

Department of Legislative Services  
 Maryland General Assembly  
 2010 Session

FISCAL AND POLICY NOTE

Senate Bill 1108 (Senator Garagiola)  
 Rules

**Electric Companies - Renewable Energy Portfolio Standard for Solar Energy**

This bill alters the current renewable energy portfolio standards (RPS) solar carve-out by requiring electric companies that are electricity suppliers to be solely responsible for meeting solar RPS instead of *all* electricity suppliers, as required by current law. Electric companies may recover costs to meet solar RPS in the form of a surcharge payable by all electric customers, with specified exceptions. The bill requires electric companies to purchase any available solar renewable energy credits (SRECs) from a small solar generator and also reduces the minimum length of the contract if SRECs are purchased directly from the owner of a solar electric generating facility. Electric companies are required to procure SRECs under short-term and long-term contracts and may enter into a long-term contract of up to 20 years, upon review and approval of the Public Service Commission (PSC).

**Fiscal Summary**

**State Effect:** Special fund expenditures for the Public Utility Regulation Fund increase by \$54,400 in FY 2011 for PSC to oversee SREC procurement by electric companies. Future year expenditures reflect inflation and annualization. Revenues are not directly affected.

(in dollars)	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	54,400	67,100	70,200	73,600	77,100
Net Effect	(\$54,400)	(\$67,100)	(\$70,200)	(\$73,600)	(\$77,100)

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

**Local Effect:** Local governments that currently own or may install solar electric generating facilities may benefit from the bill.

**Small Business Effect:** Potential meaningful.

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## Analysis

**Bill Summary:** PSC must require each electric company to enter into a prudent mix of short-term and long-term contracts that are appropriately structured to encourage the construction of solar electric generating facilities of all sizes. Subject to review and approval of PSC, an electric company may enter into a long-term contract of up to 20 years for the purchase of SRECs.

The bill requires an electric company to purchase any available SRECs produced from a renewable on-site generator with a capacity not exceeding 10 kilowatts by a single initial payment representing the full estimated production of the system for the life of the contract. PSC must determine the rate of such a payment for SRECs. If an electric company purchases SRECs directly from an on-site generator, the bill reduces the minimum required duration of the contract from 15 to 10 years.

**Current Law:** Maryland's RPS requires all electricity suppliers to meet a portion of their energy supply needs with eligible forms of renewable energy by accumulating "renewable energy credits" (RECs) created from various renewable energy sources classified as Tier 1 and Tier 2 renewable sources with a specified portion coming from solar sources. The solar carve-out must be met with SRECs.

Examples of Tier 1 sources include solar; wind; 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 a Tier 1 renewable source; and a small hydroelectric plant of less than 30 megawatts and poultry litter-to-energy. Examples of Tier 2 sources include hydroelectric and waste-to-energy. If electricity suppliers are unable to meet RPS through purchasing RECs, they must make an alternative compliance payment (ACP) to the Maryland Strategic Energy Investment Fund within the Maryland Energy Administration (MEA).

The term "*electricity suppliers*" includes any person who sells electricity; electricity supply services; competitive billing services; or competitive metering services; or a person who purchases, brokers, arranges, or markets electricity or electricity supply services for sale to a retail electric customers. This effectively includes individuals that own electric generating facilities as well as competitive electricity suppliers and remarketers. The term "*electric companies*" includes the local regulated utilities that own the "wires" portion of the electric system. Electric companies are responsible for the transmission and distribution of electricity and the procurement of standard offer service (SOS).

Electricity suppliers may purchase SRECs directly from the owner of a solar electric generating facility. If an electricity supplier does so, the duration of the contract term may not be less than 15 years. If the solar electric generating facility has a capacity of 10 kilowatts or less, the electricity supplier must purchase the SRECs with a single initial payment representing the full estimated production of the system for the life of the contract. PSC must determine the rate for such a payment.

**Background:** Maryland's RPS was established in 2004 in order to recognize the economic, environmental, fuel diversity, and security benefits of renewable energy resources; establish a market for electricity from those resources in Maryland; and lower consumers' cost for electricity generated from renewable sources. Chapter 120 of 2007 revised Maryland's RPS to include a solar carve-out, requiring that at least 0.005% of electricity in 2008 be from solar generation increasing to at least 2.0% in 2022. The Act also increased total Tier 1 requirements as a result of the added solar component. Chapters 125 and 126 of 2008 amended Maryland's RPS by increasing the percentage requirements of the Tier 1 RPS to equal 20% in 2022 and beyond.

Solar RPS works to encourage the development of solar electric generation by providing the owners of solar electric generating facilities with a payment for SRECs associated with their facilities. SRECs can be purchased and traded on an open exchange, allowing electricity suppliers to either purchase SRECs directly from solar generators or through a third-party reseller. SRECs can also be purchased by an electricity supplier through a long-term contract. The price of an SREC is effectively capped by the applicable ACP – what a supplier pays for a solar RPS shortfall. In the 2008 compliance year, SREC prices ranged from 75-85% of the ACP. Accordingly, the ACP was \$450 per megawatt hour, and Maryland SREC prices traded between \$340 and \$380. In 2009, the weighted average Maryland SREC price was 80% of the \$400 ACP.

The sale of SRECs through a long-term contract greatly benefits the owners of solar electric generating facilities by providing an upfront payment or guaranteed annual revenues. All owners of solar electric generating facilities benefit from an upfront payment for SRECs because it can be used to offset the initial costs of installing the generating facility. This benefit applies to both residential homeowners and small business owners that install solar panels as well as larger commercial-sized facilities. A long-term contract for the sale of SRECs particularly benefits individuals that seek to construct commercial-sized facilities as the guaranteed revenue source will assist these individuals in securing financing for the project.

The price of SRECs in future years depends greatly on the availability of SRECs in relation to the solar RPS requirement, and the ACP. Although the price of SRECs are currently valued at approximately 80% of ACP, if the amount of solar electric generation in the State increases greatly, the value of SRECs in future years will fall. Conversely, if

the availability of SRECs does not increase and there are not enough SRECs to meet solar RPS, the value of these SRECs may increase to nearly 100% of ACP in future years.

**State Fiscal Effect:** The bill requires PSC to oversee electric companies' procurement of SRECs in order to encourage the construction of solar electric generating facilities in the State. PSC advises that the process would likely be similar to the SOS procurement, which is administered by PSC, and will require PSC to implement a process for SREC procurement and to track performance. Accordingly, special fund expenditures from the Public Utility Regulation Fund increase by \$54,388 in fiscal 2011, which accounts for the bill's October 1, 2010 effective date. This estimate reflects the cost of hiring a regulatory economist to oversee SREC procurement by electric companies. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses.

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Salary and Fringe Benefits	\$47,495
Equipment and Operating Expenses	<u>6,893</u>
<b>Total FY 2011 PSC Expenditures</b>	<b>\$54,388</b>

Future year expenditures reflect full salaries with 4.4% annual increases and 3% employee turnover; and 1% annual increases in ongoing operating expenses.

**Local/Small Business Effect:** Establishing a process that encourages electric companies to enter into long-term contracts to purchase SRECs from the owners of solar electric generating facilities will provide a significant benefit to the owners of such facilities.

Additionally, small businesses involved with the manufacturing, distribution, and installation of solar panels stand to benefit from requiring long-term agreements to purchase SRECs.

**Additional Comments:** The cumulative impact of the bill depends partially on the terms under which electric companies acquire SRECs. If the SREC purchasing agreements entered into by electric companies end up being more costly in relation to the spot-market cost of SRECs in future years, electricity rates may be negatively affected as this cost will be paid by all electricity customers in the form of a surcharge. The cumulative impact will also depend on whether electric companies procure SRECs at a greater cost than would have been incurred by electricity suppliers, as required under current law. Generally, electricity suppliers procure SRECs without direct oversight of PSC. It is assumed that through competitive open markets, electricity suppliers have an incentive to meet solar RPS in the most cost-effective manner, since these costs affect profitability.

In addition to the actual cost of procuring SRECs, the cumulative impact of the bill will depend largely on whether requiring electric companies to procure SRECs results in a more efficient flow of monetary incentives to homeowners, small businesses, and investors to install solar panels.

To the extent requiring electric companies to procure SRECs in accordance with PSC guidance provides additional incentives for homeowners to install solar panels and for investors to construct commercial-sized solar electric generating facilities, the supply of SRECs will increase. The increase in supply of SRECs may decrease the overall value of SRECs, thereby reducing the cost incurred by electricity suppliers to meet solar RPS requirements. To the extent the availability of SRECs increases and the cost of solar RPS compliance decreases, all electricity customers in the State benefit from the reduced cost of compliance; however, increasing the supply (thereby decreasing the value) of SRECs will also reduce the income stream available to owners of solar generating facilities.

Also, to the extent that the availability of SRECs increases, electricity suppliers may be more likely to meet solar RPS through the purchase of SRECs in lieu of paying ACP. To the extent this occurs, special fund revenues from ACP to the Maryland Strategic Energy Investment Fund within MEA will decrease.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** HB 1534 (Delegate Hecht) - Economic Matters.

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

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ncs/lgc

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