

# STATE OF NEW YORK

3216

2017-2018 Regular Sessions

## IN ASSEMBLY

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Introduced by M. of A. ROSENTHAL, ENGLEBRIGHT, PAULIN, LUPARDO, CAHILL, KAVANAGH, OTIS -- Multi-Sponsored by -- M. of A. ABINANTI, DINOWITZ, GALEF, GLICK, GOTTFRIED, ORTIZ, SEPULVEDA -- read once and referred to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law, the public service law and the public buildings law, in relation to enacting the healthy, safe and energy efficient outdoor lighting act

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

1 Section 1. The environmental conservation law is amended by adding a  
2 new article 20 to read as follows:

### ARTICLE 20

#### HEALTHY, SAFE AND ENERGY EFFICIENT OUTDOOR LIGHTING ACT

3 Section 20-0101. Legislative findings and policy.

4 20-0103. Short title.

5 20-0105. Definitions.

6 20-0107. Dark-sky preserves.

7 20-0109. Model comprehensive outdoor lighting ordinance.

8 20-0111. Informational pamphlet.

9 20-0113. Applicability.

10 § 20-0101. Legislative findings and policy.

11 The legislature finds that careful management of outdoor lighting is  
12 necessary to protect the health, safety, energy security, environment  
13 and general welfare of the people of the state.

14 Until the end of the nineteenth century, waning daylight brought an  
15 end to many of mankind's activities. This began to change with the  
16 introduction of incandescent lamps, which dramatically increased the  
17 range of pursuits possible after dark. Civic, social, cultural, educa-  
18 tional, and commercial endeavors now go forward with an ease and freedom  
19 unimaginable in earlier times. As the science of lighting evolved,  
20 however, technical advancements gradually outstripped the basic require-  
21 ments.

22 EXPLANATION--Matter in italics (underscored) is new; matter in brackets  
[-] is old law to be omitted.

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1 ment of providing adequate illumination for the task at hand. At least  
2 in the case of outdoor lighting, there is now growing recognition that  
3 the consequences are not altogether benign.

4 Increasing scientific and experiential evidence demonstrates that  
5 misdirected, unshielded, excessive or unnecessary outdoor lighting  
6 has major detrimental effects. Energy is wasted when illumination is  
7 used excessively and inefficiently, causing unnecessary health-threaten-  
8 ing emissions from burning of fossil fuels. Such emissions also pollute  
9 the state's waters and contribute to global warming.

10 Because the human eye automatically adjusts to the brightest light in  
11 view, the glare from unshielded or excessively bright outdoor lighting  
12 can actually interfere with the clear perception of other objects in  
13 one's field of vision.

14 Inappropriate use of outdoor lighting can have a negative impact on  
15 the natural environment, interfering with normal patterns of activity,  
16 behavior and physiology of flora and fauna. Recent research has indi-  
17 cated that exposure to light at night can upset normal human circadian  
18 rhythms, thereby disrupting hormone secretions and weakening the body's  
19 immune system.

20 In addition, sky glow from unshielded and unnecessary outdoor lighting  
21 thwarts the ages-old human yearning to gaze at, learn from and enjoy the  
22 wonders of the night sky.

23 The legislature further finds that cost-effective means and practices  
24 exist through appropriate use of fixtures to provide adequate night  
25 lighting when needed that is safe and effective but causes minimal light  
26 trespass, glare, and sky glow. These means and practices are possible  
27 with increased public awareness through education and prudent public  
28 action as provided in this article.

29 Therefore, it is the purpose of this article to begin limiting light  
30 pollution in the state in a cost-effective and socially feasible manner  
31 in order to protect public health, safety and the environment.

32 § 20-0103. Short title.

33 This article shall be known and may be cited as the "healthy, safe and  
34 energy efficient outdoor lighting act".

35 § 20-0105. Definitions.

36 As used in this article:

37 1. "Fixture" means a complete lighting unit, including a lamp together  
38 with the parts designed to distribute the light, to position and protect  
39 the lamp, and to connect the lamp to the power supply.

40 2. "Glare" means light emitted by a fixture that causes discomfort or  
41 reduced visibility or momentary blindness.

42 3. "Lamp" means a light bulb or other component of a fixture that  
43 changes electricity into visible light.

44 4. "Light pollution" mean any adverse effect of outdoor lighting  
45 including, but not limited to, glare and sky glow.

46 5. "Lumen" means a standard unit of measurement of the quantity of  
47 light emitted from a lamp, as distinct from "watt", a measure of power  
48 consumption.

49 6. "Sky glow" means the illumination of the nighttime sky that results  
50 from upward shining light, which is reflected off molecules and parti-  
51 cles of dirt and moisture in the atmosphere.

52 § 20-0107. Dark-sky preserves.

53 1. The commissioner in consultation with affected state agencies and  
54 local authorities may identify and nominate as "dark-sky preserves"  
55 areas of the state which are especially suitable for astronomical obser-  
56 vations and/or which provide, due to their darkness, nocturnal benefits

1 to flora and fauna, or to citizens desiring views of unpolluted or rela-  
2 tively unpolluted night skies.

3 2. Within eighteen months of the nomination of the first dark-sky  
4 preserve, the commissioner shall prepare and submit to the governor and  
5 legislature for review and approval a proposed plan to preserve these  
6 areas as necessary and appropriate to protect astronomical observations  
7 and/or flora and fauna.

8 § 20-0109. Model comprehensive outdoor lighting ordinance.

9 The commissioner, in consultation with the New York state energy  
10 research and development authority, the secretary of state and the  
11 commissioners of transportation and the office of general services,  
12 shall prepare or cause to be prepared and distributed to cities, towns  
13 and villages a model comprehensive outdoor lighting ordinance for the  
14 purpose of saving energy, reducing unnecessary glare and reducing unne-  
15 cessary sky glow.

16 § 20-0111. Informational pamphlet.

17 The commissioner, in consultation with the New York state energy  
18 research and development authority and giving consideration to the  
19 recommended practices adopted by the illuminating engineering society of  
20 North America, shall develop and distribute to every municipality and  
21 every electric corporation or municipality providing electric service in  
22 this state a pamphlet containing information regarding the provisions of  
23 this article with respect to outdoor lighting.

24 § 20-0113. Applicability.

25 The provisions of this article are cumulative and supplemental and  
26 shall not apply within any county or municipality that, by ordinance or  
27 resolution, has adopted provisions restricting light pollution that are  
28 as, or more, stringent than the provisions of this article.

29 § 2. Section 44 of the public service law is amended by adding a new  
30 subdivision 6 to read as follows:

31 6. The commission shall require every electric corporation or munici-  
32 pality providing electric service to send to each customer in its bills  
33 a copy of the informational pamphlet relating to outdoor lighting devel-  
34 oped by the department of environmental conservation pursuant to section  
35 20-0113 of the environmental conservation law. The commission shall  
36 coordinate with the department of environmental conservation to ensure  
37 that every electric corporation and municipality providing electric  
38 service shall receive an adequate supply of such pamphlets suitable for  
39 distribution to its customers in their utility bills.

40 § 3. Paragraphs e, i and o of subdivision 1, and paragraph e of subdivi-  
41 sion 2 of section 143 of the public buildings law, as added by chapter  
42 512 of the laws of 2014, are amended and two new paragraphs q and r are  
43 added to subdivision 1 to read as follows:

44 e. "Glare" means light emitted by a fixture that causes discomfort or  
45 reduced visibility or momentary blindness.

46 i. "Lumen" means a standard unit of measurement of the quantity of  
47 light emitted from a lamp as distinct from "watt", a measure of power  
48 consumption.

49 o. "Sky glow" means [~~a condition caused by light directed upwards or~~  
50 ~~sideways reducing one's ability to view the night sky] the illumination  
51 of the nighttime sky that results from upward shining light, which is  
52 reflected off molecules and particles of direct and moisture in the  
53 atmosphere.~~

54 q. "Continuous roadway lighting design" means a lighting plan that  
55 estimates light on a roadway from calculations utilizing factors includ-  
56 ing, but not limited to, a particular fixture, mounting height, or pole

1 spacing, in order to meet a specified goal such as minimum lighting  
2 level, uniformity, or small-target visibility. Lighting placed only at  
3 intersections or other potentially hazardous locations shall not be  
4 considered continuous.

5 r. "Light pollution" means any adverse effect of outdoor lighting  
6 including, but not limited to, glare and sky glow.

7 e. For illumination by new permanent outdoor fixtures for applications  
8 described in paragraph a, b, c or d of this subdivision, only illumi-  
9 nance levels that are no greater than those required for the intended  
10 purpose may be used, as established by the commissioner of the office of  
11 general services in consultation with the department of transportation  
12 and the New York State Energy Research and Development Authority, and  
13 given due consideration to lighting industry standards and practices and  
14 that met the fixture efficiency and lamp luminous efficacy standards  
15 developed pursuant to subdivision five of this section.

16 § 4. Paragraphs g and h of subdivision 3 of section 143 of the public  
17 buildings law, as added by chapter 512 of the laws of 2014, are amended  
18 and a new paragraph i is added to read as follows:

19 g. to lighting intended for tunnels and roadway underpasses; [~~or~~]

20 h. if the combined cost of acquiring and operating a fixture complying  
21 with paragraphs a, b and c of this subdivision is more than fifteen  
22 percent greater than the cost of acquiring and operating comparable  
23 non-compliant fixtures over the life of the lighting system and if a  
24 written determination with findings has been made that no compliant  
25 fixture exists that would meet the cost limitation[~~+~~]; or

26 i. the fixture is a historic-style decorative fixture which is part of  
27 a continuous roadway lighting design where the replacement of the  
28 fixture piecemeal with compliant fixtures would unacceptably degrade the  
29 aesthetic characteristics of the existing lighting design.

30 § 5. Section 143 of the public buildings law is amended by adding two  
31 new subdivisions 5 and 6 to read as follows:

32 5. The commissioner of environmental conservation, in consultation  
33 with the New York state energy research and development authority, shall  
34 develop fixture efficiency and lamp luminous efficacy standards for  
35 lighting regulated under this section. For purposes of this section  
36 "fixture efficiency" shall mean the percentage of lumens generated by a  
37 lamp which actually leave a fixture; and "lamp luminous efficacy" shall  
38 mean the amount of light generated by a lamp/ballast system (in lumens)  
39 divided by the power it uses (in watts). Such standards shall be promul-  
40 gated on or before the effective date of this article and shall take  
41 effect one hundred eighty days after such effective date.

42 6. In recognition of the ongoing research into and development of new  
43 technologies in the outdoor lighting field, the department of environ-  
44 mental conservation, in consultation with the New York state energy  
45 research and development authority, shall report to the legislature  
46 regarding new findings from research and new technologies that may  
47 affect the provisions of this article. Such reporting may include recom-  
48 ended amendments to this article to increase its effectiveness in  
49 implementing the purposes of achieving healthy, safe and energy effi-  
50 cient outdoor lighting.

51 § 6. This act shall take effect on the first of January next succeed-  
52 ing the date upon which it shall have become a law; provided, however,  
53 that effective immediately, the addition, amendment and/or repeal of any  
54 rule or regulation or development of any standards necessary for the  
55 implementation of this act on its effective date are authorized to be  
56 made and completed on or before such effective date; and provided

1 further that on and after the date on which this act shall have become a  
2 law every state agency and public corporation shall comply with the  
3 changes to section 143 of the public buildings law as amended by  
4 sections three, four and five of this act, but provided further that  
5 this act shall not apply to projects for the installation or replacement  
6 of permanent outdoor fixtures which have already received final design  
7 approval prior to the effective date of this act.