

Department of Legislative Services  
Maryland General Assembly  
2007 Session

**FISCAL AND POLICY NOTE**

Senate Bill 293  
Finance

(Senator Lenett, *et al.*)

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**Renewable Energy Portfolio Standard and Procurement of Renewable Energy -  
Solar Energy**

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This bill alters Renewable Energy Portfolio Standards (RPS) by increasing Tier 1 renewable energy requirements, creating an RPS solar energy component requirement, and establishing shortfall compliance fees for the solar energy requirement. The bill also requires the Department of General Services (DGS) to adopt regulations requiring at least 25% of the electricity supply purchased for use by State units be procured from renewable energy resources beginning January 1, 2010. Contracts to procure renewable energy for State units cannot exceed a term limit of 15 years.

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**Fiscal Summary**

**State Effect:** *Under one set of assumptions*, general fund expenditures could increase by \$3.4 million in FY 2010 and \$6.7 million annually thereafter. Other requirements of the bill could be handled with existing resources.

**Local Effect:** Local government expenditures on electricity would be impacted to the extent that rates for electricity are affected.

**Small Business Effect:** Potential meaningful benefit.

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**Analysis**

**Bill Summary:** The bill requires an electricity company to include increased amounts of Tier 1 renewable energy as part of its portfolio of generating fuels for retail sales. The bill also requires that a portion of an electricity company's generating fuels be comprised of solar derived energy. An electricity supplier will no longer receive double credit

toward meeting the RPS for energy derived from solar energy. Shortfall charges for Tier 1 renewable energy components remain unchanged and shortfall charges for the required solar energy component are \$.10 per kilowatt-hour. In 2020 the Tier 2 renewable energy requirement is removed. The new Tier 1 renewable energy requirement and solar energy requirement are as follows:

### **Renewable Energy Portfolio Standards**

<u>Year</u>	<u>Tier 1 Current RPS</u>	<u>Tier 1 SB 293 RPS</u>	<u>Solar Energy SB 293 RPS</u>
2006	1.0%	1%	
2007	1.0%	1%	
2008	2.0%	2%	
2009	2.0%	2%	
2010	3.0%	4%	0.0824%
2011	3.0%	4%	0.0824%
2012	4.0%	6%	0.1658%
2013	4.0%	6%	0.1658%
2014	5.0%	8%	0.2492%
2015	5.0%	8%	0.2492%
2016	6.0%	10%	0.3320%
2017	6.0%	10%	0.3320%
2018	7.0%	12%	0.4166%
2019	7.5%	12%	0.4166%
2020	N/A	15%	0.5000%
2021	N/A	15%	0.5000%
2022	N/A	17%	1.0000%
2023	N/A	17%	1.0000%
2024	N/A	19%	1.5000%
2025	N/A	19%	1.5000%
2026	N/A	21%	2.0000%
2027	N/A	21%	2.0000%
2028	N/A	23%	2.5000%
2029	N/A	23%	2.5000%
2030+	N/A	25%	3.0000%

The bill also requires DGS to adopt regulations requiring at least 25% of the electricity supply procured for each unit of State government be from renewable resources by January 1, 2010.

**Current Law:** RPS was established with the intent of recognizing the economic, environmental, fuel diversity, and security benefits of renewable energy resources, establishing a market for electricity from those resources in Maryland, and lowering consumers’ cost for electricity from renewable sources. RPS is implemented by the

Public Service Commission (PSC) and applies to all retail electricity sales in the State by electricity suppliers, subject to certain exceptions.

An electricity supplier must meet RPS by accumulating renewable energy credits (commodities equal to the renewable energy generation attributes of one megawatt-hour of electricity) created from various renewable energy sources classified as Tier 1 and Tier 2 renewable sources. Tier 1 renewable sources include solar, wind, qualifying biomass, methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant, and geothermal sources. Tier 2 renewable sources include hydroelectric power other than pump storage generation, incineration of poultry litter, and waste-to-energy sources.

Electricity suppliers not able to accumulate enough renewable energy credits must pay a specified amount per kilowatt hour for any shortfall from RPS. These compliance fees are paid into the Maryland Renewable Energy Fund, the money from which is intended to be used to make loans and grants for the creation of renewable energy sources in the State. Electricity companies have been allowed to apply for retroactive renewable energy credits for Tier 1 or Tier 2 energy generated in 2004 or 2005. These renewable energy credits can be banked for up to three years, so they can be used for compliance year 2007.

**Background:** RPS was established by Chapters 487 and 488 of 2004 and was first applicable to electricity sales in 2006. The Maryland Energy Administration is required to publish an update on the status of the implementation of the RPS by February 1 of each year. The first compliance year of RPS concluded on December 31, 2006. Data from electricity suppliers is due by April 1, 2007 so annual compliance and accompanying fees cannot be evaluated at this time.

PSC advises that the cost of renewable energy credits is well below the cost of compliance fees that would have to be paid for a shortfall and therefore expects most electricity suppliers to meet RPS rather than pay compliance fees in fiscal 2007. This is partially due to the availability of retroactive credits. Collection of compliance fees in fiscal 2008 and future years should generally depend on the market price and availability of renewable energy credits.

A recent analysis by the Department of Natural Resources' Power Plant Research Program of available Tier 1 and Tier 2 resources indicates that there are ample Tier 1 and Tier 2 resources in PJM's adjacent states to satisfy Maryland's requirements through 2019. However, beginning in 2011 for Tier 1 and in 2012 for Tier 2, there may be insufficient resources in PJM to satisfy the combined requirements of Pennsylvania, New Jersey, and Delaware, especially if New Jersey moves forward with plans to increase its RPS to 18% by 2020.

The Department of Natural Resources also reports that while Maryland does not currently have a specific solar requirement, there appears to be insufficient resources to meet the solar electricity requirements of the Pennsylvania, New Jersey, and the District of Columbia RPSs. Due to the relatively high cost of solar technology and the small size of installed units, barring a specific solar requirement, Maryland electricity suppliers are not likely to seek out solar renewable energy credits (SREC) for compliance under the RPS, despite the 200% bonus currently given to SRECs in Maryland.

A 2004 analysis of a proposed 20% RPS requirement prepared for the New Jersey Board of Public Utilities – Office of Clean Energy by Rutgers University and the Center for Energy, Economic & Environmental Policy, found that under the most likely scenario RPS would raise electricity prices by 3.7% in 2020 and would have a negligible impact on the growth of New Jersey's economy. The proposed 20% RPS would lower natural gas prices for consumers in New Jersey by reducing the burning of the fuel in power generation. Also, under the 20% RPS, the location in New Jersey of all of the manufacturing, operations, and maintenance facilities and employees needed to support the renewable energy infrastructure would add 11,700 jobs and attenuate economic benefits to the New Jersey economy.

**State Fiscal Effect:** The actual cost of the bill cannot be reliably ascertained and depends on the development of markets for renewable energy credits and availability of renewable energy generation. To the extent that RPS requirements in states within the PJM network exceeds growth in renewable energy generation, prices may increase. *For illustrative purposes only*, State expenditures on electricity may increase \$6.75 million annually beginning in fiscal 2011 (\$3.38 million in fiscal 2010 accounting for the January 1, 2010 compliance date). This estimate is based on the following assumptions.

- DGS meets the required 10% improvement in the energy efficiency of State buildings by 2010 and remains constant at 1.35 billion kilowatts.
- The current price premium of Tier 1 renewable energy sources remains constant at \$.02 cents per kilowatt hour.
- A \$2.48 million increase in the cost of electricity purchased by DGS for the University System of Maryland.

**Small Business Effect:** An increase in Tier 1 and a creation of a solar RPS requirement will benefit businesses producing equipment or providing services in the renewable energy industry. British Petroleum Solar recently completed a \$25 million expansion of its Frederick, Maryland manufacturing facility, doubling its capacity.

## Additional Information

**Prior Introductions:** None.

**Cross File:** None.

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

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