21 February 2025

Delegate C.T. Wilson, Chair
Economic Matters Committee
Room 231
House Office Building
Annapolis, Maryland 21401

Oral and Written Testimony
HB505: Empowering New Energy Resources and Green Initiatives Toward a Zero-Emission (ENERGIZE) Maryland Act
Position: Favorable with Amendments

Chair Wilson, Vice Chair Crosby, Members of the Economic Matters Committee, thank you for the opportunity to testify on House Bill 505, Empowering New Energy Resources and Green Initiatives Toward a Zero-Emission (ENERGIZE) Maryland Act.

I am Robin Dutta, the Executive Director of the Chesapeake Solar and Storage Association (CHESSA). Our association advocates for our over 100 member companies in 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.

I am here to provide testimony on HB505, Empowering New Energy Resources and Green Initiatives Toward a Zero-Emission (ENERGIZE) Maryland Act, with suggested amendments attached.

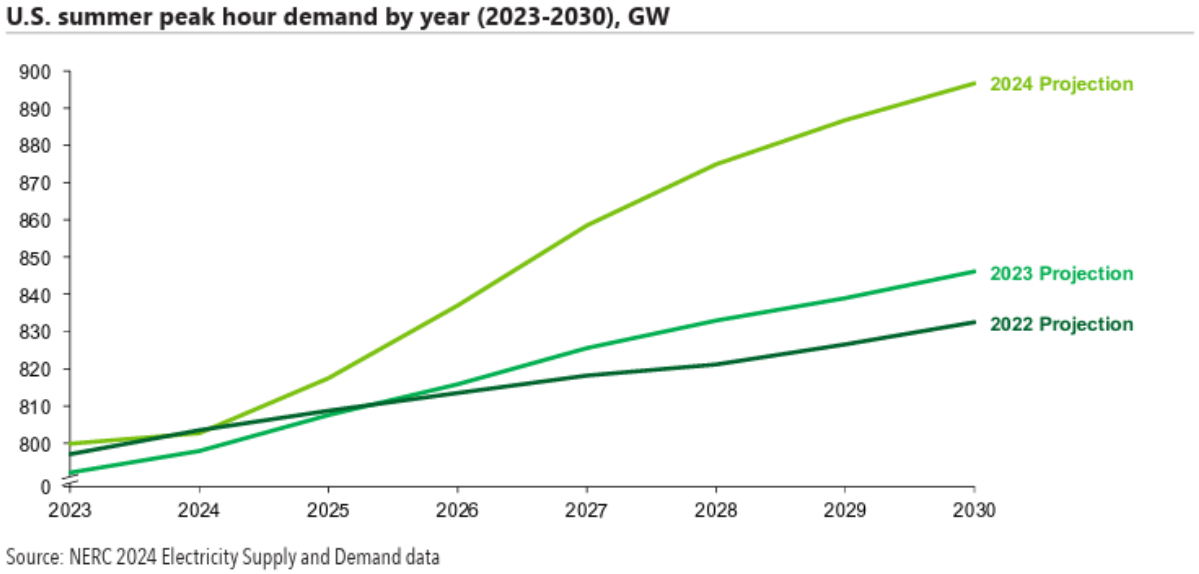
ENERGIZE Maryland Act takes a step towards removing policy barriers for more solar development, however we feel that further action is needed. Maryland is dealing with an increasing energy gap, with projections for higher energy consumption and increasing periods of peak demand. Mainstream adoption of in-state solar and energy storage can be crucial to the solution. Our suggested amendments would strengthen HB505 and enable more solar and storage to be built in a manner that protects ratepayers, encourages greater solar deployments, and places downward pressure on Maryland energy bills.

The Problem: Maryland's Widening Energy Gap

Marylanders are becoming much more sensitive to grid disruptions and electric price spikes. The state is on the path to seeing increasing electric demand over the long term. And, there is

already straining in its electric system. Maryland only generates about 60 percent of the electric generation it demands[1]. But, importing electricity isn't an automatic solution. Nine of the 13 states in the PJM Interconnection (where Maryland resides) also must import electricity to serve their electric demand. And the Maryland Energy Administration (MEA) is projecting load growth, potentially as much as 2 percent per year[2]. There's growing demand and competition for an energy supply that needs to increase.

Contributing Problem: Higher Electric Demand Across the County



Source: NERC 2024 Electricity Supply and Demand data

The grid of the not-so-distant future will have the combined roles that today's electricity, natural gas system, and gas stations have. For the grid to serve those roles, it will need to look and act differently. It will have higher statewide electric loads, and greater electric demand in peak periods. And, the higher peak demand gets, the more expensive the electric grid becomes, due to expensive infrastructure expansion and higher peak energy pricing. By lowering peak demand, clean energy can lower the cost of the grid.

A January 2025 report from the U.S. Department of Energy shows that projected peak demand growth is only increasing, with electricity supply and demand data from the North American Energy Reliability Council showing the estimates being revised upwards each year since 2022.[3] If Maryland's electric future follows the projected national trend, it needs to step up the clean energy build-out throughout the state at the same time as handling fossil fuel retirements. That means scaling up statewide solar adoption of all kinds, as soon as possible.

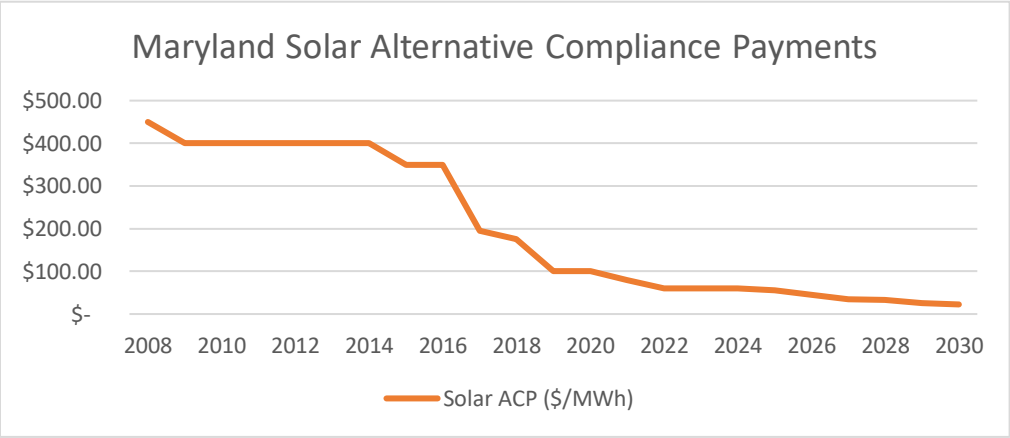
[1] https://www.eia.gov/state/analysis.php?sid=MD
[2] Maryland Energy Administration. "Reaching 100 Percent Net Carbon-Free Electricity in Maryland". January 2025. p.19
[3] U.S. Department of Energy. "Pathways to Commercial Liftoff: Virtual Power Plants 2025 Update". January 2025. p.7

Layering on the problem are the faults within the PJM Interconnection, both with their capacity markets and their interconnection processes. The recent PJM capacity auction could cause electric bill in Maryland to increase as much as 24 percent, according to an August 2024 report from the Maryland Office of People's Counsel. The MEA describes the Baltimore Gas & Electric service area as a "congested territory".[4] There are then certain generating units that must run and can drive up capacity prices, as it happened in the most recent PJM capacity auction. The way to relieve congestion and grid strain is to lower peak demand, offset consumer electric load, and build a lot of new local generating capacity.

The Solution: Firm Clean Energy Does the Job at a Good Price

Firm capacity and generation to be relied upon does not have to come from incumbent generation technologies, such as coal, natural gas, or nuclear energy. Solar and wind technologies are ready to scale up at an increasing rate, when part of a portfolio that includes battery storage, to provide firm, reliable generation when consumers need it.

According to a 2021 National Renewable Energy Laboratories (NREL) study, residential rooftop, commercial rooftop, and large-scale solar systems achieved cost reductions of 64, 69, and 82 percent, respectively, since 2010. And, in the last ten years, as measured by the Solar Energy Industries Association and the research firm WoodMackenzie, solar costs have declined by nearly 40 percent[5]. Maryland's Renewable Portfolio Standard generally mirror these cost declines, as shown in the graph below.



The solar ACP represents the upper bounds of what Solar Renewable Energy Credits (SRECs) can be valued for project development and compliance purposes. In 2008, the solar Alternative Compliance Payment (ACP) that utilities and suppliers had to pay in the event of a solar supply shortfall was $450 per Megawatt-hour. In 2025, the solar ACP is $55 per Megawatt-hour, an 88

[4] Maryland Energy Administration. "Reaching 100 Percent Net Carbon-Free Electricity in Maryland". January 2025. p.22

[5] SEIA/Wood Mackenzie Power & Renewables U.S. Solar Market Insight Q4 2024. https://seia.org/research-resources/solar-industry-research-data/#:~:text=The%20cost%20to%20install%20solar,deploy%20thousands%20of%20systems%20nationwide.

percent decline in value. The rate of decline in solar ACP since 2018 has gotten ahead of solar project development costs, in part due to cost increases due to the trade tariffs, the COVID-19 pandemic, disruptions in supply chains, and a shortage of available labor. While residential, commercial, community solar, and large-scale solar have seen massive cost declines over the life of Maryland's Renewable Portfolio Standard, the issue in the last few years has been a misalignment between the solar ACP and the actual project costs across these increasingly differentiated market segments.

Today, large-scale solar and land-based wind now represent the cheapest new electric generating sources in the United States, according to the firm Lazard. New clean energy generation can be built and energized to generate when electricity demand is greatest during the day. When building portfolios of energy storage, those cheap solar and wind facilities can charge those assets to be used day or night.

The data shows that distributed solar and storage strategies are scalable and help the electric grid. According to a study from The Brattle Group, distributed resources, which include a range of advanced energy technologies (such as local solar, storage, smart appliances, internet-connected thermostats, and energy management software) provide the *same* resource adequacy as a natural gas plant at 40-60 percent lower cost. The firm Deloitte analyzed the benefits that distributed energy resources including rooftop solar could deploy throughout local distribution grids in a 2024 report. Their conclusion was that scaling up the deployment and adoption of residential solar and related distributed resources would contribute to improved resiliency, reliability, and resource adequacy.

The solar industry has been maturing as a technology and an industry. Now, as Maryland needs more firm, reliable energy, solar and battery storage is ready to provide a clean energy solution to the energy problem.

The Solution: Build More Solar and Storage in Maryland

With policy reforms today, solar deployments trends can increase fairly quickly. Freezing the solar ACP at 2024 levels would provide some support to develop certain types of Maryland solar, however CHESSA suggests that RPS policy evolution treat different types of solar project differently. The solar industry is one industry but our different market segments are very different, with their own cost structures, hardware needs, and financing realities. The industry has evolved from the point where a one-size-fits-all incentive was the most effective option. And, in order to provide an effective solution for Maryland's widening energy gap, it is important for all types of solar to thrive. For those reasons, CHESSA suggests that HB505 be amended to include these provisions to evolve the Maryland RPS solar carve-out:

- Create a new large-scale solar procurement, that is an additional RPS compliance obligation, to be initiated in Q4 2025 for at least 3,000 MW of new Maryland solar for the wholesale market
- Transition from the current SREC program and create a new distributed solar incentive program, that is an additional RPS compliance obligation, for at least 3,000 MW of new

in-state solar capacity. Different project types would receive different incentive values based on what they need, as determined by the Commission.

Energy storage also needs to be a major part of any energy solution. Maryland already has a 3 GW storage deployment goal by 2033. CHESSA recommends that HB505 be amended to include the creation of two storage programs as part of the solution to close the energy gap:

- A new energy storage procurement to be initiated in Q4 2025 for at least 1,600 MW; and
- A new distributed storage incentive program, for at least 1 GW of battery storage capacity paired with solar projects such as residential, commercial, and community solar applications.

The attached provides greater detail on the suggested amendments.

Conclusion

Maryland has an energy problem that clean energy is ready to solve. Large-scale solar and storage projects can provide the lump sum of electricity to Maryland's grid. Distributed solar and storage projects will reduce grid strain and allow existing grid infrastructure to be used more cost-effectively. Overall, more solar and storage projects in Maryland will create downward pressure on energy costs.

Meeting resource adequacy needs and growing electric demand can be an expensive proposition for the ratepayer. Utility-centric solutions are fully funded by the ratepayer. Wholesale energy solutions do not address local resiliency and reliability needs. All-of-the-above solar and storage strategies mean creating incentives that leverage private capital instead of directing ratepayers to foot the entire bill.

If amended as CHESSA recommends, we ask for a favorable report on HB505.

Please reach out with any questions on solar and storage policy. CHESSA is here to be a resource to the committee.

Sincerely,

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