

Department of Legislative Services  
Maryland General Assembly  
2021 Session

FISCAL AND POLICY NOTE  
First Reader

Senate Bill 316  
Finance

(Senator Klausmeier, *et al.*)

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Renewable Energy Portfolio Standard - Hydroelectric Power

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This bill indefinitely extends “Tier 2” of the State’s Renewable Energy Portfolio Standard (RPS) beyond its current expiration at the end of 2020. The Tier 2 percentage requirement is maintained at 2.5%, which makes the combined RPS total 2.5 percentage points more than under current law beginning in 2021. The bill must be construed to apply retroactively and must be applied to and interpreted to affect all compliance years that begin on or after January 1, 2021. **The bill takes effect June 1, 2021.**

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Fiscal Summary

**State Effect:** The bill does not materially affect State finances or operations; based on the historic costs of Tier 2 compliance, the effects on electricity prices are minimal.

**Local Effect:** The bill does not materially affect local government finances or operations.

**Small Business Effect:** Minimal.

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Analysis

**Current Law:** Tier 2 of Maryland’s RPS first expired at the end of 2018 but was subsequently reinstated by Chapter 757 of 2019. The reinstatement was effective from October 1, 2019, through 2020, which left a nine-month gap. Prior to its expiration, Tier 2 included only large hydroelectric sources. There is one facility in the State that qualifies as Tier 2 – at Conowingo Dam. For more general information, including the historic costs of Tier 2 compliance, see the **Appendix – Renewable Energy Portfolio Standard.**

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## **Additional Information**

**Prior Introductions:** SB 1032 of 2020, a similar bill, was referred to the Senate Finance Committee, but no further action was taken.

**Designated Cross File:** None.

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

**Fiscal Note History:** First Reader - January 12, 2021  
rh/lgc

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## Appendix – Renewable Energy Portfolio Standard

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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**.

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**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>
<b>Compliance Costs (\$ Millions)</b>					
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>
<b>Total</b>	<b>\$126.7</b>	<b>\$135.2</b>	<b>\$72.0</b>	<b>\$84.8</b>	<b>\$134.5</b>
<b>Average REC Price (\$)</b>					
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

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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.