Department of Legislative Services

Maryland General Assembly
2019 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 961 (Delegate Mosby, *et al.*)
Economic Matters

Public Utilities - Renewable Energy Portfolio Standard - Tier 1 Sources

This bill removes waste-to-energy and refuse-derived fuel from eligibility for inclusion in the State's Renewable Energy Portfolio Standard (RPS) as a Tier 1 renewable source, effective January 1, 2020.

Fiscal Summary

State Effect: The bill does not materially affect State government finances or operations.

Local Effect: Beginning in FY 2020, revenues potentially decrease for local governments that own and operate facilities (or that will own/operate in the future) that use the energy sources removed from the RPS, as discussed below. Expenditures are not affected.

Small Business Effect: Minimal.

Analysis

Current Law/Background: 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 renewable energy credits (RECs) equal to a percentage specified in statute each year or else pay an alternative compliance payment 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.

About 10% of RECs submitted for compliance with the 2017 RPS (the most recent year for which data is available) were from municipal solid waste – the "waste-to-energy" source removed by the bill. The Public Service Commission is not aware of any "refuse derived fuel" facilities. For more information, see the **Appendix – Maryland's Renewable Energy Portfolio Standard**.

Local Fiscal Effect: Beginning in fiscal 2020, local governments that own and operate waste-to-energy or refuse-derived fuel facilities (or that will own/operate such facilities in the future) must sell the associated RECs to other states for compliance in those states, rather than Maryland. 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 due to foregone revenues. For example, based on current REC prices, Montgomery County estimates that its revenues decrease by about $2.0 million annually due to the bill excluding the RECs generated by its county-owned municipal solid waste facilities; however, the county advises that its current budget does not include REC revenue, in anticipation of this proposed change.

As some or all of these RECs could potentially be sold to another state in the future, the net effect on a particular local government cannot be reliably estimated at this time.

This analysis does not include any effects associated with private waste-to-energy companies, such as the Wheelabrator 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 Information

Prior Introductions: None.

Cross File: SB 548 (Senator Hough, *et al.*) - Finance.

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

Fiscal Note History: First Reader - March 1, 2019
md/lgc

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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 the 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 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.