

Department of Legislative Services
 Maryland General Assembly
 2022 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 624
 Economic Matters

(Delegate Brooks)

Electricity - Standard Offer Service - Renewable Energy

This bill requires an electric company, beginning in 2023, to enter into long-term contracts of 10 to 20 years with renewable energy facilities, as specified, in order to meet at least 25% of the annual Renewable Energy Portfolio Standard (RPS) for the electricity provided to standard offer service (SOS) customers. Among other things, the bill requires an electric company to (1) sell energy it has purchased and the renewable energy credits (RECs) it has contracted for; (2) net the costs of its long-term contract payments against the proceeds obtained from the sales; and (3) credit or charge the difference to the company’s distribution customers. Contracts must be submitted to the Public Service Commission (PSC) for review and approval. By March 31, 2023, PSC must adopt implementing regulations. The bill applies prospectively and does not apply to any contract for electricity supply before the bill’s effective date.

Fiscal Summary

State Effect: Special fund expenditures increase by \$500,000 annually beginning in FY 2023; special fund revenues increase correspondingly from assessments imposed on public service companies. The effect on State expenditures for electricity cannot be reliably estimated at this time, as discussed under Additional Comments.

(in dollars)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
SF Revenue	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
SF Expenditure	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Net Effect	\$0	\$0	\$0	\$0	\$0

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

Local Effect: The effect on local expenditures for electricity cannot be reliably estimated at this time, as discussed under Additional Comments. Local revenues are not affected.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary:

Requirements to Contract with Renewable Energy Facilities

Beginning in 2023, an electric company must contract for RECs and electricity generated from energy from a Tier 1 renewable source, as specified, to meet a portion of the electric company's RPS. An electric company must (1) solicit bids for a contract from renewable energy facilities that will be placed into service within three years after the date of the solicitation (PSC may extend this requirement by up to one year for good cause); (2) use a competitive procurement process to award the contract; (3) receive annual compensation equal to 1% of the annual payments under the contract (to compensate the electric company for accepting the financial obligation of the long-term contract); and (4) be entitled to account for the purchase of renewable energy generation under the bill, including the RECs and solar RECs (SRECs), as a regulatory asset rather than as debt. (The bill further specifies that an electric company may not earn an additional return on a purchase that is treated as a regulatory asset).

Beginning in 2023, the RECs, SRECs, and electricity contracted for under the bill must be used to meet at least 25% of that year's and each subsequent year's RPS for the electricity that the electric company provides to the company's SOS customers. The 25% standard must be applied equally to the annual RPS amount required to be derived by solar energy in 2023 and subsequent years.

Requirements to Sell Purchased Energy and Renewable Energy Credits

An electric company must (1) sell purchased energy into the wholesale spot market and (2) sell all RECs and SRECs contracted for, as specified. For the sale of any purchased energy into the wholesale spot market and the sale of RECs, an electric company must (1) net the cost of payments made to projects under the long-term contracts against the proceeds obtained from the sale of energy and RECs and (2) credit or charge the difference to all distribution customers, as specified.

PSC Authority Over Contracts

Before awarding a contract under the bill, an electric company must submit the contract to PSC for review and receive PSC approval. PSC must approve a contract submitted under the bill if it determines that the contract is cost-effective as compared to the long-term projection of renewable energy costs. A contract awarded under the bill is subject to PSC's regulatory authority.

Reporting Requirements

Beginning in 2024, PSC must report each year by December 1 to the General Assembly on the impact of the bill on the energy and REC markets, as specified, and recommend any program changes necessary to support the REC market in the State.

Exemption for Electric Cooperatives

The bill's requirements do not apply to an electric cooperative that chooses to continue to supply its SOS load through a portfolio of blended wholesale supply contracts and other appropriate electricity products and strategies, as specified.

Current Law: The Electric Customer Choice and Competition Act of 1999 (Chapters 3 and 4) facilitated the restructuring of the electric utility industry in Maryland. The resulting system of customer choice allows the customer to purchase electricity from a competitive supplier or to continue receiving electricity under SOS. Default SOS electric service is provided by a customer's electric company. Competitive electric supply is provided by competitive electricity suppliers. In either case, the electric company delivers the electricity and recovers the costs for delivery through distribution rates. Electric companies are not required to directly contract for RECs and associated electricity to meet RPS requirements. SOS customers pay for RECs indirectly through their SOS rates. Municipal electric utilities have the option to participate in customer choice (but do not).

For more information on the State's RPS, see the **Appendix – Renewable Energy Portfolio Standard**.

State Fiscal Effect: PSC advises that it currently does not have the expertise or software necessary to perform the required cost-effectiveness assessments. PSC further advises that establishing the proceedings necessary to review submitted contracts requires additional resources that cannot be absorbed within existing resources. Accordingly, special fund expenditures for PSC increase by \$500,000 annually beginning in fiscal 2023 for consultant services. Special fund revenues increase correspondingly from assessments imposed on public service companies.

PSC advises that even with additional resources for consultant services, the earliest that PSC could reasonably adopt comprehensive regulations would be mid-2024 or later.

Assuming that the scope of the analyses conducted by PSC's consultants is sufficient, the Office of People's Counsel (OPC) is able to evaluate the analyses within the context of OPC's participation in the proceedings using existing resources. However, to the extent OPC also requires consultant services, any costs incurred would also be recovered from assessments imposed on public service companies.

Small Business Effect: To the extent the bill encourages the development and long-term viability of new renewable energy facilities, small businesses involved in renewable energy development and renewable energy operations potentially benefit meaningfully. While the effect on electric rates paid by small businesses cannot be reliably estimated at this time, small businesses with significant electricity needs are more exposed to changes in electric rates.

Additional Comments: The effect on electricity rates (which affects all users of electricity, including the State, local governments, and small businesses) resulting from the bill's requirements cannot be reliably estimated at this time. The overall effect on rates depends in part upon the price differentials between the long-term contracts and market prices over the course of the contract period. Potential price impacts may be mitigated due to the requirement that PSC review and approve contracts for cost-effectiveness and otherwise utilize its regulatory authority over contracts entered into under the bill.

Additional Information

Prior Introductions: None.

Designated Cross File: SB 334 (Senator Feldman) - Finance.

Information Source(s): Office of People's Counsel; Public Service Commission; Department of Legislative Services

Fiscal Note History: First Reader - February 20, 2022
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, beginning in 2023, new geothermal systems. 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. The Maryland Energy Administration (MEA) must use ACPs for purposes related to renewable energy, as specified.

In 2022, the requirements are 30.1% from Tier 1 sources, including at least 5.5% from solar, and 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 an additional 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 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.

Eligible Sources

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 includes only large hydroelectric power plants.

Chapter 673 of 2021 excluded black liquor, or any product derived from black liquor, from Tier 1 beginning in 2022. Chapter 691 of 2021 included raw or treated wastewater used as a heat source or sink for heating or cooling in Tier 1 beginning in 2021.

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

Electricity suppliers retired 14.3 million RECs at a cost of \$223.2 million in 2020, as shown in **Exhibit 1**. This continues a multi-year trend of increasing compliance costs and, generally, average REC prices. Notably, the solar carve-out (\$122.9 million) cost was higher than the remaining Tier 1 requirement (\$99.8 million) – the first time since 2011.

In 2020, wind (56.7%), municipal solid waste (11.8%), black liquor (11.5%), and small hydroelectric (8.5%) were the primary energy sources used for Tier 1 RPS compliance. This continues a multi-year trend of increasing reliance on wind energy. Maryland facilities generated 4.3 million RECs in 2019: approximately 2.7 million Tier 1 RECs and 1.7 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
2016-2020

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Compliance Costs (\$ Millions)					
Tier 1 Nonsolar	\$88.2	\$50.0	\$56.4	\$79.3	\$99.8
Tier 1 Solar	45.6	21.3	27.4	55.2	122.9
Tier 2	<u>1.4</u>	<u>0.7</u>	<u>1.0</u>	<u>0.06</u>	<u>0.4</u>
Total	\$135.2	\$72.0	\$84.8	\$134.5	\$223.2
Average REC Price (\$)					
Tier 1 Nonsolar	\$12.22	\$7.14	\$6.54	\$7.77	\$8.24
Tier 1 Solar	110.63	38.18	31.91	47.26	66.10
Tier 2	0.96	0.47	0.66	1.05	1.06

REC: renewable energy credit

RPS: Renewable Energy Portfolio Standard

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

Source: Public Service Commission

Related Studies Reports

PSC must submit an RPS compliance report to the General Assembly each year. The most recent report, which contains historical data through 2020, 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](#). A supplemental study on the overall costs and benefits of increasing the RPS to a goal of 100% by 2040 is due by January 1, 2024.

Chapter 164 of 2021 required MEA to staff a new Geothermal Energy Workgroup and complete a technical study on the potential impact of expanding and incentivizing the use of geothermal heating and cooling systems in the State. The Act required a related report to be submitted to the General Assembly by December 1, 2021.