Department of Legislative Services

Maryland General Assembly
2025 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 950 (Senator West, *et al.*)
Education, Energy, and the Environment

Natural Gas Generating Facilities - Authorization

This bill authorizes, notwithstanding any other provision of law, natural gas generating facilities to be constructed, permitted, and operated in the State until the State reaches 50% of its energy needs from renewable energy sources, including nuclear energy. A person constructing such a facility must still comply with specified provisions of the Public Utilities Article relating to approval from the Public Service Commission (PSC) for their construction. Once the State meets 50% of its energy needs from renewable energy resources, including nuclear energy, the Maryland Energy Administration (MEA) must work with the owners and operators of natural gas generating facilities in the State to decrease the production of energy from natural gas generating facilities at the same rate as energy produced from renewable energy resources, including nuclear energy, is increased.

Fiscal Summary

State Effect: Special fund expenditures for MEA increase by up to $150,000 for consultant costs in as early as FY 2026, under the assumptions discussed below. The bill is not anticipated to otherwise materially affect State finances or operations.

Local Effect: The bill is not anticipated to materially affect local government finances or operations.

Small Business Effect: Minimal.

Analysis

Current Law: 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. Deactivation decisions are made by facility owners as business decisions. PSC does not have regulatory authority over plant closures.

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.

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). Generally, facilities with generating capacities of up to two megawatts do not require a CPCN. Energy generating systems that produce energy from natural gas are not prohibited, although the CPCN evaluation process includes consideration of the impact of the generating station on the quantity of annual and long-term statewide greenhouse gas (GHG) emissions and consistency of the CPCN application with the State's climate commitments for reducing GHG emissions.

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**.

Other Related Climate and Renewable Energy Initiatives

The Maryland Department of the Environment's (MDE) Climate Change Program leads the State's efforts to reduce GHG emissions and participation and oversight in other initiatives, including the Regional Greenhouse Gas Initiative (RGGI) and the U.S. Climate Alliance. The program also ensures State compliance with climate-related State and federal laws, such as the Climate Solutions Now Act (CSNA) of 2022.

CSNA made broad changes to the State's approach to reducing statewide 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. In December 2023, MDE

published *Maryland's Climate Pollution Reduction Plan*, which was developed to implement CSNA.

Maryland participates in the multi-state RGGI in order to reduce carbon dioxide (CO_2) emissions from the power sector. Each participating state limits CO_2 emissions from electric power plants, issues CO_2 allowances, and establishes participation in CO_2 allowance auctions. A single CO_2 allowance represents a limited authorization to emit one ton of CO_2.

Maryland is also part of the U.S. Climate Alliance, which is a group of states committed to reducing GHG emissions consistent with the goals of the Paris Agreement. These goals include reducing collective net GHG emissions by at least 26% to 28% by 2025, by 50% to 52% by 2030, and by 61% to 66% by 2035 (all below 2005 levels) and collectively achieving overall net-zero GHG emissions as soon as practicable, but no later than 2050.

Among other actions, Executive Order 01.01.2024.19 directed MEA to establish a framework for a clean energy standard to achieve 100% clean electricity in Maryland by 2035 and determine if all or part of the proposed clean energy standard can be implemented through existing authority. MEA published the resulting report in January 2025.

State Expenditures: It is unclear when the 50% threshold will be met under the bill. Maryland is a net importer of electricity, and not all energy generated in the State is physically used in the State. 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.

Nevertheless, prior to when the threshold has been determined to be met, MEA advises that it requires technical consultants to assist its staff with understanding natural gas markets and generator income streams so that its staff are prepared to work with owners and operators of natural gas generating facilities to decrease the energy production from their facilities. MEA expects the consultant assistance to cost up to $150,000. While costs could be incurred as early as fiscal 2026, the precise timing of the expenditures is unknown.

Accordingly, special fund expenditures for MEA (specifically, from the Strategic Energy Investment Fund) increase by up to $150,000 for a one-time consultant expense, in as early as fiscal 2026, but conceivably in a later year.

Additional Comments: 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 1217 (Delegate Buckel, *et al.*) - Economic Matters.

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

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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

	2019	2020	2021	2022	2023
Compliance Costs ($ Millions)					
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	0.1	0.4	1.0	4.4	9.3
RECs Subtotal	***$134.6***	***$223.1***	***$332.7***	***$352.3***	***$243.8***
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	0.1	0.0	0.0	0.0	0.4
ACPs Subtotal	***$7.7***	***$0.1***	***$77.1***	***$86.6***	***$320.4***
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.