SIERRA CLUB
MARYLAND CHAPTER

P.O. Box 278
Riverdale, MD 20738

Committee: **Education, Energy, and the Environment**

Testimony on: **SB 908, Public Utilities - Electric Distribution System Plans - Establishment (Affordable Grid Act)**

Position: **Support**

Hearing Date: **March 6, 2025**

The Maryland Chapter of the Sierra Club strongly supports SB 908, the Affordable Grid Act. The Act will require the Public Service Commission (Commission or PSC) to develop rules and regulations to create a rigorous and effective distribution system planning processes in Maryland. The need for an effective distribution planning system that incorporates all resources with specificity and requires Commission approval is critical as the Maryland electric industry transitions to clean energy and as Maryland's transportation and building sectors significantly electrify. Without the enactment of the Affordable Grid Act, the distribution system planning process currently under development in Maryland will not meaningfully update existing distribution planning processes.

Maryland is at a crossroads. The state has set goals of producing clean, affordable, and reliable energy, but rapidly increasing electric demand and the need for new resources are challenging these goals. While most of the attention goes to how power is produced, the electric grid itself plays a huge role. Maryland's electrical grid was designed over 100 years ago when the system needs were simple: produce and distribute electricity to end users. Much of our distribution system infrastructure – the lines and poles – has essentially been in place since the 1940s. Today, the demands on our grid are more complex, onboarding electricity from thousands of sources, and both receiving energy from and providing energy to battery storage systems and electric vehicles. There are also new grid technologies that can help us get more energy, use it more efficiently, and reduce costs. Creating a 21st century grid that addresses all these needs and incorporates new grid technologies is not a simple process, and requires collaboration across utilities, regulators, and other stakeholders, including technology developers and installers. To achieve this change quickly, the state must ensure that Maryland's goals and objectives are incorporated into the utilities' planning process, and that there is transparency and accountability.

It is essential that utilities' distribution system planning processes be calibrated to meet the needs of Maryland's clean energy future. This is a pivotal moment, with hundreds of millions of federal dollars pouring in to install fast chargers along Maryland's highways, and to build charging infrastructure for medium- and heavy-duty electric fleets throughout the state. Maryland has also adopted Building Energy Performance Standards and is developing policies to reduce emissions from fossil combustion in buildings. These policies will require significant additional capacity from the grid. It is essential that utilities adequately "energize" the grid, ensuring they build enough new wires, cables, transformers, and other infrastructure at the scale and timeline to meet Maryland's increased power needs as soon as those needs arise. This Act will require utilities' planning processes to comply with the Climate Solutions Now Act and other relevant state policies that will increase the demand for a modern, upgraded electric system.

A comprehensive 21st century distribution system planning process will bring multiple benefits to Maryland: improved reliability and resilience; cost efficiency; integration of renewable energy, including the seamless addition of distributed generation sources like battery storage, bidirectional electric vehicle charging, and solar; and improved power quality (e.g., reduced voltage variability and better frequency control).

To create a 21st century grid, the Commission has conducted a grid modernization proceeding since 2016. Nearly four years ago, in June 2021, the Commission in Order No. 89865 established the Distribution System Planning Work Group and tasked it with beginning a comprehensive examination of distribution system planning in Maryland. The Work Group has deliberated for over three years on the design of a distribution system planning process. The Commission in Order No. 91490 ordered the Work Group to file proposed regulations by May 1, 2025. While the Sierra Club acknowledges the draft regulations under consideration by the Work Group, the Club believes that core principles of proper electric system planning, especially accountability, are being left out of these regulations.

The Affordable Grid Act establishes "Best Practice" system planning requirements to address these deficiencies in the draft regulations. The Act applies the step-by-step framework that Maryland has established for Distribution System Planning, developed by the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials, with PSC input. The Act's requirements incorporate the modern approaches and technologies for grid development that are cost-saving, cost-effective, and already being used by other states or utilities. The Attachment summarizes the core provisions within the Act.

The Sierra Club fully supports all of the provisions in the Affordable Grid Act, including:

- Commission review and approval of each utility's proposed plan.
- Annual electric utility progress reports on implementation of their three-year distribution system plans.
- Data-sharing between electricity and gas utilities for the purpose of preventing electricity and gas demand from being double-counted, and to coordinate on decarbonization and electrification planning, including protocols that follow cybersecurity standards.
- Forecasts and scenarios for predicted load and electricity generation capacity.
- An analysis of system constraints that impede the incorporation of new technologies and capacity.
- Incorporation of technology innovations that will modernize the grid and improve its reliability and resilience.
- Coordination of transmission and distribution system planning.
- Management of hosting capacity to incorporate Distributed Energy Resources.
- Analyses and targets using metrics that will be developed by the Commission.

Other states are moving faster than Maryland in transforming their distribution grids. For example, Colorado, Hawaii, Minnesota, New York, Nevada, and Vermont require load forecasts to include the energization needs stemming from building electrification and EV charging. Vermont includes new load from heat pumps and other "fuel-switching technologies" in load forecasts. California, Colorado, Hawaii, Nevada and Vermont require utilities to forecast the potential utilization – and benefit – of tools including energy storage, distributed generation,

demand response or flexibility, and managed EV charging. California, Hawaii, Massachusetts, Minnesota, New York, and Michigan require their public utility commissions to approve electric utilities' distribution system plans.

In summary, the Maryland Chapter of the Sierra Club urges the passage of SB 908, the Affordable Grid Act. Maryland needs comprehensive and accountable electric utility distribution planning, especially in light of its economy-wide electrification and emission reduction goals.

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ATTACHMENT A
SUMMARY OF CORE PROVISIONS OF SB 908

Section A of the Act provides definitions.

Section B sets forth requirements for PSC regulations that include review for approval of distribution system plans. Commission approval of utility distribution system plans will be essential to ensure that Maryland electric utilities take appropriate actions to improve their distribution system planning processes and investment. Direct inquiry, input, direction and approval from the Commission will ensure that the utility plans are thoroughly vetted, and will allow the Commission the opportunity to steer utility plans to meet Maryland clean energy goals.

Section C sets forth appropriate goals for uniform treatment of regulated parties by the PSC regulations while allowing for differences across types of providers and other considerations.

Section D includes required contents for Distribution System Plans. The Act contains multiple required elements of a distribution system plan that are intended to modernize and improve plans. In particular, the Act calls for improved hosting capacity analysis. Hosting capacity refers to the amount of capacity on distribution networks to accommodate distributed energy resources. Detailed analysis of this capacity needs to consider customer load patterns, patterns of use of key resources (such as electric vehicles), and the ability of demand response and distributed energy resources to free up capacity. Among other requirements, the Act also directs coordination of distribution system plans with transmission and PJM plans, and for coordination with gas utilities. These coordination efforts will help ensure that Maryland utility distribution plans reflect broader factors that may impact planning.

Section D also requires detailed forecasts of distributed energy resources and loads. The preparation of detailed load forecasts of individual distributed energy resources and how specific technologies may impact load forecasts is essential for effective planning. For example, electric vehicles will be both new and large loads on distribution networks and an important supply of future power. Good forecasts of the amount and impact of these resources will be essential in designing the right level of infrastructure and not overbuilding. Maryland electric utilities currently offer insufficient assurances that their forecasting will be modernized. Modern, detailed forecasting techniques should be required.

Sections E, F, and G address public input and Commission approval.

Section H of the Act addresses Information Sharing. It calls for secure information sharing between electric and gas companies. Cybersecure sharing of information on the location, specific conditions, and type of gas and electric equipment should result in better and coordinated operation and investments. This information sharing will be particularly important as electrification accelerates in Maryland.