

Department of Legislative Services
Maryland General Assembly
2021 Session

FISCAL AND POLICY NOTE
Third Reader

Senate Bill 153

(Senator Eckardt, *et al.*)

Finance

Economic Matters

Renewable Energy Portfolio Standard - Municipal Electric Utilities

This bill limits the annual Tier 1 percentage requirements of the State's Renewable Energy Portfolio Standard (RPS) for municipal electric utilities to 20.4% in total, including at least 1.95% from solar energy and up to 2.5% from offshore wind. The bill also requires municipal electric utilities to purchase Tier 2 renewable energy credits (RECs) in 2021 only (Tier 2 otherwise terminated after 2020 under current law).

Fiscal Summary

State Effect: The Public Service Commission can implement the bill with existing budgeted resources. REC prices are not anticipated to be materially affected and, therefore, neither are State expenditures on electricity – although there is a slight downward pressure on REC prices. The bill is not anticipated to materially affect special fund revenue from Alternative Compliance Payments.

Local Effect: Local expenditures for RECs by municipal electric utilities in Frederick, Talbot, Washington, and Worcester counties decrease by \$1.8 million to \$3.6 million annually beginning in FY 2022, as discussed below. Local revenues are not directly affected.

Small Business Effect: Minimal.

Analysis

Current Law: Municipal electric utilities are not exempt from Maryland's RPS. Electric cooperatives are exempt from future increases to the solar portion beyond 2.5%. The RPS also does not apply to a customer served by an electric cooperative under an electricity

supplier purchase agreement that existed on October 1, 2004, until the expiration of the agreement, as the agreement may be renewed or amended (*i.e.*, a customer of Choptank Electric Cooperative). For additional information on Maryland’s RPS, see the **Appendix – Renewable Energy Portfolio Standard**.

Local Expenditures: There are five municipal electric utilities in the State: Berlin (Worcester County), Easton (Talbot County), Hagerstown (Washington County), Thurmont (Frederick County), and Williamsport (Washington County). Combined, these five utilities are forecast to supply about 725,000 to 750,000 megawatt hours of electricity annually over the coming decade. For context, that is about 1.2% to 1.3% of the State’s estimated energy sales in those years.

Limiting the RPS percentage requirements going forward reduces the amount of RECs that municipal electric utilities must purchase for RPS compliance each year. Using forecast REC prices from a recent comprehensive [report](#) prepared by the Power Plant Research Program in the Department of Natural Resources, combined local expenditures decrease by \$1.8 million to \$3.6 million annually beginning in fiscal 2022, as shown in **Exhibit 1**.

Exhibit 1
Combined RPS Expenditures by Municipal Electric Utilities
Fiscal 2022-2026

<u>Calendar Year</u>	<u>RECs Required</u>	<u>Calendar Year (\$)</u>	<u>Fiscal Year</u>	<u>Fiscal Year (\$)</u>
2022	-92,710	-\$2,100,593	2022	-\$1,832,200
2023	-109,500	-2,493,253	2023	-2,296,923
2024	-126,290	-2,901,502	2024	-2,697,377
2025	-143,080	-3,326,990	2025	-3,114,246
2026	-161,330	-3,780,517	2026	-3,553,753

REC: renewable energy credit; RPS: Renewable Energy Portfolio Standard

Notes: Estimate assumes 730,000 Megawatt hours sold per year by the five municipal electric utilities. Calendar-to-fiscal year conversion splits annual compliance costs evenly between fiscal years. Fiscal 2022 savings includes the final quarter of calendar 2021. Savings beginning in 2025 may be larger if new offshore wind is procured under current law. This estimate does not reflect any (likely minimal) costs of purchasing Tier 2 RECs in 2021; under current law, Tier 2 terminated after 2020.

Source: Public Service Commission; Department of Natural Resources; Department of Legislative Services

Additional Information

Prior Introductions: HB 1392 of 2020, a similar bill, passed the House and was referred to the Senate Finance Committee, but no further action was taken. Its cross file, SB 677, received a hearing from the Senate Finance Committee, but no further action was taken.

Designated Cross File: HB 376 (Delegate Mautz) - Economic Matters.

Information Source(s): Public Service Commission; Maryland Energy Administration; Department of Natural Resources; Office of People Counsel; Department of Legislative Services

Fiscal Note History: First Reader - January 11, 2021
rh/lgc Third Reader - March 8, 2021

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Appendix – Renewable Energy Portfolio Standard

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 and offshore wind. Electric companies (utilities) and other electricity suppliers must submit renewable energy credits (RECs) equal to a percentage specified in statute each year or else pay an alternative compliance payment (ACP) equivalent to their shortfall. Historically, the requirements have been met almost entirely through RECs, with negligible reliance on ACPs. The Maryland Energy Administration must use ACPs to support new renewable energy sources.

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. In 2021, the requirements are 30.8% for Tier 1 sources, including at least 7.5% from solar. Tier 2, which has been extended several times, terminated after 2020.

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 three-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.

Tier 1 sources include wind (onshore and offshore); 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; and thermal energy from a thermal biomass system. Eligible solar sources include photovoltaic cells and residential solar water-heating systems commissioned in fiscal 2012 or later. Tier 2, when it was in effect, eventually included only large hydroelectric power plants.

RPS Compliance

According to the most recent RPS compliance [report](#) on PSC’s website, electricity suppliers retired 11.4 million RECs at a cost of \$134.5 million in 2019, as average REC prices rose from their 2018 levels, as shown in **Exhibit 1**.

Exhibit 1
RPS Compliance Costs and REC Prices
2015-2019

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Compliance Costs (\$ Millions)					
Tier 1 Nonsolar	\$85.1	\$88.2	\$50.0	\$56.4	\$79.3
Tier 1 Solar	39.1	45.6	21.3	27.4	55.2
Tier 2	<u>2.6</u>	<u>1.4</u>	<u>0.7</u>	<u>1.0</u>	<u>.06</u>
Total	\$126.7	\$135.2	\$72.0	\$84.8	\$134.5
Average REC Price (\$)					
Tier 1 Nonsolar	\$13.87	\$12.22	\$7.14	\$6.54	\$7.77
Tier 1 Solar	\$130.39	\$110.63	\$38.18	\$31.91	\$47.26
Tier 2	\$1.71	\$0.96	\$0.47	\$0.66	\$1.05

REC: renewable energy credit

RPS: Renewable Energy Portfolio Standard

Note: Numbers may not sum to total due to rounding.

Source: Public Service Commission

In 2019, wind (43%), black liquor (23%), small hydroelectric (11%), municipal solid waste (11%), and wood and waste solids (7%) were the primary energy sources used for Tier 1 RPS compliance. Maryland facilities generated 4.7 million RECs in 2019: approximately 2.5 million Tier 1 RECs and 2.2 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.

Pursuant to Chapter 393 of 2017, the Power Plant Research Program in the Department of Natural Resources has released its final report on a comprehensive study of the RPS. The report contains historical data but also looks at future scenarios. The report can be found [here](#) or on the department's website.