

**Department of Legislative Services**  
 Maryland General Assembly  
 2009 Session

**FISCAL AND POLICY NOTE**

House Bill 5 (Delegate Cardin)  
 Economic Matters and Health and  
 Government Operations

**State Government - Operation of State Building Cooling Systems**

This bill requires cooling systems of State buildings to be regulated in a specified manner to reduce the electricity load used by the systems. Specifically, when cooling systems are in operation, inside air temperatures must be maintained at or above a minimum specified temperature, and on specified level 1 and level 2 load reduction days, must be maintained at or above higher specified temperatures. Beginning in fiscal 2012, the Governor must include in the annual budget bill a general fund appropriation to the Maryland Strategic Energy Investment Fund equal to the estimated savings in energy costs resulting from the load reduction day measures.

The bill takes effect July 1, 2009.

**Fiscal Summary**

**State Effect:** General fund expenditures increase by at least \$331,700 in FY 2010. Future years reflect annualization and inflation. State expenditures may decrease due to energy savings; however, any expenditure decreases resulting from energy savings, beginning in FY 2010, are expected to be at least partially offset by general fund appropriations to the Strategic Energy Investment Fund, beginning in FY 2012.

(in dollars)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
SF Revenue	\$0	\$0	-	-	-
GF Expenditure	\$331,700	\$450,200	\$472,300	\$495,700	\$520,200
Net Effect	(\$331,700)	(\$450,200)	(\$472,300)	(\$495,700)	(\$520,200)

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

**Local Effect:** None.

**Small Business Effect:** None.

## Analysis

**Bill Summary:** A level 1 load reduction day is initially defined as a workday for which the Baltimore air quality index forecast indicates a pollutant level of 101 to 150. A level 2 load reduction day is initially defined as a workday for which the Baltimore air quality index forecast indicates a pollutant level of 151 or higher.

However, on or before January 1, 2011, the Maryland Energy Administration (MEA), in consultation with the Public Service Commission and the Maryland Department of the Environment, has to adopt regulations to establish procedures and criteria for designating level 1 and level 2 load reduction days. Criteria for designating level 1 and level 2 load reduction days may include forecasted electricity loads for the Maryland region, local and regional air quality forecasts, and any other relevant criteria. Effective January 1, 2011, level 1 and level 2 load reduction days are defined as workdays designated as level 1 and level 2 load reduction days by MEA.

The bill requires, at a minimum, that if a State building's cooling system is in operation, it must be regulated to maintain an inside air temperature that is no colder than 78 degrees Fahrenheit. On a level 1 load reduction day, if a State building's cooling system is in operation, from 8:00 am to 8:00 pm the cooling system must be regulated to maintain an inside air temperature that is no colder than 80 degrees Fahrenheit. On a level 2 load reduction day, if a State building's cooling system is in operation, from 8:00 am to 8:00 pm the cooling system must be regulated to maintain an inside air temperature that is no colder than 82 degrees Fahrenheit.

Beginning with fiscal 2010, after each fiscal year, the Department of General Services (DGS), in consultation with MEA, has to calculate the estimated total savings in energy costs realized by the State for the fiscal year as a result of the above-described electricity load reduction measures on level 1 and level 2 load reduction days. DGS must report to the Governor and General Assembly on or before October 1, 2010 and each year thereafter the estimated savings in energy costs and the number of level 1 and level 2 load reduction days in the prior fiscal year.

Beginning in fiscal 2012, the Governor must include in the annual budget bill a general fund appropriation to the Maryland Strategic Energy Investment Fund equal to the estimated savings in energy costs resulting from the load reduction day measures.

**Current Law:** Specific load reduction measures for State building cooling systems are not currently included in State law. However, each State agency is required to have conducted, by December 31, 2007, an analysis of the gas and electric consumption of each building under its jurisdiction and the cost of the consumption, under the direction of MEA and in coordination with DGS. The analyses must include an examination of

methods to achieve energy and costs savings, including, among other things, the installation of more efficient heating and cooling systems and modification of lighting, heating, and cooling practices such as turning off lights when not in use and better thermostatic controls.

In addition, DGS is required to set energy performance standards that require the average energy consumption in State buildings to be reduced from the level in 2005 by 5% by 2009 and by 10% by 2010. By July 1, 2008, each State agency was required to have upgraded its energy conservation plan developed in consultation with MEA and DGS to achieve the energy performance standards. MEA, in coordination with DGS, is required to review and analyze the plans and submit to the Governor the plans and proposals to implement the plans.

These requirements do not apply to buildings under the jurisdiction of the Maryland Department of Transportation, with the exception of office buildings that contain the department's headquarters or the administrative offices of a modal administration within the department.

The Strategic Energy Investment Fund was created under Chapters 127/128 of 2008 to implement the Strategic Energy Investment Program, which has the purpose of decreasing energy demand and increasing energy supply to promote affordable, reliable, and clean energy to fuel Maryland's future prosperity. The fund is administered by MEA and primarily consists of proceeds from the sale of carbon dioxide allowances under the Regional Greenhouse Gas Initiative. Uses of the fund include low-income energy assistance; electricity rate relief for residential customers; energy efficiency and conservation programs, projects, or activities; renewable and clean energy programs and initiatives; energy-related public education and outreach; climate change programs; and administrative expenses.

**Background:** DGS and MEA have been working to implement Chapter 427 of 2006 (State Building Energy Efficiency and Conservation Act of 2006 – requiring establishment of performance standards to reduce energy consumption in State buildings to meet specified benchmarks, State agency analyses of gas and electric consumption in buildings under its jurisdiction, and development of energy conservation plans for each agency) and the EmPower Maryland Initiative. DGS and MEA's efforts have included:

- development of an energy database to collect electricity and gas usage (by State agency);
- designation of energy coordinators at each State agency and receipt of energy plans; and

- implementation of 21 energy performance contracts with most State agencies (which translate into about \$152 million in new energy-related upgrades to State facilities, yielding about \$15 million in annual energy and operational savings.

**State Fiscal Effect:** General fund expenditures increase by at least \$331,729 in fiscal 2010, which accounts for a 90-day start-up delay. This estimate reflects the cost of hiring one energy coordinator and six maintenance personnel to implement the bill's requirements in DGS facilities and collect, analyze, and report information on energy savings. It includes salaries, fringe benefits, and ongoing operating expenses.

Positions	7
Salaries and Fringe Benefits	\$330,627
Operating Expenses	<u>1,102</u>
<b>Total FY 2010 State Expenditures</b>	<b>\$331,729</b>

Future year expenditures reflect full salaries with 4.4% annual increases and 3% employee turnover and 1% annual increases in ongoing operating expenses.

This estimate only accounts for costs associated with implementing the bill's provisions in DGS facilities. Expenditures are expected to further increase to the extent DGS personnel will need to monitor cooling systems in other State buildings or other State agencies will need personnel to implement the bill. DGS is responsible for 56 buildings located in different geographical areas throughout the State.

DGS has noted concerns about maintaining temperatures required under the bill in certain buildings such as the State House, which requires a museum quality system that maintains consistent temperatures to prevent damage to historical artifacts. DGS also notes that IT equipment must be kept at cooler temperatures than what is allowed under the bill.

State expenditures may decrease, beginning in fiscal 2010, reflecting any energy savings resulting from the bill's requirements. This decrease, however, will presumably be at least partially offset, beginning in fiscal 2012, assuming a general fund appropriation to the Strategic Energy Investment Fund is included in the State budget (as contemplated by the bill) each year, accounting for the estimated total savings in energy costs (due to the load reduction day measures) for the fiscal year two years prior. An annual special fund revenue increase, therefore, may result from the bill, beginning in fiscal 2012. Any increase cannot be reliably estimated at this time.

MEA, the Public Service Commission, and the Maryland Department of the Environment are expected to handle the bill's requirement that regulations be adopted to establish procedures and criteria for designating level 1 and level 2 load reduction days, with existing resources.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Maryland Department of the Environment, Department of General Services, Maryland Energy Administration, Public Service Commission, Department of Legislative Services

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mcp/rhh

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