

Department of Legislative Services
 Maryland General Assembly
 2025 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 716 (Senator Brooks, *et al.*)
 Education, Energy, and the Environment

Public Utilities - Nuclear Energy - Renewable Energy Portfolio Standard and Procurement (Decarbonization Infrastructure Solutions Act of 2025)

This bill increases Tier 1 Renewable Energy Portfolio Standard (RPS) percentage requirements beginning in 2026 and establishes a corresponding nuclear energy carve-out for eligible nuclear sources, as specified. Tier 2 is terminated after 2039. The bill also establishes a separate ratepayer-funded incentive for new nuclear energy through a process administered by the Public Service Commission (PSC). **The bill takes effect July 1, 2025.**

Fiscal Summary

State Effect: Special fund expenditures for PSC and the Office of People’s Counsel (OPC) increase by at least \$593,800 annually from FY 2026 through 2030; special fund revenues increase correspondingly from assessments imposed on public service companies. Special fund expenditures for the Maryland Energy Administration (MEA) increase by up to \$150,000 in FY 2026. Special fund revenues for MEA increase significantly beginning in FY 2027 (not shown in the table below). General/special fund expenditures for the Department of Natural Resources (DNR) increase by at least \$590,000 annually from FY 2027 through 2030. Transportation Trust Fund (TTF) expenditures likely increase by \$150,000 in FY 2026. The effect on State expenditures for electricity is discussed in the Additional Comments section.

(in dollars)	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
SF Revenue	\$593,800	\$611,400	\$616,200	\$621,200	\$626,300
SF Expenditure	\$893,800	\$611,400	\$616,200	\$621,200	\$626,300
GF/SF Exp.	\$0	\$597,300	\$590,000	\$603,000	\$615,900
Net Effect	(\$300,000)	(\$597,300)	(\$590,000)	(\$603,000)	(\$615,900)

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

Local Effect: Local government finances and operations, including municipal electric utilities, are significantly affected, as discussed below.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary:

Nuclear Energy Included in Enhanced Renewable Energy Portfolio Standard

Tier 1 RPS requirements are increased beginning in 2026, coincident with corresponding minimum amounts established for a nuclear energy carve-out for eligible nuclear sources, as specified. Annual Tier 1 percentage requirements and the nuclear carve-out continue to increase until reaching 100% and 50%, respectively, in 2040. The bill also terminates Tier 2 after 2039. Annual amounts are shown in **Exhibit 1**. Among other requirements, the nuclear energy must be from a reactor placed in service after October 1, 2025, and must be connected with the electric distribution system serving Maryland.

PSC must establish a Nuclear Energy Reactor Incentive Program, under which a certified reactor generates certified nuclear renewable energy credits (NRECs) that may be used for RPS compliance. A certified NREC has the compliance value established by PSC, as specified. Generally, the value may not be less than \$50 per megawatt-hour or more than \$75 per megawatt-hour. In fiscal 2027, the value must be \$65 per megawatt-hour. For context, under current law, in 2027 the maximum theoretical price, the alternative compliance payment (ACP), is \$24.50 for a generic Tier 1 renewable energy credit (REC), \$35 for a solar REC, and \$80 for a post-2022 geothermal system REC.

To be eligible for certification under the program, a nuclear energy reactor must be located in the State and eligible for inclusion in meeting the RPS, have the generating capacity required by PSC, and be placed in service after October 1, 2025. An electricity supplier may apply the certified NRECs toward the RPS.

Exhibit 1
Annual Renewable Energy Portfolio Standard Requirements
Current Law vs. The Bill

<u>Year</u>	<u>Overall Total Current Law</u>	<u>Overall Total The Bill</u>	<u>Difference</u>	<u>Nuclear Carve-out The Bill*</u>
2026	40.50%	44.50%	4.00%	4.00%
2027	44.00%	52.00%	8.00%	8.00%
2028	45.50%	57.50%	12.00%	12.00%
2029	52.00%	68.00%	16.00%	16.00%
2030	52.50%	72.50%	20.00%	20.00%
2030-2039	52.50%	<i>– Annual Increases Continue –</i>		
2040+	52.50%	100.00%	47.50%	50.00%

* Nuclear carve-out percentages listed are *minimums*. Under the bill, to ensure the development and increasing use of clean energy technologies other than nuclear energy, starting in 2040, the Public Service Commission may incrementally reduce the nuclear carve-out. Under the bill, Tier 2 terminates after 2039.

Source: Department of Legislative Services

Nuclear Energy Procurement

The bill establishes a minimum of three rounds of applications and related requirements for PSC approval of one or more proposed nuclear energy generation projects funded through electric distribution rates. If PSC approves proposals that demonstrate, based on the criteria specified in the bill, positive net economic, environmental, and health benefits to the State, PSC must approve orders to facilitate the financing of nuclear energy generation projects. Rate impacts cannot exceed PSC-determined amounts. PSC is authorized to contract for the services of independent consultants and experts, as specified.

Applications

After the effective date of PSC regulations implementing the provisions described below, a person may submit an application to PSC for approval of a proposed nuclear energy generation project, subject to specified requirements. PSC must adopt regulations, as specified, by January 1, 2026.

On receipt of an application, PSC must (1) open an application period of at least 90 days during which other interested persons may submit applications for approval of a proposed

nuclear energy generation project and (2) provide notice that PSC is accepting applications. PSC must provide at least two additional application periods before January 1, 2031, and may provide additional application periods. Unless extended by mutual consent of the parties, PSC must approve, conditionally approve, or deny an application within one year of the close of the application period.

The bill specifies what an application must include: (1) a detailed description and financial analysis; (2) the proposed financing method; (3) a cost-benefit analysis of specified benefits; (4) a proposed long-term pricing schedule; (5) a decommissioning and waste storage plan; (6) a commitment to abide by a community benefit agreement, as further specified; (7) a description of the applicant's plan for engaging small businesses; (8) if applicable, a statement that includes information on minority investors interviewed and whether they have invested in the project; and (9) any other information PSC requires.

An applicant seeking investors must make serious, good-faith efforts to solicit and interview a reasonable number of minority investors and take other related actions. The Governor's Office of Small, Minority, and Women Business Affairs (GOSBA), in consultation with the Office of the Attorney General (OAG), must provide assistance to potential applications to satisfy the requirements.

Evaluation and Approval

The bill specifies the criteria that PSC must use to evaluate and compare applications for proposed projects, such as (1) the lowest cost impact on ratepayers and potential changes in related electricity market prices; (2) the extent to which the cost-benefit analysis demonstrates positive net economic, environmental, and health benefits to the State; (3) the extent to which the plan for engaging small businesses meets the State's goal for small business contracting; (4) the extent to which the applicant's plan provides for various specified labor considerations; and (5) the extent to which the project would require transmission or distribution infrastructure improvements in the State.

Subject to specified processes and requirements, PSC may not approve an application for a proposed project unless:

- the project is connected to the electric distribution system serving the State;
- over the duration of the proposed long-term pricing schedule, projected net rate impacts for residential and nonresidential customers do not exceed amounts determined by PSC; and
- the price specified in the proposed long-term pricing schedule does not exceed an amount determined by PSC.

Additionally, PSC may not approve an order to facilitate the financing of a nuclear energy generation project unless the project is subject to a community benefit agreement, which has various specified requirements.

A PSC order approving an application for a proposed project must (1) specify the long-term pricing schedule and its duration, up to 30 years; (2) provide that a payment may not be made under a long-term pricing schedule until electricity supply is generated from the project; (3) provide that ratepayers and the State must be held harmless for any cost overruns associated with the system; and (4) require that any debt issued in connection with the project include language specifying that the debt instrument does not establish a debt, an obligation, or a liability of the State. An order approving a project vests the owner with the right to receive payments according to the terms in the order.

The findings and evidence relied on by the General Assembly for the continuation of the State's Minority Business Enterprise (MBE) Program are incorporated into the bill. To the extent practicable and authorized by the U.S. Constitution, an applicant approved for a nuclear energy generation project under the bill must comply with the State's MBE Program. Within six months after the issuance of a PSC order approving a project, GOSBA, in consultation with OAG and the applicant, must establish a clear plan for setting reasonable and appropriate MBE goals, as specified.

Cost Recovery

PSC must adopt regulations to establish the nuclear energy long-term pricing purchase obligation sufficiently in advance to allow an electric company to reflect nuclear energy long-term pricing costs as a nonbypassable surcharge paid by all distribution customers of the company. The surcharge must allow an electric company to recover all costs associated with the purchase of nuclear energy. PSC must also establish a related escrow account to facilitate the transfer of funds.

Each electric company must procure the required volume of nuclear energy from the escrow account to meet its obligations. In turn, for each long-term pricing schedule for which a project receives payment, the project must sell all energy, capacity, and ancillary services associated with the creation of the long-term pricing into the PJM Interconnection, markets and distribute the proceeds to electric companies to be refunded or credited to each distribution customer based on the customer's electricity consumption subject to the RPS. The bill also establishes a process to refund or credit customers in the event of overpayments due to insufficient nuclear energy being available.

A debt, an obligation, or a liability of a nuclear energy generation project or of an owner or operator of a nuclear energy generation project may not be considered a debt, an obligation, or a liability of the State.

Current Law:

Public Service Commission

Generally

PSC must supervise and regulate public service companies, which includes electric companies, subject to its jurisdiction to (1) ensure their operation in the interest of the public and (2) promote adequate, economical, and efficient delivery of utility services in the State without unjust discrimination. In doing so, PSC must consider the public safety, the economy of the State, the maintenance of fair and stable labor standards for affected workers, the conservation of natural resources, the preservation of environmental quality, the achievement of the State's climate commitments for reducing greenhouse gas (GHG) emissions, and the protection of a public service company's infrastructure against cybersecurity threats. PSC must also enforce compliance with legal requirements by public service companies.

Long-term Electricity Supply

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.

Power Plant Siting

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). For additional information on the CPCN process, see the **Appendix – Certificate of Public Convenience and Necessity**.

Renewable Energy Portfolio Standard

PSC administers the State RPS, 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 REC prices and ACP revenues, 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

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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 (CO₂) emissions from the power sector. Each participating state limits CO₂ emissions from electric power plants, issues CO₂ allowances, and establishes participation in CO₂ allowance auctions. A single CO₂ allowance represents a limited authorization to emit one ton of CO₂.

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.

Minority Business Enterprise Program

The State's MBE Program requires that a statewide goal for MBE contract participation be established biennially through the regulatory process under the Administrative Procedure Act. The goal is 29% for fiscal 2025. The Maryland Department of Transportation (MDOT) is designated in State regulations as the State's MBE certification agency. An MBE is a legal entity, other than a joint venture, that is:

- organized to engage in commercial transactions;
- at least 51% owned and controlled by one or more individuals who are socially and economically disadvantaged; and

- managed by, and the daily business operations of which are controlled by, one or more of the socially and economically disadvantaged individuals who own it.

State Fiscal Effect: Significant individual effects of the bill are discussed separately below. Effects on any agencies not discussed below are assumed to be generally minimal and/or absorbable within existing budgeted resources. The effect on State expenditures for electricity is discussed in the Additional Comments section below.

Public Service Commission

PSC advises that the bill creates new and incremental requirements that cannot be absorbed within existing resources. PSC advises that it requires one additional staff to implement the various requirements, plus ongoing consultant technical assistance of \$0.5 million annually through at least fiscal 2030.

Accordingly, special fund expenditures for PSC increase by \$593,756 in fiscal 2026, which accounts for a 90-day startup delay. This estimate reflects the cost of hiring one program manager to handle the anticipated increase in regulatory workload. It includes a salary, fringe benefits, one-time start-up costs, ongoing operating expenses, and \$0.5 million in consultant costs.

Position	1.0
Salary and Fringe Benefits	\$83,387
Contractual Services	500,000
Other Operating Expenses	<u>10,369</u>
Total FY 2026 PSC Expenditures	\$593,756

Future year expenditures reflect a full salary with annual increases and employee turnover as well as annual increases in ongoing operating expenses and \$0.5 million in annual consultant costs.

Generally, PSC is funded through an assessment on the public service companies that it regulates. As a result, special fund revenues for PSC increase correspondingly from assessments imposed on public service companies.

To the extent that PSC requires additional staff or consultants beyond that which has been estimated above, special fund revenues and expenditures further increase.

Office of People's Counsel

Special fund expenditures for OPC for additional staff and/or consultants to participate in the nuclear energy procurement proceedings at PSC may increase beginning as early as fiscal 2026, although OPC advises that the need depends on the number of other matters requiring OPC's resources when the proceedings take place. OPC is also funded through assessments on public service companies; thus, any additional special fund expenditures are funded through a corresponding increase in special fund revenues from assessments imposed on public service companies.

Maryland Energy Administration

MEA advises that it will likely participate in the rulemaking process at PSC for the nuclear energy procurement regulations required under the bill. MEA likely requires the assistance of at least one consultant to do so, at a one-time cost of up to \$150,000. Costs are assumed to be paid for using the Strategic Energy Investment Fund (SEIF) in fiscal 2026. Accordingly, special fund expenditures for MEA (specifically, SEIF) increase by up to \$150,000 in fiscal 2026.

Separately, the bill increases the Tier 1 RPS percentage requirements beginning in 2026, with a corresponding nuclear carve-out. However, it takes many years to build a nuclear facility, so it is reasonable to assume that, at least for several years, the bill increases the requirement for general Tier 1 RECs, presumably subject to the general Tier 1 ACP. Generally, RPS compliance reports and associated ACPs are due by April 1 following the compliance year. Historically, electricity suppliers have demonstrated RPS compliance by purchasing RECs, with little reliance on ACPs (except for solar). However, electricity suppliers paid significant ACPs for general Tier 1 RECs for the first time in 2023.

Accordingly, special fund revenues for SEIF may increase, potentially significantly, beginning in fiscal 2027 from additional ACP revenues. Amounts cannot be reliably predicted but may escalate annually in the near term. With additional funding available, special fund expenditures for SEIF likely increase correspondingly as available funds are used for MEA programs, but any such spending is not required by the bill.

Department of Natural Resources

DNR advises that its Power Plant Research Program (PPRP) requires additional technical and legal staff as well as funding for consultants to meet anticipated workloads associated with additional CPCNs for complex nuclear energy projects. Staff and consultants are needed through at least fiscal 2030. This estimate assumes PPRP costs begin in fiscal 2027, although costs could start in fiscal 2026, depending on the timing of the application process.

In general, special funds from the Environmental Trust Fund are used to fund PPRP’s operations. However, general funds may be required to cover part or all of the expenses that PPRP incurs under the bill because the department anticipates a special fund revenue shortfall.

Accordingly, general/special fund expenditures for DNR increase by \$597,275 in fiscal 2027, which accounts for the anticipated timing of nuclear energy CPCN applications. This estimate reflects the cost of hiring two power plant siting assessors and one half-time attorney to assist with additional CPCN analyses. It includes salaries, fringe benefits, one-time start-up costs, ongoing operating expenses, and \$300,000 in consultant costs.

Positions	2.5
Salaries and Fringe Benefits	\$274,864
Contractual Services	300,000
Other Operating Expenses	<u>22,411</u>
Total FY 2027 DNR Expenditures	\$597,275

Future year expenditures reflect salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses. Future year expenditures also assume continued consultant costs of \$300,000 annually.

Maryland Department of Transportation

To comply with the bill’s requirement that GOSBA establish a clear plan for setting MBE participation goals, MDOT (as the State’s MBE certification agency) must conduct a disparity study to determine whether and how much a disparity exists in the use of MBEs by nuclear power facilities. Although a new statewide disparity study is due to be completed in September 2025, it likely does not include the analysis necessary for this bill. To the extent that a separate disparity analysis must be completed and based on costs for similar studies in the past, TTF expenditures likely increase by approximately \$150,000 for MDOT to conduct a disparity study on the use of MBEs by nuclear facilities. This estimate assumes those costs are incurred in fiscal 2026, although costs may be incurred in subsequent years.

Local Fiscal Effect: The bill has multiple potentially significant effects on local government operations and finances. Among the potential effects:

- Local governments, as electric customers, are affected by any change in electricity rates, as discussed in the Additional Comments section below.
- The State’s five municipal electric utilities are not exempt from the ratepayer-funded procurement mechanism for new nuclear energy generation and

will be required to pay their proportional share of the cost for any approved projects. Municipal utilities are only minimally affected by the bill's changes to the RPS, as they have lower fixed RPS percentage requirements that do not include a nuclear carve-out under the bill. The five municipal electric utilities are located in Berlin (Worcester County), Easton (Talbot County), Hagerstown (Washington County), Thurmont (Frederick County), and Williamsport (Washington County).

Small Business Effect: The bill establishes two significant incentives for new nuclear generation in the State. Small businesses in the associated construction, design, and related industries potentially benefit from increased demand for their services. Small businesses, as electric customers, are also affected by any change in electricity rates, as discussed in the Additional Comments section below.

Additional Comments: In the short term, the bill appears likely to increase electricity rates due to the changes to the RPS. While the bill does not establish a specific NREC ACP, in the absence of available NRECs, electricity suppliers must still meet the increased Tier 1 percentages starting in 2026, presumably subject to the general Tier 1 ACP. As nuclear facilities take many years to construct, this is the likely near-term effect. If or when NRECs are available, their minimum price exceeds the maximum theoretical Tier 1 REC price or Tier 1 ACP. The NREC purchase obligation grows to be quite significant over time (if facilities are built and certified by PSC), based on the minimum \$45 per megawatt-hour cost. For context, the State uses approximately 60 million megawatt-hours per year.

The bill also establishes a long-term ratepayer-funded procurement mechanism for new nuclear energy generation, subject to a limit determined by PSC. Costs associated with electric companies purchasing the nuclear energy will be recovered through a nonbypassable surcharge paid by all distribution customers. The rate impacts do not become effective until any projects are constructed and producing power.

The above incentives have the potential to provide other benefits to the broader energy market and may eventually reduce (or moderate increases to) associated electricity rates paid by customers in the State by increasing in-state or regional energy generation capacity and providing a hedge against future fossil fuel prices. However, the Department of Legislative Services cannot further advise on the long-term net effect.

In any case, the State, local governments, and all businesses, including small businesses, are affected by the potential significant change in electricity rates due to the bill, particularly in the out-years.

Additional Information

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

Designated Cross File: None.

Information Source(s): Public Service Commission; Department of Natural Resources; Maryland Energy Administration; Office of People’s Counsel; Governor’s Office of Small, Minority, and Women Business Affairs; Maryland Association of Counties; Office of the Attorney General; Department of General Services; Maryland Department of Labor; Maryland Department of Transportation; Maryland Department of the Environment; Department of Legislative Services

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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.

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.