

Department of Planning and Budget 2008 Fiscal Impact Statement

1. Bill Number: HB1195

House of Origin	<u>X</u>	Introduced	___	Substitute	___	Engrossed
Second House	___	In Committee	___	Substitute	___	Enrolled

2. Patron: Moran

3. Committee: General Laws

4. Title: Department of General Services; Green Buildings Act

5. Summary: This bill requires all major facility projects of state agencies to be constructed to meet the United States Green Building Council Leadership in Energy and Environment Design (LEED) silver certification standard, unless granted an exemption by the Director of the Department of General Services (DGS). Such projects will not be required to obtain official LEED certification. Application of the requirement will be phased in over the next three years based on the square footage of the project. The provisions of the bill do not apply to construction projects of public school districts. The bill also requires the use of compact fluorescent light bulbs in state-owned and occupied buildings by January 1, 2010.

6. Fiscal Impact Estimates: Preliminary. See Item 8

7. Budget Amendment Necessary: Yes. Item 81, HB 30.

8. Fiscal Implications: DGS indicates that there is a one to three percent increase in costs for design and construction of a LEED Silver certified building. Based on current projects, DGS estimates an impact of approximately \$1 million to \$3 million in FY 2009 and FY 2010.

Conversely, operating savings should result from implementation of LEED standards and these savings may potentially offset the increased costs to meet LEED Silver standards. These operating savings would be calculated by life cycle cost analysis of the improvements.

DGS also estimates that two general funded FTE will be needed to fully implement the requirements of this legislation. These positions would be phased in over time as projects impacted by the legislation increase. The first position would be hired beginning in FY 2009 and the agency estimates this cost to be approximately \$100,000 annually. The position would be the DGS LEED coordinator to develop, implement, and update regulations that address LEED Silver certification standards and requirements. It would also provide training to architects, engineers, and procurement staff at agencies. Since the agency cannot absorb this cost, a budget amendment is needed. (See Item 7.) The second position would document ongoing operating savings and perform audits to ensure accurate monitoring and compliance. The second position would not be needed until FY 2011 when an increase in LEED projects is expected as a result of the legislation lowering project size threshold required to be LEED Silver certified to 25,000 square feet.

The bill also requires the use of compact fluorescent light bulbs in state-owned and occupied buildings by January 1, 2010. The fiscal implications of this part of the bill are indeterminate. However, consider the following:

Energy savings (not including the cost of the bulb or the labor cost to replace the bulb) for a 100 watt incandescent lamp that is used full time during work hours (2,080 hours per year) and is replaced by a compact fluorescent lamp (CFL) is about \$10 per year. However, a 100 watt incandescent light bulb costs approximately \$0.29 and an equivalent compact fluorescent bulb costs approximately \$4.00. In the first year energy savings would be approximately \$6.29 per lamp. ($\$10.00 - (\$4.00 - \$0.29)$)

There is no way to determine the number of incandescent light bulbs used in state-owned and occupied buildings.

In an attempt to give some perspective to the potential for cost savings from the replacement of incandescent bulbs to florescent, consider the following:

- buildings need about one (1) watt per square foot for lighting; and
- if 20 percent of the bulbs in use in state buildings are incandescent and can be replaced with fluorescent; and,
- there is 28,5000,000 square feet of state-owned buildings; then:

$SF = 28,500,000/1w \times 20\% = 5,700,000$ watts divided by 100 watt bulb = 57,000 bulbs x \$10 year = \$570,000, all funds.

Many incandescent lamps may have been previously replaced by agencies to comply with Executive Order 48, which would likely decrease the 20 percent estimation used in the above example and reduce the annual energy savings figure computed above of \$570,000.

A cost that would need to be accounted for is the recycling of the installed florescent lamps. The potential cost to recycle a fluorescent lamp could be as much as sixty-five cents. Using the 20 percent factor above this would equate to approximately \$37,000 to recycle the 57,000 fluorescent lamps.

The creation of a report to study the appropriate means for disposing of compact fluorescent light bulbs is estimated by DGS to cost upwards of \$100,000 in consultant fees and staff time. The \$100,000 is based on 1,000 hours of work at a contractor's rate of pay of approximately \$100 per hour. The annual report on the status of the replacement implementation plan and the estimate of savings derived from the plan would cost several thousand dollars in staff time each year. The Department of General Services would need funding in the amount of approximately \$100,000 to complete the analysis and reports required by this bill. Since DGS cannot absorb this cost, a budget amendment is needed. (See Item 7.)

It is important to note that not all savings could be captured by the Commonwealth (for example, federal funds). Also, the bill is silent as to how future year savings will be used.

9. Specific Agency or Political Subdivisions Affected: All state agencies

10. Technical Amendment Necessary: No

11. Other Comments: None

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