



House of Representatives

File No. 846

General Assembly

January Session, 2001

(Reprint of File No. 397)

Substitute House Bill No. 5449
As Amended by House Amendment
Schedule "A"

Approved by the Legislative Commissioner
May 31, 2001

AN ACT REQUIRING ENERGY EFFICIENT ROADWAY LIGHTS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 13a-110a of the general statutes is repealed and the
2 following is substituted in lieu thereof:

3 (a) As used in this section:

4 (1) "Fixture" means the assembly that holds a lamp and may include
5 an assembly housing, a mounting bracket or pole socket, a lamp
6 holder, a ballast, a reflector or mirror, and a refractor or lens;

7 (2) "Full cutoff luminaire" means a luminaire that allows no direct
8 light emissions above a horizontal plane through the luminaire's
9 lowest light-emitting part;

10 (3) "Glare" means direct light emitting from a luminaire that causes
11 reduced vision or momentary blindness;

12 (4) "Illuminance" means the level of light measured at a surface;

13 (5) "Lamp" means the component of a luminaire that produces the
14 light;

15 (6) "Light trespass" means light emitted by a luminaire that shines
16 beyond the boundaries of the property on which the luminaire is
17 located;

18 (7) "Lumen" means a unit of measurement of luminous flux;

19 (8) "Luminaire" means the complete lighting system, including the
20 lamp and the fixture;

21 (9) "Municipality" shall have the same meaning as in subsection (a)
22 of section 7-148;

23 (10) "Municipal funds" means any bond revenue or any money
24 appropriated or allocated by a municipality;

25 (11) "Municipal road" means any public highway, road, street,
26 avenue, alley, driveway, parkway or place, under the control of a
27 municipality of the state, dedicated, appropriated or opened to public
28 travel;

29 [(9)] (12) "Permanent outdoor luminaire" means any luminaire or
30 system of luminaires that is outdoors and intended to be used for
31 seven days or longer; [and]

32 [(10)] (13) "State funds" means any bond revenues or any money
33 appropriated or allocated by the General Assembly; and

34 (14) "State highway" shall have the same meaning as in subsection
35 (a) of section 13a-1.

36 (b) Except as provided in subsection (c) of this section, no state or
37 municipal funds shall be used to install or replace a permanent
38 outdoor luminaire for roadway lighting unless (1) the luminaire is
39 designed to maximize energy conservation and to minimize light
40 pollution, glare and light trespass, (2) the luminaire's illuminance is

41 equal to the minimum illuminance adequate for the intended purpose
42 of the lighting, (3) for a luminaire with a rated output of more than
43 1800 lumens used on state secondary highways, as defined in section
44 13a-14, and state special service highways, as defined in said section
45 13a-14, such luminaire is a full cutoff luminaire, (4) for a luminaire
46 with a rated output of more than 1800 lumens used on municipal
47 roads, such luminaire is a full cutoff luminare, (5) for a luminaire with
48 a rated output of more than 1800 lumens used on state primary
49 highways, as defined in said section 13a-14, for which, in the opinion
50 of the Commissioner of Transportation, use of a full cutoff luminaire
51 shall not compromise the safety of the highway, increase the cost of the
52 lighting plan or lighting replacement for the highway or violate any
53 provision of federal law, such luminaire is a full cutoff luminaire, [and
54 (5)] (6) the Commissioner of Transportation determines that the
55 purpose of the lighting installation or replacement of lights on state
56 highways cannot be achieved by reducing the speed limit in the area to
57 be lighted or by installing reflectorized roadway markers, lines,
58 warnings, informational signs or other means of passive or reflective
59 lighting, and (7) the chief elected officer of a municipality or such
60 officer's designee, determines that for a municipal road the purpose of
61 the lighting installation or replacement cannot be achieved by reducing
62 the speed limit in the area to be lighted or by installing reflectorized
63 roadway markers, lines, warnings, informational signs or other means
64 of passive or reflective lighting.

65 (c) The Commissioner of Transportation or [his] the commissioner's
66 designee may waive the provisions of subdivision (3) of subsection (b)
67 of this section when, after a request for such a waiver has been made
68 and reviewed, the commissioner or [his] the commissioner's designee
69 determines that such a waiver is necessary for the lighting application.
70 Requests for such a waiver shall be made to the commissioner or [his]
71 the commissioner's designee in such form as the commissioner shall
72 prescribe and shall include, without limitation, a description of the
73 lighting plan, a description of the efforts that have been made to
74 comply with the provisions of subdivision (3) of subsection (b) of this

75 section and the reasons such a waiver is necessary. In reviewing a
76 request for such a waiver, the commissioner shall consider design
77 safety, costs and other factors deemed appropriate by the
78 commissioner.

79 (d) The chief elected official of a municipality or said official's
80 designee may waive the provisions of subdivision (4) of subsection (b)
81 of this section when, after a request for such a waiver has been made
82 and reviewed, said official or said official's designee determines that
83 such a waiver is necessary for the lighting application. Requests for
84 such a waiver shall be made to said official or said official's designee in
85 such form as said official shall prescribe and shall include, without
86 limitation, a description of the lighting plan, a description of the efforts
87 that have been made to comply with the provisions of subdivision (4)
88 of subsection (b) of this section and the reasons such a waiver is
89 necessary. In reviewing a request for such a waiver, said official shall
90 consider design safety, costs and other factors deemed appropriate by
91 said official.

92 (e) No public utility company may install or replace a permanent
93 outdoor luminaire for roadway lighting, if the cost of operating such
94 luminaire is paid for by municipal funds, unless (1) the luminaire is
95 designed to maximize energy conservation and to minimize light
96 pollution, glare and light trespass, (2) the luminaire's illuminance is
97 equal to the minimum illuminance adequate for the intended purpose
98 of the lighting, and (3) for a luminaire with a rated output of more than
99 1800 lumens used on municipal roads, such luminaire is a full cutoff
100 luminaire. The chief elected official of a municipality or said official's
101 designee may waive the provisions of subdivision (3) of this subsection
102 when, after written notice from the public utility company thirty days
103 prior to the installation or replacement of said luminaire, said official
104 or said official's designee determines that a waiver is necessary for the
105 lighting application. Such notice shall be in such form as said official
106 shall prescribe and may include a description of the lighting plan and a
107 description of the efforts that have been made to comply with the
108 provisions of subdivision (3) of this subsection. Said official may

109 consider design safety, costs and other factors deemed appropriate by
110 said official.

111 [(d)] (f) The provisions of this section shall not apply to the
112 installation or replacement of luminaires for which the Secretary of the
113 Office of Policy and Management (1) conducts a life-cycle cost analysis
114 of one or more luminaires which meet the requirements set forth in
115 subsection (b) of this section and one or more luminaires which do not
116 meet such requirements, and (2) certifies that a luminaire which meets
117 such requirements is not cost effective and is not the most appropriate
118 alternative based on the life-cycle cost analysis.

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

OFA Fiscal Note

State Impact: Potential Workload Increase

Affected Agencies: Office of Policy and Management

Municipal Impact: Potential Minimal Costs

Explanation

State Impact:

Since the provisions of this bill already apply to road lighting bought with state funds, no fiscal impact on the state from the road lighting requirement is anticipated. Any workload increase to the Office of Policy and Management (OPM) from the provision which allows the OPM Secretary to exempt municipal lighting from the requirements in the bill (as he already can for state lighting) can be handled within normal budgetary resources.

Municipal Impact:

This bill extends the lighting requirements that currently apply to road lighting that are state funded under Section 13a-110a of the general statutes to municipalities and to public utility companies. Thus, the bill requires full cut-off luminaires at time of replacement. (The life span of a fixture is 20 to 26 years). Currently fixtures of semi-cut off luminaries cost \$40; the cost of full cut-off luminaries is \$43. Therefore, it is anticipated that costs would be minimal and can be absorbed within budgetary resources. Moreover, the vast majority of street lighting is owned and maintained by utility companies and the

costs are subsequently charged to the municipalities. It is very likely that in these cases any increased costs might be so imperceptible that the costs might not be passed on to municipalities or might be built into the rate. The bill extends the waiver from the luminaire requirement to municipalities. This provision would result in no fiscal impact, if exercised.

House "A" which extends same provisions to public utility companies would have no state or municipal impact.

OLR Amended Bill Analysis

sHB 5449 (as amended by House "A")*

AN ACT REQUIRING ENERGY EFFICIENT ROADWAY LIGHTS.**SUMMARY:**

By law, road lighting bought with state funds must be designed to maximize energy conservation, minimize light pollution, and meet other criteria. The transportation commissioner may waive these requirements under certain circumstances. This bill extends nearly identical requirements to (1) lighting bought with municipal funds and (2) lighting installed by a utility company whose operating costs are paid by municipal funds. It allows municipal chief elected officials to waive the requirements. Municipal funds include bond revenue and any money a municipality appropriates or allocates.

*House Amendment "A" adds the provisions on utility-installed lighting.

EFFECTIVE DATE: October 1, 2001

OUTDOOR LIGHTING

The bill requires towns to comply with the requirements for lighting state roads whenever they use municipal funds to install or replace permanent lighting on municipal roads. Public utilities must meet these requirements when they install or replace such lighting if municipal funds pay its operating costs. The requirements are that they (1) lighting be designed to maximize energy conservation and minimize light pollution, glare, and light trespass (light shining onto other people's property) and (2) lighting level must be the minimum needed for the intended purpose.

By law, state-funded lights on all state primary highways must have a full-cutoff luminaire if the light's output exceeds 1,800 lumens. (A full-cutoff luminaire prevents light from shining up above the lamp.) Such lighting on secondary and special service highways must be equipped with this device under most circumstances. The bill requires this

device on all municipally-funded lighting with this output on all municipal roads.

The law allows the commissioner or his designee to waive this requirement and specifies the process for doing so. The bill allows chief elected officials or their designees to waive the requirement with respect to municipal roads under the same procedure with regard to municipally-installed lighting. With regard to utility-installed lighting, the chief elected official or his designee can waive the requirement if the company applies for a waiver 30 days before the installation.

By law, permanent lighting cannot be installed or replaced on state highways unless the commissioner or his designee determines that alternative methods, such as installing reflective road markings or reducing the speed limit on the road, cannot accomplish the same ends as the lighting. The bill extends this limitation to municipally-funded lighting installed by the municipality, making the chief elected official or his designee responsible for determining if alternative methods cannot achieve the same ends as the lighting.

The bill also allows the Office of Policy and Management secretary to exempt municipal lighting from all of the above requirements as he already can for state lighting.

BACKGROUND

Legislative History

On April 27 and May 4, the House referred the original version of the bill (File 397) to the Planning and Development and Energy and Technology committees respectively, which reported the bill without changes on April 30 and May 8, respectively.

COMMITTEE ACTION

Transportation Committee

Joint Favorable Substitute
Yea 18 Nay 10

Planning and Development Committee

Joint Favorable Report
Yea 11 Nay 4

Energy and Technology Committee

Joint Favorable Report
Yea 13 Nay 2