

1 State of Arkansas
2 89th General Assembly
3 Regular Session, 2013

A Bill

HOUSE BILL 1568

4
5 By: Representative S. Meeks
6

For An Act To Be Entitled

8 AN ACT TO CREATE THE ARKANSAS NIGHTTIME ENVIRONMENT
9 PROTECTION ACT; AND FOR OTHER PURPOSES.
10

Subtitle

11
12 THE ARKANSAS NIGHTTIME ENVIRONMENT
13 PROTECTION ACT.
14

15
16
17 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:
18

19 SECTION 1. DO NOT CODIFY. Findings.

20 The General Assembly finds that:

21 (1)(A) Energy is wasted when methods of illumination are used
22 excessively and inefficiently.

23 (B) This wasteful use of energy is not a cost-effective
24 use of taxpayer money and adds unnecessary pollutants to our environment from
25 the energy generation;

26 (2)(A) In addition, light pollution has been implicated in
27 disruption of the human and animal circadian rhythm and strongly suspected as
28 an etiology of suppressed melatonin production, depressed immune systems, and
29 increases in certain cancer rates.

30 (B) The findings under subdivision (2)(A) of this section
31 prompted the American Medical Association in June 2009 to adopt a resolution
32 advocating the reduction of light pollution and glare through the use of
33 energy efficient and shielded lighting;

34 (3) In addition, light pollution disrupts nocturnal animal
35 activity and results in diminished health and survival of various animal and
36 plant populations;



1 (4) In addition, light pollution reduces the ability for
 2 Arkansans to enjoy recreational or educational astronomical observations of
 3 the starry night sky;

4 (5) In addition, light pollution reduces the ability for
 5 Arkansas scientist to conduct scientific research of the cosmos;

6 (6) In addition, inefficient luminaries may cast unwanted light
 7 outside the intended target area, creating light trespass; and

8 (7) Therefore, it is in the public interest to reduce light
 9 pollution to protect the nighttime environment and create awareness.

10
 11 SECTION 2. Arkansas Code Title 8, Chapter 14, is amended to read as
 12 follows:

13 8-14-101. Title.

14 This chapter shall be known and may be cited as the ~~“Shielded Outdoor~~
 15 ~~Lighting Act”~~ “Arkansas Nighttime Environment Protection Act”.

16
 17 8-14-102. Purpose.

18 ~~The purpose of this chapter is to conserve energy and preserve the~~
 19 ~~environment through the regulation of outdoor lighting fixtures~~ The purpose
 20 of the Arkansas Nighttime Environment Protection Act is to regulate outdoor
 21 night lighting fixtures to promote safety, conserve energy, save tax dollars,
 22 and preserve the state’s natural nighttime environment for the health and
 23 welfare of our citizens, our wildlife, and astronomy.

24
 25 8-14-103. Definitions.

26 As used in this chapter:

27 ~~(1) “Outdoor lighting fixture” means an automatically~~
 28 ~~controlled, outdoor artificial illuminating device, whether permanent or~~
 29 ~~portable, used for illumination or advertisement, including searchlights,~~
 30 ~~spotlights, and floodlights, whether for architectural lighting, parking lot~~
 31 ~~lighting, landscape lighting, billboards, or street lighting; and~~

32 ~~(2) “Shielded” means a fixture that is covered in a manner that~~
 33 ~~light rays emitted by the fixture, either directly from the lamp or~~
 34 ~~indirectly from the fixture, are projected below a horizontal plane running~~
 35 ~~through the lowest point on the fixture where light is emitted.~~

36 (1) “Direct light” means light emitted directly from a lamp, off

1 a reflector, or through a refractor of a fixture;

2 (2) "Fixture" means a complete lighting unit, including without
 3 limitation a lamp or lamps together with the parts designed to distribute the
 4 light, to position and protect the lamps, and to connect the lamps to the
 5 power supply;

6 (3) "Fully shielded" means a fixture that does not allow direct
 7 light emissions, either directly from the lamp or indirectly by reflection or
 8 refraction from any part of the lighting unit, above a horizontal plane
 9 running through the lowest point on the fixture where light is emitted;

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

12 (5) "Illuminance" means the level of light measured on an
 13 intercepting surface;

14 (6) "Lamp" means the component of a fixture that produces light;

15 (7) "Light pollution" means general sky glow caused by the
 16 scattering of artificial light in the atmosphere;

17 (8) "Light trespass" means light emitted by a fixture that
 18 shines beyond the boundaries of the property on which the fixture is located;

19 (9) "Lumen" means a specific standard unit of measurement of
 20 luminous flux;

21 (10) "Partially shielded" means a fixture that is constructed so
 22 that the bottom edge of the shield is below the plane of the center line of
 23 the lamp, reducing light above the horizontal to less than twenty percent
 24 (20%) of the light emitted from any part of the lighting unit;

25 (11) "Permanent outdoor fixture" means a fixture or system of
 26 fixtures that is outdoors and intended to be used for thirty (30) days or
 27 longer; and

28 (12) "Public funds" means any bond revenues or any money
 29 appropriated or allocated by the General Assembly or any money raised through
 30 taxes or fees and county and municipal funds.

31
 32 ~~8-14-104. Shielding—Prohibitions—Exemptions~~ Regulations for
 33 outdoor illumination.

34 ~~(a) After January 1, 2006:~~

35 ~~(1)(A) No public funds shall be used to install an outdoor~~
 36 ~~lighting fixture unless it is shielded.~~

1 ~~(B) Subdivision (a)(1)(A) of this section shall not apply~~
2 ~~to any municipality or county if the governing body of the municipality or~~
3 ~~county determines by ordinance or to a municipally owned utility if the~~
4 ~~municipal employee responsible for procurement determines that the cost of~~
5 ~~acquiring a shielded outdoor lighting fixture will be prohibitive after~~
6 ~~comparing:~~

7 ~~(i) The cost of the fixtures; and~~

8 ~~(ii) The projected energy cost of the operation of~~
9 ~~the fixtures;~~

10 ~~(2) The Arkansas Department of Environmental Quality shall~~
11 ~~promulgate regulations prohibiting any person or entity from knowingly~~
12 ~~placing or disposing of the bulb or tube portion of an electric lighting~~
13 ~~device containing hazardous levels of mercury in a landfill after January 1,~~
14 ~~2008, if:~~

15 ~~(A) The device contains more than two tenths milligram per~~
16 ~~liter (0.2 mg/l) of leachable mercury as measured by the Toxicity~~
17 ~~Characteristic Leaching Procedure as set out in EPA test Method 1311; and~~

18 ~~(B) Adequate facilities exist for the public to properly~~
19 ~~dispose of the device described in subdivision (a)(2)(A) of this section; and~~

20 ~~(3)(A) Each electric public utility shall offer a shielded~~
21 ~~lighting service option.~~

22 ~~(B) Not later than January 1, 2006, each electric public~~
23 ~~utility shall file an application with the Arkansas Public Service Commission~~
24 ~~to establish a schedule of rates and charges for the provision of a shielded~~
25 ~~lighting service option to the utility's customers.~~

26 ~~(C) The commission shall require each electric public~~
27 ~~utility to inform its customers of the availability of the shielded lighting~~
28 ~~service.~~

29 ~~(b) This chapter does not apply to acquisitions of:~~

30 ~~(1) Incandescent outdoor lighting fixtures of one hundred fifty~~
31 ~~watts (150W) or less or other light sources of seventy watts (70W) or less;~~

32 ~~(2) Outdoor lighting fixtures on advertisement signs on~~
33 ~~interstate or federal primary highways;~~

34 ~~(3)(A) Outdoor lighting fixtures existing and legally installed~~
35 ~~before August 12, 2005.~~

36 ~~(B) However, if an existing outdoor lighting fixture~~

1 ~~exempted from this chapter under subdivision (b)(3)(A) of this section needs~~
 2 ~~to be replaced, the acquisition of the replacement outdoor lighting fixture~~
 3 ~~shall be subject to the provisions of this chapter;~~

4 ~~(4) Navigational lighting systems at airports or other lighting~~
 5 ~~necessary for aircraft safety; and~~

6 ~~(5) Outdoor lighting fixtures that are necessary for worker~~
 7 ~~safety at farms, ranches, dairies, or feedlots or industrial, mining, or oil~~
 8 ~~and gas facilities.~~

9 ~~(c) This chapter does not apply to outdoor lighting fixtures~~
 10 ~~maintained or installed by:~~

11 ~~(1) A public school district;~~

12 ~~(2) A correctional facility;~~

13 ~~(3) A juvenile detention facility;~~

14 ~~(4) An adult detention facility;~~

15 ~~(5) A mental health facility; or~~

16 ~~(6) A state-supported institution of higher education.~~

17 (a) An agency, public corporation, county, or municipal subdivision of
 18 this state shall not use public funds to operate, maintain, install, or cause
 19 to be installed any new or replacement permanent outdoor fixture unless the
 20 following conditions are met:

21 (1) The permanent outdoor fixture is a fully shielded fixture
 22 when the rated output of the permanent outdoor fixture is greater than one
 23 thousand eight hundred lumens (1,800 lm);

24 (2) The permanent outdoor fixture is designed to maximize energy
 25 conservation and to minimize light pollution, glare, and light trespass;

26 (3) The permanent outdoor fixture's maximum illuminance does not
 27 exceed what is adequate for that purpose under guidelines recommended for
 28 that purpose by the Illuminating Engineering Society of North America, as the
 29 guidelines existed on January 1, 2013, or the minimum illuminance
 30 recommendation for that purpose by the United States Department of
 31 Transportation, as the recommendation existed on January 1, 2013;

32 (4) For roadway lighting unassociated with intersections of two
 33 (2) or more streets or highways, a determination is made by the Director of
 34 the Arkansas State Highway and Transportation Department or his or her
 35 designee that the purpose of the lighting installation or replacement cannot
 36 be achieved by reduction of the speed limit, installation of reflectorized

1 roadway markers, lines, warnings, or informational signs, or other passive
2 means; and

3 (5) Full consideration has been given to the use of public funds
4 for the goals of eliminating glare, light pollution, and light trespass,
5 reducing energy use, and preserving the natural night environment.

6 (b) Roadway signage, installed or replaced after the effective date of
7 this chapter shall be illuminated from within the sign or from above the sign
8 with fully shielded fixtures that minimize glare, except:

9 (1) When illumination of the roadway sign from within or above
10 is not possible;

11 (2) That commercial and advertising roadway signage, including
12 billboards, installed or replaced after the effective date of this act shall
13 be illuminated from within the sign or if the signage is illuminated with
14 external fixtures, then:

15 (A) Light from the fixture must be directed so a majority
16 of the light falls upon the advertisement surface;

17 (B) The lamp is not visible from the roadway; and

18 (C) The fixture does not create glare, light trespass, or
19 excessive amounts of light pollution.

20 (c)(1) An electric utility shall not operate, maintain, install, or
21 cause to be installed a fixture for new or replacement residential or
22 commercial security lighting unless the following conditions are met:

23 (A) The fixture is a fully shielded or partially shielded
24 fixture when the rated output of the fixture is greater than one thousand
25 eight hundred lumens (1,800 lm); and

26 (B) The fixture is designed to maximize energy
27 conservation and to minimize light pollution, glare, and light trespass.

28 (2) If a property owner purchases a fixture that does not
29 conform to the requirements of subdivision (d)(1) of this section from a
30 third party, the electric utility, at the electric utility's discretion, may
31 install, operate, and service the fixture.

32 (d) The Arkansas Public Service Commission shall, after taking into
33 account all costs, including long term costs, associated with the operation
34 and maintenance of a given fixture, ensure that the rate schedule for public,
35 residential, and commercial security and street lighting published by an
36 electric utility for fixtures that are better shielded, use lower wattage,

1 and require less maintenance, are properly reflective of the long-term cost
 2 savings of using the fixtures.

3 (e) It is unlawful for any person or entity to commit excessive or
 4 unreasonable light trespass unless permission is granted by the property
 5 owner upon whom the light trespass is occurring.

6 (f) A new mercury vapor shall not be installed in the state by a
 7 government agency, public entity, or utility.

8 (g) An outdoor recreational facility shall not be illuminated after
 9 11:00 p.m. if it is not in use, except for necessary security and safety
 10 lighting.

11 (h) The Arkansas Department of Environmental Quality shall promulgate
 12 regulations prohibiting any person or entity from knowingly placing or
 13 disposing of the bulb or tube portion of an electric lighting device
 14 containing hazardous levels of mercury in a landfill after January 1, 2008,
 15 if:

16 (1) The electric lighting device contains more than two-tenths
 17 milligram per liter (0.2 mg/l) of leachable mercury as measured by the
 18 Toxicity Characteristic Leaching Procedure as set out in EPA test Method
 19 1311; and

20 (2) Adequate facilities exist for the public to properly dispose
 21 of the electric lighting device described in subdivision (i)(1) of this
 22 section.

23
 24 8-14-105. Penalties Exemptions.

25 ~~Violations of this chapter are punishable by:~~

26 ~~(1) A warning for a first offense; and~~

27 ~~(2) A fine of twenty five dollars (\$25.00) minus the replacement~~
 28 ~~cost for each offending outdoor lighting fixture for a second or subsequent~~
 29 ~~offense or for an offense that continues for thirty (30) calendar days from~~
 30 ~~the date of the warning.~~

31 (a) Section 8-14-104 does not apply if:

32 (1) A federal law, rule, or regulation preempts § 8-14-104;

33 (2) Fire, police, rescue, correctional, or medical personnel
 34 need outdoor lighting for temporary emergencies not to exceed thirty (30)
 35 days in duration unless a waiver is granted by the Director of the Arkansas
 36 State Highway and Transportation Department;

1 (3) The outdoor lighting fixture is necessary for worker safety
2 and is used on a temporary basis for nighttime work, including without
3 limitation work performed on:

4 (A) Projects or improvements relating to the construction,
5 reconstruction, improvement, or maintenance of a street, highway, building,
6 structure, or facility; and

7 (B) Farms, ranches, dairies, and feedlots, and in
8 industrial, drilling, mining, or oil and gas facilities;

9 (4) The lighting is part of a navigational lighting system for
10 an airport or on a navigable waterway or provides other lighting necessary
11 for aircraft or watercraft safety;

12 (5)(A) In a situation in which there are special lighting
13 requirements, such as sports facilities, or historic decorative
14 considerations, monuments, or the lighting of the United States flag under
15 the Federal Flag Code, 4 U.S.C. §§ 4-10.

16 (B) However, lighting exempted under subdivision (5)(A) of
17 this section shall be selected and installed to shield the lamp or lamps from
18 direct view to the greatest extent possible and to minimize upward lighting
19 and light trespass;

20 (6)(A) The lighting is for a public or private state correction,
21 detention, or mental health facility.

22 (B) For lighting exempted under subdivision (6)(A) of this
23 section, § 8-14-104 shall serve only as a guideline and shall not be binding;

24 (7)(A) If it has been determined that a reasonable safety,
25 security or excessive cost, or structural modification interest exists
26 regarding becoming compliant with this chapter, the agency director or an
27 elected official with jurisdiction or his or her designee may waive the
28 provisions of subdivision (5) of this section if, after a request for a
29 waiver has been made and reviewed, the agency director or an elected official
30 with jurisdiction or his or her designee determines that a waiver is
31 necessary for the lighting application.

32 (B) The ruling may be appealed by a citizen of the state
33 to the Arkansas Pollution Control and Ecology Commission which shall have
34 final authority to approve or deny the waiver; and

35 (8)(A) The outdoor lighting fixture existed and was legally
36 installed before the effective date of this act.

1 (B) However, when existing lighting fixtures become
 2 unrepairable, a replacement is subject to § 8-14-104.

3 (b) Upon petition to the Arkansas Pollution Control and Ecology
 4 Commission, in the manner and method established by the commission, the
 5 commission may waive any provision of this chapter on a case by case basis
 6 provided consideration has been given to reduce light pollution, save
 7 taxpayer dollars, and to protect the nighttime environment.

8
 9 8-14-106. Enforcement.

10 ~~This chapter may be enforced by a town, city, or county of this state~~
 11 ~~by seeking injunctive relief in a court of competent jurisdiction.~~

12 (a) This chapter shall be enforced by:

13 (1) The governing body of a political subdivision of the state
 14 within its jurisdiction;

15 (2) Any local or state code enforcement agency within the
 16 governing body's jurisdiction;

17 (3) The Arkansas State Highway and Transportation Department
 18 over highways, streets, and right-of-way lighting and all signage for and
 19 along streets and highways; and

20 (4)(A) The Arkansas Department of Environmental Quality within
 21 its jurisdiction.

22 (B) If appropriate, the Arkansas Department of
 23 Environmental Quality may refer any cases to a local or state code
 24 enforcement agency or to a local governing body.

25 (b)(1) The Arkansas Department of Environmental Quality shall handle
 26 and review all complaints of light trespass.

27 (2) In making a determination of light trespass, the Arkansas
 28 Department of Environmental Quality shall consider the following factors:

29 (A) The extent to which a fixture may further a lawful
 30 purpose;

31 (B) The severity of the effect, under various
 32 circumstances, of the fixture upon the property of another person;

33 (C) The general character and use of the property; and

34 (D) Acceptable mitigation measures.

35 (c) The Arkansas Department of Environmental Quality shall pursue a
 36 case of light trespass only if a complaint has been made by the property

1 owner or a designee of the property owner upon whom the light is trespassing.

2 (d)(1) Upon a finding of light trespass, the Arkansas Department of
3 Environmental Quality shall, if possible and to the extent the Arkansas
4 Department of Environmental Quality deems practical, work with both parties
5 to voluntarily mitigate the issue.

6 (2) If voluntary mitigation cannot be achieved, the Arkansas
7 Department of Environmental Quality may refer the case to a code enforcement
8 agency of jurisdiction for enforcement.

9
10 8-14-107. Provisions supplemental Violations.

11 ~~The provisions of this chapter are cumulative and supplemental and~~
12 ~~shall not apply within a town, city, or county of this state that by~~
13 ~~ordinance has adopted provisions restricting light pollution that are equal~~
14 ~~to or more stringent than the provisions of this chapter.~~

15 (a) A person or entity that violates this chapter is subject to:

16 (1) For a first offense, a warning;

17 (2) For a second offense or an offense that continues for thirty
18 (30) days after the date of the warning, a fine of twenty-five dollars
19 (\$25.00) minus the replacement cost for each offending fixture assessed; and

20 (3) For an offense continuing for more than sixty (60) days
21 after the date of the warning, a fine of twenty-five dollars (\$25.00) for
22 each offending fixture for each calendar month the violation continues.

23 (b) Money raised by fines assessed under subsection (a) of this
24 section shall be deposited into the general fund of the agency assessing the
25 fine to offset the cost of enforcement.

26
27 8-14-108. Chapter cumulative and supplemental.

28 This chapter is cumulative and supplemental and shall not apply within
29 a county or municipality that, by ordinance or resolution, has adopted
30 provisions restricting light pollution that are equal to or more stringent
31 than the provisions of this chapter.

32
33 SECTION 3. DO NOT CODIFY. EFFECTIVE DATE. This act becomes effective
34 on October 1, 2013.