

Department of Legislative Services
Maryland General Assembly
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FISCAL AND POLICY NOTE

House Bill 1266 (Delegate Hucker)

Health and Government Operations and
Appropriations

**High Performance Buildings and Energy Performance Standards - Exceptions -
Repeal**

This bill repeals the exemption for unoccupied State buildings to be constructed or renovated as high-performance buildings. It also phases in the implementation of the State's energy performance standards for all Maryland Department of Transportation (MDOT) buildings by 2013.

Fiscal Summary

State Effect: General obligation bond expenditures increase by a total of \$365,000 between FY 2012 and 2014 to construct three unoccupied buildings currently in the *Capital Improvement Plan* as high-performance buildings. Nonbudgeted expenditures by the Maryland Transportation Authority increase by \$100,000 to complete planned building renovations to high-performance standards. Transportation Trust Fund (TTF) expenditures by MDOT increase potentially significantly to conduct energy consumption analyses and to bring all of its buildings into compliance with State energy performance standards, presumably through the use of energy performance contracts. Minimal short-term reduction in expenditures (primarily TTF, but also other funds) due to reduced energy consumption costs. No effect on revenues.

(in dollars)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	-	-	-	-	-
NonBud Exp.	100,000	0	0	0	0
Bond Exp.	0	0	164,000	71,000	130,000
Net Effect	(\$100,000)	\$0	(\$164,000)	(\$71,000)	(\$130,000)

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

Local Effect: None.

Small Business Effect: None.

Analysis

Bill Summary: From fiscal 2010 until 2013, only the MDOT headquarters building and the administrative offices of MDOT's modal administrations must comply with the State's energy performance standards. Beginning in fiscal 2013, all MDOT buildings must comply with the standards.

By December 31, 2010, MDOT must conduct an energy consumption analysis for all of its buildings and must upgrade its energy conservation plan by July 1, 2011.

Current Law:

High-performance Buildings: Chapter 124 of 2008 requires most new or renovated State buildings and new school buildings to be constructed as high-performance buildings, subject to waiver processes established by the departments of Budget and Management (DBM) and General Services (DGS) and the Board of Public Works (BPW). Between fiscal 2010 and 2014, the State funds 50% of the local share of increased school construction costs associated with high-performance buildings.

Chapter 124 defines a high-performance building as one that:

- meets or exceeds the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) criteria for a silver rating; or
- achieves a comparable numeric rating according to a nationally recognized, accepted, and appropriate standard approved by DBM and DGS.

Only new or renovated State buildings that are at least 7,500 square feet and are built or renovated entirely with State funds are subject to the high-performance requirement. Additionally, building renovations must include the replacement of heating, ventilation, air conditioning, electrical, and plumbing systems and must retain the building shell. Unoccupied buildings are exempt from the high-performance mandate, including warehouses, garages, maintenance facilities, transmitter buildings, and pumping stations.

For State buildings, the waiver process must include a review by the Maryland Green Building Council and approval by DGS, DBM, and MDOT. The waiver process

established by BPW must include review and approval by the Interagency Committee on School Construction.

Energy Performance Standards: Chapter 427 of 2006 requires DGS and the Maryland Energy Administration (MEA) to set energy performance standards to reduce the average energy consumption in State buildings from 2005 levels. The statute requires that energy consumption be reduced by 5% in 2009 and by 10% in 2010. It also requires that each State agency complete an energy consumption analysis under MEA's direction by December 31, 2007. The analysis had to examine strategies for reducing energy consumption, including the installation of more efficient lighting, heating, cooling, and water conservation devices, weatherization, and modified practices. By July 1, 2008, each State agency had to upgrade its energy conservation plan developed in consultation with MEA and DGS.

For MDOT, the requirements of Chapter 427 applied only to its headquarters building and the administrative offices of its modal administrations.

Background: Chapter 116 of 2007 codified the Maryland Green Building Council, which had been established by executive order but had been dormant for several years. The council was charged with:

- evaluating current green building technologies;
- recommending cost-effective green building technologies that the State may consider incorporating into the construction of new State facilities; and
- developing a list of building types for which green building technologies should not be applied.

In December 2007, the council released its report; Chapter 124 of 2000 incorporated most of its major recommendations into statute.

USGBC is a national coalition of building industry leaders formed to promote construction that is environmentally responsible, profitable, and that creates healthy places to live and work. USGBC developed LEED as a self-assessment tool that measures the extent to which a building meets green building criteria on six dimensions: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. Version 2.2 of the LEED system was released in October 2005. The rating scale has a maximum score of 69 points and four ratings:

- platinum (52-69 points);
- gold (39-51 points);

- silver (33-38 points); and
- certified (26-32 points).

LEED standards have been adopted by 24 states and more than 90 local governments. There are more than 1,000 LEED-certified buildings in the country.

To date, only three State-funded buildings have been built as high-performance buildings. According to the Green Building Council, the Hammerman Beach Services building at Gunpowder Falls State Park cost about 3.4% more than a nonhigh-performance building would have cost, but is expected to generate 20% savings on energy costs and 40% reduction in water consumption over its lifespan. Goodpaster Hall, on the campus of St. Mary's College of Maryland, is estimated to have had a 1.6% cost premium, but is expected to generate 30% savings on energy costs and 40% reduction in water consumption over its lifespan. The Universities of Maryland at Shady Grove building, which achieved a LEED gold rating, is estimated to have had a 2.4% cost premium, but should generate 30% savings in energy costs and a 40% reduction in water consumption over its lifespan.

In December 2008, DGS signed an energy performance contract with Johnson Controls designed to reduce utility costs in State buildings by 19.3%. The contract includes lighting retrofits, water conservation retrofits, heating and cooling system upgrades, digital controls, and facility maintenance services. However, the contract extends only to DGS-controlled buildings, and therefore does not include MDOT.

State Fiscal Effect:

State Capital Improvement Plan (CIP): The Governor's five-year CIP includes three unoccupied buildings: a maintenance building at Western Correctional Institution (\$6.5 million in fiscal 2014), a State archaeology and equipment facility in Crownsville (\$3.55 million in fiscal 2013), and a remote library storage facility (\$8.2 million in fiscal 2012) for the University of Maryland, College Park. Applying an estimated 2% construction cost premium for the construction of high-performance buildings, the total cost of those projects increases by a total of \$365,000, beginning in fiscal 2012. Any benefits in the form of reduced energy consumption costs for those three buildings will not be realized within the five-year span covered by this fiscal and policy note.

MDOT: MDOT owns 699 buildings with over 19 million square feet of space, of which 473 are State Highway Administration (SHA) facilities. Heating and cooling costs represent a significant source of energy consumption. To meet the energy performance standards, SHA advises that it has to replace heating, ventilation and air conditioning (HVAC) systems in 28 shops and 7 district offices, with an approximate cost of

\$1.0 million per system. MDOT's modal administrations all advise that conducting energy consumption analyses will likely cost millions of dollars, but MDOT cannot reliably estimate the cost. It is assumed that these and other efforts to bring MDOT facilities into compliance are accomplished through energy performance contracts, which carry no direct costs to the State. DGS has made extensive use of these contracts to bring State buildings into compliance.

Repealing the exemption for unoccupied buildings also increases future MDOT construction and renovation costs by about 2% for each project. Based on that premium and on renovations currently planned by the Maryland Transportation Authority, construction costs may increase by approximately \$100,000.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Board of Public Works, Department of Budget and Management, Department of General Services, Maryland Energy Administration, Maryland Department of Transportation, University System of Maryland, Department of Legislative Services

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