Department of Legislative Services

Maryland General Assembly
2025 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 220 (Delegate Stewart)
Economic Matters

Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2025)

This bill removes waste-to-energy and refuse-derived fuel from eligibility for inclusion in the State Renewable Energy Portfolio Standard (RPS). The bill, which applies to all RPS compliance years starting on or after January 1, 2025, may not be construed to impair an existing obligation or contract right.

Fiscal Summary

State Effect: The Public Service Commission (PSC) can implement the bill with existing budgeted resources. The bill does otherwise materially affect State finances or operations. The potential effect on electricity prices is discussed in the Additional Comments section below.

Local Effect: Beginning as early as FY 2025, revenues likely decrease for local governments that own and operate facilities that use the energy sources removed from the RPS, as discussed below. The potential effect on electricity prices is discussed in the Additional Comments section below.

Small Business Effect: Minimal. The potential effect on electricity prices is discussed in the Additional Comments section below.

Analysis

Current Law: Waste-to-energy and refuse-derived fuel are eligible Tier 1 resources under the State RPS. The terms are not further defined in statute or regulation. Annual RPS

compliance reports by PSC categorize "waste-to-energy" in statute as "municipal solid waste." There are two such facilities located in Maryland: a privately owned incinerator in Baltimore City and a county owned incinerator in Montgomery County.

For general information on the State RPS, including a list of eligible Tier 1 sources and trends in renewable energy credit (REC) prices and sources, see the **Appendix – Renewable Energy Portfolio Standard**.

Local Fiscal Effect: Beginning as early as fiscal 2025, local governments that own and operate either of the specified Tier 1 energy sources (or that will own/operate such facilities in the future) must sell the associated RECs to other states for compliance in other states, rather than Maryland, if they wish to continue receiving revenue. To the extent there are no other buyers for these RECs, or other state REC prices are lower than Maryland's, local government revenues decrease. Whether any other state RPS programs accept, or will accept, Maryland waste-to-energy RECs going forward is unknown, although it does not appear to be a common eligible source in the region. Accordingly, while the net effect on any particular local government cannot be reliably estimated at this time, local revenues likely decrease beginning as early as fiscal 2025.

The only local government that currently owns a waste-to-energy facility is Montgomery County. For context, about 300,000 to 400,000 RECs from the facility have been retired for Maryland RPS compliance annually in recent years. The county reports that it received $6.5 million, $10.3 million, and $12.2 million from the sale of RECs in fiscal 2022, 2023, and 2024, respectively, although it is unclear if those revenues are solely from RECs used for Maryland RPS compliance. Still, based on the number of county RECs retired for Maryland compliance and average municipal solid waste REC prices, the majority of the revenue is likely attributable to Maryland RPS compliance.

This analysis does not include any effects associated with private waste-to-energy companies, such as the facility in Baltimore City. While not a direct effect of the bill, if that facility were to close, Baltimore City finances and operations as they relate to waste management would be significantly affected.

Additional Comments: According to PSC's most recent RPS compliance report, approximately 1.0 million municipal solid waste ("waste-to-energy") RECs were retired for compliance in 2023 – approximately 14% of all Tier 1 RECs retired that year. About two-thirds of all municipal solid waste RECs were generated by the two facilities located in the State, with the remaining one-third generated in Virginia. No RECs from refuse-derived fuel facilities were used. The extent to which removing municipal solid waste RECs from RPS eligibility alters overall compliance costs depends on the prices and quantity of replacement RECs, or, if no replacement RECs are available, the difference between municipal solid waste REC prices and the applicable alternative compliance

payment (ACP). For context, in 2023, the average price of municipal solid waste RECs was $24.49, the average price of all Tier 1 Nonsolar RECs was $24.61, and the equivalent ACP was $30. ACPs gradually decrease under current law to $22.35 by 2030.

As municipal solid waste RECs are not substantially cheaper than average, and average REC prices are near ACPs, the bill likely has a minimal impact on compliance costs and, by extension, a minimal impact on customer electricity rates. Therefore, the impact on expenditures on electricity for State and local governments and small businesses is also anticipated to be minimal.

Additional Information

Recent Prior Introductions: Similar legislation has been introduced within the last three years. See SB 146 and HB 166 of 2024 and SB 616 of 2022.

Designated Cross File: SB 10 (Senator Ferguson, *et al.*) - Education, Energy, and the Environment.

Information Source(s): Public Service Commission; Maryland Energy Administration; Maryland Environmental Service; Cecil, Frederick, and Montgomery counties; City of Annapolis; Maryland Association of Counties; Maryland Municipal League; Northeast Maryland Waste Disposal Authority; 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

Compliance Costs ($ Millions)	2019	2020	2021	2022	2023
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.