

Department of Legislative Services  
Maryland General Assembly  
2013 Session

FISCAL AND POLICY NOTE

House Bill 1295 (Delegate Carr)  
Health and Government Operations

---

**Procurement - State Funds - Energy Efficient Outdoor Lighting Fixtures**

---

This bill prohibits the use of State funds to install, replace, or operate a permanent outdoor luminaire on non-State buildings unless the fixture meets specified criteria regarding energy efficiency and light emission, subject to waivers. It also changes the energy efficiency and light emission standards for permanent outdoor lighting on buildings owned or leased by the State, as well as roadways. The Board of Public Works (BPW) must adopt regulations for a waiver program.

---

**Fiscal Summary**

**State Effect:** Minimal increase in general fund expenditures for the Department of General Services (DGS) to contract with a lighting engineer to review and provide guidance on funding requests for outdoor lighting from nonprofit State grant recipients. BPW can develop regulations and manage a waiver program with existing resources. In the absence of a waiver, Transportation Trust Fund expenditures by the State Highway Administration (SHA) increase by \$33 million to upgrade roadway lighting; it is assumed that SHA obtains a waiver under the bill and avoids this expense. No effect on revenues.

**Local Effect:** Local capital projects that receive State funds and are not exempt under the bill are barred from using those funds for outdoor lighting that does not meet the criteria specified in the bill. **This bill may impose a mandate on a unit of local government.**

**Small Business Effect:** Potential meaningful for small nonprofit firms that receive State grants for capital improvement or construction projects.

---

## Analysis

**Bill Summary:** The bill does not apply to any public works contract valued at less than \$500,000, unless the contract is for work on a building owned or leased by the State. It also does not apply to lighting for:

- athletic fields;
- emergency procedures or nighttime work;
- navigational systems for aviation and nautical safety; or
- tunnels and roadway underpasses.

The bill repeals existing criteria for permanent outdoor luminaires that are installed or replaced with State funds and instead specifies that each luminaire that is installed, replaced, or operated must comply with recommended practices:

- adopted by the Illuminating Engineering Society (IES);
- established by the Model Outdoor Lighting Ordinance adopted jointly by IES and the Dark Sky Association; or
- otherwise recognized as national standards in the field of lighting.

In addition, luminaires for roadway or parking lot lighting must be a fully shielded luminaire, as defined in the bill. Luminaires for façade lighting must be shielded to reduce glare, sky glow, and light trespass, as defined in the bill.

The bill makes additional clarifying changes to existing law.

**Current Law:** Chapter 353 of 2011 (HB 643) requires that luminaires installed or replaced with State funds on the grounds of buildings owned or leased by the State must:

- maximize energy conservation and minimize light pollution, glare, and light trespass;
- provide the minimum illumination necessary for the intended purpose of the lighting; and
- be a restricted uplight luminaire if it has an output of more than 1,800 lumens.

The latter two requirements are repealed by the bill and replaced with alternative requirements specified above.

A “luminaire” is the complete lighting unit including the lamp, other components that produce light, and the assembly that holds the lamp.

A “restricted upright luminaire” is a lighting fixture that (1) allows no direct light emission above a horizontal plane through the fixture’s lowest light-emitting part, except for a 0.5% maximum incidental upright from reflection off mounting hardware and (2) emits no more than 10% of the total direct light emission at or above a vertical angle of 80 degrees.

Chapter 353 does not apply to luminaires that are:

- located on the grounds of a correctional facility;
- required by federal regulation;
- required for storm operation activities performed by the Maryland Department of Transportation;
- required to illuminate the Maryland or United States flag;
- used for sign illumination; or
- in a lighting plan where fewer than 25% of the luminaires are to be replaced.

BPW or its designee may waive the requirement that high-output luminaires be restricted upright luminaires if the waiver is necessary for the lighting application. BPW must establish requirements for the waiver. In awarding a waiver, BPW or its designee must consider design safety, costs, and any other factors it deems appropriate.

**Background:** Each year, the State’s capital budget includes allocations for direct grants or grant programs to local governments and nonprofit entities for capital construction or improvement projects. These projects are required to include local and/or private matching funds, but under the bill would be barred from using any of the State funds they receive to install, replace, or operate outdoor luminaires that do not meet the criteria in the bill. **Exhibit 1** includes a partial list of direct grants and grant programs in the Governor’s proposed fiscal 2014 capital budget that would most likely be affected by the bill, totaling \$536.1 million. Grants to local governments for waterway and clean water projects are not included because they typically do not involve building construction, and several grant programs for housing and neighborhood revitalization administered by the Department of Housing and Community Development are not included because State funding for those projects is usually a small component of overall funding (but would be similarly restricted under the bill).

---

**Exhibit 1**  
**Proposed State Funding for Non-State Capital Programs**  
**Fiscal 2014**

**Health/Social**

Community Health Facilities Grant Program	\$5,250,000
Federally Qualified Health Centers Grant Program	660,000
Private Hospital Grant Program	5,764,000
UMMS Ambulatory Care Pavillion	44,750,000
Trauma and Emergency Medicine Services Expansion Project	18,000,000
R Adams Cowley Shock Trauma Center Renovation – Phase I	4,500,000
Kennedy Krieger Institute	2,000,000
Prince George’s Hospital	30,000,000
<i>Subtotal</i>	<i>\$110,924,000</i>

**K-12 Education**

Public School Construction Program	\$325,000,000
Qualified Zone Academy Bond Program	4,549,000
Aging Schools Program	6,109,000
Maryland School for the Blind	5,000,000
<i>Subtotal</i>	<i>\$340,658,000</i>

**Postsecondary Education**

Community College Facilities Grant Program	\$52,035,000
Johns Hopkins University	12,000,000
Private Higher Education Grant Program	10,500,000
<i>Subtotal</i>	<i>\$74,535,000</i>

**Housing/Community Development**

Shelter and Transitional Housing Facilities Grant Program	\$1,500,000
African American Heritage Preservation Program	1,000,000
<i>Subtotal</i>	<i>\$2,500,000</i>

**Local Projects**

<i>Subtotal</i>	<i>\$52,228,000</i>
-----------------	---------------------

**Total** **\$536,117,000**

Source: Department of Legislative Services

---

**State Fiscal Effect:** DGS is responsible for managing and monitoring State payments to nonprofit entities that receive grant money from the State through legislative initiatives

approved in the annual capital budget. At any given time, DGS monitors about 500 such projects; the fiscal 2013 capital budget added 157 grantees to its caseload, 27 of which met the bill's \$500,000 project cost threshold and were not likely exempt under the bill's provisions. The bill does not explicitly give DGS authority to enforce the prohibition against using State funds contained in the bill, but it is likely that such responsibility would fall on DGS given its current role.

Currently, DGS's monitoring role includes reviewing and approving requests for project funds received from grantees to ensure that they are consistent with the scope of each project as described in the annual bond bill that authorizes their funding. This bill could add another layer of review and enforcement to DGS's oversight responsibility, and DGS advises that it has no particular expertise in determining whether expenses for outdoor lighting meet the criteria in the bill. Some of the funded projects likely do not involve outdoor lighting, or they may use matching funds for outdoor lighting and, therefore, not submit funding requests for related expenses. Thus, the Department of Legislative Services believes that DGS can contract with a lighting engineer to provide as-needed guidance in reviewing requests for funding for outdoor lighting from grantees and determine their eligibility for State funds for those requests. Expenditures for contracted services will vary depending on the number of projects that submit funding requests for outdoor lighting.

The bill changes the requirements related to roadway lighting, prohibiting the *operation* of roadway lighting with State funds unless a fully shielded luminaire is used. SHA advises that about 35% to 40% of its luminaires are restricted luminaires and that each fully shielded luminaire costs \$3,000. Replacing each of the 11,000 restricted luminaires on State roads with fully shielded luminaires would, therefore, cost \$33 million, not including installation costs. It is assumed that SHA will obtain a waiver under the bill, eliminating the potential cost of replacing existing luminaires.

**Small Business Effect:** Nonprofit firms that are small businesses and receive State grants for capital improvement or construction projects would be barred from using those funds for outdoor lighting that does not meet the criteria in the bill.

---

### **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 Department of Transportation, University System of Maryland, Department of Legislative Services

**Fiscal Note History:** First Reader - March 5, 2013  
ncs/rhh

---

Analysis by: Michael C. Rubenstein

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510