SB 910

Department of Legislative Services

Maryland General Assembly
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FISCAL AND POLICY NOTE
First Reader

Senate Bill 910 (Senator Feldman)
Finance

Ratepayer Reduction for Renewable Energy Act

This bill requires electric companies, beginning in 2020, to contract for renewable energy credits (RECs) and electricity generated from specified renewable sources. Beginning in 2022, the contracts must meet at least 50% of that year's requirement under the State Renewable Energy Portfolio Standard (RPS) for the electricity that each company provides its customers through standard offer service (SOS). Contracts are subject to review and approval by the Public Service Commission (PSC).

Fiscal Summary

State Effect: Special fund expenditures increase by $250,000 in FY 2020 and by $100,000 annually thereafter. Special fund revenues increase correspondingly from assessments imposed on public service companies. PSC can handle the bill's requirements with existing budgeted resources. The effect on State expenditures for electricity cannot be reliably estimated at this time, but is likely minimal.

(in dollars)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
SF Revenue	$250,000	$100,000	$100,000	$100,000	$100,000
SF Expenditure	$250,000	$100,000	$100,000	$100,000	$100,000
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 bill does not materially affect local government finances or operations.

Small Business Effect: Minimal, as discussed below.

Analysis

Bill Summary: Beginning in 2020, notwithstanding specified provisions of current law, regulations, or PSC orders, an electric company must contract for RECs and electricity from specified solar, wind, water, and geothermal sources. The length of the contracts must be at least 10 years and may be up to 20 years. An electric company must (1) solicit bids from renewable energy facilities that will be placed into service within 3 years; (2) use a competitive procurement process; and (3) submit a proposed contract to PSC for review and approval. PSC must approve the contract if it finds that the contract is cost-effective as compared to the long-term projection of renewable energy costs.

PSC must adopt regulations to implement the bill by March 31, 2020.

Current Law/Background: 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.

To provide SOS, electric companies solicit bids for electricity through a series of rolling auctions every six months. At any one time, the SOS rate reflects the average of four separate auctions held over two years, which has a moderating effect on rate changes.

Electric companies are not required to directly contract for RECs and associated electricity to meet RPS requirements. PSC advises that currently, electric companies meet their RPS requirements through their SOS contract bidding, with wholesale electricity suppliers required to meet RPS requirements through their bids for their portion of electricity supplied. Under the current system, SOS customers pay for RECs indirectly through their SOS rates.

Renewable Energy Portfolio Standard

Maryland's RPS was enacted in 2004 to facilitate a gradual transition to renewable sources of energy. There are specified eligible ("Tier 1") sources as well as carve-outs for solar and offshore wind. Electric companies (utilities) and other electricity suppliers must submit RECs equal to a percentage specified in statute each year or else pay a fee equivalent to their shortfall. The percentage requirements gradually increase to a minimum of 25%, including 2.5% from solar sources, by 2020. In 2019, the requirements are 20.4%, including at least 1.95% from solar energy. For more information, see the **Appendix – Maryland's Renewable Energy Portfolio Standard.**

State Fiscal Effect: The bill requires a portion of SOS to be contracted for under long-term power purchase agreements (PPAs), beginning in 2020, with a minimum of 50% beginning in 2022. PSC can draft the required regulations and oversee the ongoing process of renewable energy procurement with existing budgeted resources.

Special fund expenditures for the Office of People's Counsel (OPC) increase by $150,000 in fiscal 2020 for consultant costs associated with the regulations that must be drafted by PSC and by $100,000 annually for consultant costs for OPC to evaluate SOS contract bids. This estimate assumes one procurement process per year for each electric company and assumes efficiencies are gained from reviewing multiple bids. The actual timing of consultant costs may vary from this estimate. 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, which is further discussed below, but is likely minimal.

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: Based on information provided by PSC, electric companies must likely contract for about 5% to 6% of total retail electric sales in the State to meet the minimum 50% requirement beginning in 2022.

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. 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. REC prices can be especially volatile, an excellent example being the decrease in solar REC prices from nearly $200 in September 2015 to $5 in September 2017. Due to these unknown factors, the bill's effect on electricity rates cannot be reliably estimated at this time.

To be clear, regardless of the fact that PSC can only approve PPAs under the bill if they appear 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. As an illustrative example, a PPA entered into in 2015 that incorporated a fixed solar REC price of $100 could be considered cost-effective based on prices at the time, but not based

on more recent prices. However, electric customers would continue to pay for solar RECs based on the (higher) price negotiated in the PPA. The effect could work in either direction.

Additional Information

Prior Introductions: SB 391 of 2018, a similar bill, received an unfavorable report from the Senate Finance Committee. Its cross file, HB 967, received a hearing from the House Economic Matters Committee, but no further action was taken. SB 1043 of 2017, a similar bill, received a hearing from the Senate Finance Committee, but no further action was taken. Its cross file, HB 1452, received a hearing from the House Economic Matters Committee but was withdrawn.

Cross File: HB 879 (Delegate Clippinger, *et al.*) - Economic Matters.

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

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Appendix – Maryland's 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") 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.

The percentage requirements gradually increase to a minimum of 25%, including 2.5% from solar sources, by 2020. In 2019, the requirements are 20.4%, including at least 1.95% from solar energy.

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-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.

Prior to 2019, there was also a Tier 2 in RPS, with separate percentage requirements (2.5% annually). Tier 2, which eventually included only large hydroelectric power plants, provided a smaller monetary incentive than Tier 1 and terminated at the end of 2018.

RPS Compliance

According to the most recent RPS compliance report on PSC's website, electricity suppliers retired approximately 9.0 million RECs at a cost of $72.0 million in 2017. This is a significant decrease in costs and a deviation from the previous trend, as shown in **Exhibit 1**. Costs in 2016 and 2017 were based on a comparable total number of RECs; the decrease in compliance cost was due to REC prices. The price of nonsolar RECs used for compliance decreased from $12.22 to $7.14 during those years. Solar RECs prices decreased even more substantially, from $110.63 to $38.18.

In 2017, wind (43%), black liquor (24%), small hydroelectric (13%), municipal solid waste (10%), and wood and waste solids (7%) were the primary energy sources used for RPS compliance. Maryland facilities generated about 4.3 million RECs in 2017, which were used for compliance in Maryland and also in several other states; likewise, Maryland electricity suppliers used RECs from other states for compliance with Maryland's RPS.

Exhibit 1
Cost of RECs for RPS Compliance
($ in Millions)

	2012	2013	2014	2015	2016	2017
Tier 1 Nonsolar	$12.5	$32.7	$70.6	$85.1	$88.2	$50.0
Tier 1 Solar	11.3	21.4	29.4	39.1	45.6	21.3
Tier 2	0.7	2.8	4.0	2.6	1.4	0.7
Total	**$24.5**	**$56.8**	**$104.0**	**$126.7**	**$135.2**	**$72.0**

Note: Numbers may not sum to total due to rounding. Tier 2 terminated at the end of 2018.

REC: renewable energy credits
RPS: Renewable Energy Portfolio Standard

Source: Public Service Commission

Pursuant to Chapter 393 of 2017, the Power Plant Research Program in the Department of Natural Resources has released its December 2018 interim report on a comprehensive study of RPS. The report contains historical data but also looks at future scenarios. The report can be found here or on the department's website.