

Department of Legislative Services
Maryland General Assembly
2009 Session

FISCAL AND POLICY NOTE

House Bill 816 (Delegate Carr, *et al.*)
Environmental Matters

Marilyn J. Praisner Safe and Earth-Friendly Roadway Act

This bill authorizes the State Highway Administration (SHA) or a political subdivision to install or replace specified outdoor highway lights (1) only if reducing speed limits or installing specified means of passive or reflective lighting do not address safety concerns; and (2) only with lights designed to maximize energy conservation, minimize light pollution, glare, and light trespass. SHA, political subdivisions, and electric companies are authorized to install or replace permanent outdoor highway lights only with new specified lights with a rated output of more than 1,800 lumens if the light is a specified type; SHA and political subdivisions are authorized to waive this requirement for specified reasons.

Fiscal Summary

State Effect: To the extent SHA is required to install fully shielded lighting units, Transportation Trust Fund (TTF) expenditures increase. TTF expenditures further increase to the extent SHA maintains its current replacement schedule and is required to use fully shielded lighting units. Operational delays may result due to waiver requirements. Revenues are not affected.

Local Effect: To the extent local jurisdictions are required to install or replace existing lighting with fully shielded lighting units, expenditures increase. Operational delays may result due to waiver requirements.

Small Business Effect: Minimal.

Analysis

Bill Summary: The bill applies to electric companies only when they install lights the State or a political subdivision pays to operate.

For each waiver granted, SHA and political subdivisions are required to document in writing the lighting plan, efforts to comply with the bill's requirements, and reasons for the waiver. Cost cannot be a reason for granting a waiver. To obtain a waiver, electric companies are required to provide written notice, which includes the lighting plan, efforts to comply with the bill's requirements, and reasons for the waiver, to SHA or a political subdivision that controls the highway where the light is located at least 30 days before installing or replacing specified highway lights.

Current Law: SHA is responsible for more than 5,200 miles or approximately 16,800 lane miles of road, 2,500 bridges, 3,500 small stream crossing structures, and 80 miles of sound barriers. It also has responsibility for planning, designing, constructing, and maintaining these roads and bridges to safety and performance standards while considering sociological, ecological, and economic concerns.

Background: A primary purpose of lighting a roadway at night is to increase the visibility of the roadway and its immediate environment to help drivers maneuver more efficiently and safely. Visibility or the ability to detect an object depends on several factors, such as the contrast between the object and the background, the adaptation of the eye, glare, and the visual acuity of the driver. Many factors must be taken into account when selecting road lighting fittings, such as shape, distribution of luminous intensity in relation to the surroundings, type of fitting, and the height of the fitting.

Road lighting contributes to light pollution and energy demand. Light pollution is artificial light that shines in an undesirable direction, such as upwards or into an open landscape. A significant amount of energy is dedicated to lighting along roads. To promote energy efficiency and reduce light pollution, road lighting is often adjusted to reduce the level of illumination.

State Fiscal Effect: Most overhead highway signs in the State have lights installed at the bottom of the sign that project light upward. In accordance with the bill, lights must be designed and installed so that no light is emitted above the horizontal plane of the light's lowest light-emitting part. Therefore, to ensure adequate lighting, lights must be located at the top of overhead highway signs.

Significant resources are required to convert SHA's approximately 2,000 overhead highway signs to overhead lighting consistent with the bill's specifications. SHA estimates that converting a single sign to overhead lighting may cost up to \$50,000, due

in large part to the extensive maintenance of traffic cost involved with removing and subsequently replacing signs. SHA estimates that adding overhead lighting to the approximately 50 new signs it builds annually, may result in an additional cost of \$5,000 per sign.

While cost cannot be a reason for granting a waiver, the bill provides significant authority to SHA and local jurisdictions to identify other reasons for granting a waiver from the bill's requirements. Nevertheless, to the extent SHA is required to install fully shielded lighting units, TTF expenditures increase. TTF expenditures further increase to the extent SHA must use fully shielded lighting units when it replaces existing lighting. Also, since SHA is required to document in writing all waivers, the bill may result in operational delays.

Local Fiscal Effect: To the extent local jurisdictions are required to install fully shielded lighting units, expenditures increase. Expenditures also increase to the extent local jurisdictions replace existing lighting with fully shielded lighting units. Also, the bill requires local jurisdictions to document in writing all waivers, which may result in operational delays.

Additional Information

Prior Introductions: None.

Cross File: SB 891 is designated as a cross file; however, it is not identical.

Information Source(s): Baltimore City, Montgomery County, Public Service Commission, Maryland Department of Transportation, Department of Legislative Services

Fiscal Note History: First Reader - March 6, 2009
ncs/ljm

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