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4224

2013-2014 Regular Sessions

I N  S E N A T E

March 15, 2013

Introduced by Sen. MARCELLINO -- read twice and ordered printed, and when printed to be committed to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law and the public service 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:

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

ARTICLE 20

HEALTHY, SAFE AND ENERGY EFFICIENT OUTDOOR LIGHTING ACT

SECTION 20-0101. LEGISLATIVE FINDINGS AND POLICY.
20-0103. SHORT TITLE.
20-0105. DEFINITIONS.
20-0107. PERMANENT OUTDOOR LUMINAIRE.
20-0109. DARK-SKY PRESERVES.
20-0111. MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE.
20-0113. INFORMATIONAL PAMPHLET.
20-0115. APPLICABILITY.

S 20-0101. LEGISLATIVE FINDINGS AND POLICY.

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

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

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

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MENT 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-EFFICIENT MEANS AND PRACTICES EXIST THROUGH APPROPRIATE USE OF LUMINAIRES 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. "LUMINAIRE" MEANS A COMPLETE LIGHTING UNIT, INCLUDING A LAMP OR LAMPS TOGETHER WITH THE PARTS DESIGNED TO DISTRIBUTE THE LIGHT, TO POSITION AND PROTECT THE LAMPS, AND TO CONNECT THE LAMPS TO THE POWER SUPPLY; A LIGHT FIXTURE.

2. "GLARE" MEANS LIGHT EMITTED BY A LUMINAIRE THAT CAUSES REDUCED VISIBILITY OR MOMENTARY BLINDNESS BY SHINING DIRECTLY INTO THE EYES OF THE VIEWER.

3. "LAMP" MEANS THE COMPONENT OF A LUMINAIRE THAT PRODUCES LIGHT; A LIGHT BULB.

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

5. "LUMEN" MEANS THE UNIT OF MEASUREMENT USED TO QUANTIFY THE AMOUNT OF LIGHT PRODUCED BY A LAMP OR EMITTED FROM A LUMINAIRE, AS DISTINCT FROM "WATT", A MEASURE OF POWER CONSUMPTION.

6. "FULLY SHIELDED LUMINAIRE" MEANS A LUMINAIRE CONSTRUCTED AND INSTALLED IN SUCH A MANNER THAT ALL LIGHT EMITTED BY IT, EITHER DIRECTLY FROM THE LAMP OR A DIFFUSING ELEMENT, OR INDIRECTLY BY REFLECTION OR REFRACTION FROM ANY PART OF THE LUMINAIRE, IS PROJECTED BELOW A HORIZONTAL PLANE THROUGH THE LUMINAIRE'S LOWEST LIGHT EMITTING PART.

7. "PERMANENT OUTDOOR LUMINAIRE" MEANS ANY LUMINAIRE OR SYSTEM OF LUMINAIRES THAT IS OUTDOORS AND THAT IS USED FOR MORE THAN TEN DAYS IN A THREE HUNDRED SIXTY-FIVE DAY PERIOD.

8. "ROADWAY LIGHTING" MEANS PERMANENT OUTDOOR LUMINAIRES THAT ARE SPECIFICALLY INTENDED TO ILLUMINATE ROADWAYS FOR AUTOMOTIVE VEHICLES.

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

10. "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. PERMANENT OUTDOOR LUMINAIRE.

1. NO STATE AGENCY OR PUBLIC CORPORATION OPERATING IN THE STATE SHALL INSTALL OR CAUSE TO BE INSTALLED ANY NEW OR REPLACEMENT PERMANENT OUTDOOR LUMINAIRE UNLESS THE FOLLOWING CONDITIONS ARE MET:

(A) ANY LUMINAIRE WITH A LAMP OR LAMPS HAVING TOTAL INITIAL OUTPUT GREATER THAN 1800 LUMENS SHALL BE FULLY SHIELDED, EXCEPT THAT A HISTORIC-STYLE DECORATIVE LUMINAIRE MAY EMIT UP TO TWO PERCENT OF ITS TOTAL LUMENS ABOVE THE HORIZONTAL PLANE;

(B) IF A LIGHTING RECOMMENDATION PUBLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA APPLIES, FULL CONSIDERATION IS GIVEN TO THE MINIMUM MAINTAINED LIGHT LEVEL ADEQUATE TO MEET THE RECOMMENDATION;

(C) IF NO SUCH LIGHTING RECOMMENDATION APPLIES, NO MORE THAN THE MINIMUM MAINTAINED LIGHT LEVEL ADEQUATE FOR THE INTENDED PURPOSE IS USED;

(D) FOR ROADWAY LIGHTING UNASSOCIATED WITH INTERSECTIONS, A DETERMINATION IS MADE THAT THE PURPOSE OF THE LIGHTING INSTALLATION OR REPLACEMENT CANNOT BE ACHIEVED BY INSTALLATION OF REFLECTORIZED ROADWAY MARKERS, LINES, WARNINGS OR INFORMATIONAL SIGNS, OR OTHER PASSIVE MEANS;

(E) ADEQUATE CONSIDERATION HAS BEEN GIVEN TO CONSERVING ENERGY AND MINIMIZING GLARE AND SKY GLOW; AND

(F) THE NEW OR REPLACEMENT LUMINAIRE MEETS THE LUMINAIRE EFFICIENCY AND LAMP LUMINOUS EFFICACY STANDARDS DEVELOPED PURSUANT TO SUBDIVISION FIVE OF THIS SECTION.

2. THE FOLLOWING SITUATIONS SHALL BE EXEMPT FROM THE REQUIREMENTS OF SUBDIVISION ONE OF THIS SECTION:

(A) SITUATIONS WHERE FEDERAL LAWS, RULES AND REGULATIONS TAKE PRECEDENCE; AND

(B) SITUATIONS WHERE FIRE, POLICE, RESCUE, OR REPAIR PERSONNEL INCLUDING UTILITY PERSONNEL NEED LIGHT FOR TEMPORARY EMERGENCIES OR ROAD REPAIR WORK.

3. THE FOLLOWING SITUATIONS SHALL BE EXEMPT FROM THE REQUIREMENTS OF PARAGRAPHS (A) AND (B) OF SUBDIVISION ONE OF THIS SECTION:

(A) THE LUMINAIRE IS A REPLACEMENT FOR A LUMINAIRE THAT IS PART OF A CONTINUOUS ROADWAY LIGHTING DESIGN;

(B) THE LUMINAIRE IS A HISTORIC-STYLE DECORATIVE LUMINAIRE WHICH IS PART OF A CONTINUOUS ROADWAY LIGHTING DESIGN WHERE THE REPLACEMENT OF THE LUMINAIRE PIECEMEAL WITH COMPLIANT LUMINAIRES WOULD UNACCEPTABLY DEGRADE THE AESTHETIC CHARACTERISTICS OF THE EXISTING LIGHTING DESIGN;

(C) SITUATIONS WHERE THERE ARE SPECIAL REQUIREMENTS, SUCH AS SPORTS FACILITIES, TUNNELS, TRAFFIC CONTROL DEVICES, NAVIGATION LIGHTING, AIRPORTS, UNDERBRIDGE LIGHTING, NATURAL AND CULTURAL MONUMENTS, OR FLAG LIGHTING; PROVIDED, HOWEVER, THAT ALL SUCH LIGHTING SHALL BE SELECTED

AND INSTALLED TO SHIELD THE LAMP OR LAMPS FROM DIRECT VIEW AND TO MINIMIZE UPWARD LIGHTING AND GLARE TO THE GREATEST EXTENT POSSIBLE; AND

(D) SITUATIONS WHERE A WRITTEN DETERMINATION WITH FINDINGS HAS BEEN MADE THAT A SPECIFIED EXEMPTION TO ANY REQUIREMENT OF SUBDIVISION ONE OF THIS SECTION IS NECESSARY AND APPROPRIATE FOR A COMPELLING SAFETY INTEREST THAT CANNOT BE ADEQUATELY ADDRESSED BY ANY OTHER METHOD. WHERE THIS EXEMPTION IS FOR A STATE AGENCY OR STATE PUBLIC CORPORATION, THE WRITTEN DETERMINATION SHALL BE MADE BY THE CHIEF EXECUTIVE OFFICER OF THE AGENCY OR CORPORATION OR HIS OR HER DESIGNEE. WHERE THE EXEMPTION IS FOR A COUNTY, CITY, TOWN, OR VILLAGE, OR A PUBLIC CORPORATION THEREIN, THE WRITTEN DETERMINATION SHALL BE MADE BY THE APPROPRIATE COUNTY EXECUTIVE, MAYOR, SUPERVISOR, OR CHIEF EXECUTIVE OFFICER OR HIS OR HER DESIGNEE.

4. THE DEPARTMENT, IN CONSULTATION WITH THE DEPARTMENT OF TRANSPORTATION AND THE OFFICE OF GENERAL SERVICES AND GIVING CONSIDERATION TO THE RECOMMENDED PRACTICES ADOPTED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA, SHALL ESTABLISH RULES TO IMPLEMENT THE PROVISIONS OF THIS SECTION, INCLUDING A SYSTEM TO ENSURE THAT THE USE OF STATE FUNDS FOR STREET LIGHTING COMPLIES WITH THE REQUIREMENTS SET FORTH HEREIN AND SHALL PROVIDE FOR THE WIDE DISSEMINATION OF THIS INFORMATION.

5. THE COMMISSIONER, IN CONSULTATION WITH THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, SHALL DEVELOP LUMINAIRE EFFICIENCY AND LAMP LUMINOUS EFFICACY STANDARDS FOR LIGHTING REGULATED UNDER THIS SECTION. FOR PURPOSES OF THIS SECTION "LUMINAIRE EFFICIENCY" SHALL MEAN THE PERCENTAGE OF LUMENS GENERATED BY A LAMP WHICH ACTUALLY LEAVE A LUMINAIRE; AND "LAMP LUMINOUS EFFICACY" SHALL MEAN THE AMOUNT OF LIGHT GENERATED BY A LAMP/BALLAST SYSTEM (IN LUMENS) DIVIDED BY THE POWER IT USES (IN WATTS). SUCH STANDARDS SHALL BE PROMULGATED ON OR BEFORE THE EFFECTIVE DATE OF THIS ARTICLE AND SHALL TAKE EFFECT ONE HUNDRED EIGHTY DAYS AFTER SUCH EFFECTIVE DATE.

6. IN RECOGNITION OF THE ONGOING RESEARCH INTO AND DEVELOPMENT OF NEW TECHNOLOGIES IN THE OUTDOOR LIGHTING FIELD, THE DEPARTMENT, IN CONSULTATION WITH THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, SHALL REPORT TO THE LEGISLATURE REGARDING NEW FINDINGS FROM RESEARCH AND NEW TECHNOLOGIES THAT MAY AFFECT THE PROVISIONS OF THIS ARTICLE. SUCH REPORTING MAY INCLUDE RECOMMENDED AMENDMENTS TO THIS ARTICLE TO INCREASE ITS EFFECTIVENESS IN IMPLEMENTING THE PURPOSES OF ACHIEVING HEALTHY, SAFE AND ENERGY EFFICIENT OUTDOOR LIGHTING.

S 20-0109. DARK-SKY PRESERVES.

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

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

S 20-0111. MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE.

THE COMMISSIONER, IN CONSULTATION WITH THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, THE SECRETARY OF STATE AND THE COMMISSIONERS OF TRANSPORTATION AND THE OFFICE OF GENERAL SERVICES, SHALL PREPARE OR CAUSE TO BE PREPARED AND DISTRIBUTED TO CITIES, TOWNS AND VILLAGES A MODEL COMPREHENSIVE OUTDOOR LIGHTING ORDINANCE FOR THE

PURPOSE OF SAVING ENERGY, REDUCING UNNECESSARY GLARE AND REDUCING UNNECESSARY SKY GLOW.

S 20-0113. INFORMATIONAL PAMPHLET.

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

S 20-0115. APPLICABILITY.

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

2. NO PROVISION OF THIS ARTICLE SHALL BE CONSTRUED AS TO PERMIT THE PRACTICE OF ARCHITECTURE AS SUCH PRACTICE IS DEFINED IN SECTION SEVENTY-THREE HUNDRED ONE OF THE EDUCATION LAW, OR THE PRACTICE OF ENGINEERING AS SUCH PRACTICE IS DEFINED IN SECTION SEVENTY-TWO HUNDRED ONE OF THE EDUCATION LAW.

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

6. THE COMMISSION SHALL REQUIRE EVERY ELECTRIC CORPORATION OR MUNICIPALITY PROVIDING ELECTRIC SERVICE TO SEND TO EACH CUSTOMER IN ITS BILLS A COPY OF THE INFORMATIONAL PAMPHLET RELATING TO OUTDOOR LIGHTING DEVELOPED BY THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO SECTION 20-0113 OF THE ENVIRONMENTAL CONSERVATION LAW. THE COMMISSION SHALL COORDINATE WITH THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO ENSURE THAT EVERY ELECTRIC CORPORATION AND MUNICIPALITY PROVIDING ELECTRIC SERVICE SHALL RECEIVE AN ADEQUATE SUPPLY OF SUCH PAMPHLETS SUITABLE FOR DISTRIBUTION TO ITS CUSTOMERS IN THEIR UTILITY BILLS.

S 3. This act shall take effect on the first of January next succeeding the date upon which it shall have become a law; provided, however, that effective immediately, the addition, amendment and/or repeal of any rule or regulation or development of any standards necessary for the implementation of this act on its effective date is authorized to be made and completed on or before such effective date; and provided further that on and after the date on which this act shall have become a law every state agency and public corporation shall comply with the requirements of paragraphs (a) through (e) of subdivision 1 of section 20-0107 of the environmental conservation law as added by section one of this act, but provided further that this act shall not apply to projects for the installation or replacement of permanent outdoor luminaires which have already received final design approval prior to the effective date of this act.