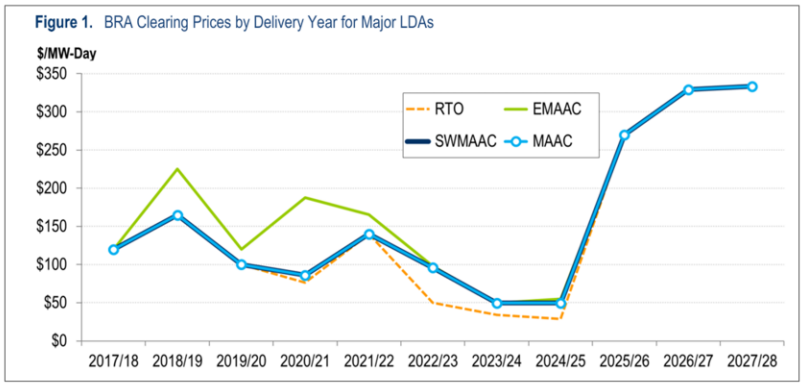


ALIGN ENERGY ADVISORS

Source: Summer 2025 PJM Reliability Assessment

The projected growth in summer peak electricity demand in the PJM Interconnection region, which Maryland belong to, has increased when calculations are updated. The revised projections in the 2023, 2024, and 2025 represent startling increases.

Setting the stage: PJM Capacity prices increases are significant in Maryland



At the price of $329/MW-day every one percent of peak load reduced by DER (~50 MW) could save Pepco Maryland over $7M a year (including capacity reserve margin).

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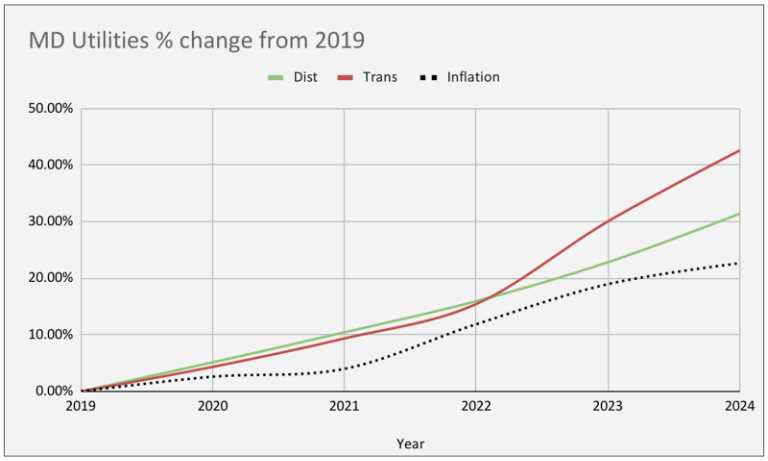
Source: PJM 2027/28 Base Residual Auction Report

Electricity costs are concentrated in peak periods, when demand for electricity spikes relative to normal consumption. Daily peak periods are often in the morning (getting ready for school/work) and in the evening (coming home from the day/dinner). Critical peaks can be the result of

normal behavioral patterns layered on top of weather events (ie. hot day requiring maximum air conditioning). Shortages and price spikes can also occur if electric supply is being outpaced by demand. The basic economic dynamics of supply and demand shape how peak periods drive up electric prices. Those higher prices are then spread across the retail electricity rates, creating upward pressure.

The PJM Capacity graph above shows the clearing price for generation capacity in PJM. Expected demand is ahead of available electric supply.

Cost Drivers: Distribution Investments



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Source: FERC Form 1

Rising retail electric rates are not only influenced by the cost of energy but also in the cost of building and maintaining the electric grid infrastructure. Grid investments by Maryland utilities since 2019 have increased at a rate outpacing inflation.

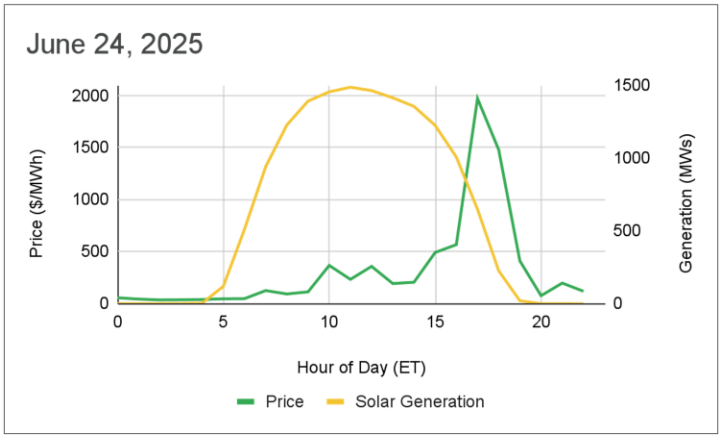
In order to be reliable, the electric grid must be built to serve the maximum demand of electricity that it can anticipate. As that maximum demand level reaches increasingly higher levels relative to the median or average demand levels, more infrastructure has to be built to handle exclusively peak periods. That decreases the efficiency of the grid and grid investments. It means that a greater amount of surcharges would have to be charged to ratepayers to build grid infrastructure that is only used some of the time.

The Value of Solar and Storage Assets

This demand versus generation graph shows the solar generation and electric demand in Maryland on June 24, 2025. The alignment of generation versus demand does naturally partially overlap. That overlap represents the offsetting of demand by local solar generation. If that solar generation had paired battery storage, that excess generation during Hours 5-15 could be

stored and then discharged between Hours 15-20 as needed to offset that peak demand even more.

Setting the stage: Solar provides inexpensive generation that holds prices down.



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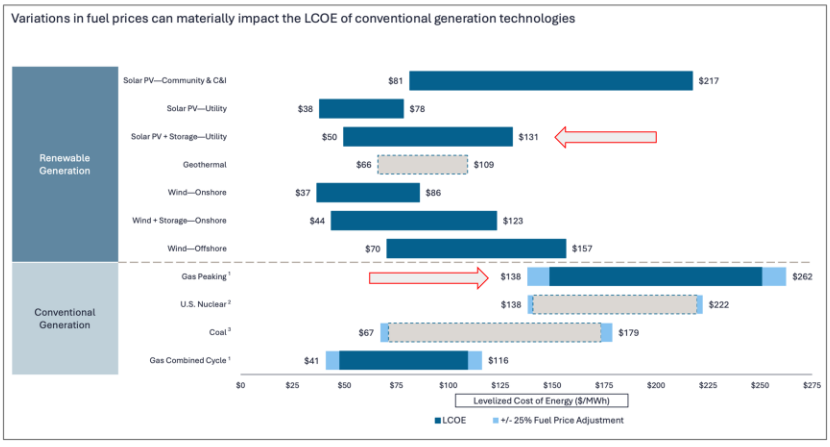
Source: PJM BGE Real Time LMP v. PJM Mid Atlantic Solar Generation Profile

Local solar generation, especially any distributed solar capacity participating in the net metering program and enhanced by battery storage, does not need to go through the PJM Interconnection capacity markets. It is not subject to the regional transmission organization's rules, and can lower the peak demand that Maryland utilities need to procure from PJM.

This results in lowering demand and increasing electricity supply, on a net basis.

Levelized Cost of Energy Comparison : Sensitivity to Fuel Prices



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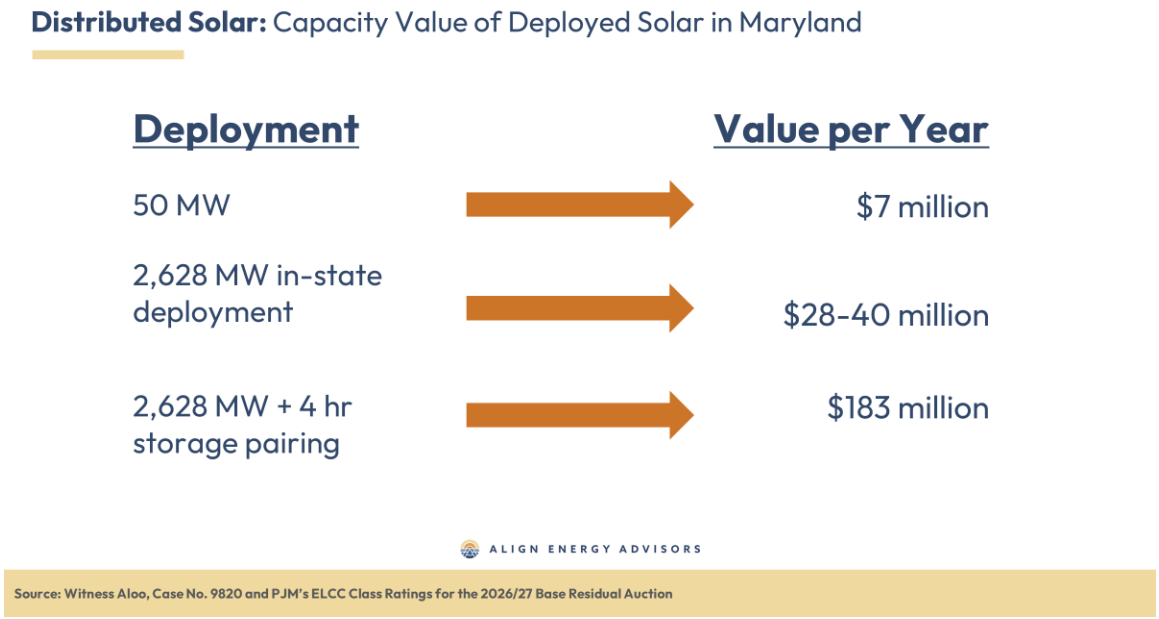
Source: Lazard Levelized Cost of Energy Report, June 2025

Part of the problem is an inherent electricity supply shortage. As data centers are planned and built in the state, that shortage will only increase. In 2023, Maryland imported about 40% of its electricity from out of state. As this graph shows, utility-scale solar is the cheapest form of new generation when compared to all other mainstream generation sources.

Natural gas plants built to generate during peak periods represent one of the most expensive options available. The proposed Perryman natural gas plant in Harford County would require about $800 million in state aid, according to Constellation CEO Joe Dominguez.

There is a public urgency to address the energy shortage as quickly as possible. Solar and storage industries have an ability to act faster than other generating technologies. As reported by S&P Global in 2025, manufacturers of natural gas turbines are quoting upwards of a 5-7 year timeline for delivering equipment for new orders.



Capacity costs have been one of the most recent drivers of energy price increases, but in-state and distributed solar can help to lower those costs. This slide shows data cited by Pepco Maryland in their recent rate case where they stated that a 50 MW reduction in peak demand from distributed resources such as solar lead to a $7 million/year decrease in capacity costs. This slide shows the potential benefit increases if batter storage were added to the current Maryland solar capacity.

Similar cost reductions can be achieved with an increase in solar and storage deployment in Maryland. Distributed solar and storage does not need to follow PJM processes, meaning that Maryland policy can emphasize and encourage the deployment of this PJM-free capacity as part of an overall strategy to reduce peak demand and lower energy prices overall.

Conclusion

In conclusion, solar and storage generating technologies can be deployed in homes, businesses, and across the electric grid to help solve the core problem driving up energy prices in Maryland – the shortage of energy supply in Maryland, especially when needed in peak periods. The private sector, driven by private investment, is enabled by public policies such as net metering and renewable portfolio standards. Utility grid investments designed to build out peak period infrastructure are generally paid by ratepayers.

CHESSA appreciates the ability to participate in this committee briefing. We are ready to be a resource to these committees and the Maryland General Assembly.

Best,

Robin K. Dutta
Executive Director
Chesapeake Solar and Storage Association
robin[at]chessa[dot]org

The Role of Clean Energy to Improve Maryland Energy Affordability

CHESSA

Webinar presented by the

Chesapeake Solar and Storage Association

January 5, 2026

About Us

CHESSA

We were originally founded in 1984 as the Maryland-DC-Virginia Solar Energy Industries Association. Now renamed the Chesapeake Solar and Storage Association (CHESSA), we represent all market segments across the solar and energy storage industries, primarily across Maryland, Virginia, and the District of Columbia. We are an official SEIA affiliate.

Our purpose is to promote the mainstream adoption of local solar, large-scale solar, and battery storage throughout the electric grid. We must maximize private capital investment in our electric infrastructure in order to create an affordable, reliable, resilient, and clean electric grid.

Event Co-Hosts

CHESSA

Chesapeake Solar & Storage Association

SEIA Solar Energy Industries Association®

Agenda

Introductions – Robin K. Dutta, CHESSA

Briefing –Solar + Storage for Affordability in Maryland– Molly Knoll, Align Energy Advisors

Q&A Session

Briefing Speaker

Molly Knoll is a clean energy and regulatory policy expert with more than a decade of experience working at the intersection of law, public service, and energy markets.

Molly began her career in Maryland as a ratepayer advocate representing residential ratepayers in regulatory proceedings including rate cases, EmPOWER and retail supplier enforcement actions. She continued her career as a Senior Advisor to the Maryland Public Service Commission leading work on grid modernization, multi-year rate plans, performance metrics and other emerging energy issues.

Before joining Align Energy Advisors, Molly served as Vice President of Policy at the Coalition for Community Solar Access, where she led a team advancing community solar legislation and regulatory strategy in over 20 states.

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Solar + Storage for Affordability in Maryland

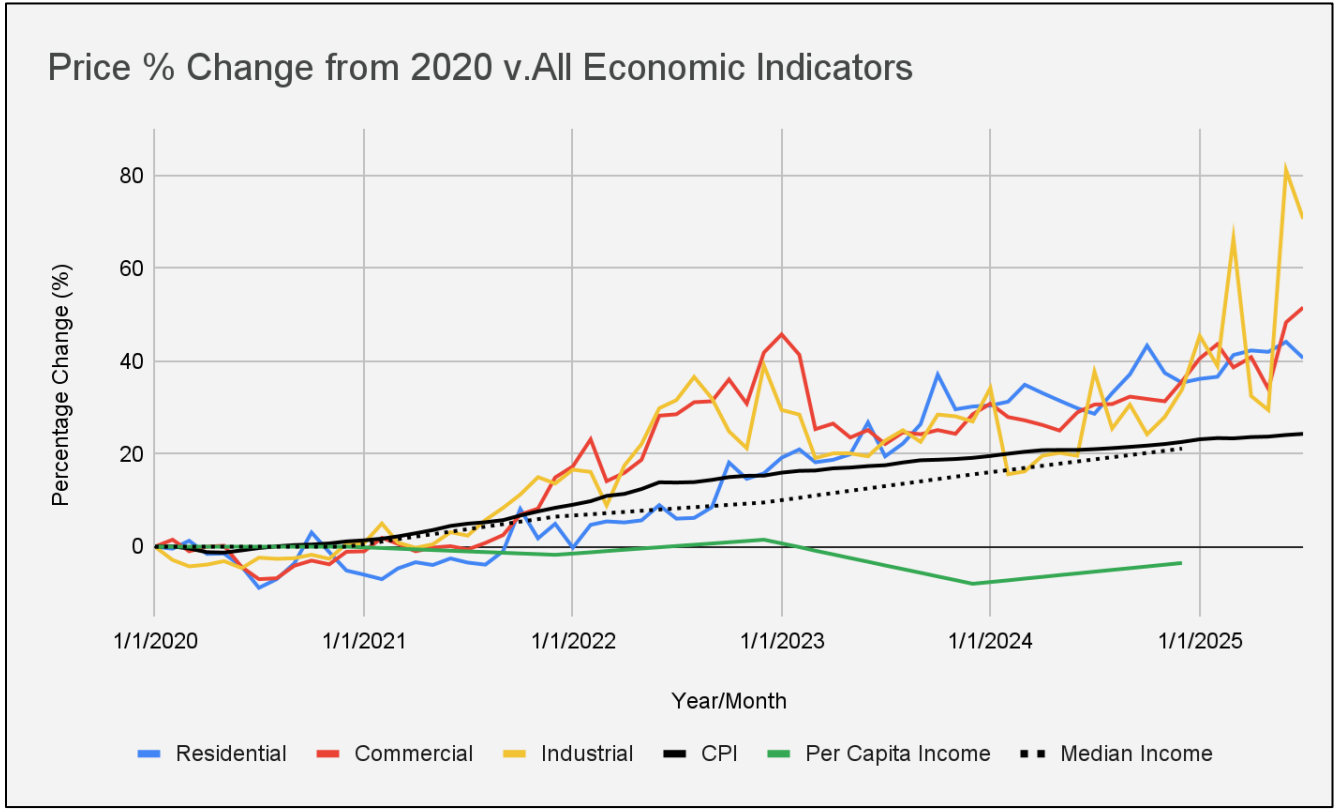
1/5/2025

Presented by: Molly Knoll

Setting the Stage

Setting the stage:

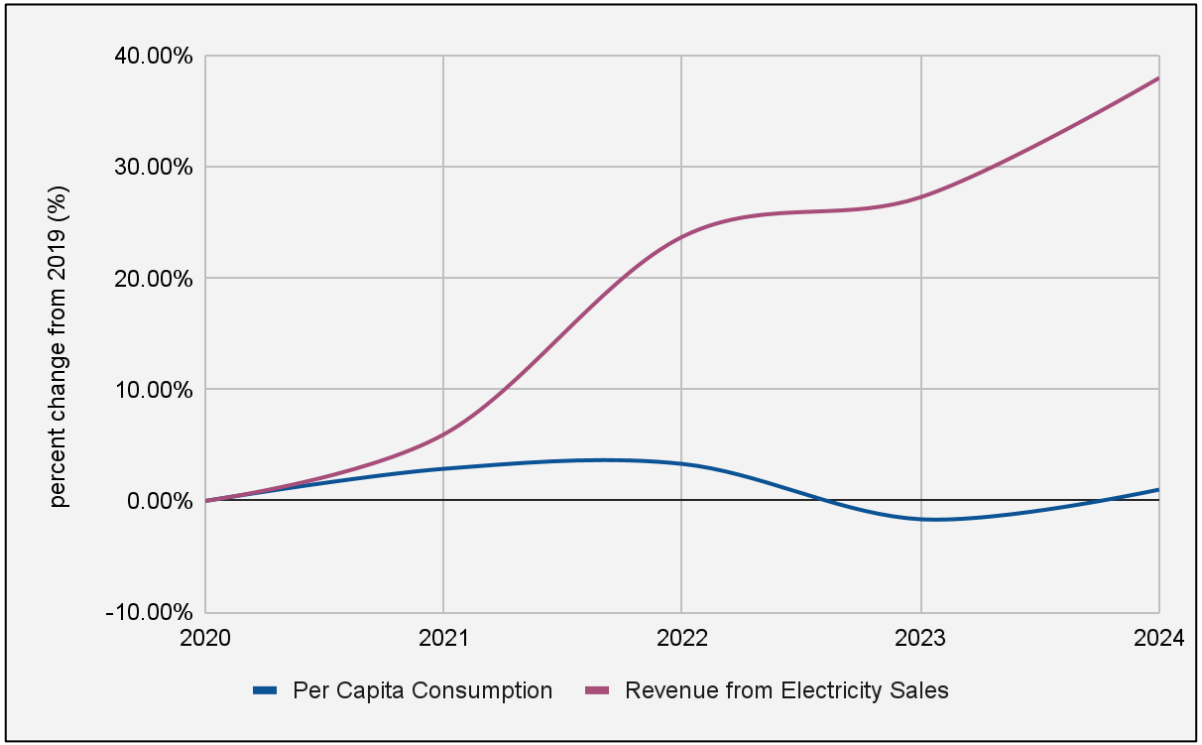
Maryland's cost of electricity is rising and incomes are struggling to keep up.



ALIGN ENERGY ADVISORS

Source: EIA Virginia Monthly Electricity Prices v. FRED Median Income as % of January 2020

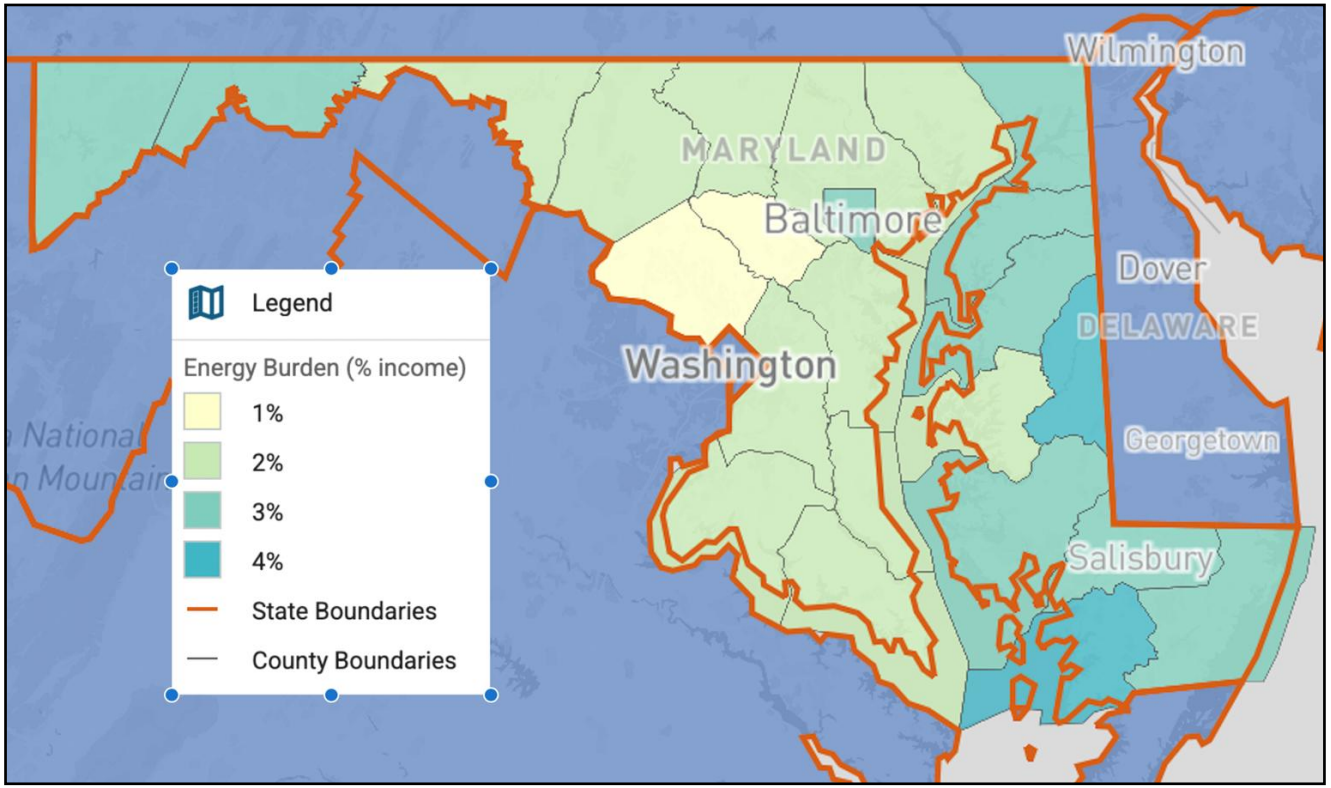
Setting the stage: We're getting less value from the utility system



ALIGN ENERGY ADVISORS

Source: EIA State Energy Data System

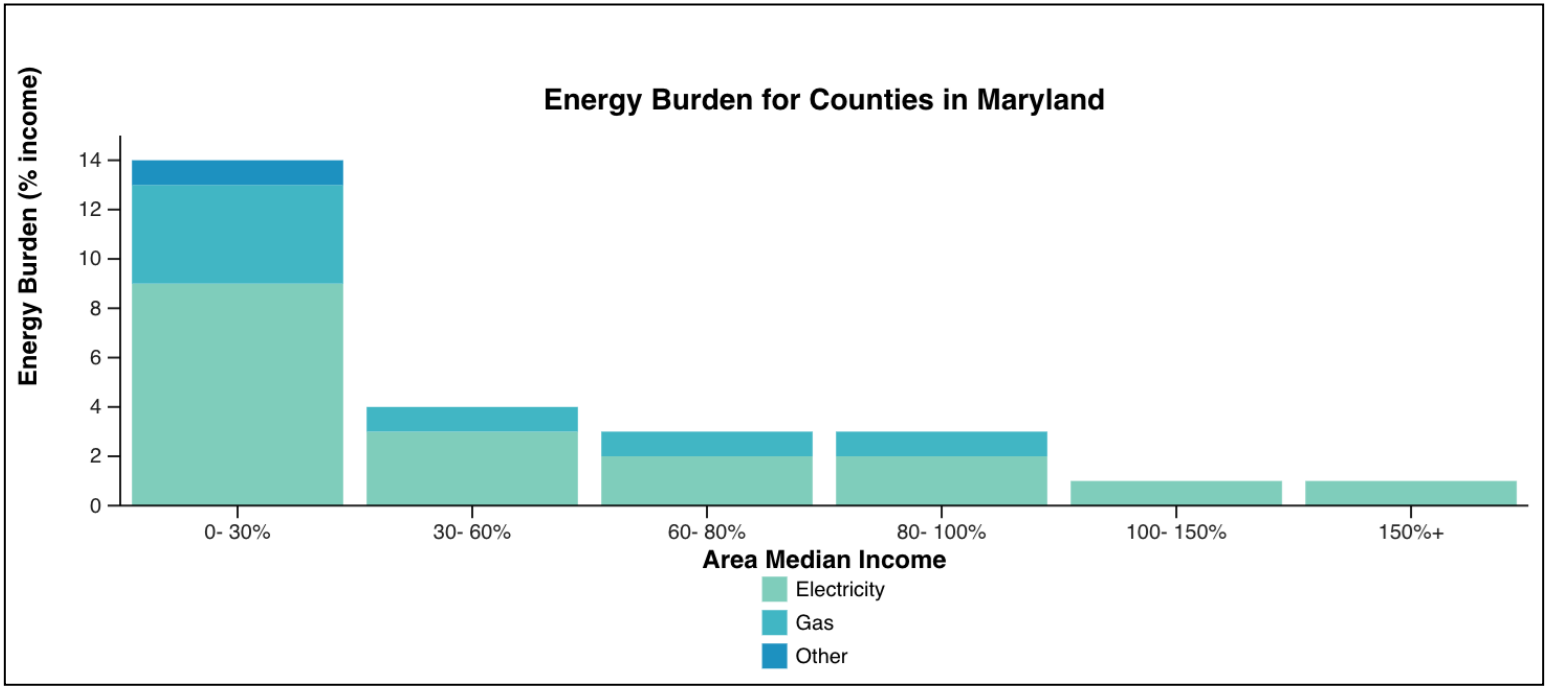
Setting the stage: Utility affordability is not uniform across the state



ALIGN ENERGY ADVISORS

Source: EIA State Energy Data System

Setting the stage: Utility affordability is not uniform for Marylanders

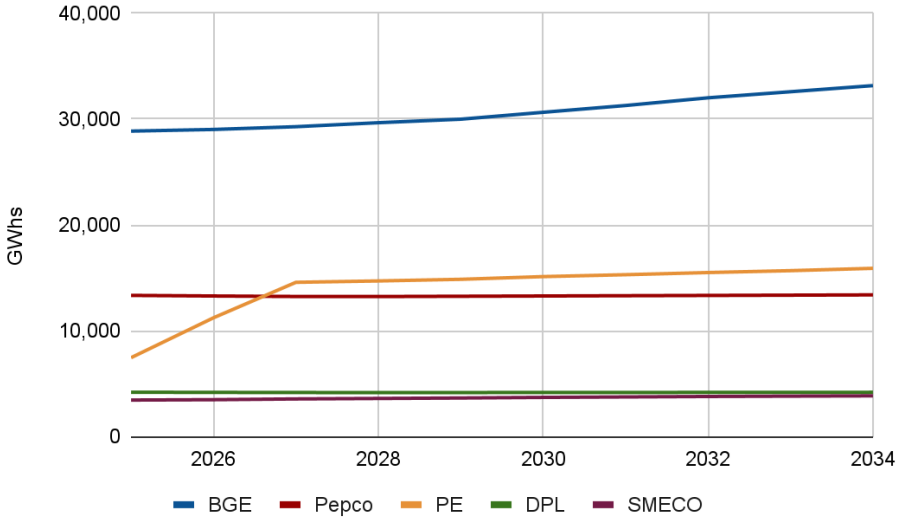


ALIGN ENERGY ADVISORS

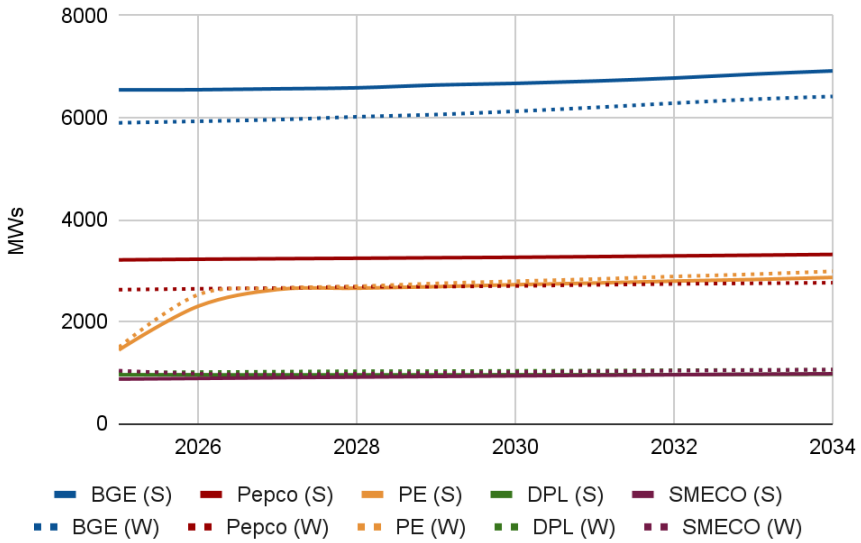
Source: EIA State Energy Data System

Setting the stage: Demand is growing in the region

Energy Sales Forecast (2025-2034)



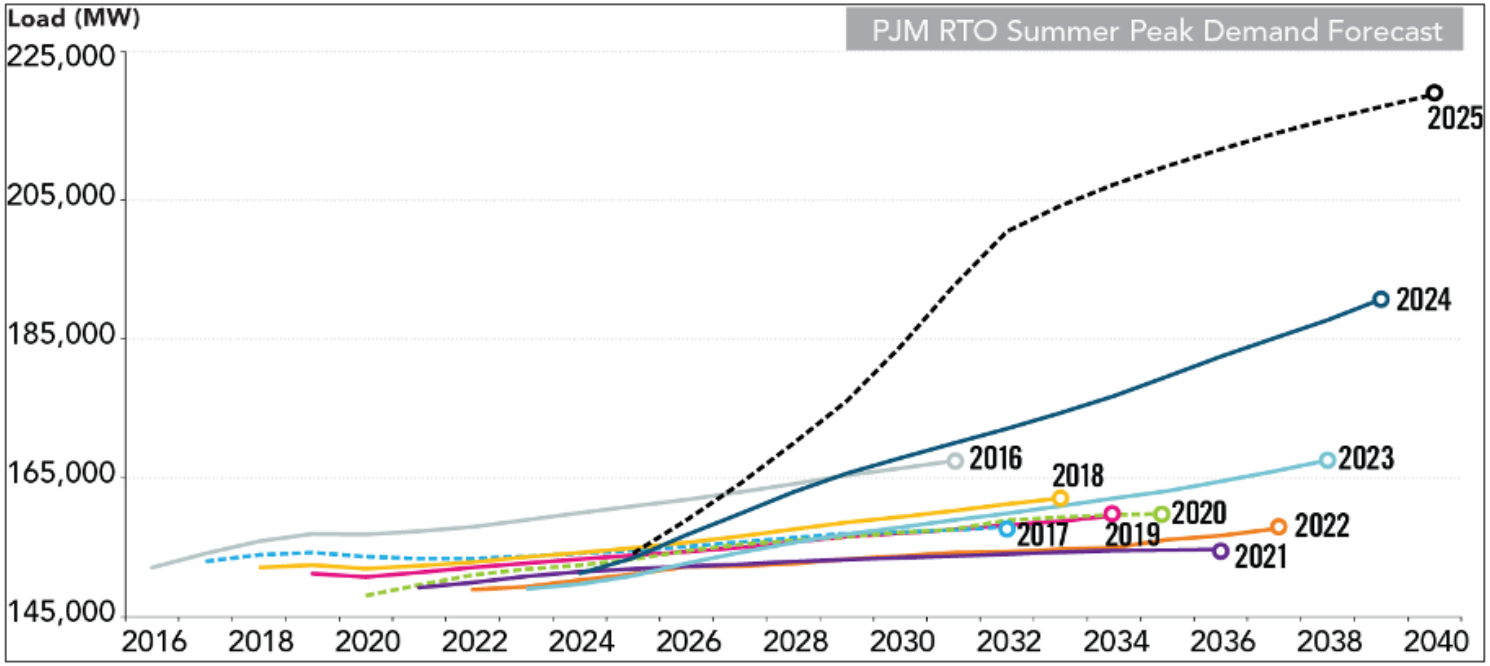
System Peak Forecast



ALIGN ENERGY ADVISORS

Source: 10-Year Plan of Maryland Electric Companies (2024-2033), net of DSM

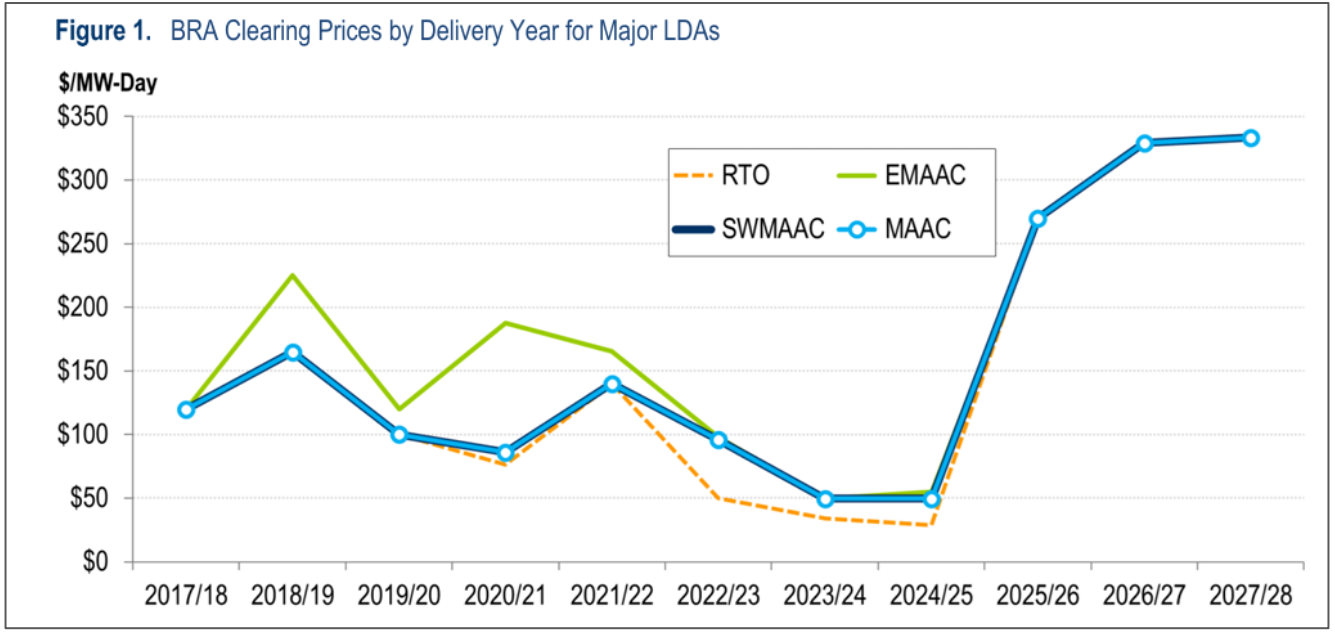
Setting the stage: As demand continues to grow, the grid will need more resources.



ALIGN ENERGY ADVISORS

Source: Summer 2025 PJM Reliability Assessment

Setting the stage: PJM Capacity prices increases are significant in Maryland



At the price of $329/MW-day every one percent of peak load reduced by DER (~50 MW) could save Pepco Maryland over $7M a year (including capacity reserve margin).

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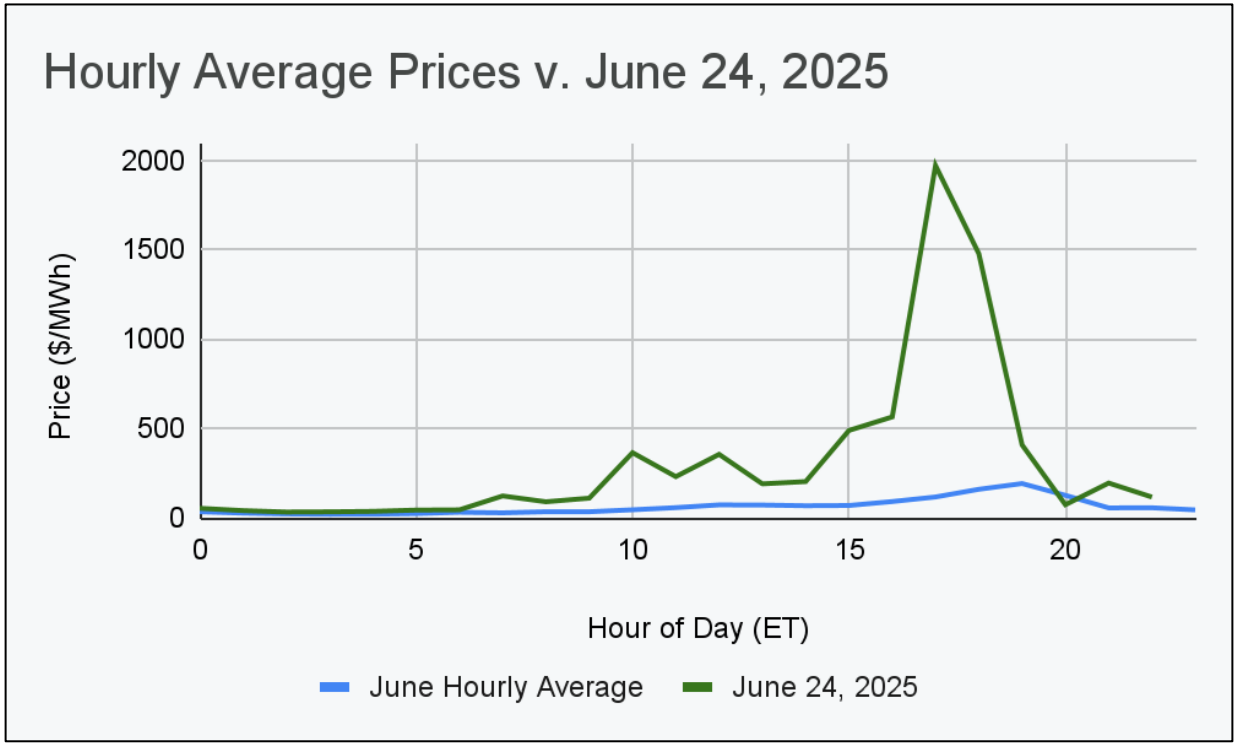
Source: PJM 2027/28 Base Residual Auction Report

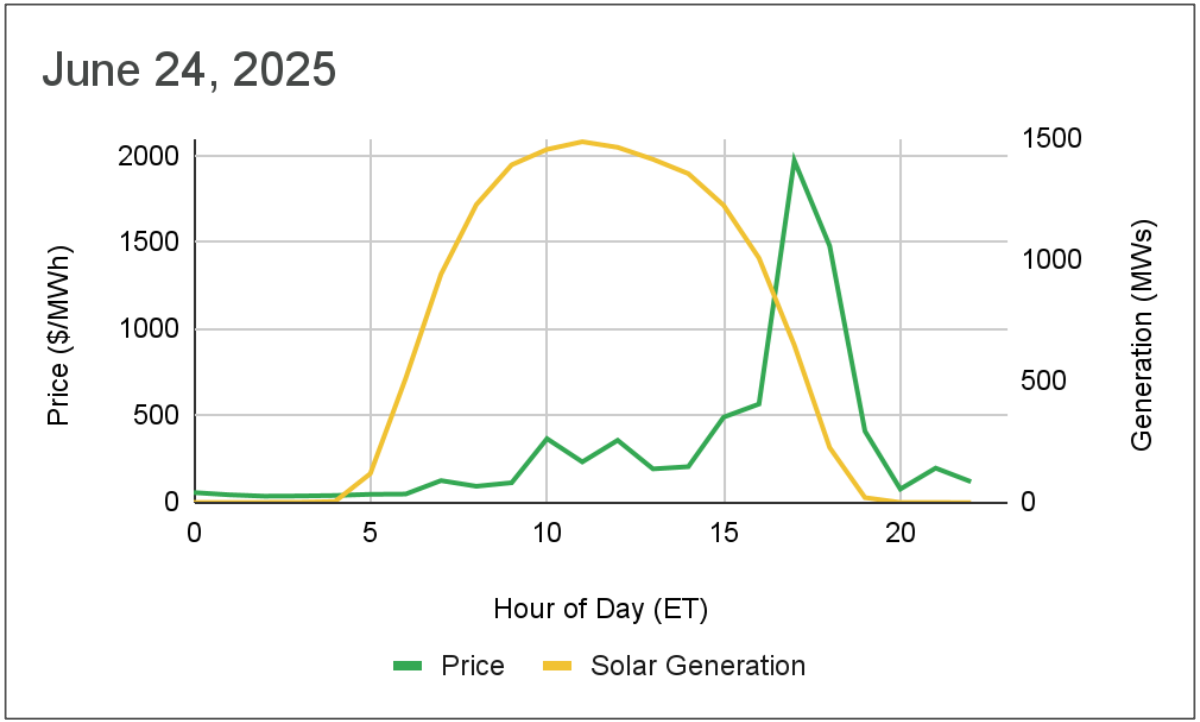
Setting the stage: A small number of hours are the most expensive hours on the grid.



ALIGN ENERGY ADVISORS

Source: PJM average LMP v. high price day (selected node in BGE zone)

Setting the stage: Solar provides inexpensive generation that holds prices down.



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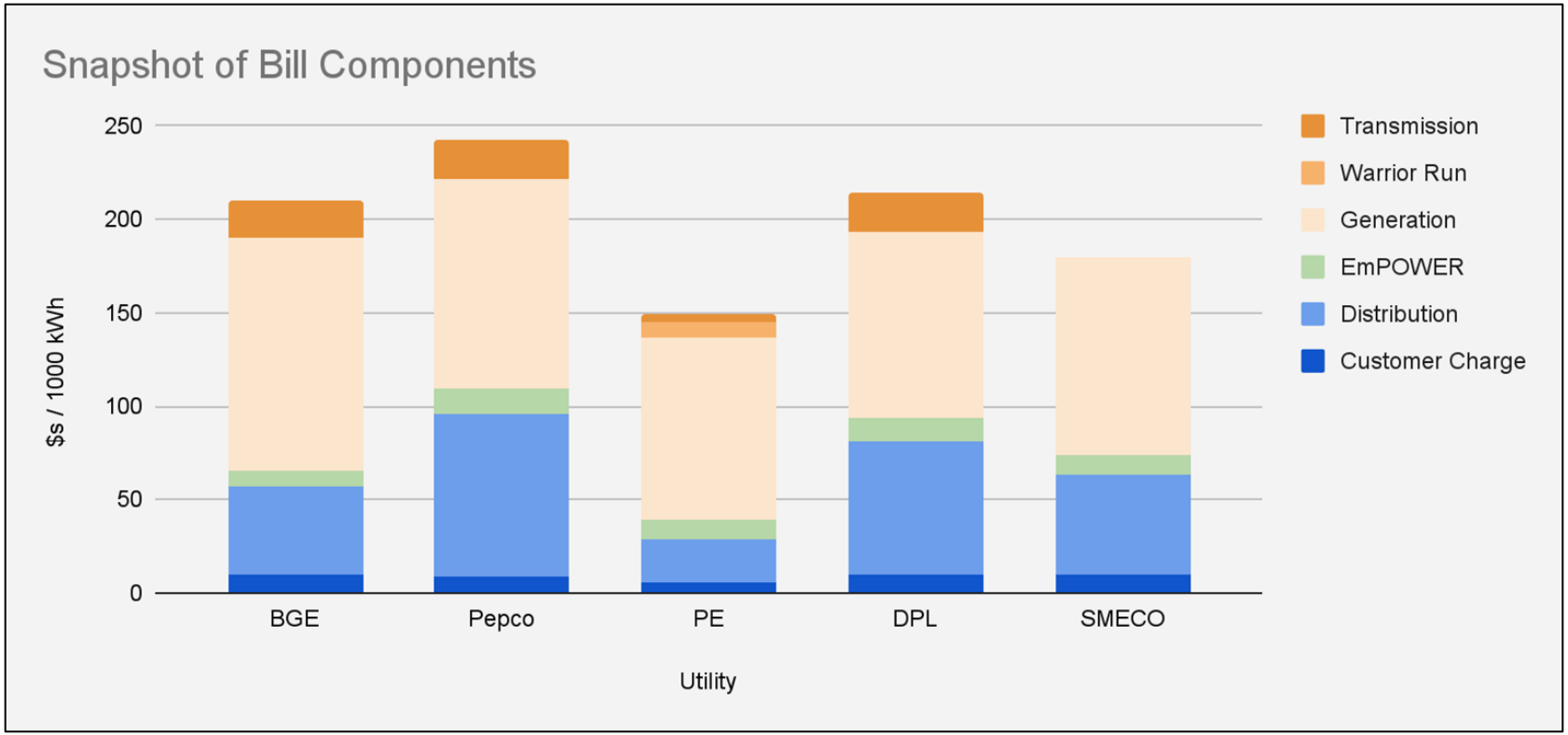
Source: PJM BGE Real Time LMP v. PJM Mid Atlantic Solar Generation Profile

Setting the stage: Summary

- Residential electricity rates have risen over 40% in 5 years while household income has not kept pace.
- Maryland is getting less value out of the grid - households are paying more for utility service and using less energy.
- PJM energy, capacity and transmission prices impact a large portion of Maryland bills. Low cost solar generation is already effectively driving down energy costs.
- State policy goals are working - consumption is going down, renewables are being deployed. Targeted investments and solutions are essential to meet targeted load growth.

Breaking Down the Cost Drivers

What makes up our electricity bill?



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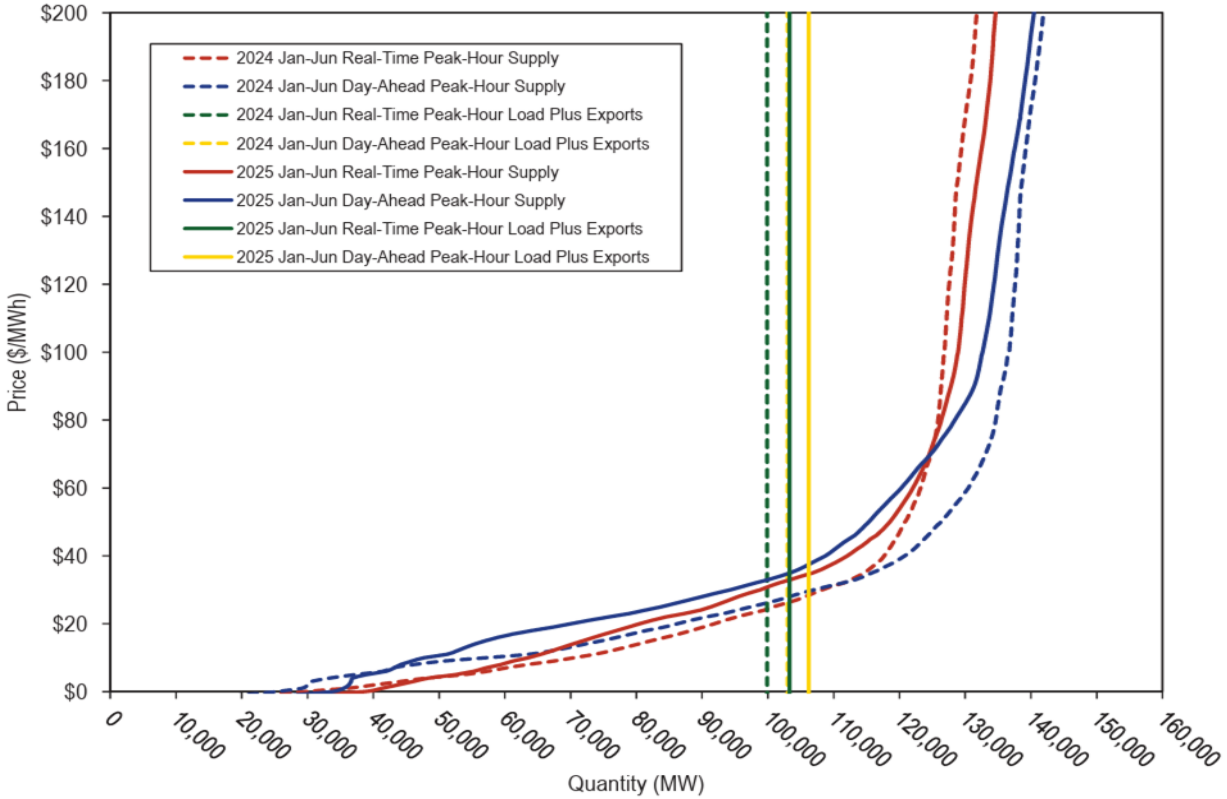
Source: Current approved tariffs for each utility

Cost Drivers:
PJM Transmission and Supply Costs

- When many customers need electricity all at the same time, prices rise exponentially.
- The price of electricity up until that point is relatively stable.



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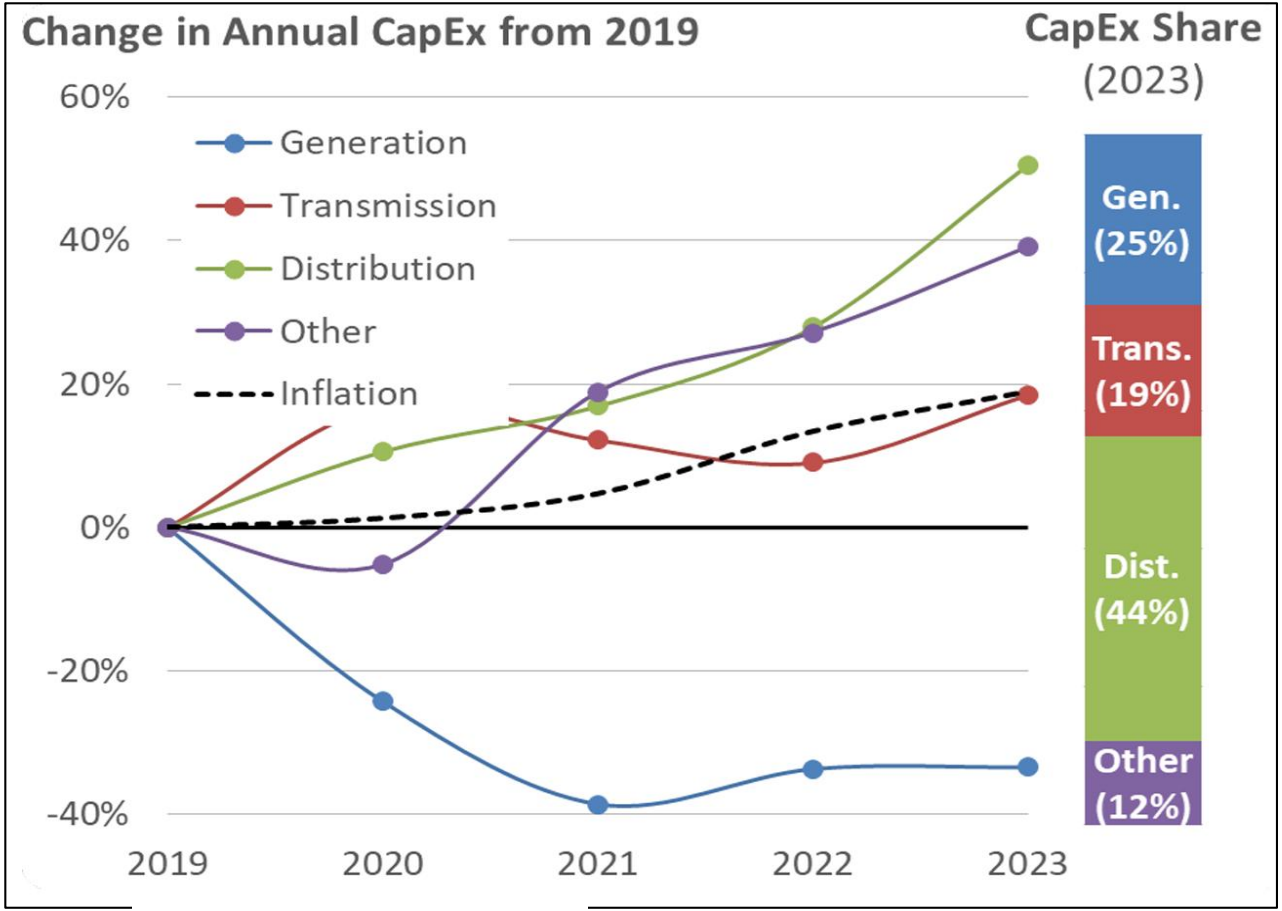
Source: State of the Market Report for PJM, Figure 3-2, January through June 2025

Cost Drivers: Distribution Investments

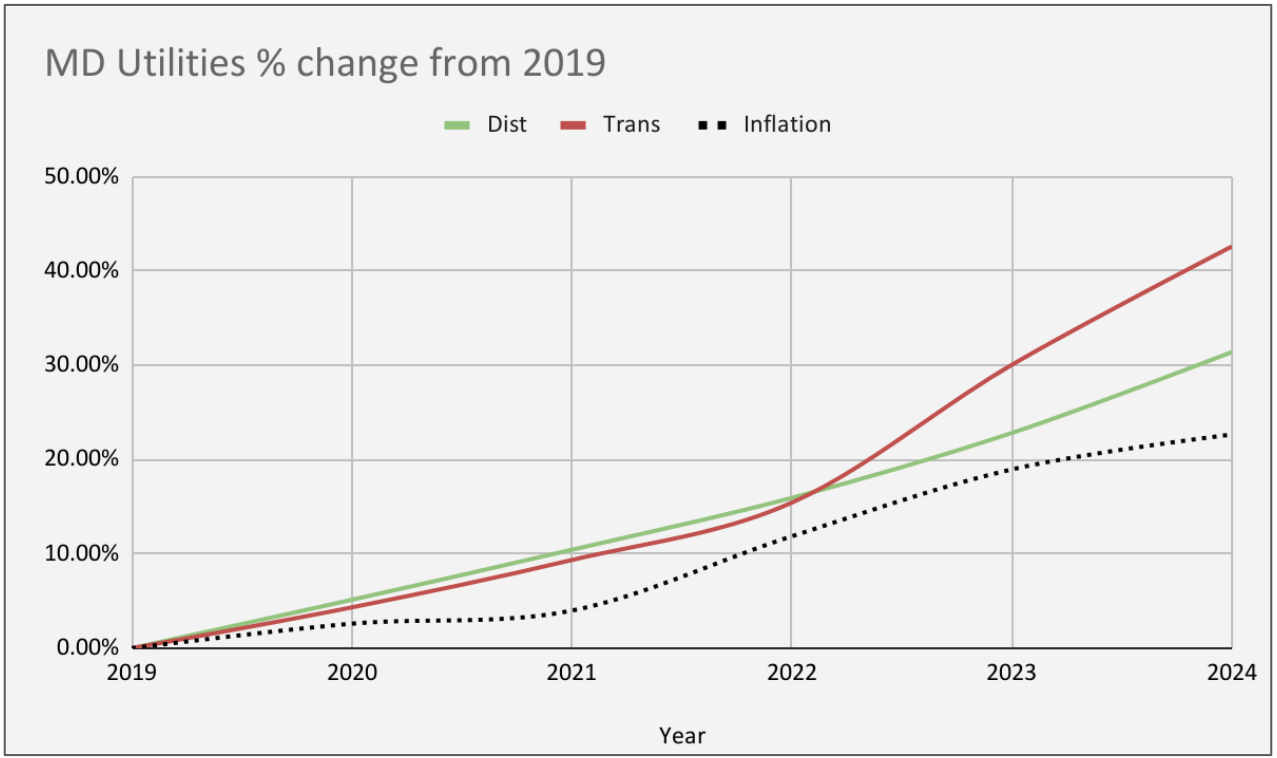
Notes: In the left-hand figure, each line is based on those utilities with data across all years for a given CapEx category. The stacked bar chart on the right is based on the subset of utilities with data reported for all CapEx categories. Values represent additions.



ALIGN ENERGY ADVISORS

Source: Retail Electricity Price and Cost Trends, LBNL

Cost Drivers: Distribution Investments



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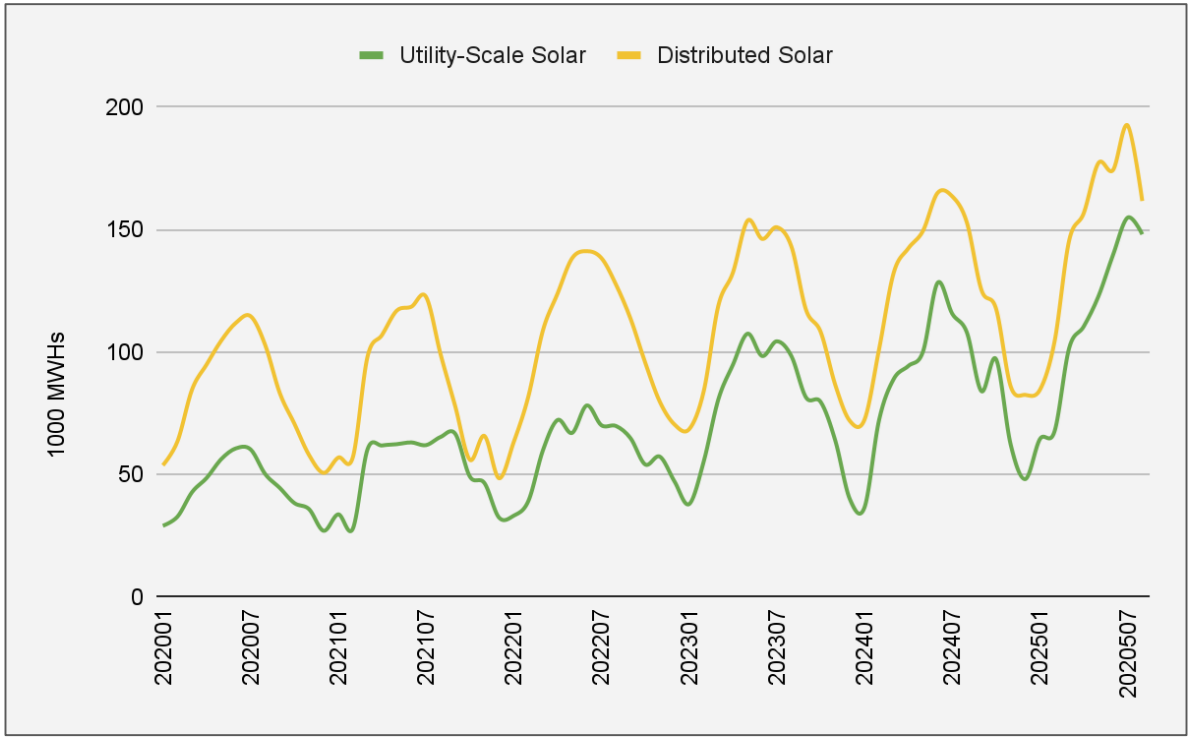
Source: FERC Form 1

Cost Drivers: Summary

- Electricity bills are primarily made up of distribution and supply components primarily influenced by Maryland PSC and PJM, respectively.
- The underlying costs of the distribution system are investments that we have already made, meaning their price tag isn't going to go down.
- The areas where Maryland can decrease long term costs are using in-state solar investments to reduce how much of our energy needs are subject to PJM market prices and to unlock additional value from distribution system investments.
- In-state, zero marginal cost resources like solar and storage are the best option for meeting the future needs of the system and the State.

Breaking Down the Benefits

Maryland's Solar Market



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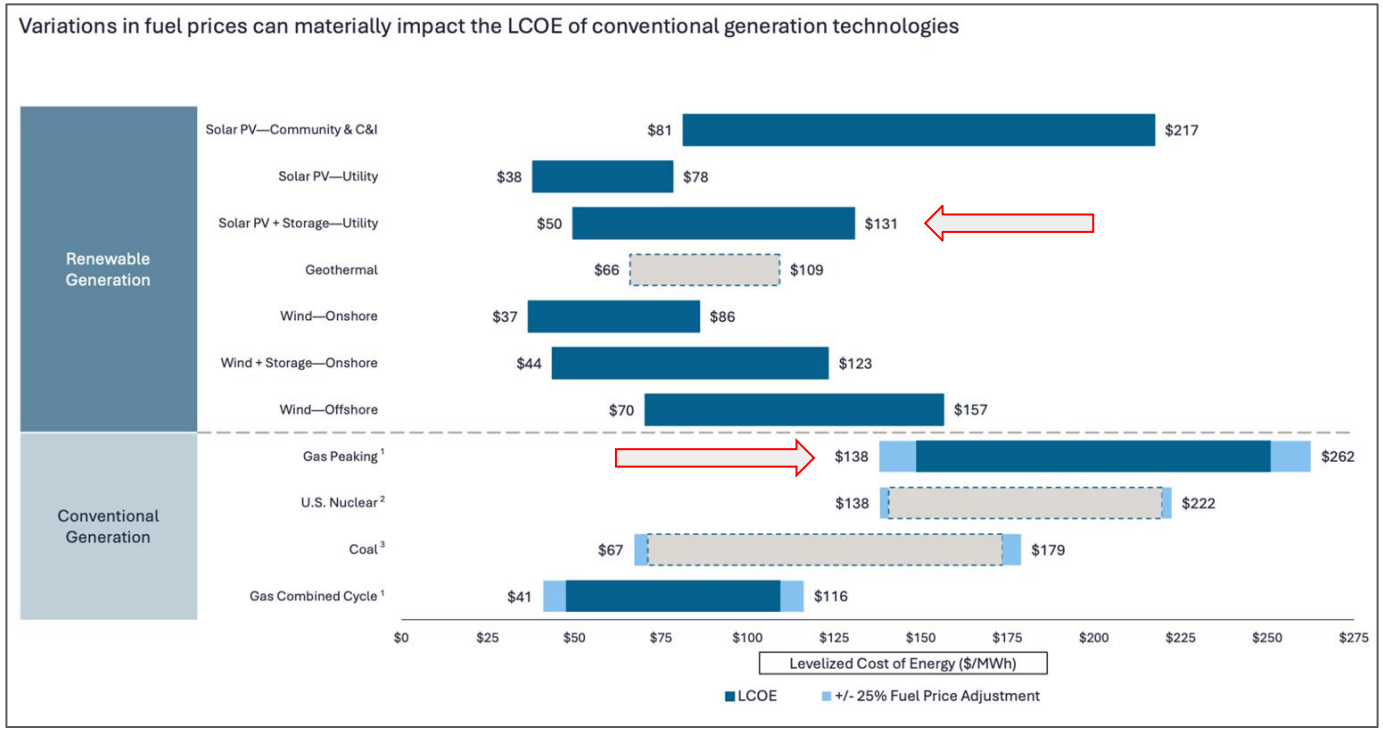
Source: EIA State Energy Data System, Maryland In-State and Small Scale Solar Generation

Levelized Cost of Energy Comparison : Sensitivity to Fuel Prices



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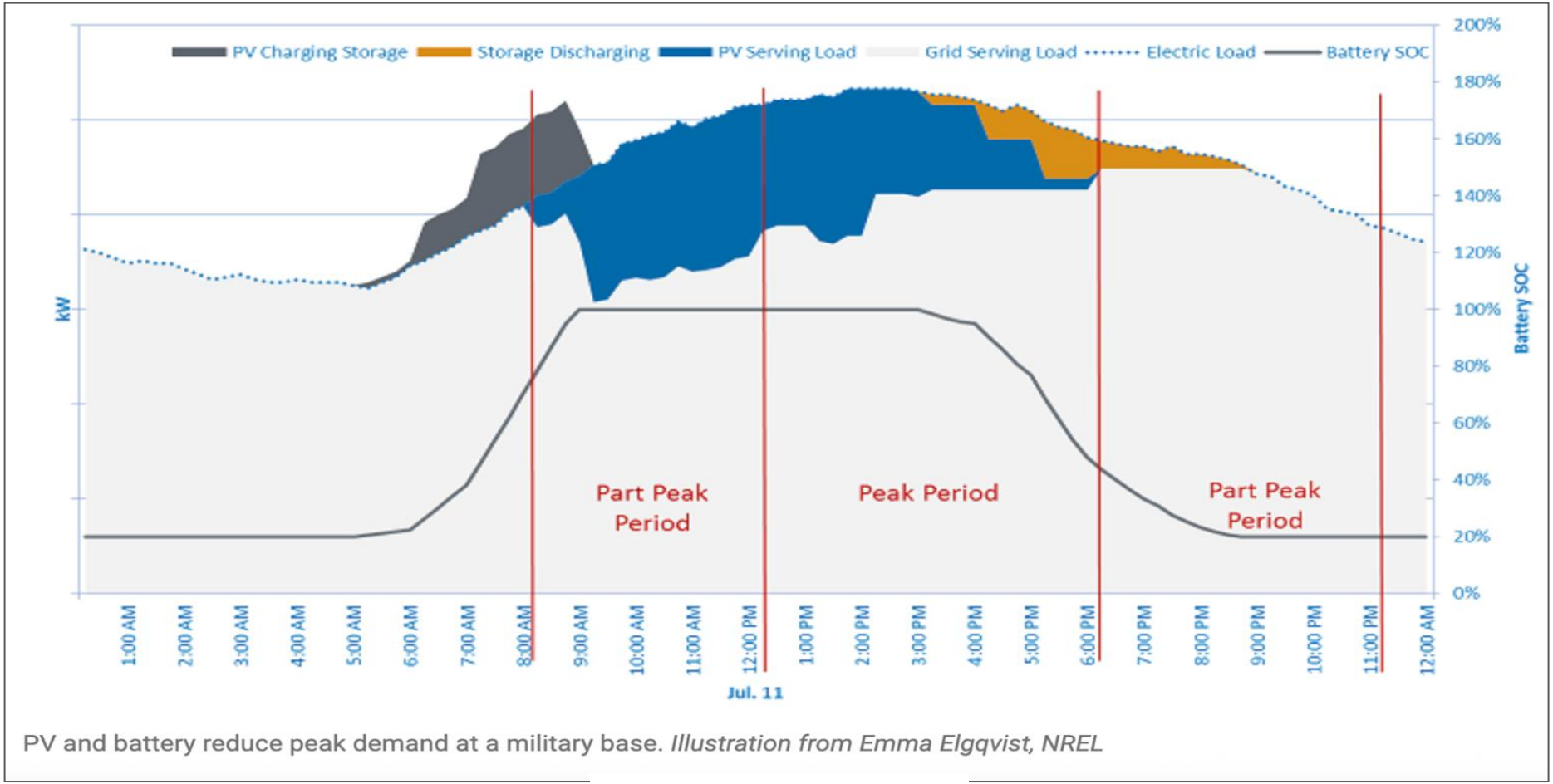
Source: Lazard Levelized Cost of Energy Report, June 2025



PV and battery reduce peak demand at a military base. *Illustration from Emma Elgqvist, NREL*

ALIGN ENERGY ADVISORS

Source: REopt Analysis https://www.nrel.gov/reopt/projects/case-study-military-base

Utility Scale Solar

TL;DR:

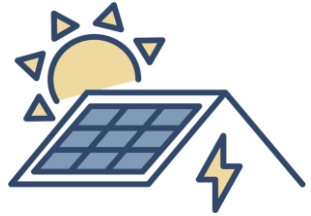
- Utility-scale solar is the lowest cost energy resource during daytime hours, and these costs have fallen due to economies of scale, technological advancements, and lower operational expenses.

- If you pair it with a 2 to 4 hour battery (to shift generation into expensive peak hours or to turn it into a more dispatchable resource) it's still cheaper than other sources.

Utility Scale Solar: Why it lowers in-State costs

- **Energy ($/MWh):** Cheap solar replaces high-priced peak electricity → average cost down.
- **Capacity ($/kW-yr):** Solar discharges at the coincident peak → smaller peak, smaller capacity obligation, lower charges.
- **Wholesale congestion:** Inject solar near constraints → congestion eases, local LMPs fall, buy less from market.
- **Fuel risk:** Lower generation from gas → less exposure to volatile fuel costs.

Distributed Solar



TL;DR

- Distributed solar produces where the energy is needed which helps to reduce transmission costs, cut local peaks, and provides fuel-free generation.
- Distributed resources (solar + storage) improve system resilience by producing power where it's needed and adding distributed resources to the grid.
- In aggregate, these resources also help to reduce the utility's overall capacity obligation and load forecast, reducing exposure to PJM market prices for energy, capacity, and transmission.
- Distributed solar delivers bill relief quickly because it can be deployed in months, not years.

Distributed Solar: Capacity Value of Deployed Solar in Maryland

Deployment	Value per Year
50 MW	$7 million
2,628 MW in-state deployment	$28-40 million
2,628 + 4 hr storage pairing	$183 million

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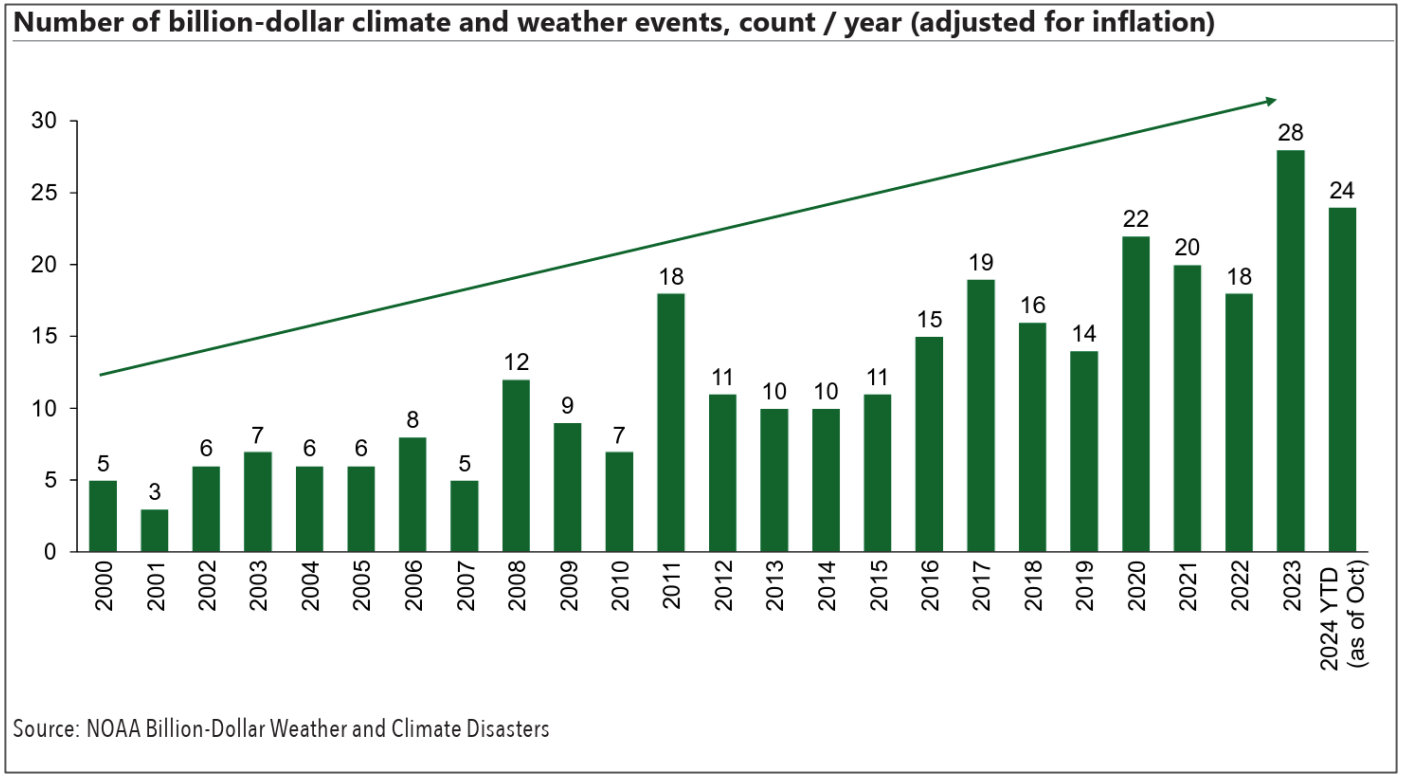
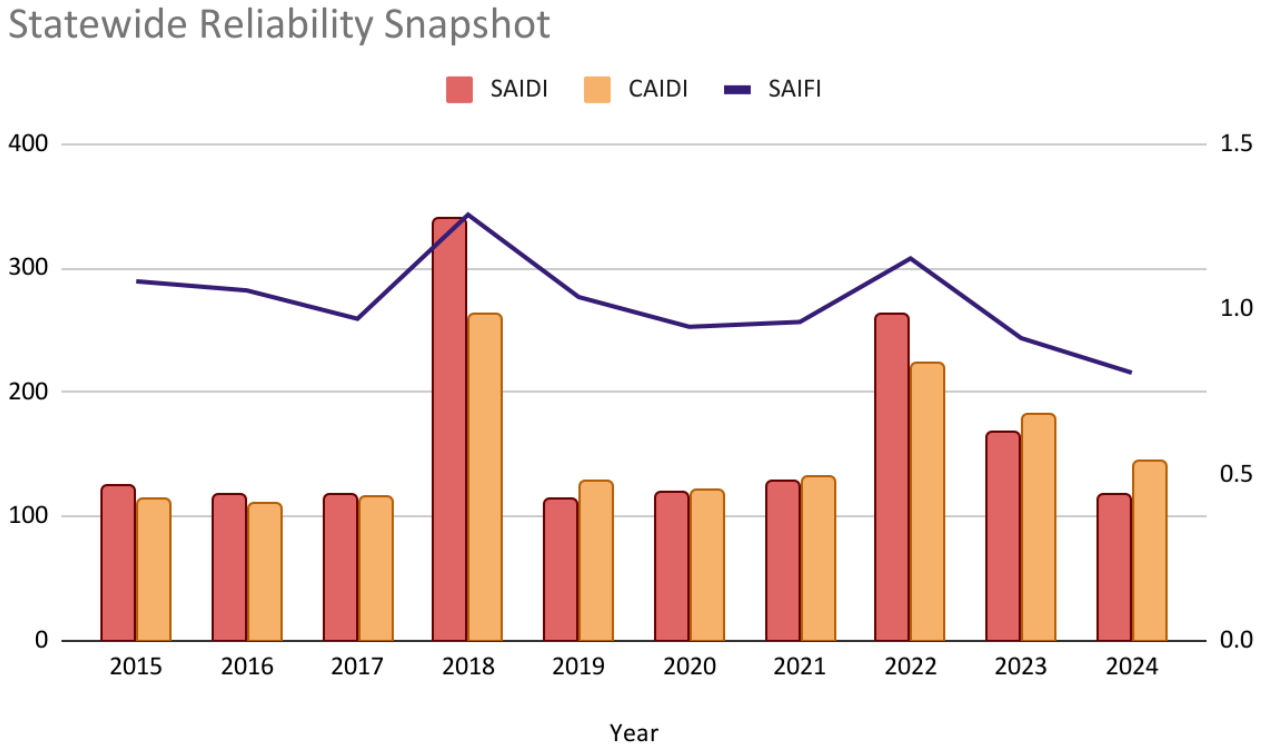
Source: Witness Aloo, Case No. 9820 and PJM's ELCC Class Ratings for the 2026/27 Base Residual Auction

Distributed Solar: Resilience



Source: U.S. Dept of Energy, Pathways to Commercial Liftoff: Virtual Power Plants 2025, p. 9

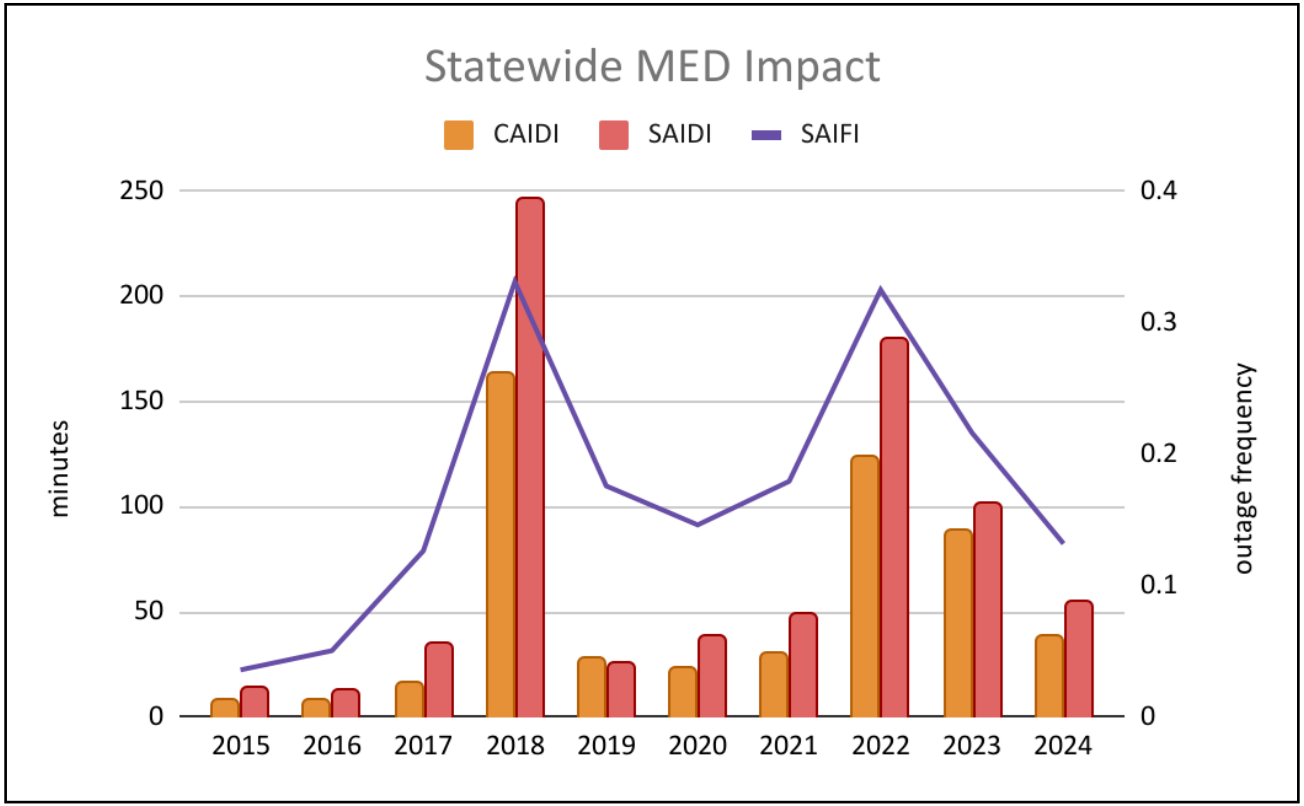
Distributed Solar: Resilience



ALIGN ENERGY ADVISORS

Source: EIA Maryland Reliability Data

Distributed Solar: Resilience



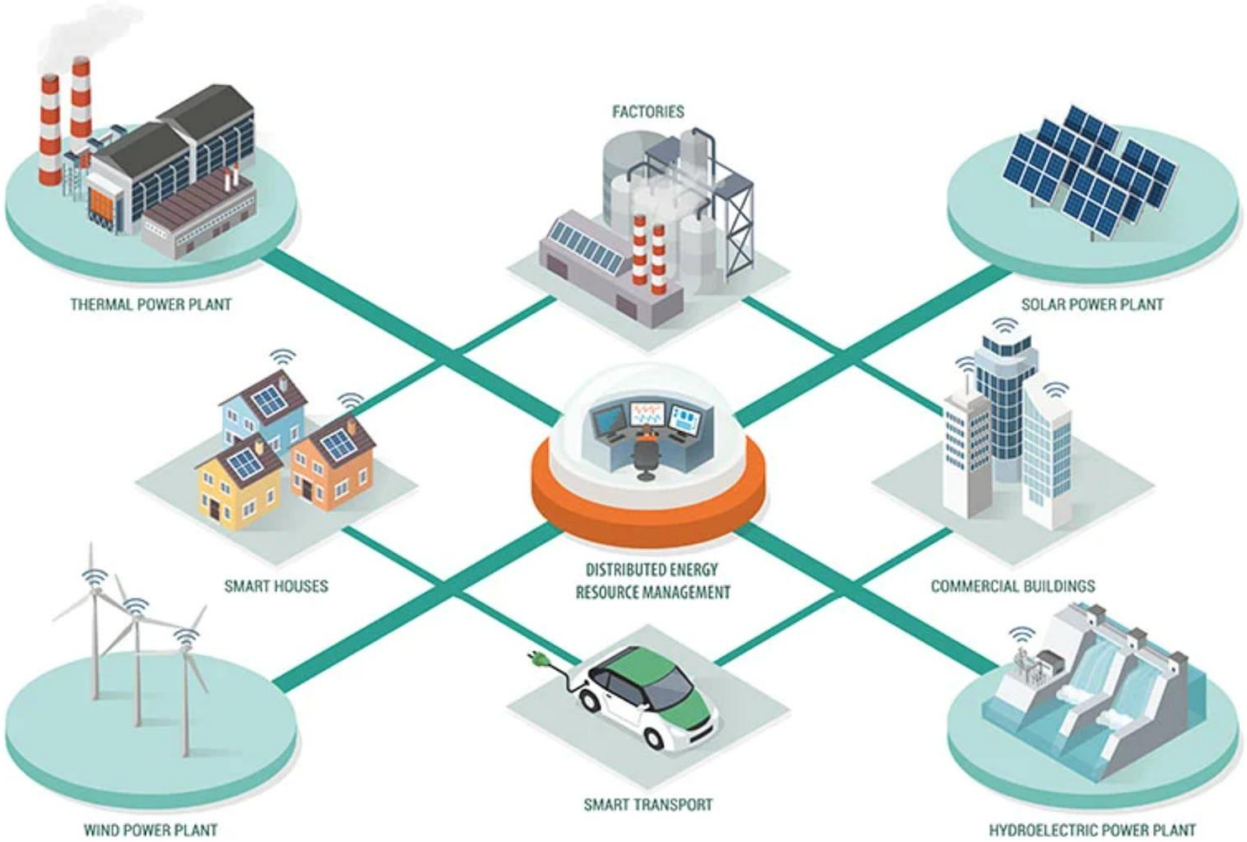
ALIGN ENERGY ADVISORS

Source: EIA Maryland Reliability Data

Distributed Solar: Resilience

- Single direction from generation to load is vulnerable to points of failure

- Multiple sources of generation, bidirectional power flows and storage increase options to recover from failures.



ALIGN ENERGY ADVISORS

Source:NREL.gov - Distributed Energy Resource Management Systems

Distributed Solar: Why it lowers total system costs

- **Core Avoided Costs:** Provides reductions in energy, capacity, transmission, and ancillary services.
- **Reduced RPS Compliance Costs**: Projects result in reduced electric sales, and in turn reduced REC requirements.
- **T&D Deferrals**: Reduced distribution peaks can delay upgrades or result in smaller, cheaper projects.
- **Line Losses & Local Resilience:** Local generation reduces line losses and provides local power during outages.
- **Reduced Utility Spend:** Behind-the-meter investments add resources without spending ratepayer dollars.
- **Leveraging Third Party Investments:** Individual customer investments in the grid provide broad benefits without requiring a utility return.

Benefits of Solar: Summary

- **Utility scale solar** is the lowest cost energy resource, and paired with storage, can provide a similar grid profile at a lower cost than peaker plants.
- **Distributed solar** compliments utility scale solar, by providing local electrons that can avoid costly transmission, generation, and distribution investments.
- These resources can work together:
  - Individuals invest in **distributed solar** to reduce electric bills and provide grid benefits
  - **Utility scale solar** acts as a low-cost resource that can provide needed energy and capacity to meet load, driving down market prices
  - **Both resources** reduce exposure to fossil fuel price risk and PJM market pricing risk.

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Q & A

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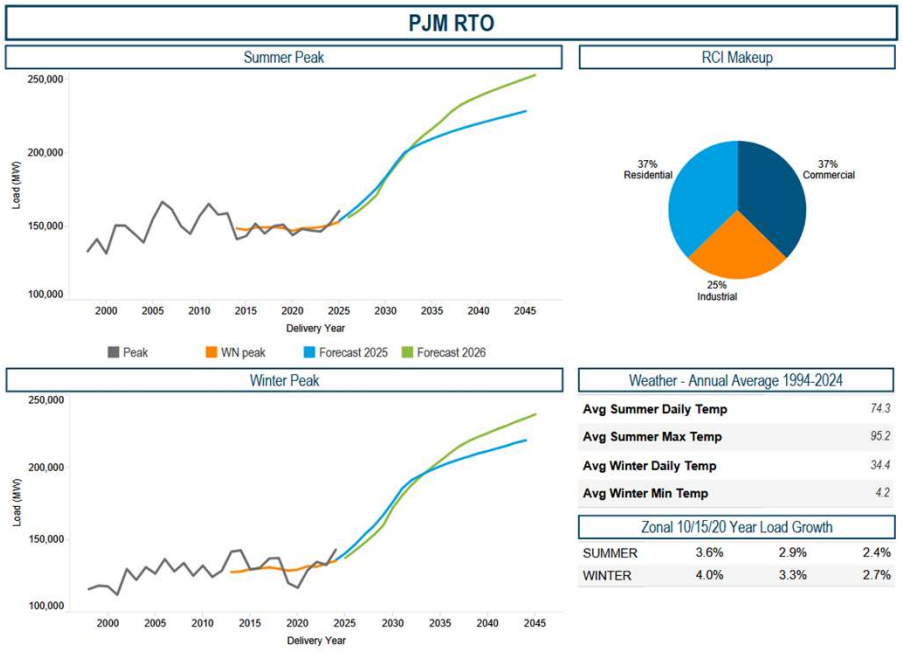
Stay up to date via our state policy committees, our quarterly Solar Flare newsletter, and our website – www.chessa.org

MAREC ACTION

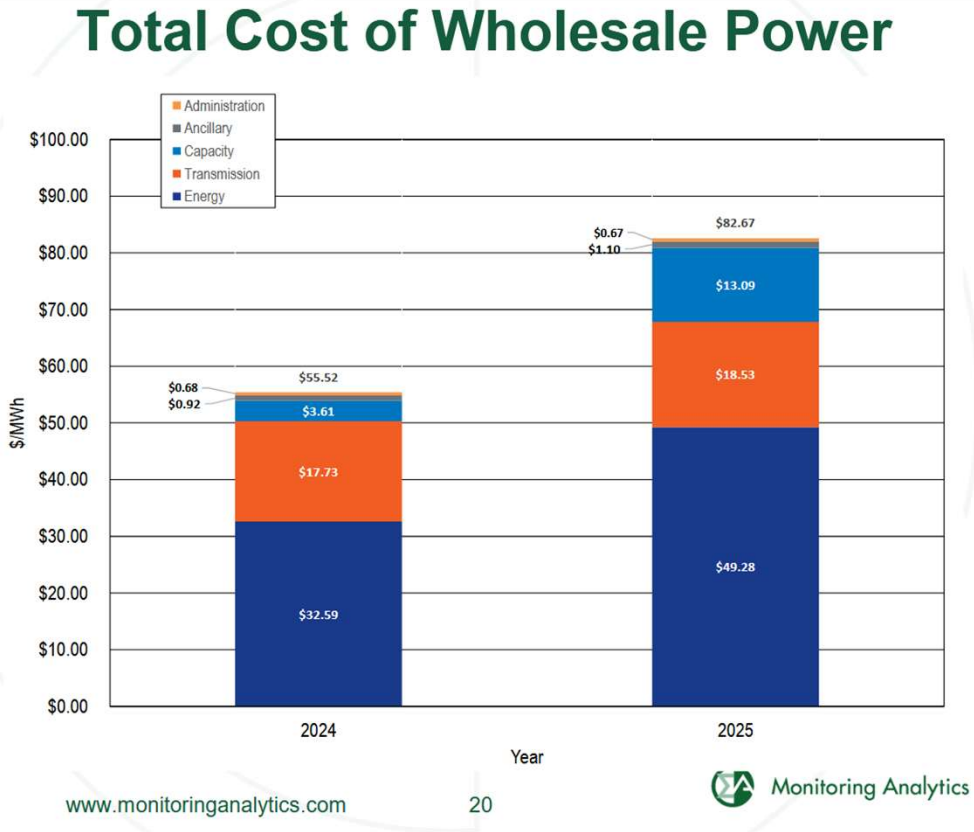
Utility-scale clean energy and regional affordability trends

Evan Vaughan
evaughan@marec.us
1/28/2026

Demand > supply driving prices up in PJM



Wholesale energy and capacity cost rising



Post-HR 1
State Policy Roadmap

After the passage of HR 1, state-based leadership and policies are going to be essential. With federal tax credits eliminated, or tapering off, it is crucial for states to step up and demonstrate leadership if they are going to meet anticipated energy needs, clean energy and carbon reduction goals, as well as ensuring and maintaining the clean energy job growth and manufacturing that have developed in the states.

This document has grouped these policy options into measures to help reduce soft costs by optimizing **interconnection**, streamlining **permitting**, offering **state tax credits** and accelerating **deployment** of projects. Many of these efforts can be started with an Executive Order or regulatory order. This list is not intended as a one-size-fits-all approach for every state, but a list of policies that SEIA will advocate for a state to implement through regulatory actions or legislation.

Streamline the **Interconnection** Process

- **Enforce existing interconnection timelines:** Ensure that utilities are meeting existing interconnection timelines. Consider assessing penalties to utilities as needed for non-performance.
- **Develop and implement flexible interconnection processes:** An action to initiate now that will continue to yield more medium-term results include flexible interconnection and management of distributed energy and community solar resources.
- **Allow developers to self-build grid-side upgrades:** Authorize qualified developers to construct Point of Interconnection facilities using external contractors and vendors, with utility oversight and final approval.

Accelerate **Permitting**

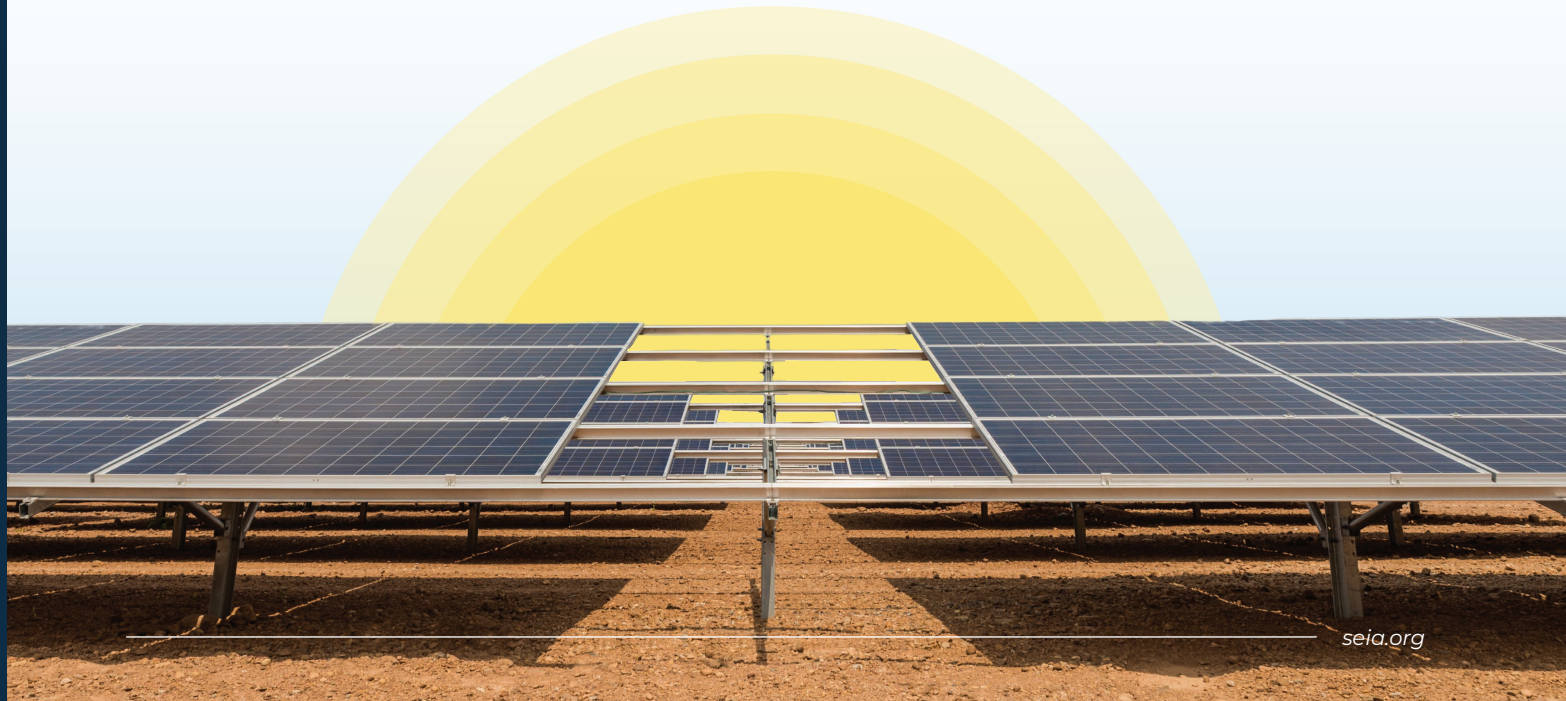
- **Adopt automated permitting:** Adopt model legislation to encourage the adoption of automated rooftop solar permitting software. Legislative approaches , such as SEIA's model legislation, include:
    - Direct local permitting authorities to adopt instant permitting for residential rooftop solar and home batteries.
    - Provide funding for local permitting authorities to adopt instant permitting software IT and training costs.
    - Allow installers to use third party licensed building inspectors or electrical engineers to permit residential rooftop solar and home batteries.
    - Set limits on solar and battery permitting fees.
    - Require local jurisdictions to issue an approval, certification or permit within a specific timeline once a third-party approval notice is given.
- **Expedite and prioritize review & approval of necessary state permits:** Ensure agencies are adequately resourced and staffed to expeditiously complete necessary consultations and permit reviews when needed for residential solar and storage projects.
- **HOA / Solar Access Laws:** Streamline HOA approvals, including a mandate that an HOA must approve a solar/storage application within a certain number of days.
- **Streamline requirements for development of solar & storage on state lands and in public rights of way:** Make state land leases available and remove barriers to transmission and clean energy siting in public rights-of-way.

Accelerate **Development and Procurement** of Solar and Storage Resources

- **Fast track ITC-eligible procurement and development:** Fast track procurement through IRP solicitations, or direct PPA "open calls" (or other solicitation mechanisms) and front-load capacity in energy programs to lock in lower prices and deliver long-term value for ratepayers.
- **Encourage energy storage:**
    - Offer procurement programs or solicitations with financial support for shovel-ready utility scale projects.
    - Offer easy, up-front incentives to residential energy storage systems that can be rapidly deployed before the expiration of 25(D).
    - Direct PUCs to create a unique rate class for front-of-the meter energy storage projects that does not include a demand charge and offers wholesale energy rates to BESS systems.
    - Maintaining and building financial support for front-of the-meter storage connected to the distribution grid to get more projects off the ground.
    - Create meaningful Regional Transmission Operator market models for the participation of storage and fully value storage through accurate ELCC values
    - Ensure energy storage is appropriately valued and included in state level Renewable Portfolio Standards and other clean energy targets.
- **Adopt Virtual Power Plant programs:** Adopt Virtual Power Plant Programs through legislation, advocacy in a proceeding such as a General Rate Case, Integrated Resource Procurement docket or other proceedings.

Offer State **Tax Credits** and Property **Tax Exemptions**

- **Implement residential state tax credits.** Create and offer a pilot state tax credit program and/or a hybrid grant program for solar and storage technologies.
- **Implement state property tax exemptions.** Ensure that an exemption covers the increased appraised property value from the installation or construction of solar and storage.



OCEANTIC NETWORK

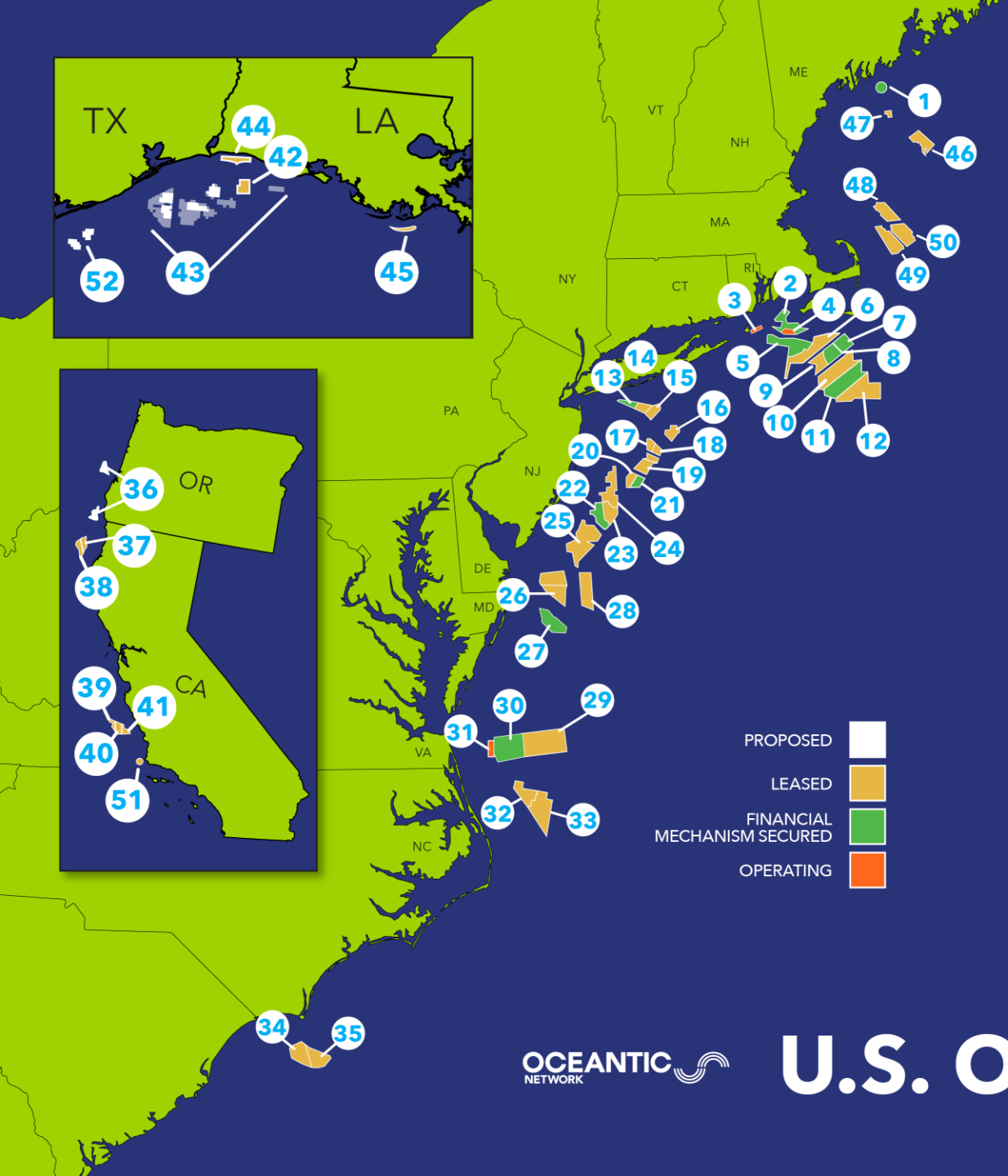
Powering the Blue to Green Supply Chain

OUR VISION

A thriving, next-gen ocean economy powering local communities.

OUR MISSION

Our collaborative member network advances the marine renewable energy industry, connecting technology innovators to a robust supply chain of local companies building the ocean energy economy.



1. **Maine Aqua Ventus I** (Diamond Offshore Wind) [11 MW]
2. **Revolution Wind** (Ørsted / Skyborn Renewables [GIP]) [704 MW]
3. **Block Island Wind Farm** (Ørsted) [30 MW]
4. **South Fork Wind Farm** (Ørsted / Skyborn Renewables [GIP]) [132 MW]
5. **Sunrise Wind** (Ørsted) [924 MW]
6. **Bay State Wind** (Ørsted)
7. **Vineyard Wind 1** (CIP / Avangrid) [800 MW]
8. **New England Wind 1** (Avangrid) [791 MW]
9. **New England Wind 2** (Avangrid)
10. **Beacon Wind** (JERA Nex bp)
11. **SouthCoast Wind** (Ocean Winds) [1,287 MW]
12. **Vineyard Wind 2** (Vineyard Offshore)
13. **Empire Wind 1** (Equinor) [810 MW]
14. **Empire Wind 2** (Equinor)
15. **Excelsior Wind** (Vineyard Offshore)
16. **Bluepoint Wind** (Ocean Winds / GIP)
17. **Attentive Energy One** (TotalEnergies Renewables / Rise Light & Power / Corio Generation)
18. **Attentive Energy Two** (TotalEnergies Renewables / Corio Generation)
19. **Community Offshore Wind** (RWE / National Grid)
20. **OCS-A 0541** (Atlantic Shores)
21. **Leading Light Wind** (Invenergy / energyRe) [2,400 MW]
22. **Atlantic Shores South Project 1** (EDF / Shell)
23. **Atlantic Shores South Project 2** (EDF / Shell)
24. **Atlantic Shores North** (EDF / Shell)
25. **Ocean Wind 1 & 2** (Ørsted)
26. **Skipjack Wind Farm** (Ørsted)
27. **US Wind** (US Wind) [1,710 MW]
28. **OCS-A 0557** (Equinor)
29. **OCS-B 0558** (Dominion Energy)
30. **Coastal Virginia OSW - Commercial** (Dominion Energy / Stonepeak) [2,587 MW]
31. **Coastal Virginia OSW - Pilot** (Dominion Energy) [12 MW]
32. **Coastal Virginia OSW - South** (Dominion Energy)
33. **Kitty Hawk Wind** (Avangrid)
34. **TotalEnergies Carolina Long Bay** (TotalEnergies Renewables)
35. **OCS-A 0546** (Duke Energy Renewables Wind)
36. **Oregon WEAs**
37. **Canopy Offshore Wind Farm** (RWE)
38. **OCS-P 0562** (Vineyard Offshore)
39. **Atlas Wind** (Equinor)
40. **Golden State Wind** (Ocean Winds / CPPIB)
41. **Even Keel Wind** (Invenergy)
42. **OCS-G 37334** (RWE)
43. **Gulf of Mexico WEAs**
44. **Cajun Wind** (Steelhead Americas [Vestas])
45. **DOW LA** (Diamond Offshore Wind)
46. **OCS-A 0562** (Invenergy NE Offshore Wind LLC)
47. **Maine Floating Offshore Wind Research Array** (Diamond Offshore Wind)
48. **OCS-A 0564** (Avangrid Renewables LLC)
49. **OCS-A 0567** (Invenergy NE Offshore Wind LLC)
50. **OCS-A 0568** (Avangrid Renewables LLC)
51. **CADEMO** (Floventis)
52. **Industry Requested WEAs**

OCEANTIC NETWORK

U.S. OFFSHORE WIND MARKET

Source: Oceantic Network Market Dashboard

 10.15.25

U.S. OFFSHORE WIND MARKET

BY THE NUMBERS

State Goals & Targets

116,843 MW

Under Contract	Federal Approval for Construction	Major Installation in Progress
10.94 GW	**19 GW**	**5.9 GW**

$25.5B **Invested into U.S. Supply Chain**

- **Vineyard Wind 1 (0.8 GW)** *COD expected 2026*
- **Revolution Wind (0.7 GW)** *COD expected 2026*
- **CVOW-Commercial (2.6 GW)** *COD expected 2026*
- **Empire Wind (0.8 GW)** *COD expected 2027*
- **Sunrise Wind (0.9 GW)** *COD expected 2027*

Superior Industry Data

REFERENCED BY:

The New York Times

REUTERS

The Washington Post

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Day 1 Executive Memorandum Dictated Market Activity for Most of Year

Section 1: Temporary Withdrawal of Leasing

- **No New Leasing**: withdraw "all areas within the Offshore Continental Shelf (OCS)" from future/new leasing
- **Current Leases Intact but Could Go Through Review:** Nothing in this withdrawal affects rights under existing leases in the withdrawn areas…but DOI "shall conduct a comprehensive review of the ecological, economic, and environmental necessity of terminating or amending any existing wind energy leases"

Section 2: Temporary Cessation of Permitting

- **No New Permit Approvals:** "shall not issue new or renewed approvals, rights of way, permits, leases, or loans for onshore or offshore wind projects pending the completion of a comprehensive assessment and review of Federal wind leasing and permitting practices."
- **Comprehensive Assessment** conducted by Interior (lead), Treasury, Agriculture, Commerce through NOAA, Energy, and EPA

Federal Recap of Past Three Months

18 Actions* Across Five Agencies

Stop Order issued on Revolution Wind

Legal filings to remand COP permits from **five projects**

Passed One Big Beautiful Bill (OBBB) & new Treasury Guidance **curtailed IRA Tax Credits**

Interior order requiring 70+ procedures **require direct Secretary signoff**

DoT rescinding $679 million for offshore wind ports

New tariffs on steel derivates and wind products

DoE pulled back billions in funding for research, transmission & demos

Section 232 National Security Probe into wind imports

More Interior procedure actions, curtailing leasing, and siting issues

as compiled by New Bedford Light

OCEANTIC NETWORK

PROJECTS IN PERMITTING REVIEW

Source: Oceantic Network Market Dashboard

UNDER CONSTRUCTION

Total MW: 5,825

1. **Revolution Wind**
   (Ørsted / Skyborn Renewables [GIP]) [704 MW]
2. **Sunrise Wind**
   (Ørsted) [924 MW]
3. **Vineyard Wind 1**
   (CIP / Avangrid) [800 MW]
4. **Empire Wind 1**
   (Equinor) [810 MW]
5. **Coastal Virginia OSW - Commercial**
   (Dominion Energy / Stonepeak) [2,587 MW]

POISED FOR CONSTRUCTION

Total MW: 8,927

6. **US Wind**
   (US Wind) [1,710 MW]
7. **New England Wind 1 & 2**
   (Avangrid) [791 MW]
8. **SouthCoast Wind**
   (Ocean Winds) [1,287 MW]
9. **Atlantic Shores South**
   (EDF)
10. **Empire Wind 2**
    (Equinor)

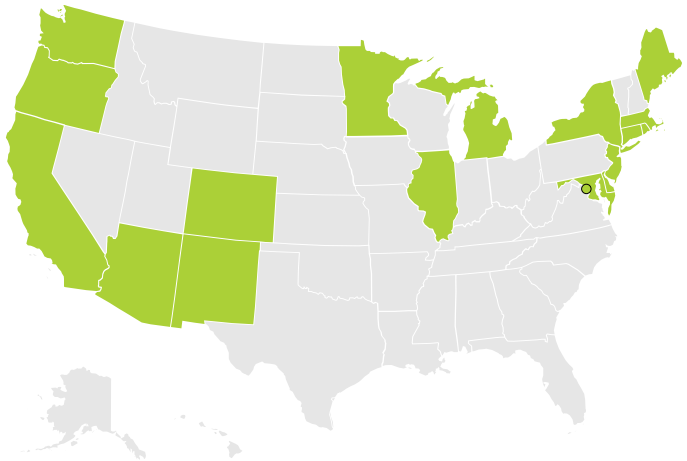
PERMITTING PROCESS STALLED

Total MW: 9,469

11. **Beacon Wind**
    (JERA Nex bp)
12. **Vineyard Wind 2**
    (Vineyard Offshore)
13. **Excelsior Wind**
    (Vineyard Offshore)
14. **Atlantic Shores North**
    (EDF)
15. **Coastal Virginia OSW - South**
    (Dominion Energy)

Projects are those that have filed Construction Operations Plans and received Notice of Intents to proceed with reviews from the Department of Interior.

State-Led Lawsuit Vacates Wind Memo

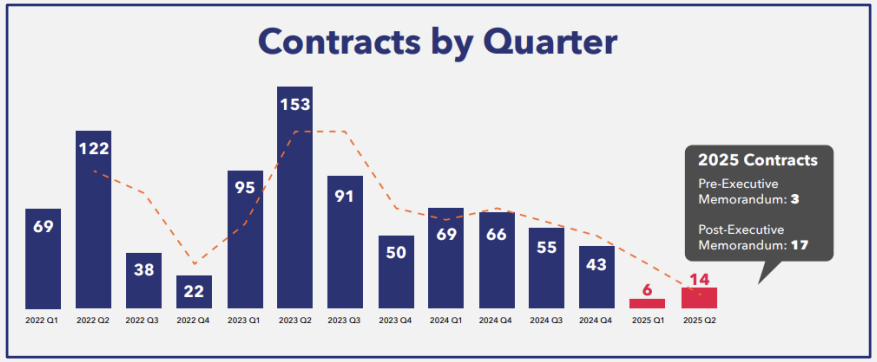


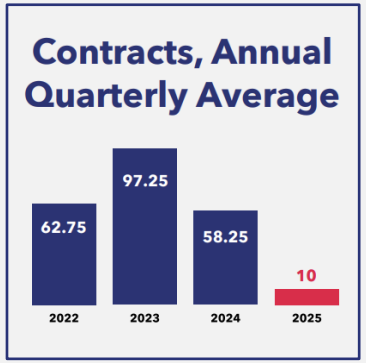
- Lead by 17 states (and DC), and **ACE NY** on behalf of industry
- Targeting **Section 2** of the Wind Memo, which pauses all leasing and permitting activity
- Additional hearing on Monday to discuss future relief
- Should give developers + industry options, prevents outright stoppage

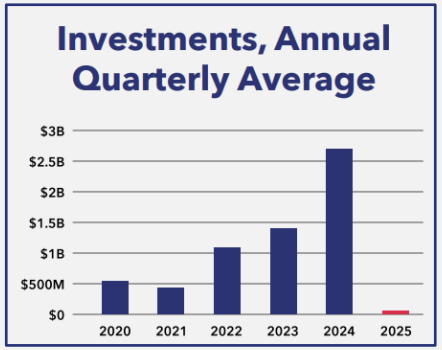
From final ruling: *"After review of the parties' submissions and a hearing, the Court concludes that the Wind Order constitutes a final agency action that is arbitrary and capricious and contrary to law. Accordingly, the Court ALLOWS Plaintiffs' motions…and declares unlawful and VACATES the Wind Order."*

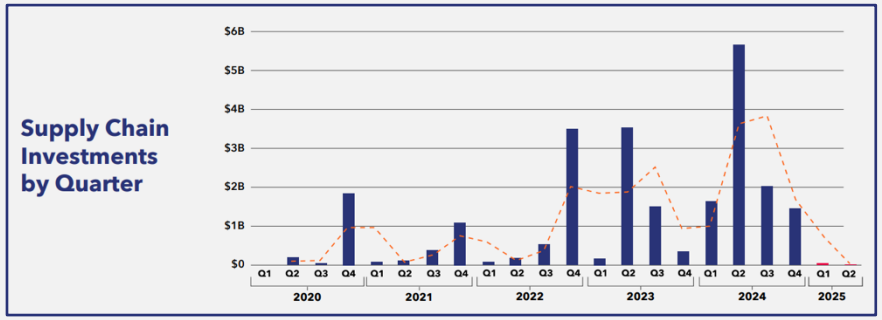
17 **Oceantic Organized Supplier Testimonials**

Oceantic Exhibits Submitted









RTOs and ISOs Commentary on OSW Necessity

"These projects are particularly important to system reliability in the winter when offshore wind output is highest and other forms of fuel supply are constrained. While ISO-NE forecasts enough generation capacity is available for the current season, canceling or delaying these projects will increase costs and risks to reliability in our region.

Beyond increasing risk to reliability, delays of new generating resources also will adversely affect New England's economy and industrial growth, including potential future data centers."

-- ISO-NE Statement on Dec 22 Interior Announcement

The NYISO continues to monitor the status of the planned Empire Wind and Sunrise Wind offshore wind projects, considering the December 22, 2025, orders by the Bureau of Ocean and Energy Management (BOEM) to suspend all ongoing activities. The combined capacity of those projects totals 1,740 MW.

-- NYISO Short-Term Assessment of Reliability: 2025 Quarter 4

"The CVOW project [...] is an integral component of needed new generation that PJM has been relying upon to timely achieve commercial operation. The CVOW project's continued development [...] will help mitigate the capacity shortfall PJM is now experiencing, which is projected to continue into the future... [E]xtended delay of construction and operation of the CVOW project will cause irreparable harm to the 67 million Americans served by PJM."

-- PJM CVOW Amicus Brief

Lawsuit Recap

Vineyard Wind filed suit on Thursday
(95% complete at time of filing, hearing set for 1/27)

Revolution Suit

- ***Injunction granted Monday to resume construction***
- RI and CT attorneys general granted permission to join suit with Revolution Wind
- The same judge is hearing the **Sunrise Wind** case **(injunction hearing scheduled for 2/2**

Empire Suit

- ***Injunction granted Wednesday to resume construction***
- NY State and NYSERDA filed a sister suit in support of Empire Wind
- OSS topside was loaded onto the foundation this weekend

CVOW Suit

- ***Injunction granted Friday to resume construction***
- Amicus filings from PJM, North American Building Trades Union, Sens. Warner & Kaine and Rep. Scott
- Charybdis is back onsite

US Wind Case Proceeds – Motion to Remand Denied

BACKGROUND

- In response to a lawsuit from the Mayor and City Council of Ocean City, BOEM announced its intentions to remand and vacate US Wind's COP
- US Wind intervened to prevent this permit withdrawal
- Federal judge **DENIED BOEM's attempts to remand**, saying they cannot remand without first evaluating and that US Wind can challenge the evaluation
- US Wind filed a Preliminary Injunction request against agency action to withdraw permit while the lawsuit progresses

Layman's Terms

🟢 Permits are not automatically revoked

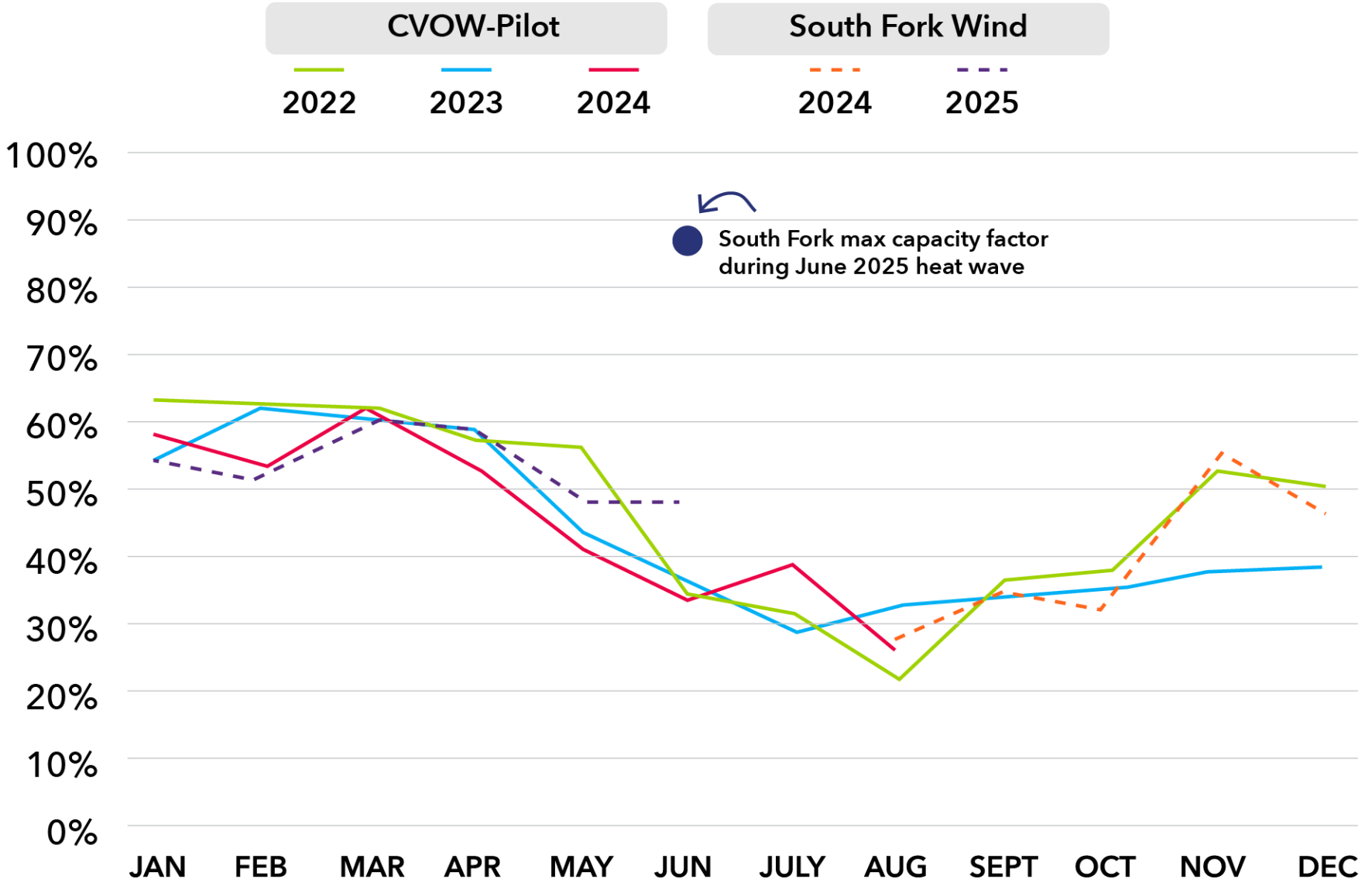
🔴 The government can still act during litigation

🟡 US Wind can file another injunction if/when the agency does act

Offshore Wind Delivering Baseload Power

Capacity Factor Data sourced from Dominion Energy & Ørsted

Ørsted Released *One Year of South Fork Wind* Report



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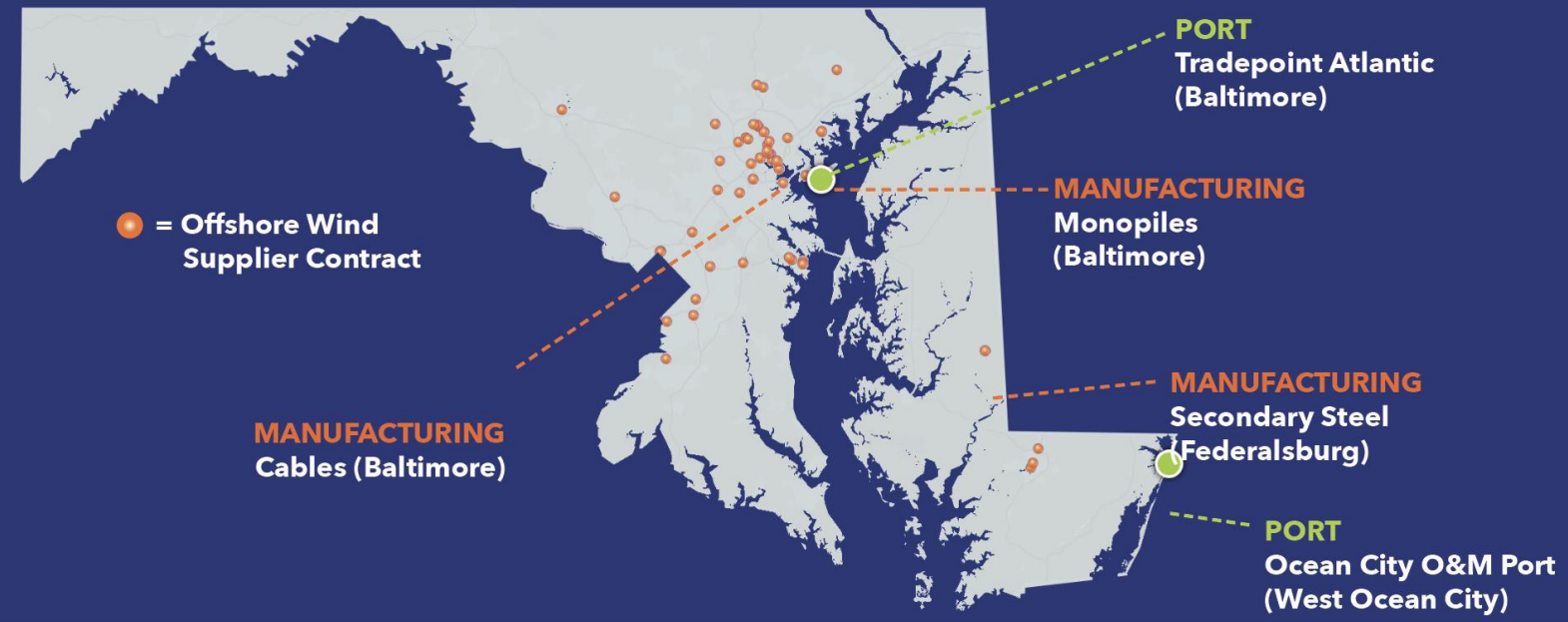
Maryland Market Updates

OFFSHORE WIND IN

MARYLAND



3
Commercial Projects

1.7 GW
In Development

8.5 GW
State Goals

50 MD Companies with Offshore Wind Contracts

$815 Million in Investments

Dept. of Transportation revoked $47,392,500 in funding from Sparrows Point Steel

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Mid-Atlantic Projects

US Wind Projects;
2025 OREC Adjustment Awarded:

- December 2024: COP Approved
- ORECS awarded January 2025 for 1.7 GW pursuant to HB 1296 from 2024 legislative session
- Permitting up to 2 GW; 600,000 homes
- 114 WTG, up to 4 Substations, 4 Export Cables
- Estimated phase 1 completion 2029; followed by phase 2,3, and 4
- $500 million investment in Maryland manufacturing w/ Sparrows Point Steel, Hellenic expansion
- Sourcing from American Heartland steel mills in Kentucky + Ohio
- Partnerships with USW, IBEW, & building trades and robust MBE participation

Skipjack: OREC Canceled,

Seeking New Offtake Agreement

- Estimated 1GW; 300,000 homes

Central Atlantic Lease Area:

- Lease secured August 2024
- Estimated 2 GW; 900,000 homes

Offtake: New IFB Procurement Dec. 2025

Virginia Commercial & Recreational Fishing

- **Commercial fishing** continues within the CVOW lease during construction.
- Compensatory Mitigation Funds established to compensate commercial fishermen impacted by OSW construction and operation activities
- Atlantic Capes Offshore Services:
  - 2 vessels (2 years), 16 captains and crew (fishermen), 10 support staff in the fishing industry
  - **$250,000.00 per month total income to the 16 fishermen.**
  - **Over $500,000.00/year to local VA economy for fuel, repairs, supplies, groceries, etc.**
  - Development of environmental and safety policies and technology
- Private and **For-Hire recreational fishing vessels regularly fish the Pilot Turbines and the Commercial Project's installed foundations** for structure-oriented species.
- This winter, fishermen routinely fishing within and adjacent to the installed structure for Bluefin Tuna, offering commercial opportunities to the For-Hire fleet in Virginia Beach.
- A Virginia State Record Giant Bluefin Tuna (835-lbs) was recently harvested near the CVOW structure by a chartered fishing boat!

Yes to Wind Week of Action

Successful, grassroots-style campaign involving:

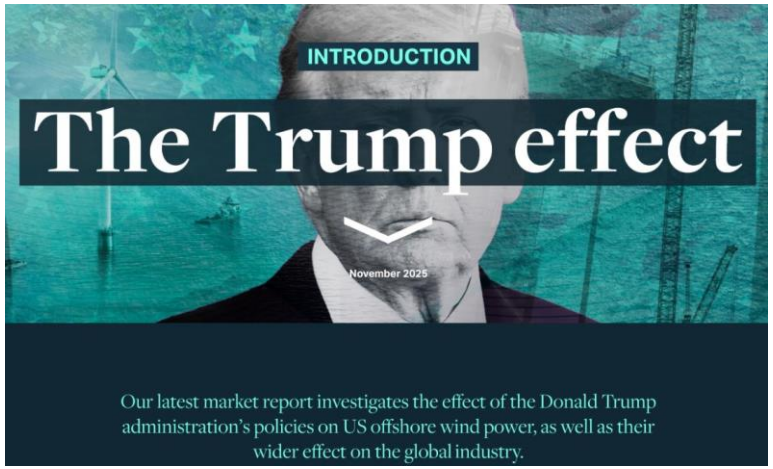
- 16 states
- 20+ partner organizations
- 12+ events in November
- Held throughout RI, CT, DE, NYC, DC, NC, FL, CT, NY, LA, plus a union-hosted rally in MD.

Q4 Notable Press

REUTERS

US shipbuilders, ports take knock-on hit from Trump assault on offshore wind

WINDPOWER MONTHLY



The New York Times

Cleantechnica

npr

E&E NEWS

LAI

canary MEDIA

Jen Brock

Chief Development Officer
OCEANTIC NETWORK

Jen.brock@oceantic.org / +1 (410) 812-1503
@jenabrock

MARYLAND LEAGUE OF CONSERVATION VOTERS

Maryland LCV

Vision

A healthy environment for everyone in Maryland.

Mission

Educate and activate people to take equitable and just political actions for clean water, healthy air and climate-resilient communities.

MARYLAND LEAGUE OF CONSERVATION VOTERS

Energy Mix in Maryland

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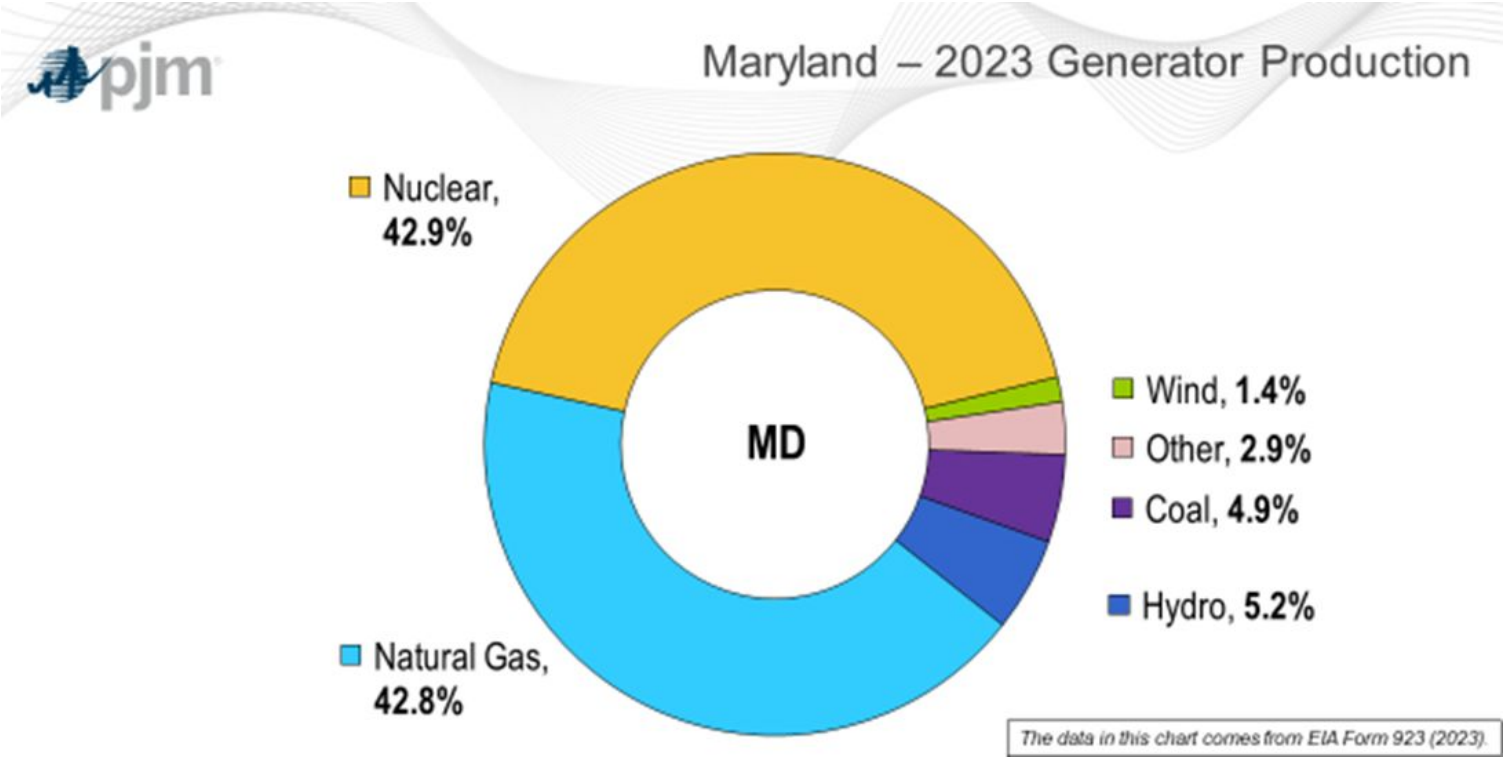
How is energy produced in Maryland?



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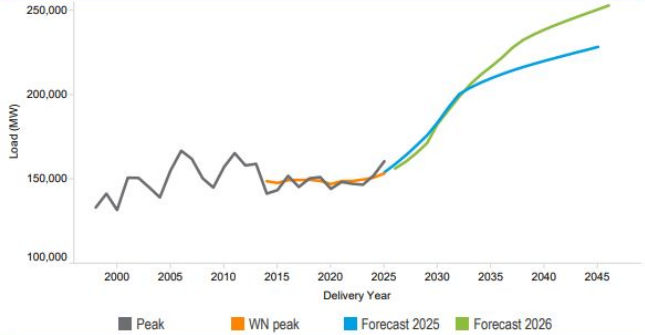
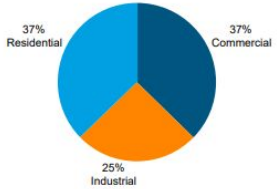
Demand in Maryland

PJM RTO

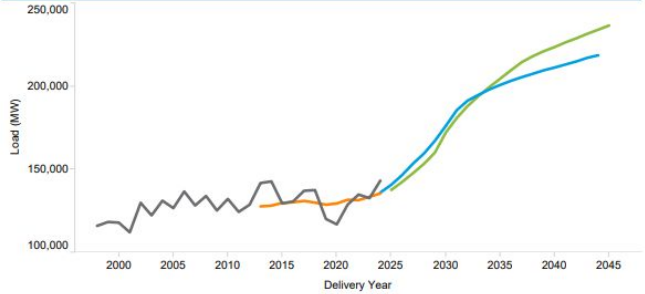
Summer Peak



RCI Makeup



Winter Peak



Weather - Annual Average 1994-2024

Avg Summer Daily Temp	*74.3*
Avg Summer Max Temp	*95.2*
Avg Winter Daily Temp	*34.4*
Avg Winter Min Temp	*4.2*

Zonal 10/15/20 Year Load Growth

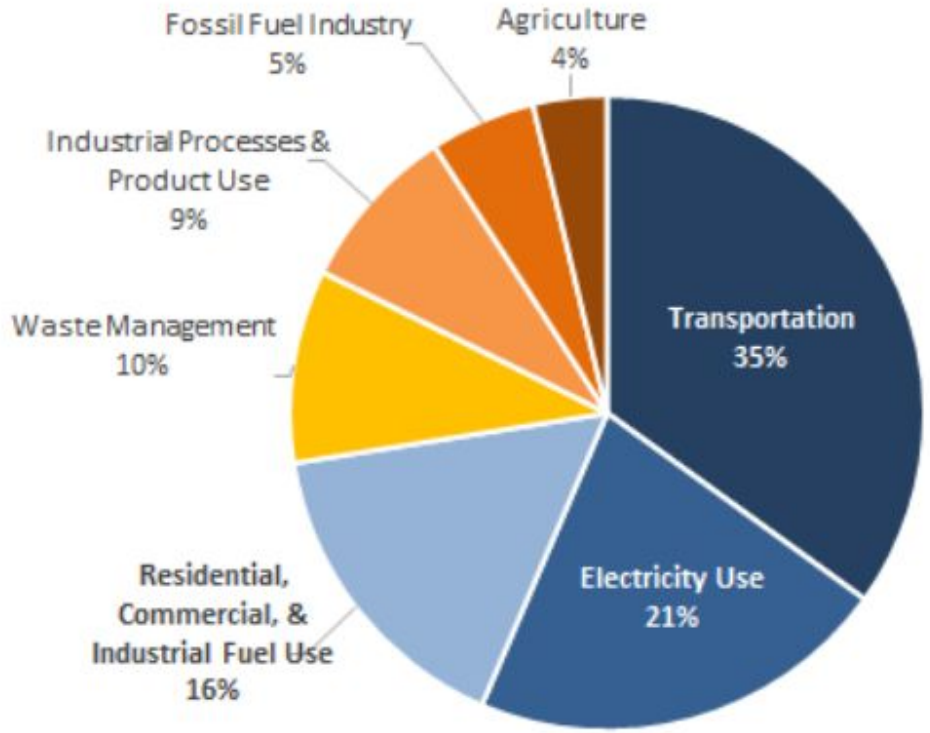
SUMMER	3.6%	2.9%	2.4%
WINTER	4.0%	3.3%	2.7%

MARYLAND LEAGUE OF CONSERVATION VOTERS

Energy Externalities

MARYLAND LEAGUE OF CONSERVATION VOTERS

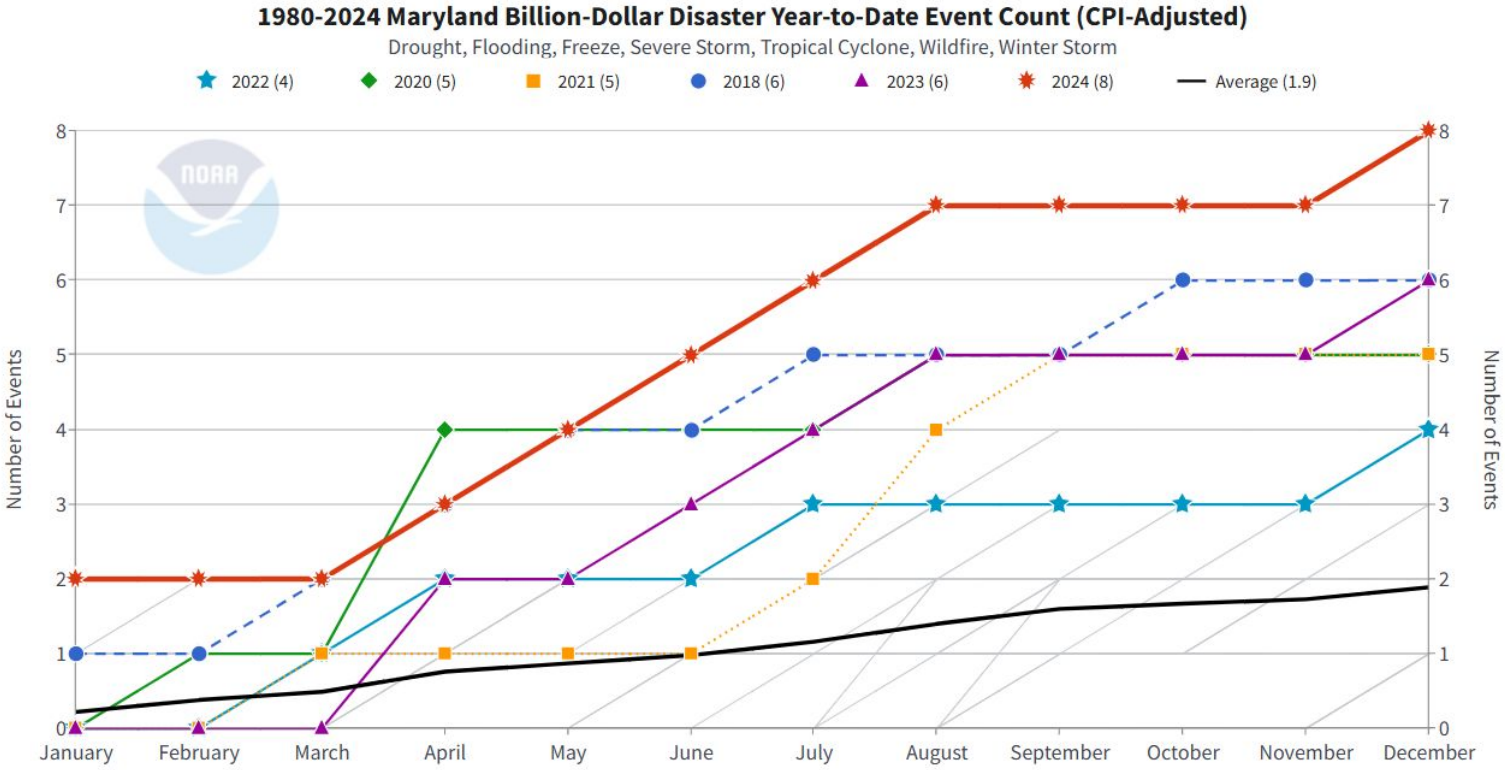
Maryland's 2020 GHG emissions sector contrib



Source: Reducing Greenhouse Emissions in Maryland: A Progress Report (MDE, 2022)

MARYLAND LEAGUE OF CONSERVATION VOTERS

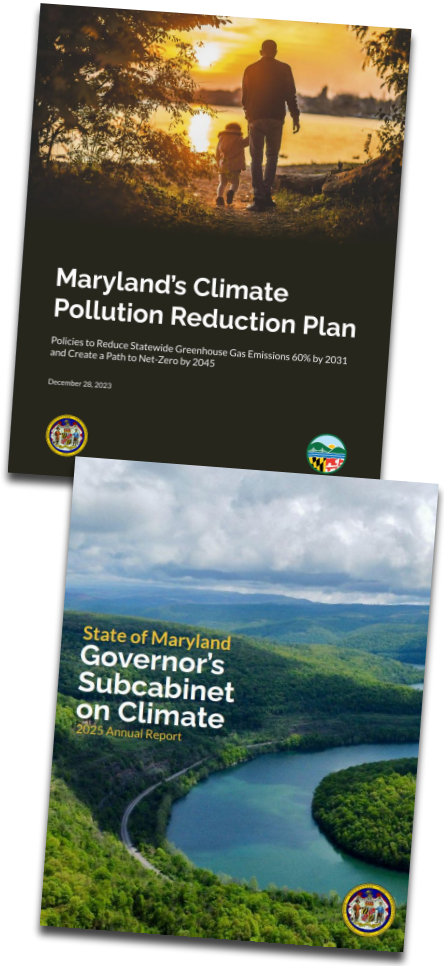
Cost of Inaction



MARYLAND LEAGUE OF CONSERVATION VOTERS

Climate Pollution Reduction Plan

- 42 current and planned policies
- 25 Executive and Legislative actions
- Public health benefits
  - Up to **$321 million** in additional health benefits in 2031 compared to current policies
  - Most of the health benefits occur in **historically disadvantaged communities**
- Economic benefits
  - **$2,600-4,000** in household energy cost savings
  - **27,000 more jobs** by 2031
  - Growing Maryland's gross domestic product by **$5.3 billion**



MARYLAND LEAGUE OF CONSERVATION VOTERS

Where Do We Go From Here?

MARYLAND LEAGUE OF CONSERVATION VOTERS

Power Maryland Forward

Power Maryland Forward will support **energy affordability** through **deployment of solar and storage, defense against more fossil fuels** and **unchecked utility profits**, while **getting the most out of the electricity grid we have.**

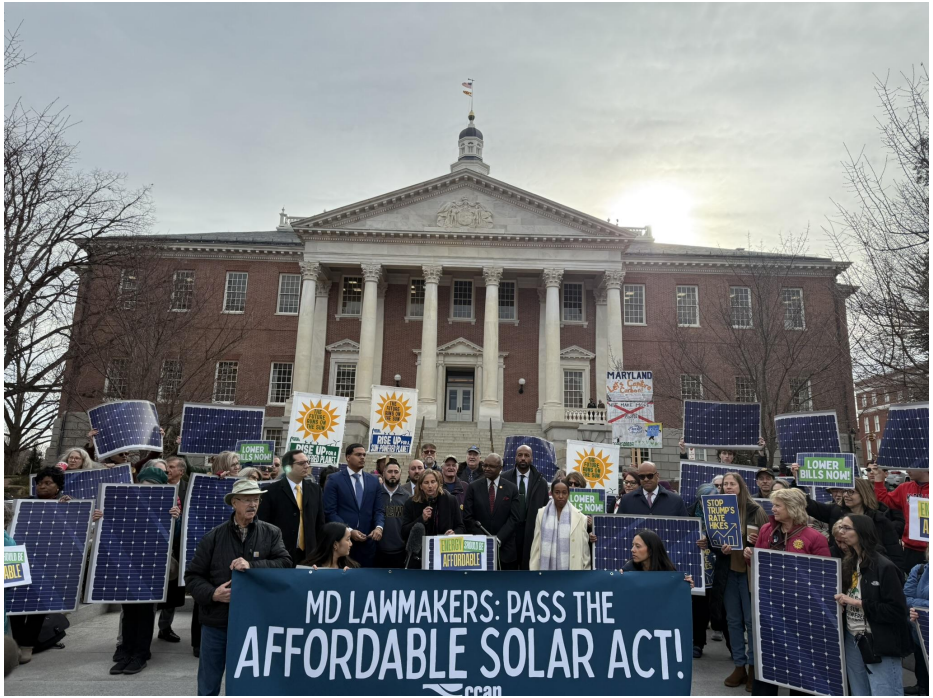
Bills in support of this goal this session will support:

- **Streamlining Rooftop Solar**
- **Solar Financing**
- **Data Center Demand Capacity**
- **Advanced Transmission Technologies**
- **Utility Accountability**

ccan
ACTION FUND

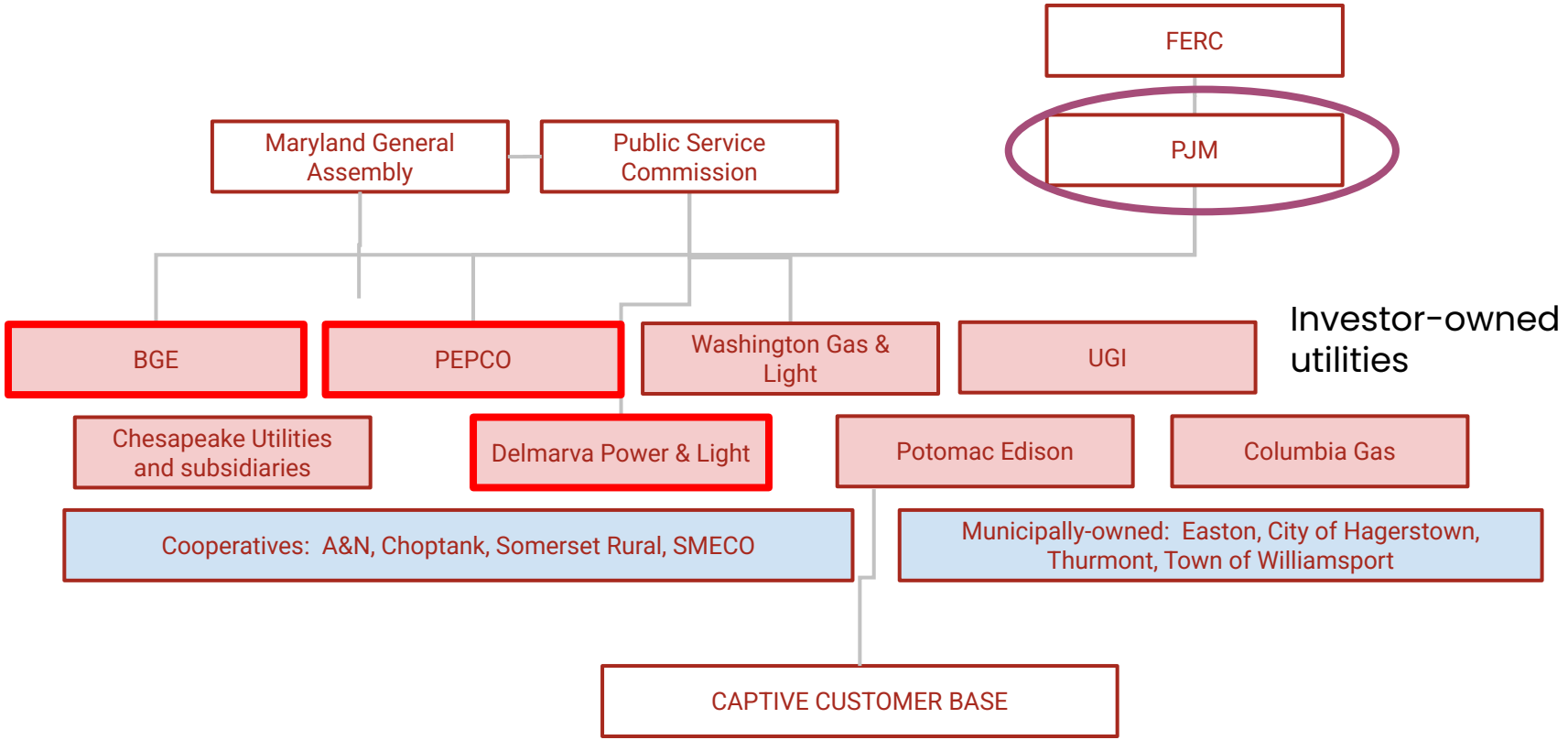
Advancing Clean Energy and Climate Action in Maryland, Virginia, and Washington, DC.

We believe people-powered movements drive ambitious action.



Fossil fuels are harmful and expensive.

Clean energy reduces harm to people and the climate. Clean energy creates jobs and reduces utility costs.


FERC
PJM
Maryland General Assembly
Public Service Commission
BGE
PEPCO
Washington Gas & Light
UGI
Investor-owned utilities
Chesapeake Utilities and subsidiaries
Delmarva Power & Light
Potomac Edison
Columbia Gas
Cooperatives: A&N, Choptank, Somerset Rural, SMECO
Municipally-owned: Easton, City of Hagerstown, Thurmont, Town of Williamsport
CAPTIVE CUSTOMER BASE

Supply side drivers of utility bill increases

PJM Problems

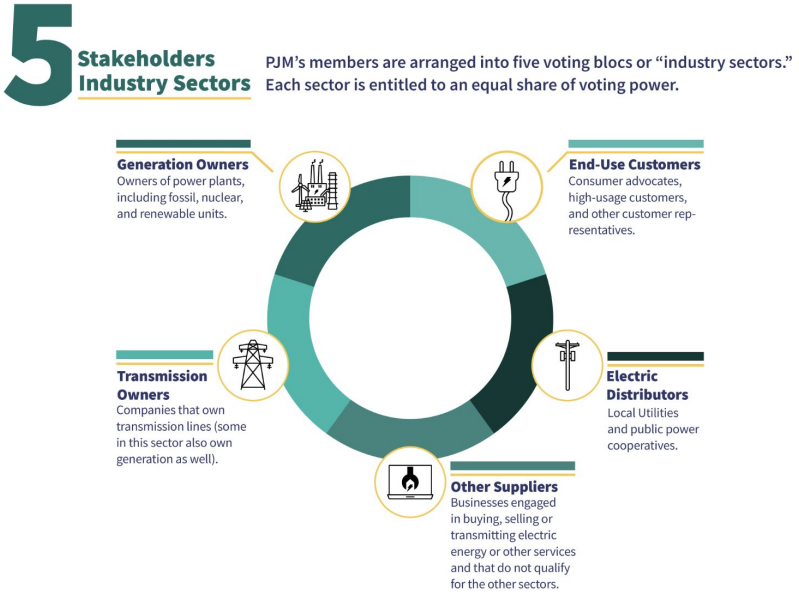
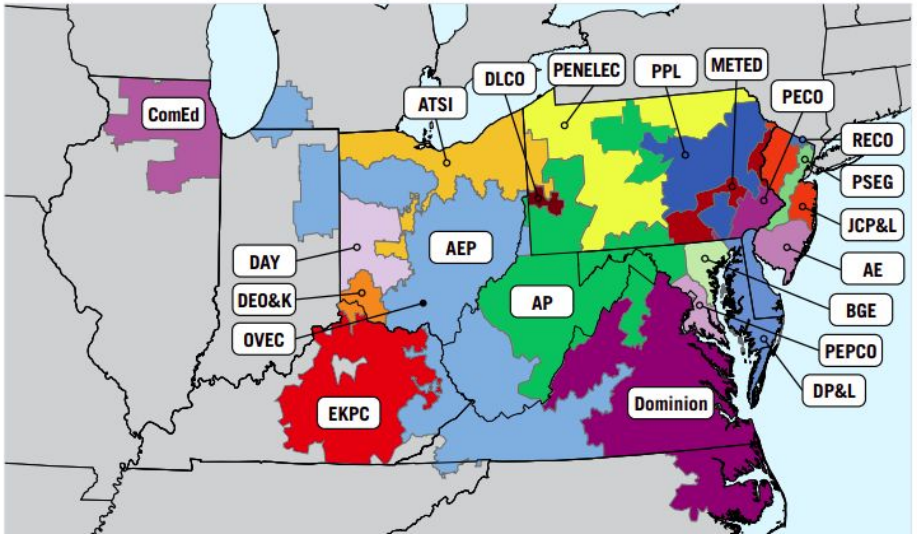


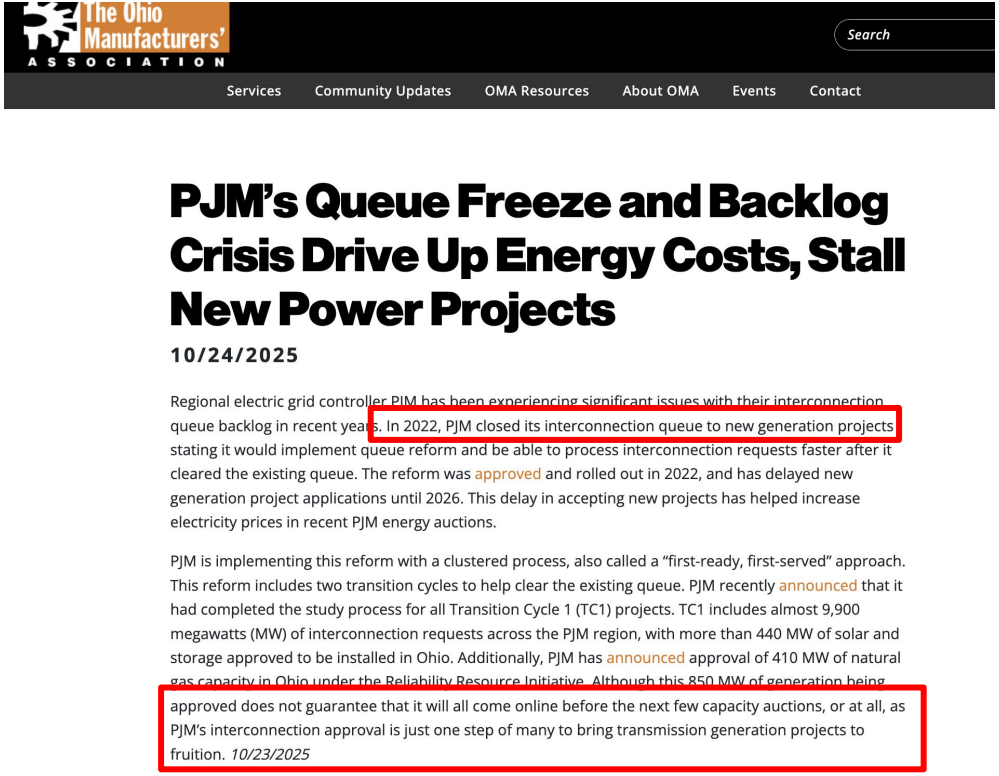
Image Credit: PJM



PJM Problems

Currently, about 30% of the supply cost increases on a utility bill are due to issues with the PJM wholesale market.

- Not connecting new energy projects quickly enough
- **Capacity Market auction not functioning properly**
- Data center forecasts are skewing supply and demand projections



The Ohio Manufacturers' Association

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PJM's Queue Freeze and Backlog Crisis Drive Up Energy Costs, Stall New Power Projects

10/24/2025

Regional electric grid controller PJM has been experiencing significant issues with their interconnection queue backlog in recent years. In 2022, PJM closed its interconnection queue to new generation projects stating it would implement queue reform and be able to process interconnection requests faster after it cleared the existing queue. The reform was approved and rolled out in 2022, and has delayed new generation project applications until 2026. This delay in accepting new projects has helped increase electricity prices in recent PJM energy auctions.

PJM is implementing this reform with a clustered process, also called a "first-ready, first-served" approach. This reform includes two transition cycles to help clear the existing queue. PJM recently announced that it had completed the study process for all Transition Cycle 1 (TC1) projects. TC1 includes almost 9,900 megawatts (MW) of interconnection requests across the PJM region, with more than 440 MW of solar and storage approved to be installed in Ohio. Additionally, PJM has announced approval of 410 MW of natural gas capacity in Ohio under the Reliability Resource Initiative. Although this 850 MW of generation being approved does not guarantee that it will all come online before the next few capacity auctions, or at all, as PJM's interconnection approval is just one step of many to bring transmission generation projects to fruition. *10/23/2025*

Data Center forecasts- Costly and Imprecise

- Data center demand comprises about 30 GW of the total 32 GW demand forecast region-wide
- State likes Pennsylvania are exploring mechanisms to increase state oversight of electric load demand forecasts
- Resource Reliability Initiative and Critical Issue Fast Path are PJM's current proposed solutions to this problem.

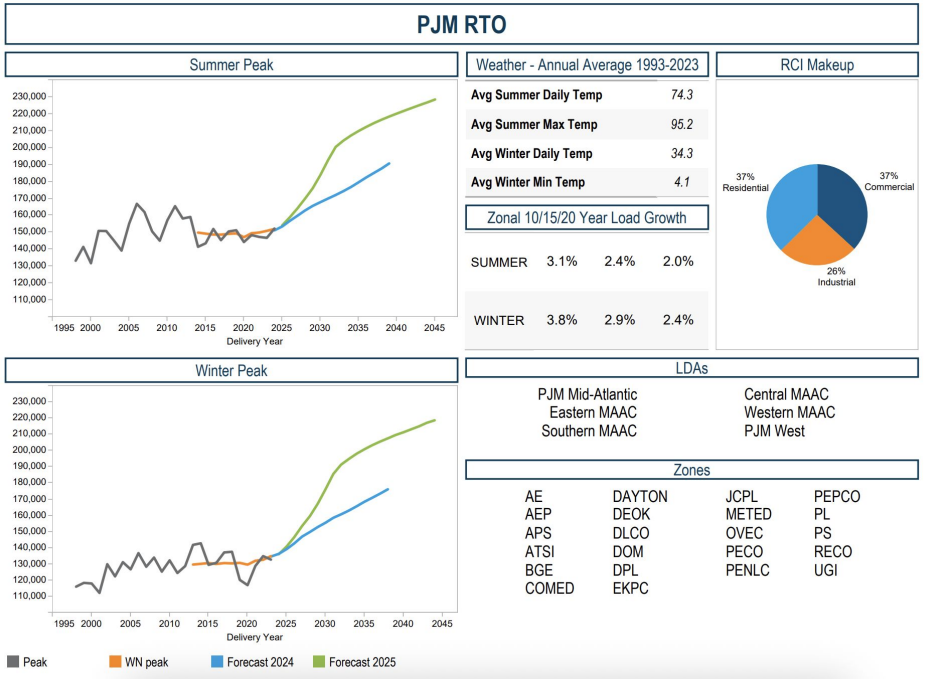


Table 2. RPM Base Residual Auction Resource Clearing Price Results in the RTO

	Auction Results				
Delivery Year	Resource Clearing Price	Cleared UCAP (MW)	RPM Reserve Margin[1]	Total Reserve Margin[1,2,7]	Cleared MW Times Clearing Price ($ billion)
2016/17[3]	$59.37	169,159.7	20.7%	20.3%	$5.5
2017/18	$120.00	167,003.7	20.1%	19.7%	$7.5
2018/19	$164.77	166,836.9	20.2%	19.8%	$10.9
2019/20	$100.00	167,305.9	22.9%	22.4%	$7.0
2020/21[4]	$76.53	165,109.2	23.9%	23.3%	$7.0
2021/22	$140.00	163,627.3	22.0%	21.5%	$9.3
2022/23	$50.00	144,477.3	21.1%	19.9%	$3.9
2023/24	$34.13	144,870.6	21.6%	20.3%	$2.2
2024/25	$28.92	147,478.9	21.7%	20.4%	$2.2
2025/26[5]	$269.92	135,684.0	18.6%	18.5%	$14.7
2026/27[6]	$329.17	134,205.3	18.9%	18.9%	$16.1

[1] Reserve Margins converted to ICAP using Pool-Wide AUCAP Factor; [2] Total Reserve Margin includes FRR+RPM (Total ICAP/Total Peak-1); [3] 2016/2017 BRA includes EKPC zone;

[4] Beginning 2020/2021 Cleared UCAP (MW) includes Annual and matched Seasonal Capacity Performance sell offers; [5] DOM zone included in RPM; [6] EE removed from Market; [7] Total Reserve margin does not include FRR commitments to meet the threshold to allow sales into RPM.

Projects cannot respond to the price signal.

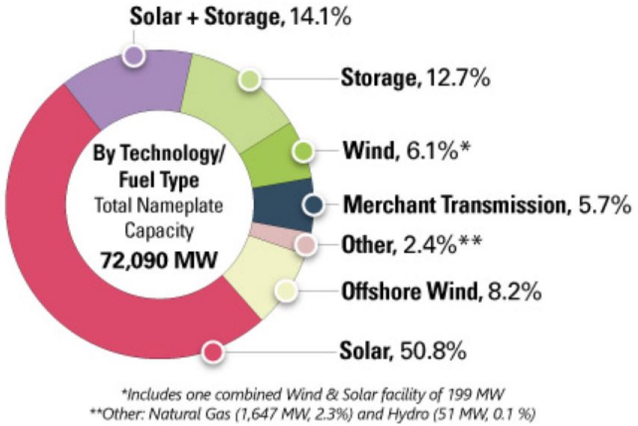
Chart Credit: PJM

Solutions

Support the **solar and battery projects** that have been waiting in the queue and want to build in Maryland.

Projects To Clear PJM Interconnection Process in 2024 and 2025

By State	Number of Projects	Total Nameplate Capacity (in MW)
DE	5	1,184
IL	82	13,798
IN	69	13,475
KY	29	4,125
MD	6	1,288
MI	8	887
NC	25	1,775
NJ	25	1,528
OH	72	8,613
PA	108	5,055
VA	162	19,012
WV	15	1,350
Total	616	72,090



*Includes one combined Wind & Solar facility of 199 MW
**Other: Natural Gas (1,647 MW, 2.3%) and Hydro (51 MW, 0.1 %)

Chart Credit: PJM

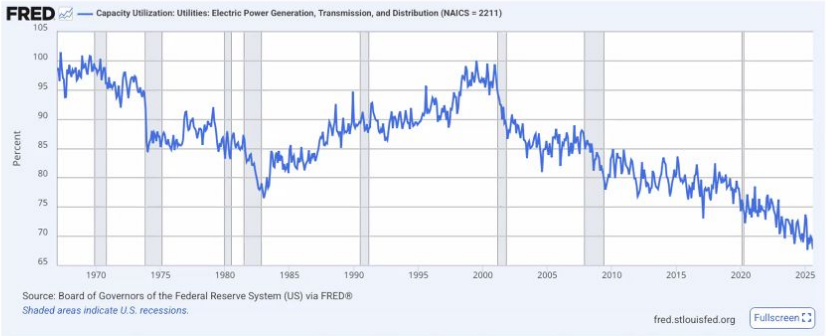
Solutions

Pass legislation that will **reduce data center demand** on the grid without overbuilding and without prioritizing fossil fuels.

Financial exposure from overbuilding

Utilities and communities can suffer if demand does not materialize.

"Efficiency and productivity improved rapidly, and demand remained more or less level for the next two decades, **leaving many utilities with excess capacity and ratepayers footing the bill.**"[1]



Generator capacity utilization dropped precipitously as a result of oversupply[2]

Sources: 1. Utility Dive. 2. Federal Reserve Bank of St. Louis.

RMI

Maryland Sierra Club - Enjoy, Explore and Protect

Sierra Club is our country's oldest, largest grassroots environmental organization.

We bring together over 70,000 members and supporters to provide education, engagement, and advocacy at the local and state level.

We focus on clean energy, health buildings, sustainable transportation and zero waste.

SIERRA CLUB

MARYLAND CHAPTER

Smart Grid Management

Josh Tulkin – Director, Maryland Sierra Club

January 28, 2026

Presentation for the Environment and Transportation Committee

SIERRA CLUB
MARYLAND CHAPTER

The Overlooked “Alternatives”

Distributed clean energy generation, demand response, efficiency, and smarter grid technologies can reduce energy, save money, and reduce environmental impact.

Combined together, these resources can be treated as a virtual power plant, meeting demand by reducing it, shifting it, or offsetting it through local generation.

Often quickest and cheapest to deploy, and most often overlooked or underinvested.

Demand Response: Reduce or reshape peak demand

Status

- Utility DR programs exist, such as Smart thermostats. Pepco has pilot, BGE permanent, participation is limited.
- Drive Act - creates pilot for program for distributed energy resources to participate in distribution system.

Opportunities

- More robust utility programs, stronger participation
- Time of Use Pricing
- Fully invest in Virtual Power Plants - Make Drive Act pilot permanent, add wholesale

Distributed Clean Energy Generation

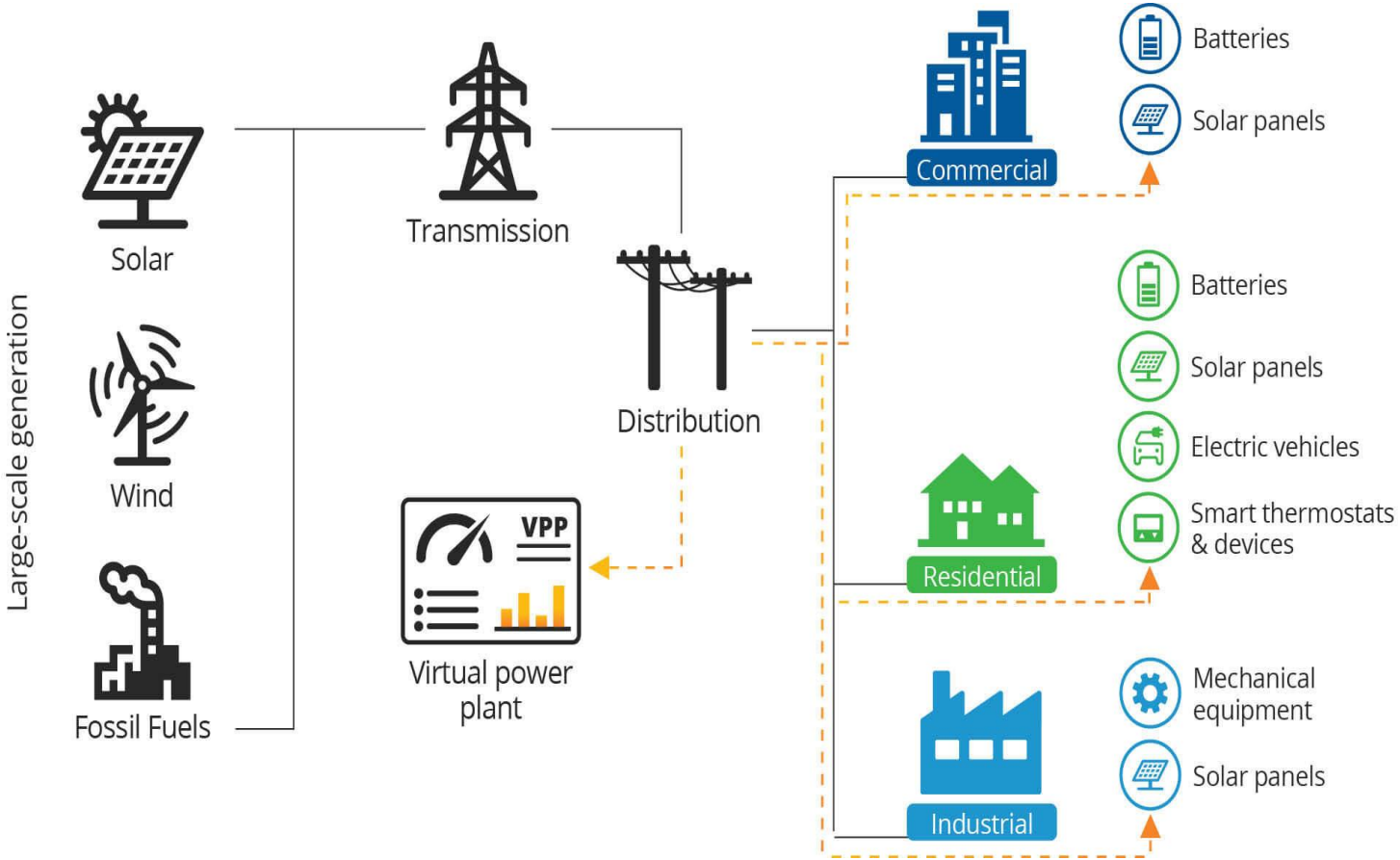
Status:

- Rooftop and community solar incentives (RPS, Brighter Tomorrow)
- Net Energy Metering in place;
- Storage pilots underway (Battery Storage Act, Next Gen Energy Act).

Opportunities

- Cut red tape slowing deployment of solar and storage.
- Strengthen RPS incentive programs

Virtual Power Plant



Alternative Transmission Technologies (ATTs)

ATTs are tools that can quickly increase the capacity of the grid **without building new transmission.**

ATT Legislation: HB40

- Requires implementation plans for ATTs in congested parts of grid
- Requires developers seeking CPCN to demonstrate how they consider ATTs

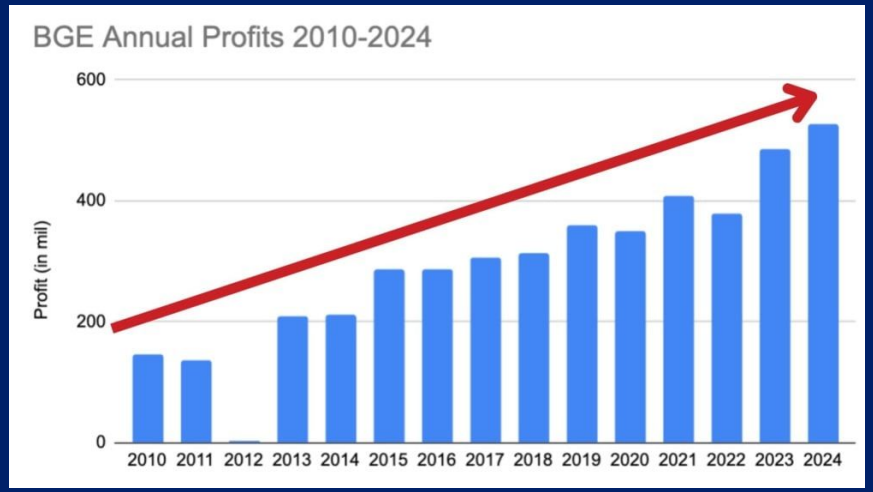
ATTs can lead to **major cost savings**

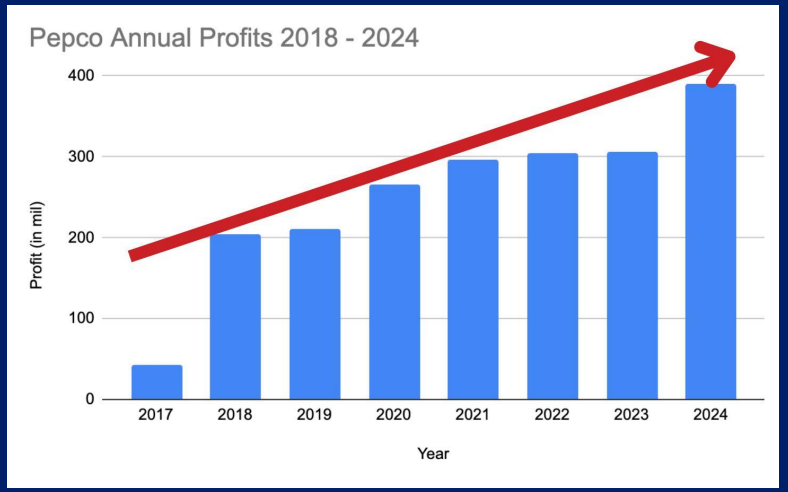
Maryland PIRG

Maryland PIRG is a state based, small donor funded public interest advocacy organization with grassroots members across the state.

We work to find common ground around common sense solutions that will help ensure a healthier, safer, more secure future.

Spending drives profits and rates





- BGE profits were consistently under $150 million until the utility was bought by Exelon in 2012, since profits have rapidly increased to $527 million in 2024, and are on pace to be even higher in 2025.
- Pepco profits were $205 million in 2018, the year after the company's merger with Exelon, and have already nearly doubled to $390 million in 2024.

Maryland PIRG

BGE Electric Distribution, Transmission & Supply Costs

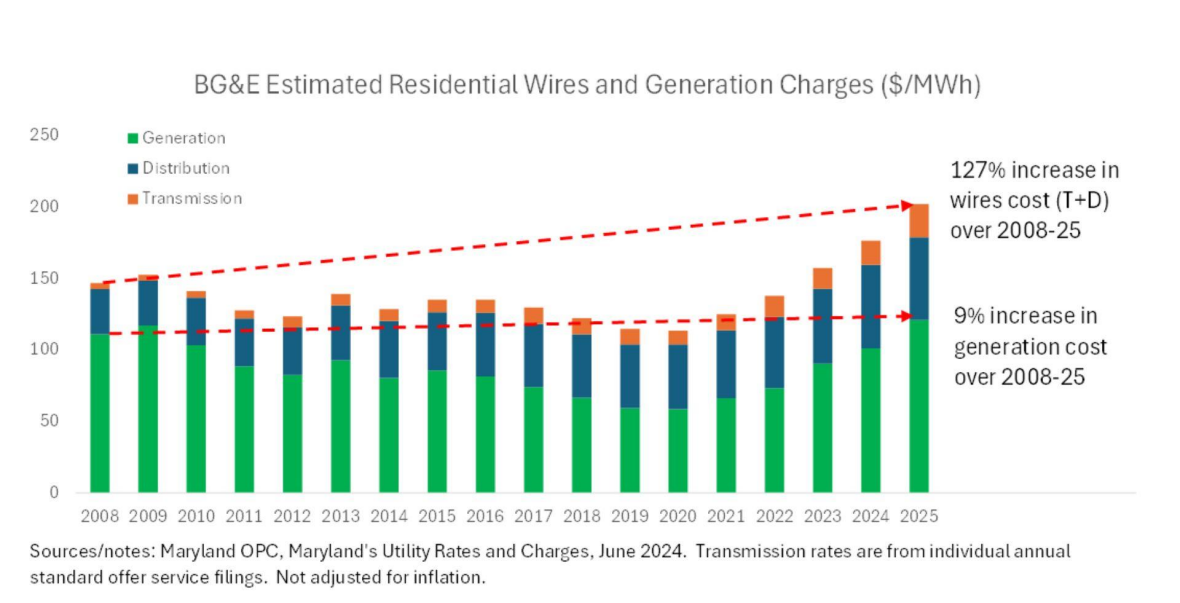


Chart via Constellation Energy

BGE electric delivery rates and transmission costs have increased 127% since 2008.

Generation costs have fluctuated, tied in a large part to the commodity costs of gas.

BGE Gas Distribution & Supply Costs

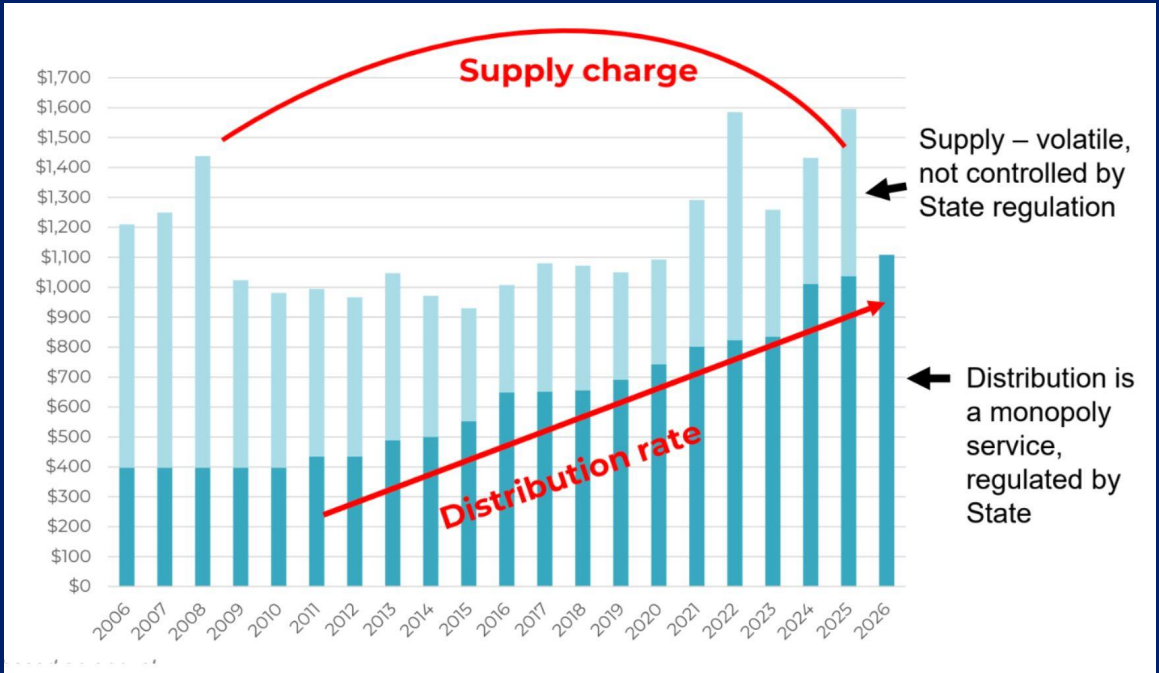


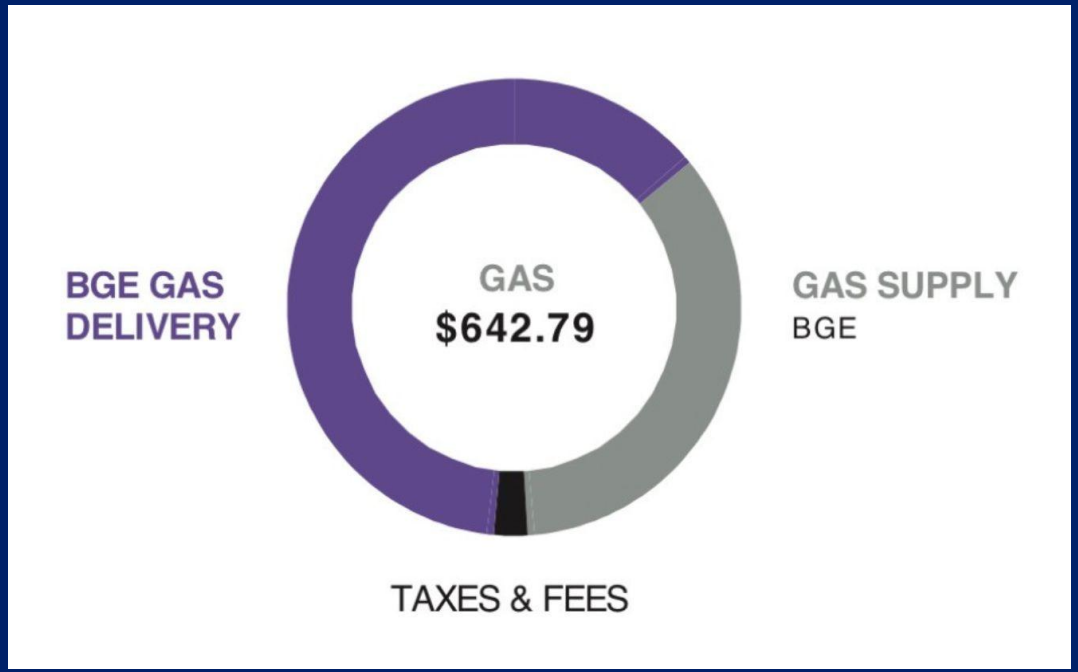
Chart via Office of the People's Counsel

BGE gas delivery rates have tripled since 2010.

In the 2010's gas supply rates plummeted and the consumer gas supply savings masked the uptick of BGE gas delivery rates.

What should have been a decade of more affordable energy was lost and now that supply has gone back up, customers are trapped.

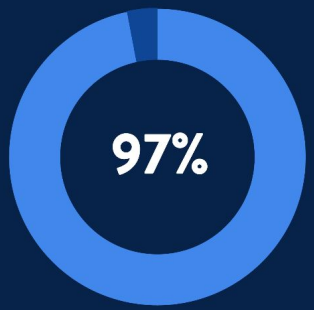
Impact on Customer Bills



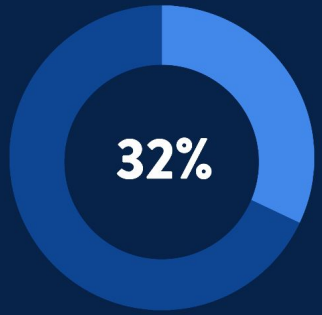
BGE gas customers are now paying nearly $2 for delivery for every dollar we pay for the gas to heat our homes - this is true even including a 24% increase in gas commodity prices.

Washington Gas customers pay about half of what BGE customers pay for delivery, but without quick intervention on STRIDE, that could change.

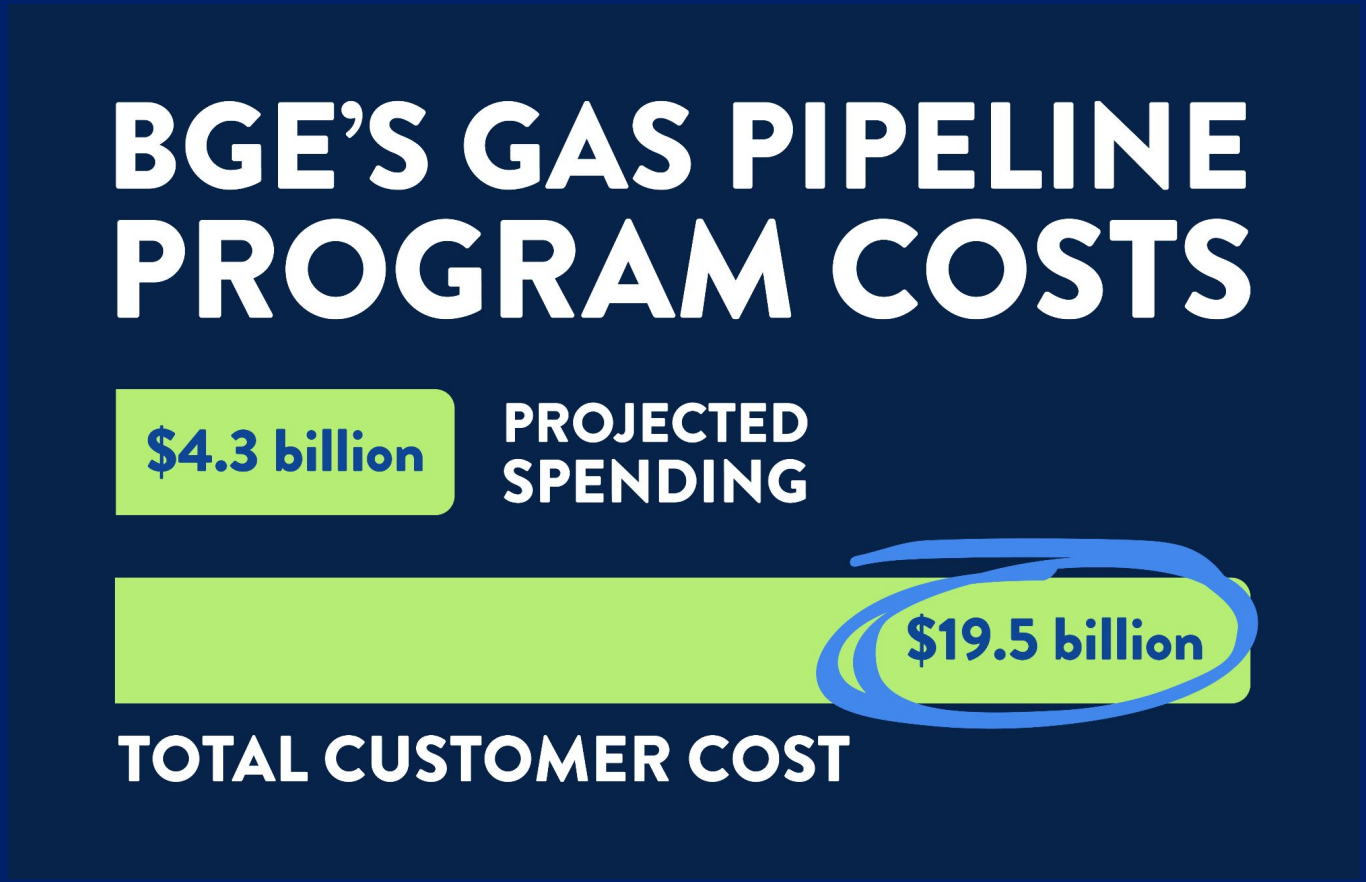
OPERATION PIPELINE 2025
PROJECT SELECTION



PRESSURE CONVERSION



RISK SCORES


BGE'S GAS PIPELINE PROGRAM COSTS
$4.3 billion
PROJECTED SPENDING
$19.5 billion
TOTAL CUSTOMER COST

Statement: Governor Moore signs groundbreaking "pro-consumer" changes to utility regulation

Maryland PIRG joins Gov. Moore, utility regulators, labor groups, legislative leaders, and evironmental

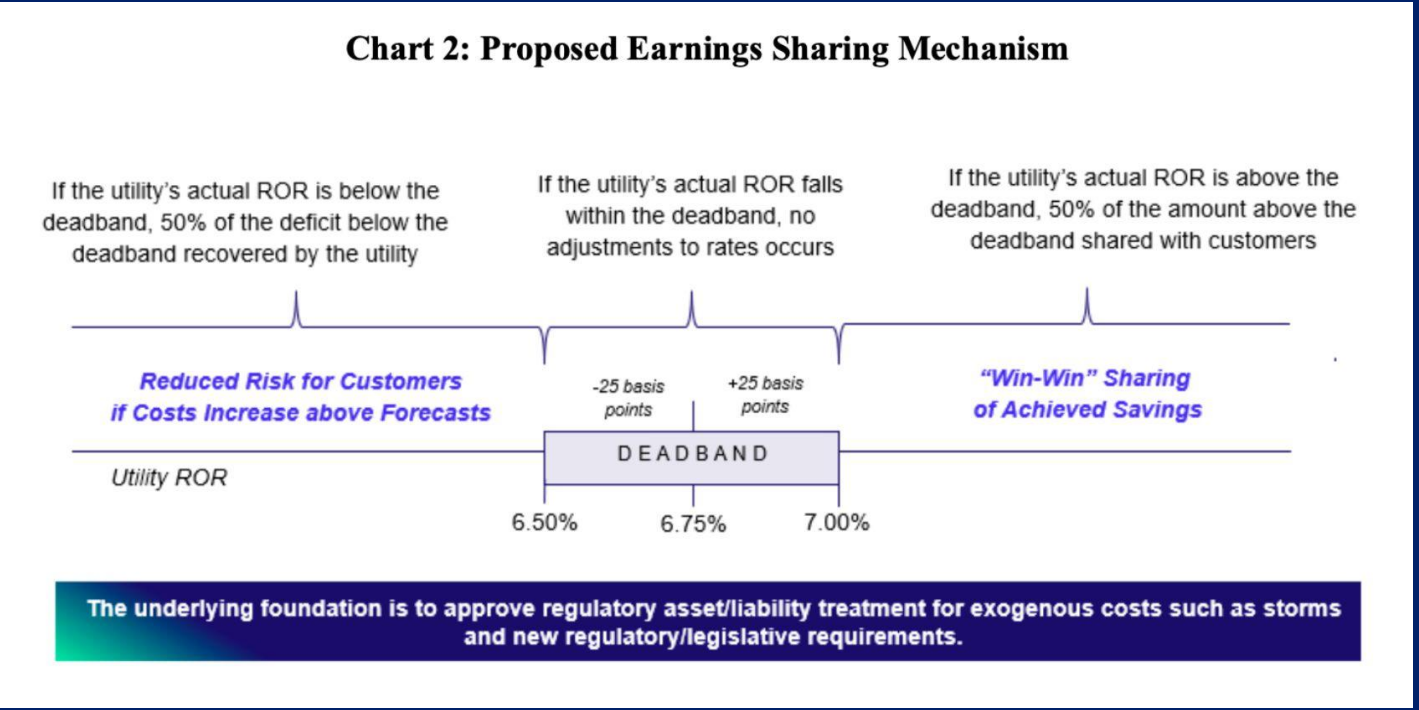
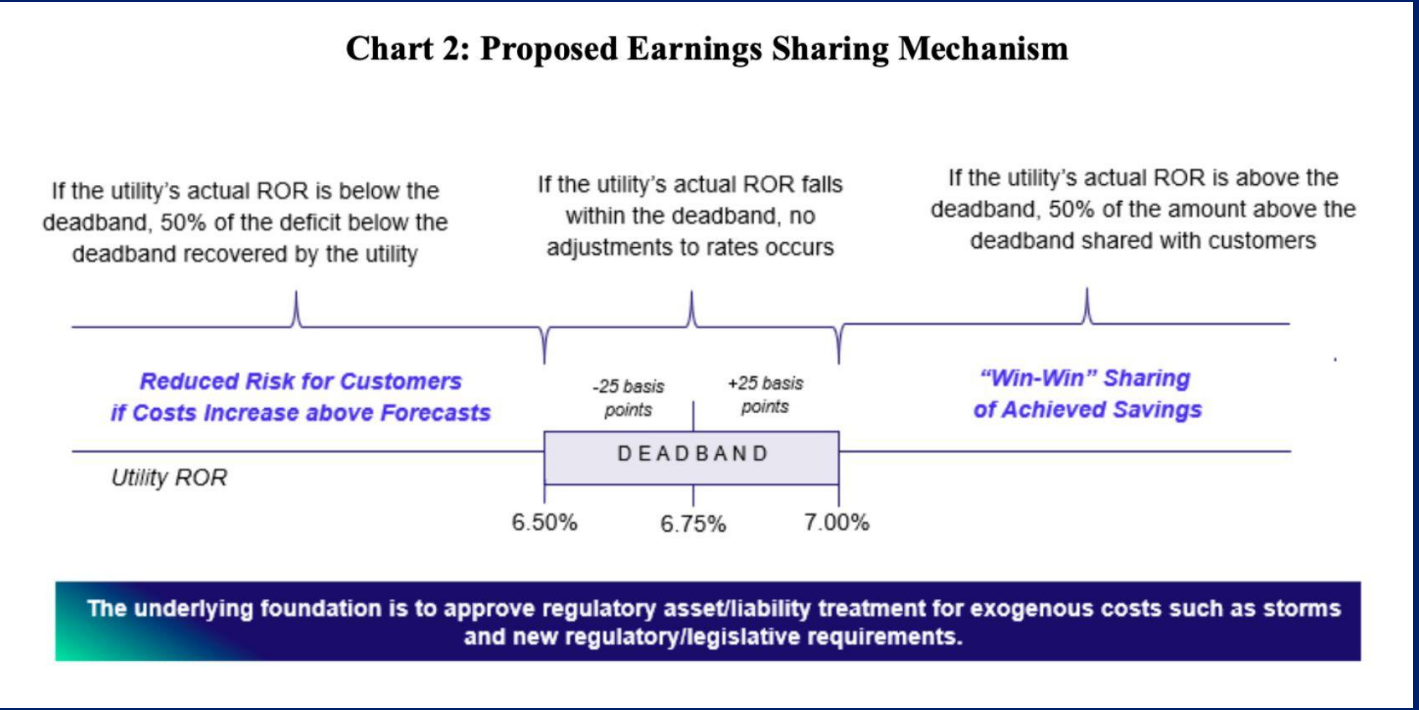


Chart via Exelon filing to PSC

In response to the legislature prohibiting the reconciliation process, Exelon has proposed an alternative, which functions as a fixed-rate reconciliation, guaranteeing recovery for spending over projections, locking in profits.



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