

Department of Legislative Services
Maryland General Assembly
2011 Session

FISCAL AND POLICY NOTE

House Bill 1123
Economic Matters

(Delegate Feldman, *et al.*)

Public Service Commission - Long-Term Contracts - Solar Renewable Energy Credits

This bill requires the Public Service Commission (PSC), by regulation or order, to require or allow the procurement of solar renewable energy credits (SRECs) under long-term contracts as part of the competitive process used for procurement of wholesale energy supply for standard-offer-service (SOS). In determining a requirement to procure SRECs through a long-term contract, PSC must consider the current percentage of renewable energy portfolio standard (RPS) fulfilled by SRECs. PSC must also consider the effect that requiring the procurement of SRECs under long-term contracts will have on (1) achieving the solar RPS requirements; (2) the potential impact on customer bills; (3) the legislative intent and findings of the Act establishing RPS; and (4) any other issues PSC considers relevant.

The bill takes effect July 1, 2011.

Fiscal Summary

State Effect: PSC can implement the bill with existing budgeted resources. Revenues are not directly affected.

Local Effect: None.

Small Business Effect: Potential meaningful.

Analysis

Current Law:

Renewable Energy Portfolio Standards

Maryland's RPS requires that renewable sources generate specified percentages of the State's electricity supply each year, increasing to 20%, including 2% from solar power, by 2022. Electricity suppliers must accumulate "renewable energy credits" (RECs) equal to the percentage mandated by statute each year, or pay an alternative compliance payment (ACP) equivalent to the supplier's shortfall. RECs are classified as Tier 1, Tier 2, or solar RECs. 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; 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.

Electricity suppliers may purchase SRECs to satisfy solar RPS requirements 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.

Legislative Intent and Findings of the Act Establishing RPS

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. The General Assembly finds that the benefits of electricity from renewable sources, including long-term decreased emissions, a healthier environment, increased energy security, and decreased reliance on and vulnerability from imported energy sources, accrue to the public at large. Additionally, electricity suppliers and consumers share an obligation to develop a minimum level of these resources in the electricity portfolio of the State.

Standard Offer Service

SOS is provided by local electric companies (*i.e.*, investor-owned utilities) who own the "wires" portion of the electric system. To obtain the best price for SOS for residential

and small commercial customers, PSC may require each electric company to obtain its electricity supply for SOS through a competitive process. PSC may also require or allow an investor-owned electric company to procure electricity for these customers directly from an electricity supplier through one or more bilateral contracts outside the competitive process. Under the Code of Maryland Regulations (COMAR 20.52.04.01), PSC determines the model request for proposals (RFP) to be used for SOS electricity procurement, and electric companies submit a utility bid plan based on the model RFP. The model RFP may not be altered unless it is necessary to conform to utility-specific conditions.

The procurement of supply for SOS is accomplished through a series of bidding auctions during the year for blocks of supply. The SOS product can (1) include a blended portfolio of short-, medium-, and long-term contracts to address different portions of customer load; and (2) include cost-effective energy-efficiency and conservation measures. Also, the names of successful bidders in the auction must be disclosed. For residential service, the commission currently requires electric companies to use a series of rolling two-year contracts auctioned four times each year.

Background:

Renewable Energy Portfolio Standards

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. Chapter 494 of 2010 increased the solar RPS percentages and the ACP payment amounts for the solar RPS from 2011 through 2016, accelerating the ramp up of the solar RPS obligation and increasing the incentive for the installation of solar capacity. To meet the 2% solar obligation in 2022 with SRECs, the installed solar capacity in the State will need to increase from roughly 5 megawatts or less at the end of 2009 to an estimated 1,300 megawatts in 2022.

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. Based on RECs retired by electricity suppliers, for the 2009 compliance year, SREC prices have averaged 86% of the ACP.

Accordingly, the ACP was \$400 per megawatt hour, and Maryland SRECs were retired with an average cost of \$346.

The Value of SRECs

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 86% 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. Long-term contracts for SRECs may offer savings or may potentially increase costs for electricity, depending on the amount paid for SRECs through the long-term contract and the future value of SRECs.

During fiscal 2010, \$1.6 million in revenues from ACP paid by electricity suppliers was used to fund new Tier 1 renewable energy sources in Maryland. These grants supported the installation of 1,386 kilowatts of geothermal capacity, 43 kilowatts of solar photovoltaic (PV) capacity, and 62 kilowatts of wind energy capacity.

Standard Offer Service

As shown in **Exhibit 1**, the percentage of customers receiving competitive service has increased significantly since December 2006.

Exhibit 1
Percentage of All Customers Served by Electricity Suppliers

<u>Customer Class</u>	<u>December 2006</u>	<u>December 2007</u>	<u>December 2008</u>	<u>December 2009</u>	<u>December 2010</u>
Residential	2.3%	2.8%	2.8%	5.0%	13.5%
Small Commercial & Industrial	21.1%	22.5%	17.3%	23.2%	27.9%
Mid Commercial & Industrial	51.2%	52.8%	47.0%	50.9%	54.4%
Large Commercial & Industrial	87.9%	89.0%	87.0%	88.6%	88.2%
Total	4.7%	5.3%	5.1%	7.6%	15.7%

Source: Public Service Commission

Exhibit 2 shows the number of customers that are currently served by competitive electricity suppliers and that still receive SOS in each service territory. Although the number of customers receiving competitive supply has increased significantly in the past two years, 1.9 million electric customers still buy electricity through SOS.

Exhibit 2
Electric Customers Served by Competitive Suppliers and SOS
December 2010

<u>Distribution Utility</u>	<u>Customers with Competitive Supply</u>	<u>SOS Customers</u>	<u>Total Customers</u>
Allegheny Power	19,922	235,059	254,981
Baltimore Gas and Electric	226,384	1,011,109	1,237,493
Delmarva Power & Light	20,519	185,278	205,797
Potomac Electric Power	83,904	454,377	538,281
Total	350,729	1,885,823	2,236,552

Source: Public Service Commission

Small Business Effect: To the extent long-term contracts for SRECs are entered into as a result of the bill, owners of solar electric generating facilities may receive an up-front payment for the SRECs associated with the facility, for the life of the facility. Increasing monetary incentives for individuals to install solar electric generating facilities reduces the lifecycle cost of the project. As a result, small businesses involved with the manufacturing, distribution, and installation of solar electric generating equipment stand to benefit.

Additional Information

Prior Introductions: None.

Cross File: SB 715 (Senator Garagiola, *et al.*) - Finance.

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

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