

Department of Legislative Services
 Maryland General Assembly
 2021 Session

FISCAL AND POLICY NOTE
 First Reader

House Bill 743 (Delegate Dumais)
 Economic Matters

Electricity - Standard Offer Service - Renewable Energy

This bill requires electric companies, beginning in 2022, to contract for renewable energy credits (RECs) and electricity generated from specified “Tier 1” renewable sources under the State’s Renewable Energy Portfolio Standard (RPS) to meet a portion of the RPS applicable to their standard offer service (SOS). Eligible sources are solar, wind, geothermal, ocean, and small hydroelectric. Beginning in 2023, RECs and contracted electricity must be used to meet at least 50% of each year’s RPS requirement for the electricity provided through SOS. Contracts must have a minimum duration of 10 years and a maximum duration of 20 years. Contracts must be submitted to the Public Service Commission (PSC) for review and approval. If PSC determines that a contract is cost-effective as compared to the long-term projection of renewable energy costs, PSC must approve the contract. PSC must adopt implementing regulations. The bill (1) does not apply to a specified electric cooperative (Choptank) and (2) applies only prospectively.

Fiscal Summary

State Effect: Special fund expenditures for PSC increase by \$125,000 annually beginning in FY 2022 for consultant services. Special fund revenues increase correspondingly from assessments imposed on public service companies. The effect on electricity prices is discussed separately below, but PSC advises the effect is likely limited.

(in dollars)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
SF Revenue	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
SF Expenditure	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
Net Effect	\$0	\$0	\$0	\$0	\$0

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

Local Effect: Assuming municipal electric utilities are not required to contract for renewable energy like most other electric companies because they do not participate in retail customer choice, the bill likely does not materially affect local finances or operations.

Small Business Effect: Minimal.

Analysis

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 RPS-related information, see the **Appendix – Renewable Energy Portfolio Standard**.

State Fiscal Effect: PSC advises that it does not currently have the expertise necessary to conduct long-term REC price modeling necessary to evaluate potential contracts under the bill. Therefore, special fund expenditures for PSC increase by \$125,000 annually beginning in fiscal 2022 for consultant services to conduct the required analysis; this estimate is based on the cost of PSC's existing SOS consultant contract. Special fund revenues increase correspondingly from assessments imposed on public service companies.

The Office of People's Counsel did not indicate any additional costs as a result of the bill; however, any costs incurred would also be recovered from assessments imposed on public service companies.

Local Fiscal Effect: The applicability of the bill to municipal electric utilities is unclear. Municipal electric utilities fall under the definition of "electric company," but they are not required to participate in retail customer choice (where the concept of SOS is established). The bill requires electric companies to contract for renewable energy based off the electricity provided to their SOS customers. As such, this analysis assumes that municipal electric utilities are not affected (as advised by PSC). Under this assumption, the bill likely does not materially affect local government finances or operations.

Small Business Effect: While the effect on electric rates paid by small businesses cannot be reliably estimated at this time, the overall effect on small businesses is likely minimal. Small businesses with significant electricity needs, such as a small manufacturing business, are more exposed to changes in electric rates.

Additional Comments: The bill requires electric companies to enter into long-term contracts for RECs and electricity; these are commonly referred to as power purchase

agreements (PPAs). PPAs lock electric companies into paying set prices over time, typically with some sort of annual price escalator. Generally, these long-term PPAs create the possibility that ratepayers will pay prices that are higher or lower than the market price of other energy during the contract term. To be clear, regardless of the fact that PSC must approve PPAs under the bill if they are determined to be cost-effective at the time of approval, actual future rates could be higher or lower than they otherwise would have been due to the bill. This is the risk created by PPAs.

The effect on rates in a given future year depends on the price in the contract relative to the prices that would have otherwise been paid. This could be affected by a number of factors, including the price of natural gas, technological change, and changes to State and/or federal law. Due to these unknown factors, the bill's effect on electricity rates cannot be reliably estimated at this time. Nevertheless, PSC advises the effect on electricity prices is likely limited.

The bill does not specify what happens in the event that prospective contracts are not determined by PSC to be cost-effective, as the 50% contracting requirement remains, but PSC is not required to approve contracts that are not cost-effective.

Additional Information

Prior Introductions: None.

Designated Cross File: None.

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

Fiscal Note History: First Reader - February 16, 2021
rh/lgc

Analysis by: Stephen M. Ross

Direct Inquiries to:
(410) 946-5510
(301) 970-5510

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.