

House Bill 1308

Electricity Regulation - Renewable Energy Portfolio Standard and Credit Trading  
- Maryland Renewable Energy Fund

**SPONSORS:**

The Speaker, et al.

**COMMITTEE RECOMMENDATION:**

**FAVORABLE WITH AMENDMENTS**

As amended, House Bill 1308 establishes a renewable portfolio standard applicable to electricity sold at retail in the State, starting in 2006, from qualified Tier 1 and Tier 2 renewable sources.

It directs the PSC to establish a market-based renewable energy credit system. The bill establishes a Maryland Renewable Energy Fund.

The bill also repeals provisions of the State's electricity restructuring law on maintenance of effort in procuring electricity from renewable sources, effective January 1, 2006.

**COMMITTEE AMENDMENTS:**

Amendment No. 1

adds cosponsors.

Amendment No. 2

is technical.

Amendment No. 3

· extends the full Tier 2 standard through 2018;

- clarifies qualifying Tier 2 facilities; and
- requires the PSC to study the tier system of renewable sources and report back to the General Assembly and the Governor in 2017, before the expiration of Tier 2 in 2018.

#### Amendment No. 4

- defines “renewable on-site generator”;
- allows a renewable on-site generator to create Tier 1 or Tier 2 credits to apply to its own electricity load or to trade;
- clarifies the relationship between renewable energy credits and other emission characteristics of renewable on-site generators; and
- makes clarifying and conforming changes.

#### Amendment No. 5

- establishes a decreasing schedule of Tier 1 compliance fees for industrial process load, capping the exposure of electricity-intensive manufacturers in the event that sufficient electricity is not available to meet the standard.

#### Amendment No. 6

- authorizes the PSC to adopt regulations to waive all or part of a compliance fee for a particular industrial or commercial customer in a year based on hardship.

#### Amendment No. 7

- makes clarifying changes in definitions;
- adds poultry litter to Tier 2 sources; and
- makes conforming changes.

#### Amendment No. 8

- clarifies that an aggregator or broker who does not take title to electricity may require the generator who actually supplies electricity to demonstrate compliance with the standard.

#### **SUMMARY OF BILL:**

As amended, this bill requires the implementation of a renewable energy portfolio standard, a Maryland Renewable Energy Fund, and a renewable energy credit trading system. The bill repeals requirements that an electric company must continue to purchase electricity under any contract in effect on January 1, 1999 with a renewable resource facility located in the State and that an investor-owned electric company

continue to provide at least the same percentage of electricity from available renewable resources that was provided in 1998.

### Renewable Energy Portfolio Standard

The bill requires any electricity supplier to include a specified amount of renewable energy as part of its portfolio of generating fuels for retail sales. The requirement does not apply to retail electricity sales to: (1) residential customers under a specified rate freeze or cap; (2) industrial process load exceeding 300 million kilowatt-hours for a single customer; or (3) a customer served by an electric cooperative under an agreement that existed on October 1, 2004. The standard is as follows:

<u>Year</u>	<u>Tier 1 Energy Resources</u>	<u>Tier 2 Energy Resources</u>	<u>Total</u>
2006	1%	2.5%	3.5%
2007	1.5%	2.5%	4%
2008	2%	2.5%	4.5%
2009	2.5%	2.5%	5%
2010	3%	2.5%	5.5%
2011	3.5%	2.5%	6%
2012	4%	2.5%	6.5%
2013	4.5%	2.5%	7%
2014	5%	2.5%	7.5%
2015	5.5%	2.5%	8.0%
2016	6%	2.5%	8.5%
2017	6.5%	2.5%	9.0%
2018	7%	2.5%	9.5%
2019 and later	7.5%	0%	7.5%

Tier 1 renewable energy sources include solar, wind, qualifying biomass, methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant, geothermal, ocean (including energy from waves, tides, currents, and thermal differences), and fuel cells powered by other Tier 1 sources. Qualifying biomass includes waste materials such as “black liquor”, a liquid derived from fermented paper processing waste, as well as crops such as switchgrass grown specifically to be a fuel or cofuel.

Energy is also eligible for inclusion in meeting the standard through 2018 if it is generated from a Tier 2 renewable source. Eligible Tier 2 renewable sources include

hydroelectric power and waste-to-energy facilities that existed on January 1, 2004, and any poultry litter incineration facility. Tier 1 energy can be counted for compliance with the Tier 2 standard, but not vice versa. Each electricity supplier must submit an annual report to PSC demonstrating compliance with the portfolio standard for the preceding year.

An electricity supplier receives double credit toward meeting the standard for energy derived from solar energy. For credits created in 2004 and 2005, wind receives 20% extra credit; for 2006 through 2008, wind receives 10% extra credit. Landfill gas methane receives 10% extra credit from 2004 through 2008. Credit may be given only for electricity derived from the biomass fraction of biomass that is co-fired with other fuels.

An industrial customer that is not on standard offer service may independently acquire credits to meet the Tier 1 and Tier 2 standards applicable to that customer's load. The customer may sell credits that exceed the amount needed to satisfy the standard for the customer's load. A renewable on-site generator is a class of customer that has on-site generation from a Tier 1 or Tier 2 source. Such a generator may receive credit for on-site generation that displaces grid purchases, and may sell excess credits on the open market.

Tier 1 and Tier 2 renewable sources must comply with all applicable environmental and administrative requirements. In addition, Tier 2 sources that incinerate solid waste must be receiving waste from jurisdictions that comply with the Maryland Recycling Act percentages, or achieve comparable recycling rates if out-of-state. An electricity supplier may count the credits for a noncomplying facility during the first year of noncompliance, but must cure the defect or find another credit source in the second and later years.

The PSC must begin a review of the tier system on or before January 1, 2016. On or before January 1, 2017 the PSC must report to the General Assembly and the Governor its recommendations on restructuring the tiers or continuing Tier 2 beyond 2018.

#### Energy Fund and Compliance Fees

The bill establishes a Maryland Renewable Energy Fund as a special, nonlapsing fund to encourage the development of generating resources for renewable energy. If retail electricity contains fewer kilowatt-hours from Tier 1 and Tier 2 renewable sources than are required to comply with the standard for that year, the supplier must pay a compliance fee in the following fiscal year at:

- 2 cents per kilowatt-hour of Tier 1 renewable source shortfall into the fund, and 1.5 cents per kilowatt-hour of Tier 2 shortfall; or
- for industrial process load only, a decreasing scale starting with 0.8 cent per kilowatt-hour of Tier 1 shortfall in 2006 down through 0.2 cent per kilowatt-hour of Tier 1 shortfall in 2018 and no assessment on any Tier 2 shortfall, as follows:

<u>Year</u>	<u>Tier 1 Compliance Fee</u>	<u>Tier 2 Compliance Fee</u>
2006	0.80 cent	0 cent
2007	0.80 cent	0 cent
2008	0.80 cent	0 cent
2009	0.50 cent	0 cent
2010	0.50 cent	0 cent
2011	0.40 cent	0 cent
2012	0.40 cent	0 cent
2013	0.30 cent	0 cent
2014	0.30 cent	0 cent
2015	0.25 cent	0 cent
2016	0.25 cent	0 cent
2017 and later	0.20 cent	0 cent

An electricity supplier may recover costs incurred in complying with the portfolio standard. A compliance fee can be recovered if: (1) payment of the fee would be cheaper for ratepayers than the purchase of eligible energy resources; (2) there are not sufficient eligible energy resources available to comply with the standard; or (3) a wholesale electric supplier defaults or otherwise fails to deliver electricity under a contract approved by PSC. Any cost recovery must be disclosed to the customer on applicable bills and may not include the costs for certain power purchase contracts.

The PSC must adopt regulations to allow particular industrial or commercial customers to obtain a waiver of all or part of the compliance fee for a particular year based on hardship. The PSC must consult DBED in preparing the regulations. MEA administers the fund under the oversight of PSC. The fund may only be used to make loans and grants to assist in the creation of new Tier 1 renewable energy sources in the State. The fund consists primarily of compliance fees and loan repayments. MEA is responsible for accepting and reviewing applications for projects. Any administrative costs for MEA to administer the fund are paid out of the fund.

### Energy Credit Trading System

The bill requires PSC to establish a market-based renewable electricity trading system in which electricity suppliers can trade renewable energy credits (RECs) with each other to fulfill the energy portfolio standard.

The trading system should operate in conjunction with the generation attribute trading system (GATS) being developed by PJM, and may be operated by PJM or another entity. The system must include a registry of REC transactions among suppliers and maintain records of those transactions. The registry must provide current information on the status of RECs to owners and the public through the Internet and other means.

An REC is defined as a credit equal to one megawatt-hour of retail electricity in the State that is derived from Tier 1 or Tier 2 renewable sources. A credit expires after three years and can be diminished or extinguished before the expiration date by the supplier that received the credit or a nonaffiliated entity of the electricity supplier. The bill allows a credit to be initially sold or transferred by the owner of the facility from which it is derived.

### Technical Advisory Group

The bill requires PSC to appoint a technical advisory group to study and make recommendations on the impact of wind-power facilities on avian and bat populations, including standards to avoid or minimize impacts from the construction and operation of facilities. The technical advisory group must report to PSC on or before June 1, 2005. PSC must adopt regulations on wind-power facility siting on or before July 1, 2006, taking into consideration the recommendations of the technical advisory group.

The regulations may not apply to facilities for which an application for a certificate of public convenience and necessity has been submitted before their effective date. A related provision strongly urges wind-power facilities that are already in operation or under construction to study the impacts of their facilities on avian and bat populations and report the results to PSC.

### **BACKGROUND:**

#### Current Law:

State law does not require electricity suppliers to use renewable energy. An electric company must continue to purchase electricity under any contract in effect on January 1, 1999 with a renewable resource facility located in the State and an investor-owned electric company must provide at least the same percentage of electricity from available renewable resources that was provided in 1998. The Maryland Clean Energy Incentive Act, which went into effect on July 1, 2000, provides State sales tax exemptions or income tax credits for buying certain high efficiency Energy Star

appliances, electric and hybrid-electric vehicles, and certain renewable resource energy systems.

Chapters 3 and 4 of 1999 restructured Maryland's electricity industry with the stated intent of establishing customer choice of electricity supply and supply services and creating competitive retail electricity supply markets. The law directed PSC to report to the Governor and the General Assembly on the feasibility of requiring a renewable portfolio standard and the estimated costs and benefits. It also required PSC to cap rates charged to retail customers for four years following the implementation of customer choice. As part of a settlement, PSC may approve a cap for a different time period. Furthermore, each electric company and supplier must provide information to their customers every six months about the fuel mix of the electricity being purchased and must specify categories such as coal, natural gas, biomass, wind, and other sources.

#### Background:

At least 13 states, including Maine, New Jersey, Pennsylvania, Arizona, and Connecticut, now use a renewable portfolio standard (RPS), according to the Database of State Incentives for Renewable Energy. Pennsylvania, which established its RPS by settlement agreements, has different standards in each of its utilities' service territories, but is now considering statewide legislation. Two other states, Hawaii and Illinois, have a renewable portfolio goal. The main differences among various RPS proposals are the required renewable share, the timing of the program, the definition of qualifying facilities, and whether or not there is a limit on the allowable price for renewable credits. States have enacted various penalties for failure to comply with renewable standards, including monetary fines, suspension or revocation of a supplier's license, and prohibitions on new customers.

Approximately 95% of electricity generated in Maryland comes from conventional energy sources such as coal or oil. The remaining 5% comes from renewable sources such as solar, biomass, or municipal waste. According to the U.S. Department of Energy, 46 renewable energy facilities operate in the State, including biomass (7), photovoltaic (31), wind (1), and hydroelectric (7).

The PSC evaluated the use of an RPS following the passage of electricity restructuring legislation in 1999 and concluded that energy costs would increase in the short run as lower cost opportunities are exhausted, then eventually decline due to economies of scale. The report noted that an RPS would reduce emissions of compounds such as carbon dioxide and carbon monoxide and potentially increase employment and economic activity. The PSC concluded that an RPS is feasible in Maryland but also indicated that other programs could be used to promote renewable energy production.

**Prior Introductions:**

Similar bills were introduced as **HB 752**, **HB 370**, and **SB 691** in the 2003 session, **HB 1215** in the 2002 session, and **SB 767** in the 2001 session. **HB 752** and **370** were assigned to **Economic Matters**, which took no action. **SB 691** was assigned to **Finance**, which also took no action. **HB 1215** was assigned to **Economic Matters**, which took no action. **SB 767** received an unfavorable report from the **Finance Committee**.

**Cross File:**

**SB 869** (Senator Middleton, et al.) - **Finance**.

**QUESTIONS AND ANSWERS:**

**Q.** What is a “renewable energy credit”?

**A.** The generation attributes of one megawatt-hour of electricity from a Tier 1 or Tier 2 source in the **PJM** region, or from a defined region surrounding the **PJM** region, if the electricity is actually delivered into the **PJM** region.

**Q.** What is a “renewable portfolio standard”?

**A.** A renewable portfolio standard is a requirement for a specified percentage of electricity consumed in the state to be generated from qualifying renewable energy sources.