

## Department of Planning and Budget 2008 Fiscal Impact Statement

**1. Bill Number:** HB164

House of Origin      X      Introduced                  Substitute                  Engrossed  
Second House                 In Committee              Substitute                  Enrolled

**2. Patron:**        Poisson

**3. Committee:**    General Laws

**4. Title:**            **Buildings, state-owned and occupied; use of compact fluorescent light bulbs, report**

**5. Summary:** This bill requires the use of compact fluorescent light bulbs in state-owned and occupied buildings by January 1, 2011. Under the bill, all state-owned and occupied buildings shall discontinue the use of incandescent light bulbs by December 31, 2010, and in the intervening period replace them with compact fluorescent bulbs. Savings derived from the replacement implementation plan shall be used by the Division of Engineering and Building to study the appropriate means for disposing of compact fluorescent bulbs that have reached the end of their useful life.

**6. Fiscal Impact Estimates:** Indeterminate. See Item 8.

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

**8. Fiscal Implications:** 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:** Department of General Services and all state agencies and institutions that own facilities

**10. Technical Amendment Necessary:** No

**11. Other Comments:** None

**Date:** 1/18/2008 dpb

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