

Department of Legislative Services
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FISCAL AND POLICY NOTE
First Reader

Senate Bill 405 (Senator Smith)
Education, Energy, and the Environment

Outdoor Lighting - Standards and Use of State Funds

This bill requires the Maryland Department of the Environment (MDE) to adopt, by October 1, 2025, outdoor lighting standards that consider the impact of outdoor lighting on (1) energy consumption; (2) the environment; and (3) public health and safety. In developing the standards, MDE must consult with the Maryland Department of Health (MDH), the Maryland Energy Administration (MEA), and the State Highway Administration (SHA) and may consult with lighting industry experts, community and advocacy organizations, and other stakeholders. The bill also extends existing restrictions on the use of State funds to install or replace permanent outdoor luminaires on the grounds of State buildings or facilities to include parks, trails, and highways, and further requires that, if State funds are used, luminaires added to State buildings, facilities, parks, trails, and highways must have a correlated light temperature that is less than or equal to 3,000 Kelvin.

Fiscal Summary

State Effect: General fund expenditures increase by \$200,000 in FY 2025 only for contractual services for MDE to develop the standards. Although State agencies may be affected by the adoption of the standards, any impact cannot be estimated at this time. General/special fund expenditures may increase to the extent the bill requires installation of more efficient luminaires on State parks, trails, and highways, but initial costs may be partially offset by lower energy costs, as discussed below. State revenues are not affected.

Local Effect: Although local governments may be affected by the adoption of the standards, any impact cannot be estimated at this time, as discussed below. Local revenues are not affected.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary: The bill narrows an exemption permitting the unrestricted use of State funds to install or replace a permanent outdoor luminaire in connection with storm operation activities performed by the Maryland Department of Transportation (MDOT) to cover only *temporary* storm operation activities performed by MDOT.

Current Law: MDE does not regulate outdoor lighting. As discussed below, provisions of State law address energy conservation standards for State buildings, the procurement of luminaires for use on State grounds, the ownership of street lighting, and minimum energy efficiency standards for certain types of lighting.

Energy Conservation Standards for State Buildings

Chapter 581 of 2023 requires the Department of General Services (DGS) to (1) establish standards for State buildings to conserve energy and minimize adverse impacts on birds and (2) update the standards every five years. Chapter 581 applies to buildings that are not leased by the State and are otherwise:

- acquired through any means by the State for use by a State agency or department;
- constructed or renovated by or for the State for occupancy by a State agency or department; or
- acquired, constructed, or renovated for which more than 50% of the money for the acquisition, construction, or renovation came from State funds.

The requirements do not apply to (1) a public work contract valued at less than \$500,000; (2) a public work contract for which 50% or less of the funds used are State funds; (3) a project for which funding is provided in the capital budget as a grant to a nonprofit organization; or (4) a public school construction project.

The standards developed by DGS must be consistent with the U.S. Green Building Council's Innovation Credit for reducing bird collisions and with the American Bird Conservancy's bird-friendly design recommendations; however, they may not include a requirement for bird collision monitoring. DGS must consider the physical and mental health of building occupants when developing or updating the standards. The Maryland Green Building Council (MGBC) must include the standards in requirements that it establishes for State buildings under the Maryland High Performance Green Building Program.

Except where full operation of building lighting is documented as necessary, including for public safety or other purposes, the standards must specify that interior and exterior lighting

must be appropriately shielded and minimized from midnight to dawn during specified times of the year. Affected State buildings must meet the standards to the extent practicable and within budgetary constraints. DGS must reduce the lighting of existing State buildings to the extent practicable, and within budgetary constraints, by using automatic control technologies such as timers, photosensors, infrared detectors, and motion detectors. DGS advises that MGBC has developed the required standards.

State Procurement of Permanent Outdoor Lighting

Chapter 353 of 2011 generally requires that luminaires installed or replaced with State funds on the grounds of buildings owned or leased by the State must (1) maximize energy conservation and minimize light pollution, glare, and light trespass; (2) provide the minimum illumination necessary for the intended purpose of the lighting; and (3) be a restricted uplight luminaire if it has an output of more than 1,800 lumens. The Act does not apply to specified luminaires, and the requirement that high-output luminaires be restricted uplight luminaires may be waived by the Board of Public Works (BPW) or BPW's designee under specified conditions.

State funds may not be used to install or replace a permanent outdoor luminaire for lighting on the grounds of any State building or facility unless (1) the luminaire is designed to maximize energy conservation and to minimize light pollution, glare, and light trespass; (2) the illumination produced by the luminaire is the minimum illumination necessary for the intended purpose of the lighting; and (3) for a luminaire with an output of more than 1,800 lumens, the luminaire is a restricted upright luminaire. (*The bill* applies these conditions to State parks, trails, and highways.) These restrictions on the use of State funds do not apply to a luminaire that is (1) located on the grounds of a correctional facility; (2) required by federal regulation; (3) required for storm operation activities performed by MDOT; (4) required to illuminate the State flag or flag of the United States; (5) used for sign illumination; or (6) in a lighting plan where less than 25% of the luminaires are to be replaced.

Ownership of Street Lighting

Chapters 554 and 555 of 2007 authorized local governments to purchase and maintain street lighting equipment. Specifically, an electric company, on written request by a local government, must sell to the local government some or all of the company's street lighting equipment that is located within the local jurisdiction at a price equal to fair market value. A local government that purchases street lighting is responsible for ongoing maintenance and may contract with an outside entity for maintenance services. Any dispute between a local government and an electric company regarding the purchase of street lighting equipment must be submitted to the Public Service Commission for resolution.

Energy Efficiency Standards for Certain Types of Lighting

Chapter 564 of 2022 (the Maryland Efficiency Standards Act) established requirements for MEA related to minimum energy efficiency standards for a number of products, including high color rendering index fluorescent lamps. MEA is authorized to adopt standards for certain products and is required to adopt specified standards for other products.

State Expenditures:

Development of Outdoor Lighting Standards

General fund expenditures for MDE increase by \$200,000 in fiscal 2025 only for contractual services to develop the outdoor lighting standards. MDE notes that while development of the standards is technically feasible, the matters implicated under the bill are not within the expertise of its current staff, as such matters normally fall within the domain of MEA. Therefore, contractual assistance is necessary. This estimate assumes that MDE takes the lead on developing the standards. Meanwhile, MDH, MEA, and SHA advise they can consult with MDE in developing the standards using existing budgeted resources.

Adoption of Standards and Restrictions on Use of State Funds for Outdoor Luminaires

Any impact on State agencies due to the adoption of the standards and the bill's changes to the restrictions on the use of State funds for the installation or replacement of permanent outdoor luminaires depends on the standards developed and the extent to which BPW awards waivers from the bill's requirements, which cannot be predicted. The inclusion of requirements for highway lighting, in particular, may require higher upfront costs to install more efficient luminaires on State highways, but any initial costs may be partially offset by lower energy costs in the out-years. A reliable estimate of any such effects is not feasible due, in part, to the possibility of BPW waivers. MDOT advises that it is transitioning to LED lighting as funding allows, but the bill may accelerate that process, subject to waivers from BPW. Accordingly, Transportation Trust Fund (TTF) expenditures could increase. General/special fund expenditures may also increase to the extent that more efficient luminaires must be installed in State parks and on trails, with energy savings materializing in the out-years, but a reliable estimate is similarly not feasible. The Department of Natural Resources notes that it has been its general practice in recent years to minimize energy consumption and light pollution within State parks and on trails.

DGS, which is responsible for more than half of the lighting of State buildings and facilities, advises that it already follows strict lighting specifications or standards issued through the Green Purchasing Committee. Additionally, DGS notes that State facilities must already comply with the Maryland High Performance Green Building Program,

which requires sustainable facility design and construction compliance that limits outdoor illumination.

With respect to the bill's revised exemption that only permits the unrestricted use of State funds to install or replace a permanent outdoor luminaire for *temporary* storm operation activities performed by MDOT, it is unclear what impact, if any, the bill would have on SHA. MDOT notes that since all storm operations are in effect "temporary," its interpretation of this change is that SHA's maintenance facilities, which provide lighting for storm operations, would still be exempt from having to meet the standard requirements to use State funds for the installation or replacement of permanent outdoor luminaires on State highways. The Department of Legislative Services notes that, if temporary storm operation activities are interpreted narrowly, TTF expenditures may increase minimally due to higher costs for SHA to install or replace permanent outdoor luminaires at its maintenance facilities.

Local Expenditures: Local expenditures and operations may be affected depending on the standards adopted pursuant to the bill. However, a reliable estimate of any such impact cannot be made at this time because the impact depends on the standards developed, which cannot be predicted. The Maryland Association of Counties notes that the standards could require significant upgrades to county lighting infrastructure, resulting in an increase in county expenditures. On the other hand, the Maryland Municipal League does not anticipate that the bill has a significant impact on municipalities.

Small Business Effect: Small businesses may be affected by the standards adopted pursuant to the bill. However, a reliable estimate of any such impact cannot be made at this time because the impact depends on the standards developed, which cannot be predicted.

Additional Comments: MEA administers the [Streetlight and Outdoor Lighting Efficiency Program](#) to make grants available to eligible entities to defray the cost of replacing outdated, less efficient pole-mounted fixtures used for street lighting, parking lot illumination, parks, athletic fields, and other outdoor lighting systems, along with implementing certain lighting controls. Eligible applicants include Maryland nonprofit organizations, State agencies, local governments, public and private schools, and community colleges.

A 2020 [report](#) procured by MEA contains additional background and context on the issue of LED street lighting equipment conversions.

Additional Information

Recent Prior Introductions: Similar legislation has been introduced within the last three years. See HB 851 of 2023.

Designated Cross File: HB 305 (Delegates Wilkins and Charkoudian) - Environment and Transportation.

Information Source(s): Maryland Association of Counties; Maryland Municipal League; Maryland Department of the Environment; Department of General Services; Maryland Department of Health; Department of Natural Resources; Board of Public Works; Maryland Department of Transportation; Maryland Energy Administration; Department of Legislative Services

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