

Department of Legislative Services
 Maryland General Assembly
 2025 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 953 (Senator West, *et al.*)
 Education, Energy, and the Environment

Construction and Expansion of Transmission Lines and Task Force to Develop a Realistic Electricity Plan for Maryland

This bill establishes the Task Force to Develop a Realistic Electricity Plan for Maryland to study and make recommendations on the State’s current and future electricity needs under various scenarios. The Maryland Energy Administration (MEA) must provide staff for the task force, and the task force, through MEA, may hire an independent consultant to assist in its work. Task force members may not receive compensation but are entitled to reimbursement for travel expenses. By December 31, 2025, the task force must report its findings and recommendations to the Governor and the General Assembly. Additionally, beginning July 1, 2025, and through May 1, 2026, the Public Service Commission (PSC) is prohibited from issuing a Certificate of Public Convenience and Necessity (CPCN) or otherwise approving the construction or expansion of any transmission lines in the State. **The bill takes effect July 1, 2025, and terminates June 30, 2026.**

Fiscal Summary

State Effect: Special fund expenditures for MEA increase by at least \$250,000 in FY 2026 to hire one or more consultants with the requisite energy market expertise. Revenues are not affected.

(in dollars)	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	250,000	0	0	0	0
Net Effect	(\$250,000)	\$0	\$0	\$0	\$0

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: The bill does not materially affect local government finances or operations.

Small Business Effect: Minimal.

Analysis

Bill Summary: The task force must:

- using the State's energy policies as of July 1, 2025, for each of years 2026, 2030, 2035, and 2040, assemble and study realistic current (1) forecasts for the State's electricity needs; (2) estimates of the percentage of electricity imported from out of State; and (3) estimates of the cost of electricity purchased through the capacity market that would be included in the monthly electric bills of Maryland ratepayers;
- for each of years 2030, 2035, and 2040, assemble and study realistic current estimates of the cost of electricity purchased through the capacity market that would be included in the monthly electric bills of Maryland ratepayers if the State imported no more than 25% of the electricity needed to meet the State's electricity demand;
- consider policy options and make recommendations for legislation that would ensure the State purchases, in 2030, 2035, and 2040, no more than 25% of its electricity from out-of-state sources; and
- consider policy options and make recommendations to ensure the reliability and adequacy of the electricity available to Maryland ratepayers and businesses through 2040.

The policy options considered must include (1) the expansion of nuclear energy generation in the State; (2) the expansion of renewable energy resources in the State; (3) the prioritization of energy storage facilities in the State; and (4) upgrades and enhancements to transmission systems in the State as they exist on July 1, 2025.

Current Law:

Electric Industry Restructuring and New Generation Resources

The Electric Customer Choice and Competition Act of 1999 facilitated the restructuring of the electric utility industry in Maryland, which deregulated the generation, supply, and pricing of electricity. As part of restructuring, the State's vertically integrated electric companies divested themselves of their generation assets. With restructuring, generation resources are considered competitive, and the competitive market is relied upon to provide new generation resources and to meet load requirements.

In order to meet long-term, anticipated demand in the State for standard offer service and other electricity supply, PSC may require or allow an investor-owned electric company to

construct, acquire, or lease, and operate, its own generating facilities, and transmission facilities necessary to interconnect the generating facilities with the electric grid, subject to appropriate cost recovery.

Renewable Energy Portfolio Standard

PSC administers the State Renewable Energy Portfolio Standard, which requires that renewable sources generate specified percentages of Maryland's electricity supply each year. For general information, including a list of eligible Tier 1 sources and trends in renewable energy credit prices, see the **Appendix – Renewable Energy Portfolio Standard**.

Climate Solutions Now Act

The Climate Solutions Now Act (CSNA) of 2022 made broad changes to the State's approach to reducing statewide greenhouse gas (GHG) emissions and addressing climate change. Among other things, the Act accelerated previous statewide GHG emissions reductions targets originally established under the Greenhouse Gas Emissions Reduction Act by requiring the State to develop plans, adopt regulations, and implement programs to (1) reduce GHG emissions by 60% from 2006 levels by 2031 and (2) achieve net-zero statewide GHG emissions by 2045.

Chapter 540 of 2024 made changes to provisions in CSNA related to electric distribution system planning, generally to broaden the scope to beyond the distribution system, broaden references to federal funds, and to delay and modify a related requirement for PSC to adopt regulations.

Statement of Policy Goals for the State Electric System

It is the goal of the State that the electric system support, in a cost-effective manner, the State's policy goals with regard to (1) GHG reduction; (2) renewable energy; (3) decreasing dependence on electricity imported from other states; and (4) achieving energy distribution resiliency, efficiency, and reliability.

Electric Distribution System Planning and Improvements

By December 1, 2024, and each year thereafter, PSC must submit a report to the General Assembly with information regarding the current status of projects designed to promote the above policy goals, including information on planning processes and implementation that promote specified goals, including (1) measures to decrease GHG emissions incident to electric distribution, including high levels of distributed energy resources and electric vehicles and (2) electric system resiliency and reliability.

By December 31, 2025, PSC must adopt regulations or issue orders to (1) implement specific policies for electric system planning; (2) require consideration of investment in, or procurement of, cost-effective demand-side methods and technology to improve reliability and efficiency, including virtual power plants; and (3) implement specific policies for improvements in order to promote the State’s policy goals for the electric system. The regulations and orders must be developed with consideration given to the inherent differences, individual circumstances, and available resources among different types of electric companies and, if determined necessary by PSC, establish separate requirements for each type.

CSNA also required PSC to conduct a one-time study to assess the capacity of the distribution systems of the larger electric and gas companies to successfully serve customers under a managed transition to a highly electrified building sector, which can be viewed on the PSC [website](#).

Certificates of Public Convenience and Necessity for Overhead Transmission Lines

Generally, a person may not begin construction in the State of an overhead transmission line that is designed to carry a voltage in excess of 69,000 volts unless a CPCN is first obtained from PSC. PSC must take final action on a CPCN application only after due consideration of the recommendations of the governing body of each county or municipality in which any portion of the project is proposed to be located and the effect of the project on various aspects of the State infrastructure, economy, and environment.

For construction related to an existing overhead transmission line, PSC must waive the requirement to obtain a CPCN if the commission finds that the construction does not require the person to obtain new real property or rights-of-way through eminent domain or require larger or higher structures to accommodate increased voltage or conductors. Similarly, a person may undertake necessary construction, including repairs, to avoid an imminent safety hazard or reliability risk; the person must file a report with PSC within 30 days of completing the work.

For additional information on the CPCN process and its requirements for the construction of overhead transmission lines, see the **Appendix – Certificate of Public Convenience and Necessity**.

State Expenditures: MEA advises that one or more consultants are needed to assist with the energy market analysis required by the bill, at an estimated cost of at least \$250,000. The task force report is due by December 31, 2025; this analysis assumes all consultant costs are incurred in fiscal 2026. MEA can otherwise staff the task force and complete the required report with existing staff. Expense reimbursements for task force members are assumed to be minimal and absorbable within existing budgeted resources.

Accordingly, special fund expenditures for MEA (specifically, from the Strategic Energy Investment Fund) increase by at least \$250,000 in fiscal 2026 only.

Additional Comments: Broadly speaking, nuclear and renewable energy comprised 50% of the electricity generated in the State in 2022; however, Maryland imports approximately 40% of its electricity. Adjusting for that, in-State nuclear and renewable generation was approximately 29% of electricity *used in the State* in 2022.

The University of Maryland's Center for Global Sustainability also released a [report](#) pursuant to CSNA in November 2024 that discusses the State's energy generation facilities in the context of a transition to renewable energy.

Additional Information

Recent Prior Introductions: Similar legislation has not been introduced within the last three years.

Designated Cross File: HB 1218 (Delegate Buckel, *et al.*) - Economic Matters.

Information Source(s): Public Service Commission; Maryland Department of the Environment; Department of Natural Resources; Maryland Energy Administration; Office of People's Counsel; University System of Maryland; Harford County; U.S. Energy Information Administration; Department of Legislative Services

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js/lgc

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Appendix – Renewable Energy Portfolio Standard

General Overview

Maryland’s Renewable Energy Portfolio Standard (RPS) was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. There are specified eligible (“Tier 1” or “Tier 2”) sources as well as carve-outs for solar, offshore wind, and geothermal. Electric companies (utilities) and other electricity suppliers must submit renewable energy credits (RECs) equal to a percentage of their retail electricity sales specified in statute each year or else pay an alternative compliance payment (ACP) equivalent to their shortfall. Historically, RPS requirements have been met almost entirely through RECs, with negligible reliance on ACPs; however, as discussed further below, that has not been the case more recently. Generally, the Maryland Energy Administration must use ACPs for purposes related to renewable energy, as specified.

In 2025, the requirements are 35.5% from Tier 1 sources, including at least 7.0% from solar and 0.25% from post-2022 geothermal systems, plus 2.5% from Tier 2 sources.

Recent Significant Changes to Overall Percentage Requirements

- Chapter 757 of 2019 significantly increased the percentage requirements, which now escalate over time to a minimum of 50% from Tier 1 sources, including 14.5% from solar, by 2030.
- Chapter 673 of 2021 reduced the amount of solar energy required under the RPS each year from 2022 through 2029, while leaving the nonsolar requirement generally unchanged, before realigning with the previous requirements beginning in 2030. The Act also extended Tier 2 in perpetuity at 2.5%.
- Chapter 164 of 2021 created a carve-out for post-2022 geothermal systems in Tier 1 beginning in 2023.

Limited Applicability to Municipal Electric Utilities and Electric Cooperatives

As RPS percentage requirements have grown over time, legislation has been enacted to limit the effect on municipal electric utilities and electric cooperatives. Tier 1 percentage requirements for municipal electric utilities are limited to 20.4% in total beginning in 2021, including at least 1.95% from solar energy and up to 2.5% from offshore wind. Municipal electric utilities are also exempt from Tier 2 after 2021. Electric cooperatives are exempt

from future increases to the solar carve-out beyond 2.5%, and the RPS does not apply to Choptank Electric Cooperative.

Renewable Energy Credits

Generally, a REC is a tradable commodity equal to one megawatt-hour of electricity generated or obtained from a renewable energy generation resource. In other words, a REC represents the “generation attributes” of renewable energy – the lack of carbon emissions, its renewable nature, etc. A REC has a five-year life during which it may be transferred, sold, or redeemed. REC generators and electricity suppliers are allowed to trade RECs using a Public Service Commission (PSC) approved system known as the Generation Attributes Tracking System, a trading platform designed and operated by PJM Environmental Information Services, Inc., that tracks the ownership and trading of RECs.

Eligible Sources

Tier 1 sources include wind (onshore and offshore); solar (photovoltaic and certain water-heating systems); qualifying biomass; methane from anaerobic decomposition of organic materials in a landfill or wastewater treatment plant; geothermal; ocean, including energy from waves, tides, currents, and thermal differences; a fuel cell that produces electricity from specified sources; a small hydroelectric plant of less than 30 megawatts; poultry litter-to-energy; waste-to-energy; refuse-derived fuel; thermal energy from a thermal biomass system; and raw or treated wastewater used as a heat source or sink for heating or cooling. Tier 2 includes only large hydroelectric power plants.

Chapter 673 excluded black liquor, or any product derived from black liquor, from Tier 1 beginning in 2022, although some black liquor RECs remain eligible through the duration of certain contracts.

Trends in Compliance Costs, Renewable Energy Credit Prices, and Resources Used

Compliance costs for electricity suppliers totaled \$564.2 million in 2023: \$243.8 million for 7.9 million RECs and \$320.4 million in ACPs. This continues a multi-year trend of increasing overall compliance costs, reliance on ACPs, and REC prices. Of note, 2023 was the first time that ACPs have been used in a significant way for general Tier 1 compliance. In fact, electricity suppliers retired the lowest number of general Tier 1 RECs since 2013 – and made \$262.4 million in ACPs for the remaining obligation. Compliance costs and REC prices for the most recent five-year period are shown in **Exhibit 1**.

In 2023, solar (27.5%), wind (19.9%), black liquor (16.1%), municipal solid waste (14.2%), and small hydroelectric (7.5%) were the primary energy sources used for Tier 1 RPS compliance. Maryland facilities generated 5.2 million RECs in 2023: 1.3 million Tier 1 RECs, 2.1 million Tier 1 RECs, and 1.8 million Tier 2 RECs. Many

RECs can be used for compliance in both Maryland and other surrounding states, although there are geographic and energy source restrictions.

Exhibit 1
RPS Compliance Costs and REC Prices
2019-2023

Compliance Costs (\$ Millions)	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
RECs					
Tier 1	\$79.3	\$99.8	\$187.3	\$246.5	\$124.9
Tier 1 Solar	55.2	122.9	144.4	101.4	109.6
Tier 1 Geothermal	n/a	n/a	n/a	n/a	0.1
Tier 2	<u>0.1</u>	<u>0.4</u>	<u>1.0</u>	<u>4.4</u>	<u>9.3</u>
<i>RECs Subtotal</i>	<i>\$134.6</i>	<i>\$223.1</i>	<i>\$332.7</i>	<i>\$352.3</i>	<i>\$243.8</i>
ACPs					
Tier 1	\$5.0	\$0.0	\$0.2	\$0.7	\$262.4
Tier 1 Solar	2.7	0.0	76.9	85.9	56.0
Tier 1 Geothermal	n/a	n/a	n/a	n/a	1.6
Tier 2	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.4</u>
<i>ACPs Subtotal</i>	<i>\$7.7</i>	<i>\$0.1</i>	<i>\$77.1</i>	<i>\$86.6</i>	<i>\$320.4</i>
Total	\$142.3	\$223.2	\$409.8	\$438.9	\$564.2
Average REC Price (\$)					
Tier 1	\$7.77	\$8.24	\$14.36	\$17.80	\$24.61
Tier 1 Solar	\$47.26	\$66.10	\$72.59	\$57.80	\$56.67
Tier 1 Geothermal	n/a	n/a	n/a	n/a	\$94.47
Tier 2	\$1.05	\$1.06	\$6.45	\$7.42	\$10.50

ACP: alternative compliance payment
REC: renewable energy credit
RPS: Renewable Energy Portfolio Standard

Note: Numbers may not sum to total due to rounding. The post-2022 geothermal system carve-out became effective in 2023.

Source: Public Service Commission

Related Studies and Reports

PSC must submit an RPS compliance report to the General Assembly each year. The most recent report, which contains historical data through 2023, can be found [here](#).

The Power Plant Research Program (PPRP) in the Department of Natural Resources has frequently been required to conduct RPS studies. PPRP submitted a final report on a comprehensive RPS study in December 2019, which can be found [here](#). PPRP also submitted a related required study on nuclear energy at that time, which can be found [here](#). PPRP's supplemental study on the overall costs and benefits of increasing the RPS to a goal of 100% by 2040 was due by January 1, 2024.

The Department of Legislative Services also issued an RPS report in 2024, which can be found [here](#). The report contains additional detail on the program, significant statutory changes, and visualizations of planned and actual RPS percentage requirements over time.

Appendix – Certificate of Public Convenience and Necessity

General Overview

The Public Service Commission (PSC) is the lead agency for licensing the siting, construction, and operation of power plants and related facilities in the State through Certificates of Public Convenience and Necessity (CPCN). The CPCN process is comprehensive and involves several other State agencies, including the Department of Natural Resources (and its Power Plant Research Program), and the Maryland Department of the Environment. Subject to limited exemptions described below, a person may not begin construction in the State of a generating station, overhead transmission line, or qualified generator lead line unless a CPCN is first obtained from PSC.

State law provides that a “generating station” excludes:

- a facility used for electricity production with a capacity of up to 2 megawatts that is installed with equipment that prevents the flow of electricity to the electric grid during time periods when the grid is out of service;
- a combination of two or more co-located or adjacent facilities used for electricity production from solar photovoltaic systems or specified eligible customer-generators that have a maximum cumulative capacity of 14 megawatts, including maximum individual capacities of 2 megawatts (subject to satisfying other requirements); and
- a facility, or a combination of two or more facilities, used for electricity production for the purpose of onsite emergency backup for critical infrastructure when service from the electric company is interrupted and conducting necessary test and maintenance operations (subject to satisfying other requirements).

The CPCN process, detailed further below, involves the notification of specified stakeholders, the holding of public hearings, the consideration of recommendations by State and local government entities, and the consideration of the project’s effects on various aspects of the State infrastructure, economy, and environment.

In December 2020, PSC initiated a rulemaking (RM 72) to revise regulations governing CPCNs for generating stations. Updated regulations became effective in September 2021. Among other changes, the regulations contain additional information requirements – to assist in project evaluation – and allow for electronic submission and distribution of application materials.

Notification Process

Upon receipt of a CPCN application, PSC – or the CPCN applicant, if required by PSC – must immediately provide notice to specified recipients, including the executive and governing body of affected local governments, affected members of the General Assembly, and other interested persons. When providing the notice, PSC must also forward the CPCN application to each appropriate unit of State and local government for review, evaluation, and comment and to each member of the General Assembly who requests a copy.

Public Hearing and Comment

PSC must provide an opportunity for public comment and hold a public hearing on a CPCN application in each county and municipality in which any portion of the construction of a generating station, overhead transmission line, or qualified generator lead line is proposed to be located. PSC must hold the hearing jointly with the governing body of the county or municipality and must provide weekly notice during the four weeks prior to the hearing, both in a newspaper and online, and must further coordinate with each local government to identify additional hearing notification options. PSC must ensure presentation and recommendations from each interested State unit and must allow representatives of each State unit to sit during the hearing of all parties. PSC must then allow each State unit 15 days after the conclusion of the hearing to modify the unit's initial recommendations.

Public Service Commission Considerations

PSC must take final action on a CPCN application only after due consideration of (1) recommendations of the governing body of each county or municipality in which any portion of the project is proposed to be located; (2) various aspects of the State infrastructure, economy, and environment; and (3) the effect of climate change on the project. For example, PSC must consider the effect of the project on the stability and reliability of the electric system and, when applicable, air and water pollution. There are additional considerations specifically for a generating station or an overhead transmission line. For example, PSC must consider the impact of a generating station on the quantity of annual and long-term statewide greenhouse gas emissions and must consider alternative routes and related costs for the construction of a new overhead transmission line.

Generating Station Exemptions

There are three general conditions under which a person constructing a generating station may apply to PSC for an exemption from the CPCN requirement:

- the facility is designed to provide onsite generated electricity, the capacity is up to 70 megawatts, and the excess electricity can be sold only on the wholesale market pursuant to a specified agreement with the local electric company;
- at least 10% of the electricity generated is consumed onsite, the capacity is up to 25 megawatts, and the excess electricity is sold on the wholesale market pursuant to a specified agreement with the local electric company; or
- the facility is wind-powered and land-based, the capacity is up to 70 megawatts, and the facility is no closer than a PSC-determined distance from the Patuxent River Naval Air Station, among other requirements.

However, PSC must require a person who is exempted from the CPCN requirement to obtain approval from the commission before the person may construct a generating station as described above. The application must contain specified information that PSC requires, including proof of compliance with all applicable requirements of the independent system operator.