

586--A

2015-2016 Regular Sessions

I N A S S E M B L Y

(PREFILED)

January 7, 2015

Introduced by M. of A. ROSENTHAL, ENGLEBRIGHT, PAULIN, LUPARDO, CAHILL, BROOK-KRASNY, KAVANAGH, OTIS -- Multi-Sponsored by -- M. of A. ABINANTI, BRENNAN, DINOWITZ, GALEF, GLICK, GOTTFRIED, ORTIZ, SEPULVEDA -- read once and referred to the Committee on Environmental Conservation -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

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:

3 ARTICLE 20

4 HEALTHY, SAFE AND ENERGY EFFICIENT OUTDOOR LIGHTING ACT

5 SECTION 20-0101. LEGISLATIVE FINDINGS AND POLICY.

6 20-0103. SHORT TITLE.

7 20-0105. DEFINITIONS.

8 20-0107. DARK-SKY PRESERVES.

9 20-0109. MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE.

10 20-0111. INFORMATIONAL PAMPHLET.

11 20-0113. APPLICABILITY.

12 S 20-0101. LEGISLATIVE FINDINGS AND POLICY.

13 THE LEGISLATURE FINDS THAT CAREFUL MANAGEMENT OF OUTDOOR LIGHTING IS
14 NECESSARY TO PROTECT THE HEALTH, SAFETY, ENERGY SECURITY, ENVIRONMENT
15 AND GENERAL WELFARE OF THE PEOPLE OF THE STATE.

16 UNTIL THE END OF THE NINETEENTH CENTURY, WANING DAYLIGHT BROUGHT AN
17 END TO MANY OF MANKIND'S ACTIVITIES. THIS BEGAN TO CHANGE WITH THE
18 INTRODUCTION OF INCANDESCENT LAMPS, WHICH DRAMATICALLY INCREASED THE
19 RANGE OF PURSUITS POSSIBLE AFTER DARK. CIVIC, SOCIAL, CULTURAL, EDUCA-

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

LBD04030-02-5

TIONAL, AND COMMERCIAL ENDEAVORS NOW GO FORWARD WITH AN EASE AND FREEDOM UNIMAGINABLE IN EARLIER TIMES. AS THE SCIENCE OF LIGHTING EVOLVED, HOWEVER, TECHNICAL ADVANCEMENTS GRADUALLY OUTSTRIPPED THE BASIC REQUIREMENT OF PROVIDING ADEQUATE ILLUMINATION FOR THE TASK AT HAND. AT LEAST IN THE CASE OF OUTDOOR LIGHTING, THERE IS NOW GROWING RECOGNITION THAT THE CONSEQUENCES ARE NOT ALTOGETHER BENIGN.

INCREASING SCIENTIFIC AND EXPERIENTIAL EVIDENCE DEMONSTRATES THAT MISDIRECTED, UNSHIELDED, EXCESSIVE OR UNNECESSARY OUTDOOR NIGHT LIGHTING HAS MAJOR DETRIMENTAL EFFECTS. ENERGY IS WASTED WHEN ILLUMINATION IS USED EXCESSIVELY AND INEFFICIENTLY, CAUSING UNNECESSARY HEALTH-THREATENING EMISSIONS FROM BURNING OF FOSSIL FUELS. SUCH EMISSIONS ALSO POLLUTE THE STATE'S WATERS AND CONTRIBUTE TO GLOBAL WARMING.

BECAUSE THE HUMAN EYE AUTOMATICALLY ADJUSTS TO THE BRIGHTEST LIGHT IN VIEW, THE GLARE FROM UNSHIELDED OR EXCESSIVELY BRIGHT OUTDOOR LIGHTING CAN ACTUALLY INTERFERE WITH THE CLEAR PERCEPTION OF OTHER OBJECTS IN ONE'S FIELD OF VISION.

INAPPROPRIATE USE OF OUTDOOR LIGHTING CAN HAVE A NEGATIVE IMPACT ON THE NATURAL ENVIRONMENT, INTERFERING WITH NORMAL PATTERNS OF ACTIVITY, BEHAVIOR AND PHYSIOLOGY OF FLORA AND FAUNA. RECENT RESEARCH HAS INDICATED THAT EXPOSURE TO LIGHT AT NIGHT CAN UPSET NORMAL HUMAN CIRCADIAN RHYTHMS, THEREBY DISRUPTING HORMONE SECRETIONS AND WEAKENING THE BODY'S IMMUNE SYSTEM.

IN ADDITION, SKY GLOW FROM UNSHIELDED AND UNNECESSARY OUTDOOR LIGHTING THWARTS THE AGES-OLD HUMAN YEARNING TO GAZE AT, LEARN FROM AND ENJOY THE WONDERS OF THE NIGHT SKY.

THE LEGISLATURE FURTHER FINDS THAT COST-EFFECTIVE MEANS AND PRACTICES EXIST THROUGH APPROPRIATE USE OF FIXTURES TO PROVIDE ADEQUATE NIGHT LIGHTING WHEN NEEDED THAT IS SAFE AND EFFECTIVE BUT CAUSES MINIMAL LIGHT TRESPASS, GLARE, AND SKY GLOW. THESE MEANS AND PRACTICES ARE POSSIBLE WITH INCREASED PUBLIC AWARENESS THROUGH EDUCATION AND PRUDENT PUBLIC ACTION AS PROVIDED IN THIS ARTICLE.

THEREFORE, IT IS THE PURPOSE OF THIS ARTICLE TO BEGIN LIMITING LIGHT POLLUTION IN THE STATE IN A COST-EFFECTIVE AND SOCIALLY FEASIBLE MANNER IN ORDER TO PROTECT PUBLIC HEALTH, SAFETY AND THE ENVIRONMENT.

S 20-0103. SHORT TITLE.

THIS ARTICLE SHALL BE KNOWN AND MAY BE CITED AS THE "HEALTHY, SAFE AND ENERGY EFFICIENT OUTDOOR LIGHTING ACT".

S 20-0105. DEFINITIONS.

AS USED IN THIS ARTICLE:

1. "FIXTURE" MEANS A COMPLETE LIGHTING UNIT, INCLUDING A LAMP TOGETHER WITH THE PARTS DESIGNED TO DISTRIBUTE THE LIGHT, TO POSITION AND PROTECT THE LAMP, AND TO CONNECT THE LAMP TO THE POWER SUPPLY.

2. "GLARE" MEANS LIGHT EMITTED BY A FIXTURE THAT CAUSES DISCOMFORT OR REDUCED VISIBILITY OR MOMENTARY BLINDNESS.

3. "LAMP" MEANS A LIGHT BULB OR OTHER COMPONENT OF A FIXTURE THAT CHANGES ELECTRICITY INTO VISIBLE LIGHT.

4. "LIGHT POLLUTION" MEAN ANY ADVERSE EFFECT OF OUTDOOR LIGHTING INCLUDING, BUT NOT LIMITED TO, GLARE AND SKY GLOW.

5. "LUMEN" MEANS A STANDARD UNIT OF MEASUREMENT OF THE QUANTITY OF LIGHT EMITTED FROM A LAMP, AS DISTINCT FROM "WATT", A MEASURE OF POWER CONSUMPTION.

6. "SKY GLOW" MEANS THE ILLUMINATION OF THE NIGHTTIME SKY THAT RESULTS FROM UPWARD SHINING LIGHT, WHICH IS REFLECTED OFF MOLECULES AND PARTICLES OF DIRT AND MOISTURE IN THE ATMOSPHERE.

S 20-0107. DARK-SKY PRESERVES.

1 1. THE COMMISSIONER IN CONSULTATION WITH AFFECTED STATE AGENCIES AND
2 LOCAL AUTHORITIES MAY IDENTIFY AND NOMINATE AS "DARK-SKY PRESERVES"
3 AREAS OF THE STATE WHICH ARE ESPECIALLY SUITABLE FOR ASTRONOMICAL OBSER-
4 VATIONS AND/OR WHICH PROVIDE, DUE TO THEIR DARKNESS, NOCTURNAL BENEFITS
5 TO FLORA AND FAUNA, OR TO CITIZENS DESIRING VIEWS OF UNPOLLUTED OR RELA-
6 TIVELY UNPOLLUTED NIGHT SKIES.

7 2. WITHIN EIGHTEEN MONTHS OF THE NOMINATION OF THE FIRST DARK-SKY
8 PRESERVE, THE COMMISSIONER SHALL PREPARE AND SUBMIT TO THE GOVERNOR AND
9 LEGISLATURE FOR REVIEW AND APPROVAL A PROPOSED PLAN TO PRESERVE THESE
10 AREAS AS NECESSARY AND APPROPRIATE TO PROTECT ASTRONOMICAL OBSERVATIONS
11 AND/OR FLORA AND FAUNA.

12 S 20-0109. MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE.

13 THE COMMISSIONER, IN CONSULTATION WITH THE NEW YORK STATE ENERGY
14 RESEARCH AND DEVELOPMENT AUTHORITY, THE SECRETARY OF STATE AND THE
15 COMMISSIONERS OF TRANSPORTATION AND THE OFFICE OF GENERAL SERVICES,
16 SHALL PREPARE OR CAUSE TO BE PREPARED AND DISTRIBUTED TO CITIES, TOWNS
17 AND VILLAGES A MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE FOR THE
18 PURPOSE OF SAVING ENERGY, REDUCING UNNECESSARY GLARE AND REDUCING UNNEC-
19 ESSARY SKY GLOW.

20 S 20-0111. INFORMATIONAL PAMPHLET.

21 THE COMMISSIONER, IN CONSULTATION WITH THE NEW YORK STATE ENERGY
22 RESEARCH AND DEVELOPMENT AUTHORITY AND GIVING CONSIDERATION TO THE
23 RECOMMENDED PRACTICES ADOPTED BY THE ILLUMINATING ENGINEERING SOCIETY OF
24 NORTH AMERICA, SHALL DEVELOP AND DISTRIBUTE TO EVERY MUNICIPALITY AND
25 EVERY ELECTRIC CORPORATION OR MUNICIPALITY PROVIDING ELECTRIC SERVICE IN
26 THIS STATE A PAMPHLET CONTAINING INFORMATION REGARDING THE PROVISIONS OF
27 THIS ARTICLE WITH RESPECT TO OUTDOOR LIGHTING.

28 S 20-0113. APPLICABILITY.

29 THE PROVISIONS OF THIS ARTICLE ARE CUMULATIVE AND SUPPLEMENTAL AND
30 SHALL NOT APPLY WITHIN ANY COUNTY OR MUNICIPALITY THAT, BY ORDINANCE OR
31 RESOLUTION, HAS ADOPTED PROVISIONS RESTRICTING LIGHT POLLUTION THAT ARE
32 AS, OR MORE, STRINGENT THAN THE PROVISIONS OF THIS ARTICLE.

33 S 2. Section 44 of the public service law is amended by adding a new
34 subdivision 6 to read as follows:

35 6. THE COMMISSION SHALL REQUIRE EVERY ELECTRIC CORPORATION OR MUNICI-
36 PALITY PROVIDING ELECTRIC SERVICE TO SEND TO EACH CUSTOMER IN ITS BILLS
37 A COPY OF THE INFORMATIONAL PAMPHLET RELATING TO OUTDOOR LIGHTING DEVEL-
38 OPED BY THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO SECTION
39 20-0113 OF THE ENVIRONMENTAL CONSERVATION LAW. THE COMMISSION SHALL
40 COORDINATE WITH THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO ENSURE
41 THAT EVERY ELECTRIC CORPORATION AND MUNICIPALITY PROVIDING ELECTRIC
42 SERVICE SHALL RECEIVE AN ADEQUATE SUPPLY OF SUCH PAMPHLETS SUITABLE FOR
43 DISTRIBUTION TO ITS CUSTOMERS IN THEIR UTILITY BILLS.

44 S 3. Paragraphs e, i and o of subdivision 1, and paragraph e of subdi-
45 vision 2 of section 143 of the public buildings law, as added by chapter
46 512 of the laws of 2014, are amended and two new paragraphs q and r are
47 added to subdivision 1 to read as follows:

48 e. "Glare" means light emitted by a fixture that causes discomfort or
49 reduced visibility OR MOMENTARY BLINDNESS.

50 i. "Lumen" means a standard unit of measurement of the quantity of
51 light emitted from a lamp AS DISTINCT FROM "WATT", A MEASURE OF POWER
52 CONSUMPTION.

53 o. "Sky glow" means [a condition caused by light directed upwards or
54 sideways reducing one's ability to view the night sky] THE ILLUMINATION
55 OF THE NIGHTTIME SKY THAT RESULTS FROM UPWARD SHINING LIGHT, WHICH IS

1 REFLECTED OFF MOLECULES AND PARTICLES OF DIRECT AND MOISTURE IN THE
2 ATMOSPHERE.

3 Q. "CONTINUOUS ROADWAY LIGHTING DESIGN" MEANS A LIGHTING PLAN THAT
4 ESTIMATES LIGHT ON A ROADWAY FROM CALCULATIONS UTILIZING FACTORS INCLUD-
5 ING, BUT NOT LIMITED TO, A PARTICULAR FIXTURE, MOUNTING HEIGHT, OR POLE
6 SPACING, IN ORDER TO MEET A SPECIFIED GOAL SUCH AS MINIMUM LIGHTING
7 LEVEL, UNIFORMITY, OR SMALL-TARGET VISIBILITY. LIGHTING PLACED ONLY AT
8 INTERSECTIONS OR OTHER POTENTIALLY HAZARDOUS LOCATIONS SHALL NOT BE
9 CONSIDERED CONTINUOUS.

10 R. "LIGHT POLLUTION" MEANS ANY ADVERSE EFFECT OF OUTDOOR LIGHTING
11 INCLUDING, BUT NOT LIMITED TO, GLARE AND SKY GLOW.

12 e. For illumination by new permanent outdoor fixtures for applications
13 described in paragraph a, b, c or d of this subdivision, only illumi-
14 nance levels that are no greater than those required for the intended
15 purpose may be used, as established by the commissioner of the office of
16 general services in consultation with the department of transportation
17 and the New York State Energy Research and Development Authority, and
18 given due consideration to lighting industry standards and practices AND
19 THAT MET THE FIXTURE EFFICIENCY AND LAMP LUMINOUS EFFICACY STANDARDS
20 DEVELOPED PURSUANT TO SUBDIVISION FIVE OF THIS SECTION.

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

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

25 h. if the combined cost of acquiring and operating a fixture complying
26 with paragraphs a, b and c of this subdivision is more than fifteen
27 percent greater than the cost of acquiring and operating comparable
28 non-compliant fixtures over the life of the lighting system and if a
29 written determination with findings has been made that no compliant
30 fixture exists that would meet the cost limitation[.]; OR

31 i. THE FIXTURE IS A HISTORIC-STYLE DECORATIVE FIXTURE WHICH IS PART OF
32 A CONTINUOUS ROADWAY LIGHTING DESIGN WHERE THE REPLACEMENT OF THE
33 FIXTURE PIECEMEAL WITH COMPLIANT FIXTURES WOULD UNACCEPTABLY DEGRADE THE
34 AESTHETIC CHARACTERISTICS OF THE EXISTING LIGHTING DESIGN.

35 S 5. Section 143 of the public buildings law is amended by adding two
36 new subdivisions 5 and 6 to read as follows:

37 5. THE COMMISSIONER OF ENVIRONMENTAL CONSERVATION, IN CONSULTATION
38 WITH THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, SHALL
39 DEVELOP FIXTURE EFFICIENCY AND LAMP LUMINOUS EFFICACY STANDARDS FOR
40 LIGHTING REGULATED UNDER THIS SECTION. FOR PURPOSES OF THIS SECTION
41 "FIXTURE EFFICIENCY" SHALL MEAN THE PERCENTAGE OF LUMENS GENERATED BY A
42 LAMP WHICH ACTUALLY LEAVE A FIXTURE; AND "LAMP LUMINOUS EFFICACY" SHALL
43 MEAN THE AMOUNT OF LIGHT GENERATED BY A LAMP/BALLAST SYSTEM (IN LUMENS)
44 DIVIDED BY THE POWER IT USES (IN WATTS). SUCH STANDARDS SHALL BE PROMUL-
45 GATED ON OR BEFORE THE EFFECTIVE DATE OF THIS ARTICLE AND SHALL TAKE
46 EFFECT ONE HUNDRED EIGHTY DAYS AFTER SUCH EFFECTIVE DATE.

47 6. IN RECOGNITION OF THE ONGOING RESEARCH INTO AND DEVELOPMENT OF NEW
48 TECHNOLOGIES IN THE OUTDOOR LIGHTING FIELD, THE DEPARTMENT OF ENVIRON-
49 MENTAL CONSERVATION, IN CONSULTATION WITH THE NEW YORK STATE ENERGY
50 RESEARCH AND DEVELOPMENT AUTHORITY, SHALL REPORT TO THE LEGISLATURE
51 REGARDING NEW FINDINGS FROM RESEARCH AND NEW TECHNOLOGIES THAT MAY
52 AFFECT THE PROVISIONS OF THIS ARTICLE. SUCH REPORTING MAY INCLUDE RECOM-
53 MENDED AMENDMENTS TO THIS ARTICLE TO INCREASE ITS EFFECTIVENESS IN
54 IMPLEMENTING THE PURPOSES OF ACHIEVING HEALTHY, SAFE AND ENERGY EFFI-
55 CIENT OUTDOOR LIGHTING.

1 S 6. This act shall take effect on the first of January next succeed-
2 ing the date upon which it shall have become a law; provided, however,
3 that if chapter 512 of the laws of 2014 shall not have taken effect on
4 or before such date then sections three, four and five of this act shall
5 take effect on the same date and in the same manner as such chapter of
6 the laws of 2014 takes effect; provided further, however, that effective
7 immediately, the addition, amendment and/or repeal of any rule or regu-
8 lation or development of any standards necessary for the implementation
9 of this act on its effective date is authorized to be made and completed
10 on or before such effective date; and provided further that on and after
11 the date on which this act shall have become a law every state agency
12 and public corporation shall comply with the changes to section 143 of
13 the public buildings law as amended by sections three, four and five of
14 this act, but provided further that this act shall not apply to projects
15 for the installation or replacement of permanent outdoor fixtures which
16 have already received final design approval prior to the effective date
17 of this act.