

Department of Legislative Services
Maryland General Assembly
2007 Session

FISCAL AND POLICY NOTE

Senate Bill 409 (Senator Pinsky, *et al.*)
Education, Health, and Environmental Affairs

Global Warming Solutions - Reductions in Greenhouse Gas Emissions

This bill establishes an Office of Climate Change within the Maryland Department of the Environment (MDE) to implement activities relating to the establishment of a statewide greenhouse gas emissions limit. By 2020, the State must reduce statewide greenhouse gas emissions to 1990 levels. Effective January 1, 2013, a greenhouse gas emissions fee has to be paid by sources of greenhouse gases in the State, with the fees going to the Greenhouse Gas Emissions Reduction Fund established by the bill. The bill establishes several provisions regarding the adoption of regulations to help achieve the statewide greenhouse gas emissions limit. The bill also has penalty provisions.

The bill takes effect July 1, 2007.

Fiscal Summary

State Effect: General fund expenditure increase of \$590,000 in FY 2008 to capitalize the new special fund in order to begin implementing the bill. Future year estimates are annualized and adjusted for inflation, but do not reflect potentially significant additional costs to implement reduction measures. Special fund revenues from the bill's fee provisions, which could be significant, would not accrue until FY 2013.

(in dollars)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
SF Revenue	\$590,000	\$924,200	\$965,200	\$1,008,400	\$1,054,100
GF Expenditure	590,000	999,200	1,165,200	1,008,400	1,104,100
SF Expenditure	590,000	924,200	965,200	1,008,400	1,054,100
Net Effect	(\$590,000)	(\$999,200)	(\$1,165,200)	(\$1,008,400)	(\$1,104,100)

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

Local Effect: As a greenhouse gas source, local governments would be subject to any reduction measures and greenhouse gas emissions fees established through regulation. Accordingly, costs could increase significantly, but any such increase cannot be reliably estimated at this time and could be offset somewhat by energy savings. **This bill imposes a mandate on a unit of local government.**

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Office of Climate Change

The bill establishes an Office of Climate Change within MDE. The Secretary of the Environment must appoint a director and sufficient staff to perform the functions of the office. The office must:

- administer the provisions of the bill;
- coordinate the efforts of the State to facilitate the implementation of the bill;
- research and evaluate current methods and technologies that improve the efficiency and efficacy of greenhouse gas emissions reduction programs;
- work with industry sectors, business groups, nonprofit organizations, academic institutions, and other stakeholders to determine best available information, technology, and processes for implementing the bill;
- research and develop the protocols for a cap-and-trade system;
- ensure that the greenhouse gas emissions reduction activities help direct public and private investment in renewable energy;
- promote global warming solutions; and
- oversee, develop, and award grants for investments in clean energies.

Statewide Emissions Limit and Plan

The bill requires MDE, by January 1, 2009, to determine what the statewide greenhouse gas emissions level was in 1990. MDE must then establish a statewide greenhouse gas emissions limit equivalent to that level; the limit has to be achieved by 2020. By January 1, 2010, MDE must prepare and publish a plan for achieving greenhouse gas emissions reductions to reach the statewide limit by 2020 through the maximum

technologically feasible and cost-effective means. The bill specifies requirements for the plan and directs MDE to consult with other specified State agencies on elements of the plan. Before the plan is published, MDE must conduct a series of public workshops on the plan in all regions of the State. MDE is further directed to update the plan every five years.

Measures and Regulations to Meet the Limit

By June 30, 2008, MDE has to publish a list of early action emissions reduction measures that sources may implement to receive credit for reductions before the other measures and limits are implemented. By June 30, 2009, MDE must adopt regulations to implement the early action measures. By January 1, 2012, MDE must adopt regulations for greenhouse gas emissions limits and emissions reduction measures that will help achieve the statewide limit. Among other requirements, the regulations must take effect January 1, 2013. MDE also has to adopt methodologies for the quantification of voluntary greenhouse gas emissions reductions and is required to adopt regulations that allow the State to monitor and verify voluntary reductions.

By January 1, 2012, MDE is authorized, but not required, to adopt regulations that establish a cap-and-trade system for sources that emit greenhouse gas emissions. By that same date, MDE is also authorized to adopt regulations that establish offset allowances through alternative compliance mechanisms. MDE is directed to adopt regulations governing market-based compliance mechanisms. The bill establishes requirements and limitations for the cap-and-trade system, offset allowances, and alternative compliance mechanisms.

By January 1, 2009, MDE must adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with the bill. The bill specifies requirements for such regulations. MDE must review and update its emissions reporting requirements as necessary.

In the event of extraordinary circumstances or catastrophic events, the Governor is authorized to adjust the applicable deadlines for regulations that are adopted in accordance with the bill. If the Governor declares an energy emergency, the Governor may adjust the deadlines for individual regulations.

Greenhouse Gas Emissions Fee and Fund

The bill establishes a greenhouse gas emissions fee to be paid by a source of greenhouse gas emissions beginning January 1, 2013. MDE must adopt regulations by that date to establish a schedule of fees to be paid. The bill establishes a maximum fee of 10 cents

per ton of greenhouse gases emitted per year. MDE must provide adequate public notice and hold a hearing on the proposed fees.

Fees would be paid into the Greenhouse Gas Emissions Reduction Fund established by the bill. Other sources of revenue to the fund include any money appropriated in the State budget, any other money from any other source accepted for the benefit of the fund, fine collections, and any investment earnings. The fund has to be used for implementing the bill and funding the Office of Climate Change. The State must appropriate monies from the general fund of the State for the fund beginning July 1, 2007. Once the emissions fee takes effect, the State may reduce the general fund appropriation but must appropriate monies from the special fund as necessary.

MDE must prepare an annual report on the fund and submit it to the General Assembly. The Director of the Office of Climate Change must administer the fund. After administrative and programmatic costs are paid, remaining monies may be used for grants for investments in clean energy and renewable new technologies.

Advisory Committees

The bill authorizes MDE to create and appoint advisory committees as it determines necessary, subject to specified conditions.

Enforcement and Penalties

MDE is charged with monitoring compliance with the bill. Each violation of an emissions limit is a separate violation subject to specified existing administrative and civil penalties. However, a “knowing” violation of any rule, regulation, order, emissions limit, or emissions reduction measure adopted or issued under the bill is subject to specified existing criminal penalties. MDE must adopt regulations establishing a schedule that converts violations of the bill into the number of days in violation so that penalty provisions can be appropriately applied. The bill’s penalty provisions are in addition to specified existing administrative and civil penalties. Any fines collected due to violation of the bill are to be deposited into the Greenhouse Gas Emissions Reduction Fund.

Current Law: The Air and Radiation Management Administration within MDE operates the State’s air pollution control programs under the framework established by the federal Clean Air Act.

Although Maryland does not have a comprehensive greenhouse gas regulatory program, the Healthy Air Act of 2006 requires the Governor to include the State in the Regional

Greenhouse Gas Initiative (RGGI), a seven-state coalition created to discuss the design of a regional cap-and-trade program to reduce emissions of greenhouse gases from power plants in the region. The State also administers several other programs that relate to energy efficiency and renewable energy, such as the renewable portfolio standard and the energy efficiency standards for specified appliances.

Current law provides for various administrative, civil, and criminal penalties for violations of the State's air quality control programs. MDE is authorized to issue corrective orders, to bring an action to enjoin specified conduct, and to bring a civil action to collect a civil penalty of up to \$25,000 per day for specified violations under *Title 2 – Ambient Air Quality Control*. In addition, MDE is authorized to impose an administrative penalty of up to \$2,500 per violation, not to exceed \$50,000 total for any single administrative hearing. A person who knowingly acts in violation of a condition or requirement of a permit or approval issued under *Title 2* is guilty of a misdemeanor and, for a first offense, subject to a fine of up to \$25,000, or imprisonment for up to one year, or both. For a violation committed after a first conviction, a person is subject to a fine of up to \$50,000, or imprisonment for up to two years, or both. Each day is a separate violation. A person who knowingly makes a false statement, representation, or certification in specified documents or who knowingly falsifies, tampers with, or renders inaccurate any monitoring devices is guilty of a misdemeanor and subject to a fine of up to \$10,000 for each day of violation, or imprisonment for up to six months, or both.

Background: According to the U.S. Environmental Protection Agency, human activities have substantially added to the amount of greenhouse gases in the atmosphere. In response to concerns about the link between greenhouse gas emissions and global warming, in September 2006, the Governor of California signed landmark legislation to reduce greenhouse gas emissions in that state. The legislation requires the California Air Resources Board to develop regulations and market mechanisms that will reduce California's greenhouse gas emissions by 25% by 2020. While several states have greenhouse gas emissions targets, California's legislation represents the first enforceable statewide program in the United States to cap all greenhouse gas emissions from major industries. This bill is modeled after the California legislation.

According to Environment Maryland, a statewide citizen-based environmental advocacy organization, in 2006, greenhouse gas sources in Maryland emitted 84 million tons of carbon dioxide (CO₂); the organization reports that the 1990 level was 71 million tons.

State Expenditures:

Maryland Department of the Environment

General fund expenditures to capitalize the Greenhouse Gas Emissions Reduction Fund could increase by an estimated \$589,964 in fiscal 2008, which accounts for a 90-day start-up delay. This estimate reflects the cost of hiring one program manager (to be the Director of the Office of Climate Change), three planners (to develop the State Implementation Plan, conduct public outreach, develop regulations, and conduct research and analyses), seven public health engineers (to develop the emissions inventories, develop regulations, perform quality assurance/quality control, conduct research, develop models, conduct modeling, and handle compliance), and one administrative aide (to provide administrative support). It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses, including travel.

Salaries and Fringe Benefits	\$539,736
Equipment	35,880
Operating Expenses	<u>14,348</u>
FY 2008 MDE Expenditures	\$589,964
Positions	12

Future year expenditures reflect: (1) full salaries with 4.5% annual increases and 3% employee turnover; (2) 1% annual increases in ongoing operating expenses; and (3) contractual services from fiscal 2009 through 2012 to complete the required studies and develop a banking/trading database. The cost to develop a database could be less to the extent the database developed for RGGI is useable for the bill's purpose. Beginning in fiscal 2013, MDE would incur additional costs to hire an accountant to manage the greenhouse gas emissions fees that would be collected under the bill.

These estimates only reflect costs to begin implementing the bill's requirements; they do not reflect costs to actually implement the greenhouse gas reduction measures that will be needed to meet the statewide emissions limit. Such costs could be significant.

Once the greenhouse gas emissions fee takes effect (January 1, 2013), the bill's impact on general funds would be reduced by the collection of special fund revenues to administer the program. Although the bill directs the fee schedule to be established through regulation, the bill sets a maximum fee of 10 cents per ton of greenhouse gases emitted per year. Using estimates generated by RGGI, MDE reports that the power plant sector alone emits up to 35 million tons of CO₂ annually in the State. In addition, Environment

Maryland reports that, statewide, CO₂ emissions totaled approximately 84 million tons in 2006. Accordingly, although the exact fee schedule and the amount of greenhouse gases that will be emitted in 2013 cannot be reliably predicted at this time, it is reasonable to assume that the fee could generate millions of dollars each year.

Department of Natural Resources

General fund expenditures for the Power Plant Research Program (PPRP) could increase by an estimated \$75,000 in fiscal 2009, \$200,000 in fiscal 2010, and \$50,000 in fiscal 2012 for contractual services to complete some of the studies that will be needed to comply with the bill's requirements. These estimates assume that MDE will request PPRP's assistance with certain studies.

Maryland Energy Administration and Public Service Commission

The Maryland Energy Administration and the Public Service Commission could implement the bill's requirements using existing budgeted resources.

Other

As a greenhouse gas source, the State itself would be subject to the greenhouse gas emissions fee and any reduction measures established through regulation. Accordingly, State expenditures could increase significantly, but any such increase cannot be reliably estimated at this time and could be offset somewhat by energy savings.

The bill's penalty provisions are not anticipated to have a significant impact on State finances, particularly since the emissions limits do not take effect until January 1, 2013.

Local Fiscal Effect: As a greenhouse gas source, local governments would be subject to any reduction measures and greenhouse gas emissions fees established through regulation. Accordingly, costs could increase significantly, but any such increase cannot be reliably estimated at this time and could be offset somewhat by energy savings.

The bill's penalty provisions are not anticipated to have a significant impact on local finances, particularly since the emissions limits do not take effect until January 1, 2013.

Small Business Effect: As greenhouse gas sources, all businesses, small and large, would be subject to any reduction measures and greenhouse gas emissions fees established through regulation. Accordingly, costs could increase significantly, but any

such increase cannot be reliably estimated at this time and could be offset somewhat by energy savings.

Additional Information

Prior Introductions: None.

Cross File: HB 890 (Delegate Barve, *et al.*) – Economic Matters and Environmental Matters.

Information Source(s): Maryland Department of the Environment, Department of Natural Resources, Comptroller's Office, Maryland Energy Administration, Public Service Commission, Department of General Services, Department of Business and Economic Development, Environment Maryland, State of California, Pew Center for Global Climate Change, U.S. Environmental Protection Agency, Department of Legislative Services

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