

Department of Legislative Services  
2010 Session

FISCAL AND POLICY NOTE  
Revised

Senate Bill 479

(Senator Stoltzfus)

Budget and Taxation

Appropriations and Health and  
Government Operations

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**High Performance Buildings - Green Globes Program**

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This bill broadens the definition of a high-performance building to include any building that achieves at least a two-globe rating according to the Green Globes Program adopted by the Green Building Initiative (GBI). It also requires the Governor to appoint an equal number of members associated with the Green Globes program and the Leadership in Energy and Environmental Design (LEED) program to the Maryland Green Building Council.

The bill takes effect July 1, 2010; provisions relating to gubernatorial appointments to the Maryland Green Building Council apply to a vacancy due to the expiration of the term of a member serving as of that date.

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**Fiscal Summary**

**State Effect:** Potential minimal decrease in project costs for any large new or substantially renovated State building or new school that opts for Green Globes certification instead of LEED certification. On average, Green Globes certification costs slightly less for large projects (those greater than 50,000 square feet). Legislative Services does not anticipate any significant differences in life-cycle costs for new or renovated buildings using Green Globes because the two rating systems are generally comparable. Provisions affecting membership of the Maryland Green Building Council do not affect State finances.

**Local Effect:** Potential minimal decrease in the local share of project costs for large new school construction projects, as explained above.

**Small Business Effect:** None.

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## Analysis

### Current Law:

#### *High-performance Buildings*

Chapter 124 of 2008 required 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). In fiscal 2010 through 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) 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 the Maryland Department of Transportation. The waiver process established by BPW for new schools must include review and approval by the Interagency Committee on School Construction.

#### *Green Building Council*

Chapters 115 and 116 of 2007 codified the Maryland Green Building Council, which had been established by executive order but had been dormant for several years. Chapter 116 charged the council with completing three tasks by September 30, 2007:

- 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.

Chapters 224 and 225 of 2009 permanently renewed the Maryland Green Building Council's original charge and required that it also provide annual recommendations for expanding green building in the State.

The council consists of 10 *ex officio* members representing State agencies and 6 members appointed by the Governor for two-year terms. Members appointed by the Governor must represent environmental, business, and citizen interests; one member must have expertise in energy conservation or green building design standards.

**Background:** 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, DBM and DGS have not approved any alternative to the LEED rating system.

GBI is a coalition representing industry, construction companies, architectural firms, and academic institutions to promote green building. Through a strategic partnership with the National Association of Home Builders, GBI developed the online Green Globes assessment tool that builders can use to measure the extent to which a building meets green building criteria on seven dimensions: project management; site; energy; water; resources and materials; emissions and effluents; and indoor environment. The rating scale has four ratings that are based on the percentage of total points scored:

- 4 globes (85-100%);
- 3 globes (70-84%);
- 2 globes (55-69%); and
- 1 globe (35-54%).

Most industry comparisons of LEED and Green Globes standards, including one conducted in 2006 by the University of Minnesota, have found an 80% to 85% overlap between them. Buildings that have been assessed by both systems almost always receive comparable ratings. Both are considered reputable green building standards, although there are some important differences between them. For instance, Green Globes recognizes all mainstream forest certification systems while LEED accepts only the Forest Stewardship Council's Program, which covers less than 20% of certified forests in North America. As a result, Green Globes tends to be supported by the lumber industry. Unlike LEED, Green Globes allows builders to indicate that certain features are not applicable to their design, thereby lowering the total number of points they can earn. For instance, while both systems award points for reusing an existing building, LEED penalizes builders for building new buildings while Green Globes eliminates that category from the point total for new buildings. For this reason, Green Globes is generally viewed as more favorable for smaller renovation projects. Finally, Green Globes began as an online self-assessment tool without any third-party validation, while LEED has consistently required independent third-party certification. This distinction generally made the Green Globes process less costly and more user-friendly than LEED.

More recently, however, Green Globes has added a third-party validation process, which has made the certification costs for small projects between the two systems roughly comparable. For larger buildings (more than 50,000 square feet), LEED certification costs are higher, especially since it raised its fees in January 2010. According to Green Globes, use of the online tool and third-party certification typically costs between \$3,000 and \$5,000. By comparison, registration and certification costs for LEED are between \$3,150 and \$23,400 for USGBC members, depending on the size of the project. Costs are slightly higher for nonmembers.

To date, only three State-funded buildings have been built as high-performance buildings. According to the Maryland 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 it 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 it is expected to generate 30% savings on energy costs and 40% reduction in water consumption over its lifespan. The Universities at Shady Grove building, which achieved a LEED gold rating, is estimated to have had a 2.4% cost

premium, but it should generate 30% savings in energy costs and a 40% reduction in water consumption over its lifespan. As of January 2010, four public schools have achieved LEED gold certification; all are currently occupied. Also, 31 schools are seeking LEED silver or gold certification; of those, 2 are occupied, 9 are under construction, and the rest are in the planning stage.

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### **Additional Information**

**Prior Introductions:** SB 243 of 2009, similar to this bill as initially introduced, received a hearing from the Senate Budget and Taxation Committee, but no further action was taken on the bill. Its cross file, HB 226, received an unfavorable report from the House Health and Government Operations Committee.

**Cross File:** None.

**Information Source(s):** U.S. Green Building Council, Green Building Initiative, Board of Public Works, Department of Budget and Management, Department of General Services, Maryland Department of Transportation, University System of Maryland, Department of Legislative Services

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