

Department of Legislative Services
 Maryland General Assembly
 2003 Session

FISCAL AND POLICY NOTE

Senate Bill 691 (Senator Astle)
 Finance

**Electricity Regulation - Clean Energy Portfolio Standards and Credit Trading -
 Maryland Clean Energy Fund**

This bill requires the Public Service Commission (PSC) to establish a Clean Energy Portfolio Standard that applies to retail electricity products sold in the State beginning in 2006. It also directs PSC to establish a market-based clean energy credit system and a Clean Energy Fund. The bill repeals provisions of the State’s electricity restructuring law, effective January 1, 2006.

Fiscal Summary

State Effect: General fund expenditures would increase by \$102,900 in FY 2005 for additional staff to implement the portfolio standard program. Potentially significant general fund expenditures to implement the energy credit system. Potential increase in special fund revenues beginning in FY 2007 from the collection of compliance fees. Special fund expenditures from the Clean Energy Fund would not be affected until calendar 2012.

(in dollars)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
SF Revenue	\$0	\$0	\$0	-	-
GF Expenditure	0	102,900	99,400	105,800	112,700
GF/SF Exp.	0	0	-	-	-
Net Effect	\$0	(\$102,900)	(\$99,400)	(\$105,800)	(\$112,700)

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

Local Effect: Potential increase in expenditures for any local jurisdiction that becomes a retail electricity supplier. Potential increase in local revenues to the extent that a local jurisdiction becomes a generator of eligible energy.

Small Business Effect: Potentially meaningful.

Analysis

Bill Summary: The bill requires the development of a renewable energy standard, Clean Energy Fund, and a clean energy credit trading system. The bill also repeals provisions of the electricity restructuring law (Chapters 3 and 4 of 1999), including the 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 Standard

The bill requires any company supplying electricity 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; (2) a manufacturer with a peak demand over 1,500 kilowatts; or (3) a customer served by an electric cooperative under an agreement that existed on October 1, 2003. The portfolio standard is 0.5% in 2006, 1% in 2007, 2% in 2008, 3% in 2009, 4% in 2010, 5% in 2011, 6% in 2012, and 7% in 2013 and each year thereafter.

Eligible energy sources includes solar, wind, qualifying biomass, methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant, geothermal, hydroelectric, or ocean, including energy from waves, tides, currents, and thermal differences. Energy is also eligible for inclusion in meeting the standard through 2013 if it is generated from a transitional energy resource at a facility that existed on January 1, 2003. Transitional energy resource includes one or more of the following sources: (1) methane gas derived from decomposing coal; (2) hydroelectric power derived from a facility with a certain net capacity; and (3) manufactured or commercial waste-to-energy. Each electricity supplier must submit an annual report to PSC demonstrating compliance with the portfolio standard for the preceding year.

By December 31, 2014, an electricity supplier must receive double credit toward meeting the standard for energy derived from solar energy or fuel that is derived from an eligible energy resource and is used in a fuel cell. By December 31, 2005, a supplier must also receive 125% credit toward meeting the standard for energy derived from wind. Credit must be given for electricity derived from the biomass fraction of biomass cofired with other fuels.

Energy Fund and Compliance Fees

The bill establishes a Maryland Clean Energy Fund as a special, nonlapsing fund to encourage the development of generating resources for clean energy. If a retail electricity product contains fewer kilowatt-hours from eligible energy resources than are required to comply with the standard for that year, the supplier must pay a compliance fee of 2 cents per kilowatt-hour into the fund. PSC must impose sufficient penalties to ensure compliance with the bill and adopt orders or regulations to implement the bill.

Beginning in the fifth calendar year of compliance fee payment, the bill authorizes PSC to make pro rata payments from the fund to owners of eligible energy resources. The payments cannot exceed 2 cents per kilowatt-hour (subject to exceptions) and must be based on the number of kilowatt hours of electricity sold in the previous year.

Energy Credit Trading System

The bill requires PSC to establish a market-based clean electricity trading system in which electricity suppliers can trade clean energy credits (CECs) with each other to fulfill the energy portfolio standard. A CEC is defined as a credit equal to 100-kilowatt hours of retail electricity in the State that is derived from eligible energy resources. An electricity supplier may recover, dollar-for-dollar, costs incurred in complying with the portfolio standard. Any compliance fee can be recovered if: (1) payment of the fee would be cheaper for ratepayers than the purchase of eligible energy resources; or (2) there are not sufficient eligible energy resources available to comply with the standard.

Any cost recovery must be disclosed to the customer on applicable bills and may not include the costs for certain power purchase contracts.

PSC must develop a clearinghouse that registers CEC transactions among suppliers and maintain records of those transactions. The clearinghouse must provide current information on the status of CECs to owners and the public through the Internet and other means. PSC may charge an administrative fee on CEC transactions only to recover actual direct costs of processing the transaction. Credits expire after six years and can be diminished or extinguished before the expiration date by the supplier that created 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.

Current Law: State law does not require electricity suppliers to use renewable energy. 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. Under this law, the legislature declared its intent that a program to provide net energy metering is a way to encourage investment in renewable energy sources. Net energy metering measures the differences between the electricity supplied by an electric company and the electricity generated by an eligible customer-generator and fed back to the electric company over the customer's billing period.

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 11 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. Three other states, Hawaii, Minnesota, 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 bioenergy (7), photovoltaic (31), wind (1), and hydroelectric (7).

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. PSC concluded that an RPS is feasible in Maryland but also indicated that other programs could be used to promote renewable energy production.

State Fiscal Effect: Because the portfolio standard and the clean energy credit would not be effective until 2006, PSC could handle any increase in workload prior to fiscal 2005 with existing resources. General fund expenditures would increase by approximately \$102,912 in fiscal 2005 to hire a regulatory economist to develop regulations, collect data from suppliers, examine the data, and monitor the clean energy portfolio of each supplier, as well as an administrative specialist to assist with those duties and develop the clearinghouse database for the energy credit transactions.

The estimate includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- a regulatory economist and an administrative specialist would be hired effective July 1, 2005; and
- there are approximately 30 to 35 licensed electricity suppliers.

Salaries and Fringe Benefits	\$91,482
Operating Expenses	<u>11,430</u>
Total FY 2005 State Expenditures	\$102,912

Future year expenditures reflect: (1) full salaries with 4.5% annual increases and 3% employee turnover; and (2) 1% annual increases in ongoing operating expenses.

PSC advises that, based on other renewable energy credit systems used by the New England Power Pool Company (NEPOOL) and New Jersey, it will require \$1 million in contractual services in fiscal 2004 and \$560,000 each year thereafter. The Department of Legislative Services (DLS) agrees that PSC may need additional contractual and/or full-time assistance depending upon the number of suppliers that participate in the energy credit system. However, DLS notes that: (1) Maryland's system will likely be smaller than that used by comparable regions or states; New Jersey's population, for example, is 3.2 million larger than Maryland's; and (2) PJM Interconnection, a regional transmission organization, is developing a generator attribute tracking system that will allow retail suppliers to demonstrate compliance with portfolio standards and will be designed for access by regulators and, potentially, for market trading.

If PSC can participate in this system, its costs will be lower. However, participation will depend on approval by PJM's stakeholders. The bill allows PSC to contract with a for-profit or nonprofit organization to assist in the administration of the trading system.

The Maryland Energy Administration (MEA) advises that NEPOOL contracts with a company to manage the transfer of credits and pays them with funds provided by the utilities required to purchase green energy. This cost is built into the electricity premium of 1.5 cents per kilowatt and eventually passed along to the user. There is no direct cost to any state for administration or management of the certificate trading system in NEPOOL.

Suppliers who do not meet the requirements of the portfolio standard must pay a compliance fee of 2 cents per kilowatt-hour into the special fund established by the bill. Revenues to the fund would depend on the number of suppliers that are unable to meet the portfolio standards and the associated shortfalls, which cannot be predicted at this time. However, MEA estimates that compliance fee revenues between fiscal 2006 and 2013 will not be significant as the supply of clean energy (using transitional sources) is expected to be sufficient.

Since suppliers would be required to submit an annual report to PSC relating to compliance with the standard for the preceding year, no compliance fees would be paid into the fund until at least fiscal 2007. Payments to suppliers would not occur until the fifth calendar year after the fund collects compliance fees for a given year. Any such expenditures would depend on revenues collected and the eligibility of facilities to be awarded payments from the fund. Eligibility for such funds will be prescribed by regulation and cannot be predicted at this time. Similarly, the revenues from the administrative fee that PSC can charge for energy credit transactions cannot be determined at this time.

The bill also provides for the development of regulations or orders to impose sufficient penalties to ensure compliance with the bill. Since the extent to which retail electricity suppliers will violate the provisions of the bill is unknown, any such penalty revenue cannot be estimated at this time.

Local Fiscal Effect: If any local jurisdiction becomes a generator of eligible energy resources, the bill could result in an increase in local revenues to the extent that the local jurisdiction sells eligible energy to suppliers that need it to meet the proposed standards. The extent to which the bill will result in an increase in the demand for eligible energy resources cannot be estimated at this time. Presumably, a local generator could also become eligible for payments from the fund as provided by the bill.

Small Business Effect: To the extent that the bill increases the demand for eligible energy resources, any small business that generates eligible energy could benefit. A producer of clean energy could also benefit to the extent that it becomes eligible for payments from the fund as provided by the bill. According to PSC, retail electricity suppliers are generally larger businesses, so small businesses would not be subject to the bill's requirements relating to suppliers.

Additional Comments: To the extent that the bill's requirements cause suppliers to increase their prices or recover compliance fee payments, consumers (including the State) would face higher costs. MEA anticipates that the supply of energy sources provided under the bill will be sufficient to minimize increases during the implementation phase of the renewable energy standard (through 2013). MEA forecasts the additional annual cost to a residential consumer to be almost a \$1 beginning in 2006, rising to approximately \$9 in 2011. Some manufacturers and a few large State agencies would be exempt.

Additional Information

Prior Introductions: Similar bills were introduced as HB 1215 in the 2002 session and SB 767 in the 2001 session. SB 767 received an unfavorable report from the Finance Committee and HB 1215 was heard by the Environmental Matters Committee, which took no action.

Cross File: HB 752 is designated as a cross file, although it is not identical.

Information Source(s): Maryland Department of the Environment, Maryland Energy Administration, Public Service Commission, Database of State Incentives for Renewable Energy Incentives, Department of Legislative Services

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