

110TH CONGRESS  
1ST SESSION

# S. 2017

To amend the Energy Policy and Conservation Act to provide for national energy efficiency standards for general service incandescent lamps, and for other purposes.

---

## IN THE SENATE OF THE UNITED STATES

SEPTEMBER 4, 2007

Mr. BINGAMAN (for himself and Mr. STEVENS) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

## A BILL

To amend the Energy Policy and Conservation Act to provide for national energy efficiency standards for general service incandescent lamps, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Energy Efficient Lighting for a Brighter Tomorrow Act  
6 of 2007”.

7 (b) TABLE OF CONTENTS.—The table of contents of  
8 this Act is as follows:

Sec. 1. Short title; table of contents.

- Sec. 2. Findings.
- Sec. 3. Definition of Secretary.

#### TITLE I—GENERAL SERVICE INCANDESCENT LAMPS

- Sec. 101. Energy efficiency standards for general service incandescent lamps.
- Sec. 102. Consumer education and lamp labeling.
- Sec. 103. Market assessments and consumer awareness program.
- Sec. 104. General rule of preemption for energy conservation standards before Federal standard becomes effective for a product.
- Sec. 105. Prohibited acts.
- Sec. 106. Enforcement.
- Sec. 107. Research and development program.
- Sec. 108. Report on mercury use and release.

#### TITLE II—STANDARDS FOR METAL HALIDE LAMP FIXTURES

- Sec. 201. Definitions.
- Sec. 202. Coverage.
- Sec. 203. Test procedures.
- Sec. 204. Labeling.
- Sec. 205. Energy conservation standards.
- Sec. 206. Effect on other law.

### 1 **SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1) there are approximately 4,000,000,000  
 4 screw-based sockets in the United States that con-  
 5 tain traditional, energy-inefficient, incandescent light  
 6 bulbs;

7 (2) incandescent light bulbs are based on tech-  
 8 nology that is more than 125 years old; and

9 (3) it is in the national interest to encourage  
 10 the use of more energy-efficient lighting products in  
 11 the market through energy conservation standards  
 12 that become effective during the 8-year period begin-  
 13 ning on the date of enactment of this Act and—

14 (A) establish the efficiency requirements to  
 15 ensure that replacement lamps will provide con-

1           sumers with the same quantity of light while  
2           using significantly less energy;

3           (B) ensure that consumers will continue to  
4           have multiple product choices, including energy-  
5           saving halogen, incandescent, compact fluo-  
6           rescent, and LED light bulbs; and

7           (C) work with industry and key stake-  
8           holders on measures that can assist consumers  
9           and businesses in making the important transi-  
10          tion to more efficient lighting.

11 **SEC. 3. DEFINITION OF SECRETARY.**

12          In this Act, the term “Secretary” means the Sec-  
13          retary of Energy.

14           **TITLE I—GENERAL SERVICE**  
15           **INCANDESCENT LAMPS**

16 **SEC. 101. ENERGY EFFICIENCY STANDARDS FOR GENERAL**  
17           **SERVICE INCANDESCENT LAMPS.**

18          (a) DEFINITION OF GENERAL SERVICE INCANDES-  
19          CENT LAMP.—Section 321(30) of the Energy Policy and  
20          Conservation Act (42 U.S.C. 6291(30)) is amended—

21               (1) by striking subparagraph (D) and inserting  
22          the following:

23                       “(D) GENERAL SERVICE INCANDESCENT  
24                       LAMP.—

“(i) IN GENERAL.—The term ‘general service incandescent lamp’ means a standard incandescent or halogen type lamp that—

“(I) is intended for general service applications;

“(II) has a medium screw base;

“(III) has a lumen range of not less than 200 lumens and not more than 3,000 lumens;

“(IV) has a voltage range at least partially within 110 and 130 volts;

“(V) has an A-15, A-19, A-21, A-23, A-25, PS-25, PS-30, BT-14.5, BT-15, CP-19, TB-19, CA-22, or equivalent shape (as defined in ANSI C78.20-2003); and

“(VI) has a bulb finish of the frosted, clear, soft white, or modified spectrum type.

“(ii) EXCLUSIONS.—The term ‘general service incandescent lamp’ does not include the following incandescent lamps:

“(I) An appliance lamp.

- 1 “(II) A black light lamp.
- 2 “(III) A bug lamp.
- 3 “(IV) A colored lamp.
- 4 “(V) An infrared lamp.
- 5 “(VI) A left-hand thread lamp.
- 6 “(VII) A marine lamp.
- 7 “(VIII) A marine signal service
- 8 lamp.
- 9 “(IX) A mine service lamp.
- 10 “(X) A plant light lamp.
- 11 “(XI) A reflector lamp.
- 12 “(XII) A rough service lamp.
- 13 “(XIII) A shatter-resistant lamp
- 14 (including a shatter-proof lamp and a
- 15 shatter-protected lamp).
- 16 “(XIV) A sign service lamp.
- 17 “(XV) A silver bowl lamp.
- 18 “(XVI) A showcase lamp.
- 19 “(XVII) A 3-way incandescent
- 20 lamp.
- 21 “(XVIII) A traffic signal lamp.
- 22 “(XIX) A vibration service
- 23 lamp.”; and

24 (2) by adding at the end the following:

1           “(T) APPLIANCE LAMP.—The term ‘appli-  
2           ance lamp’ means any lamp that—

3                   “(i) is specifically designed to operate  
4                   in a household appliance, has a maximum  
5                   wattage of 40 watts, and is sold at retail,  
6                   including an oven lamp, refrigerator lamp,  
7                   and vacuum cleaner lamp; and

8                   “(ii) is designated and marketed for  
9                   the intended application, with—

10                   “(I) the designation on the lamp  
11                   packaging; and

12                   “(II) marketing materials that  
13                   identify the lamp as being for appli-  
14                   ance use.

15           “(U) CANDELABRA BASE INCANDESCENT  
16           LAMP.—The term ‘candelabra base incandes-  
17           cent lamp’ means a lamp that uses candelabra  
18           screw base as described in ANSI C81.61–2006,  
19           Specifications for Electric Bases, common des-  
20           ignations E11 and E12.

21           “(V) INTERMEDIATE BASE INCANDESCENT  
22           LAMP.—The term ‘intermediate base incandes-  
23           cent lamp’ means a lamp that uses an inter-  
24           mediate screw base as described in ANSI

1 C81.61–2006, Specifications for Electric Bases,  
2 common designation E17.

3 “(W) MODIFIED SPECTRUM.—The term  
4 ‘modified spectrum’ means, with respect to an  
5 incandescent lamp, an incandescent lamp  
6 that—

7 “(i) is not a colored incandescent  
8 lamp; and

9 “(ii) when operated at the rated volt-  
10 age and wattage of the incandescent  
11 lamp—

12 “(I) has a color point with (x,y)  
13 chromaticity coordinates on the Com-  
14 mission Internationale de l’Eclairage  
15 (C.I.E.) 1931 chromaticity diagram  
16 that lies below the black-body locus;  
17 and

18 “(II) has a color point with (x,y)  
19 chromaticity coordinates on the C.I.E.  
20 1931 chromaticity diagram that lies  
21 at least 4 MacAdam steps (as ref-  
22 erenced in IESNA LM16) distant  
23 from the color point of a clear lamp  
24 with the same filament and bulb

1 shape, operated at the same rated  
2 voltage and wattage.

3 “(X) ROUGH SERVICE LAMP.—The term  
4 ‘rough service lamp’ means a lamp that—

5 “(i) has a minimum of 5 supports  
6 with filament configurations similar to but  
7 not limited to C-7A, C-11, C-17, and C-  
8 22 as listed in Figure 6-12 of the 9th edi-  
9 tion of the IESNA Lighting handbook,  
10 where lead wires are not counted as sup-  
11 ports; and

12 “(ii) is designated and marketed spe-  
13 cifically for ‘rough service’ applications,  
14 with—

15 “(I) the designation appearing on  
16 the lamp packaging; and

17 “(II) marketing materials that  
18 identify the lamp as being for rough  
19 service.

20 “(Y) 3-WAY INCANDESCENT LAMP.—The  
21 term ‘3-way incandescent lamp’ includes an in-  
22 candescent lamp that—

23 “(i) employs 2 filaments, operated  
24 separately and in combination, to provide 3  
25 light levels; and



1 “(ii) is designated on the lamp pack-  
 2 aging and marketing materials as being a  
 3 3-way incandescent lamp.

4 “(Z) SHATTER-RESISTANT LAMP, SHAT-  
 5 TER-PROOF LAMP, OR SHATTER-PROTECTED  
 6 LAMP.—The terms ‘shatter-resistant lamp’,  
 7 ‘shatter-proof lamp’, and ‘shatter-protected  
 8 lamp’ mean a lamp that—

9 “(i) has a coating or equivalent tech-  
 10 nology that is compliant with NSF/ANSI  
 11 51 and is designed to contain the glass if  
 12 the glass envelope of the lamp is broken;  
 13 and

14 “(ii) is designated and marketed for  
 15 the intended application, with—

16 “(I) the designation on the lamp  
 17 packaging; and

18 “(II) marketing materials that  
 19 identify the lamp as being shatter-re-  
 20 sistant, shatter-proof, or shatter-pro-  
 21 tected.

22 “(AA) VIBRATION SERVICE LAMP.—The  
 23 term ‘vibration service lamp’ means a lamp  
 24 that—

1 “(i) has filament configurations that  
 2 are similar to but not limited to C-5, C-  
 3 7A, or C-9, as listed in Figure 6-12 of the  
 4 9th Edition of the IESNA Lighting Hand-  
 5 book;

6 “(ii) has a maximum wattage of 60  
 7 watts;

8 “(iii) is sold at retail in packages of 4  
 9 lamps or less; and

10 “(iv) is designated and marketed spe-  
 11 cifically for vibration service or vibration-  
 12 resistant applications, with—

13 “(I) the designation appearing on  
 14 the lamp packaging; and

15 “(II) marketing materials that  
 16 identify the lamp as being vibration  
 17 service only.”.

18 (b) COVERAGE.—Section 322(a)(14) of the Energy  
 19 Policy and Conservation Act (42 U.S.C. 6292(a)(14)) is  
 20 amended by inserting “, general service incandescent  
 21 lamps,” after “fluorescent lamps”.

22 (c) ENERGY CONSERVATION STANDARDS.—Section  
 23 325 of the Energy Policy and Conservation Act (42 U.S.C.  
 24 6295) is amended—

25 (1) in subsection (i)—

1 (A) in the section heading, by inserting “,  
 2 GENERAL SERVICE INCANDESCENT LAMPS, IN-  
 3 INTERMEDIATE BASE INCANDESCENT LAMPS,  
 4 CANDELABRA BASE INCANDESCENT LAMPS,”  
 5 after “FLUORESCENT LAMPS”;

6 (B) in paragraph (1)—

7 (i) in subparagraph (A)—

8 (I) by inserting “, general service  
 9 incandescent lamps, intermediate base  
 10 incandescent lamps, candelabra base  
 11 incandescent lamps,” after “fluores-  
 12 cent lamps”;

13 (II) by inserting “, new max-  
 14 imum wattage,” after “lamp efficacy”;  
 15 and

16 (III) by inserting after the table  
 17 entitled “INCANDESCENT REFLECTOR  
 18 LAMPS” the following:

“CLEAR, INSIDE FROST, AND SOFT WHITE GENERAL SERVICE  
INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rate Wattage	Minimum Rate Life- time	Effective Date
1490–2600	72	1,000 hrs	1/1/2012
1010–1489	53	1,000 hrs	1/1/2013
730–1009	43	1,000 hrs	1/1/2014
310–729	29	1,000 hrs	1/1/2014

## “MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rate Wattage	Minimum Rate Life- time	Effective Date
1118–1950	72	1,000 hrs	1/1/2012
758–1117	53	1,000 hrs	1/1/2013
548–757	43	1,000 hrs	1/1/2014
232–547	29	1,000 hrs	1/1/2014”;

1 and

2 (ii) by striking subparagraph (B) and  
3 inserting the following:

4 “(B) COLOR RENDERING INDEX.—

5 “(i) APPLICATION.—This subpara-  
6 graph applies to each lamp that—

7 “(I) is intended for a general  
8 service or general illumination applica-  
9 tion (whether incandescent or not);

10 “(II) has a medium screw base;

11 “(III) has a voltage range that is  
12 at least partially within 110 and 130  
13 volts;

14 “(IV) has no external bulb or a  
15 bulb of the frosted, clear, soft white,  
16 or modified spectrum type; and

17 “(V) is manufactured or im-  
18 ported after December 31, 2011.

19 “(ii) REQUIREMENT.—For purposes  
20 of this paragraph, each lamp described in

1 clause (i) shall have a color rendering  
2 index that is greater than or equal to—

3 “(I) 80 for frosted, clear, and  
4 soft white lamps; or

5 “(II) 75 for modified spectrum  
6 lamps.

7 “(C) CANDELABRA INCANDESCENT LAMPS  
8 AND INTERMEDIATE BASE INCANDESCENT  
9 LAMPS.—

10 “(i) CANDELABRA BASE INCANDES-  
11 CENT LAMPS.—A candelabra base incan-  
12 descent lamp shall not exceed 60 rated  
13 watts.

14 “(ii) INTERMEDIATE BASE INCANDES-  
15 CENT LAMPS.—An intermediate base in-  
16 candescent lamp shall not exceed 40 rated  
17 watts.

18 “(D) EXEMPTIONS.—

19 “(i) PETITION.—Any person may peti-  
20 tion the Secretary for an exemption for a  
21 type of general service lamp from the re-  
22 quirements of this subsection.

23 “(ii) CRITERIA.—The Secretary may  
24 grant an exemption under clause (i) only  
25 to the extent that the Secretary finds,

1 after a hearing and opportunity for public  
2 comment, that it is not technically feasible  
3 to serve a specialized lighting application  
4 (such as a military, medical, public safety,  
5 or certified historic lighting application)  
6 using a lamp that meets the requirements  
7 of this subsection.

8 “(iii) ADDITIONAL CRITERION.—To  
9 grant an exemption for a product under  
10 this subparagraph, the Secretary shall in-  
11 clude, as an additional criterion, that the  
12 exempted product is unlikely to be used in  
13 a general service lighting application.

14 “(E) EXTENSION OF COVERAGE.—

15 “(i) PETITION.—Any person may peti-  
16 tion the Secretary to establish standards  
17 for lamp types that are excluded from the  
18 definition of general service lamps.

19 “(ii) INCREASED SALES OF EXEMPT-  
20 ED LAMPS.—The petition shall include evi-  
21 dence that the availability or sales of ex-  
22 empted incandescent lamps have increased  
23 significantly since the date on which the  
24 standards on general service incandescent  
25 lamps were established.

1 “(iii) CRITERIA.—The Secretary shall  
2 grant a petition under clause (i) if the Sec-  
3 retary finds that the petition presents evi-  
4 dence that (assuming no other evidence is  
5 considered) demonstrates that sales of ex-  
6 empted incandescent lamp types have in-  
7 creased significantly since the standards on  
8 general service lamps were established and  
9 are being widely used in general lighting  
10 applications.

11 “(iv) NO PRESUMPTION.—The grant  
12 of a petition under this subparagraph shall  
13 create no presumption with respect to the  
14 determination of the Secretary with respect  
15 to any criteria under a rulemaking con-  
16 ducted under this section.

17 “(v) EXPEDITED PROCEEDING.—If  
18 the Secretary grants a petition for a lamp  
19 type under this subparagraph, the Sec-  
20 retary shall—

21 “(I) conduct a rulemaking to de-  
22 termine standards for the exempted  
23 lamp type; and

24 “(II) complete the rulemaking  
25 not later than 18 months after the

1                   date on which notice is provided  
2                   granting the petition.

3                   “(F) DEFINITION OF EFFECTIVE DATE.—

4                   In this paragraph, except as otherwise provided  
5                   in a table contained in subparagraph (A), the  
6                   term ‘effective date’ means the last day of the  
7                   month specified in the table that follows Octo-  
8                   ber 24, 1992.”;

9                   (C) in paragraph (5), in the first sentence,  
10                  by striking “and general service incandescent  
11                  lamps”;

12                  (D) by redesignating paragraphs (6) and  
13                  (7) as paragraphs (7) and (8), respectively; and

14                  (E) by inserting after paragraph (5) the  
15                  following:

16                  “(6) STANDARDS FOR GENERAL SERVICE IN-  
17                  CANDESCENT LAMPS.—

18                  “(A) RULEMAKING BEFORE JANUARY 1,  
19                  2015.—

20                  “(i) IN GENERAL.—Not later than  
21                  January 1, 2015, the Secretary shall ini-  
22                  tiate a rulemaking procedure to determine  
23                  whether—

24                  “(I) standards in effect for gen-  
25                  eral service incandescent lamps should



1 be amended to establish more strin-  
2 gent maximum wattage than the  
3 standards specified in paragraph  
4 (1)(A); and

5 “(II) the exemptions for certain  
6 incandescent lamps should be main-  
7 tained or discontinued.

8 “(ii) SCOPE.—The rulemaking—

9 “(I) shall not be limited to incan-  
10 descent lamp technologies; and

11 “(II) shall include consideration  
12 of a minimum efficacy standard of 45  
13 lumens per watt.

14 “(iii) AMENDED STANDARDS.—If the  
15 Secretary determines that the standards in  
16 effect for general service incandescent  
17 lamps should be amended, the Secretary  
18 shall publish a final rule not later than  
19 January 1, 2017, with an effective date  
20 that is not earlier than 3 years after the  
21 date on which the final rule is published.

22 “(iv) PHASED-IN EFFECTIVE  
23 DATES.—The Secretary shall consider  
24 phased-in effective dates under this sub-  
25 paragraph after considering—

1 “(I) the impact of any amend-  
2 ment on manufacturers, retiring and  
3 repurposing existing equipment,  
4 stranded investments, labor contracts,  
5 workers, and raw materials; and

6 “(II) the time needed to work  
7 with retailers and lighting designers  
8 to revise sales and marketing strate-  
9 gies.

10 “(v) BACKSTOP REQUIREMENT.—If  
11 the Secretary fails to complete a rule-  
12 making in accordance with clauses (i)  
13 through (iv) or if the final rule does not  
14 produce savings that are greater than or  
15 equal to the savings from a minimum effi-  
16 cacy standard of 45 lumens per watt, effec-  
17 tive beginning January 1, 2020, the Sec-  
18 retary shall prohibit the sale of any general  
19 service lamp that emits less than 300 per-  
20 cent of the average lumens per watt emit-  
21 ted by a 100-watt incandescent general  
22 service lamp that is commercially available  
23 on the date of enactment of this clause.

24 “(B) RULEMAKING BEFORE JANUARY 1,  
25 2020.—

1 “(i) IN GENERAL.—Not later than  
2 January 1, 2020, the Secretary shall ini-  
3 tiate a rulemaking procedure to determine  
4 whether—

5 “(I) standards in effect for gen-  
6 eral service incandescent lamps should  
7 be amended to reflect lumen ranges  
8 with more stringent maximum watt-  
9 age than the standards specified in  
10 paragraph (1)(A); and

11 “(II) the exemptions for certain  
12 incandescent lamps should be main-  
13 tained or discontinued.

14 “(ii) SCOPE.—The rulemaking shall  
15 not be limited to incandescent lamp tech-  
16 nologies.

17 “(iii) AMENDED STANDARDS.—If the  
18 Secretary determines that the standards in  
19 effect for general service incandescent  
20 lamps should be amended, the Secretary  
21 shall publish a final rule not later than  
22 January 1, 2022, with an effective date  
23 that is not earlier than 3 years after the  
24 date on which the final rule is published.

1 “(iv) PHASED-IN EFFECTIVE  
 2 DATES.—The Secretary shall consider  
 3 phased-in effective dates under this sub-  
 4 paragraph after considering—

5 “(I) the impact of any amend-  
 6 ment on manufacturers, retiring and  
 7 repurposing existing equipment,  
 8 stranded investments, labor contracts,  
 9 workers, and raw materials; and

10 “(II) the time needed to work  
 11 with retailers and lighting designers  
 12 to revise sales and marketing strate-  
 13 gies.”; and

14 (2) in subsection (l), by adding at the end the  
 15 following:

16 “(4) ENERGY EFFICIENCY STANDARDS FOR  
 17 CERTAIN LAMPS.—

18 “(A) IN GENERAL.—The Secretary shall  
 19 prescribe an energy efficiency standard for  
 20 rough service lamps, vibration service lamps, 3-  
 21 way incandescent lamps, 150-watt general serv-  
 22 ice incandescent lamps, and shatter-resistant  
 23 lamps only in accordance with this paragraph.

24 “(B) BENCHMARKS.—Not later than 1  
 25 year after the date of enactment of this para-

graph, the Secretary, in consultation with the  
National Electrical Manufacturers Association,  
shall—

“(i) collect actual data for United  
States unit sales for each of calendar years  
1990 through 2006 for each of the 5 types  
of lamps described in subparagraph (A) to  
determine the historical growth rate of the  
type of lamp; and

“(ii) construct a model for each type  
of lamp based on coincident economic indi-  
cators that closely match the historical an-  
nual growth rate of the type of lamp to  
provide a neutral comparison benchmark to  
model future unit sales after calendar year  
2006.

“(C) ACTUAL SALES DATA.—

“(i) IN GENERAL.—Effective for each  
of calendar years 2010 through 2025, the  
Secretary, in consultation with the Na-  
tional Electrical Manufacturers Associa-  
tion, shall—

“(I) collect actual United States  
unit sales data for each of 5 types of

1 lamps described in subparagraph (A);  
2 and

3 “(II) not later than 90 days after  
4 the end of each calendar year, com-  
5 pare the lamp sales in that year with  
6 the sales predicted by the comparison  
7 benchmark for each of the 5 types of  
8 lamps described in subparagraph (A).

9 “(ii) CONTINUATION OF TRACKING.—

10 “(I) DETERMINATION.—Not  
11 later than January 1, 2023, the Sec-  
12 retary shall determine if actual sales  
13 data should be tracked for the lamp  
14 types described in subparagraph (A)  
15 after calender year 2025.

16 “(II) CONTINUATION.—If the  
17 Secretary finds that the market share  
18 of a lamp type described in subpara-  
19 graph (A) could significantly erode  
20 the market share for general service  
21 lamps, the Secretary shall continue to  
22 track the actual sales data for the  
23 lamp type.

24 “(D) ROUGH SERVICE LAMPS.—

1 “(i) IN GENERAL.—Effective begin-  
2 ning with the first year that the reported  
3 annual sales rate for rough service lamps  
4 demonstrates actual unit sales of rough  
5 service lamps that achieve levels that are  
6 at least 100 percent higher than modeled  
7 unit sales for that same year, the Sec-  
8 retary shall—

9 “(I) not later than 90 days after  
10 the end of the previous calendar year,  
11 issue a finding that the index has  
12 been exceeded; and

13 “(II) not later than the date that  
14 is 1 year after the end of the previous  
15 calendar year, complete an accelerated  
16 rulemaking to establish an energy  
17 conservation standard for rough serv-  
18 ice lamps.

19 “(ii) BACKSTOP REQUIREMENT.—If  
20 the Secretary fails to complete an acceler-  
21 ated rulemaking in accordance with clause  
22 (i)(II), effective beginning 1 year after the  
23 date of the issuance of the finding under  
24 clause (i)(I), the Secretary shall require  
25 rough service lamps to—

1 “(I) have a shatter-proof coating  
 2 or equivalent technology that is com-  
 3 pliant with NSF/ANSI 51 and is de-  
 4 signed to contain the glass if the glass  
 5 envelope of the lamp is broken and to  
 6 provide effective containment over the  
 7 life of the lamp;

8 “(II) have a maximum 40-watt  
 9 limitation; and

10 “(III) be sold at retail only in a  
 11 package containing 1 lamp.

12 “(E) VIBRATION SERVICE LAMPS.—

13 “(i) IN GENERAL.—Effective begin-  
 14 ning with the first year that the reported  
 15 annual sales rate for vibration service  
 16 lamps demonstrates actual unit sales of vi-  
 17 bration service lamps that achieve levels  
 18 that are at least 100 percent higher than  
 19 modeled unit sales for that same year, the  
 20 Secretary shall—

21 “(I) not later than 90 days after  
 22 the end of the previous calendar year,  
 23 issue a finding that the index has  
 24 been exceeded; and



1 “(II) not later than the date that  
 2 is 1 year after the end of the previous  
 3 calendar year, complete an accelerated  
 4 rulemaking to establish an energy  
 5 conservation standard for vibration  
 6 service lamps.

7 “(ii) BACKSTOP REQUIREMENT.—If  
 8 the Secretary fails to complete an acceler-  
 9 ated rulemaking in accordance with clause  
 10 (i)(II), effective beginning 1 year after the  
 11 date of the issuance of the finding under  
 12 clause (i)(I), the Secretary shall require vi-  
 13 bration service lamps to—

14 “(I) have a maximum 40-watt  
 15 limitation; and

16 “(II) be sold at retail only in a  
 17 package containing 1 lamp.

18 “(F) 3-WAY INCANDESCENT LAMPS.—

19 “(i) IN GENERAL.—Effective begin-  
 20 ning with the first year that the reported  
 21 annual sales rate for 3-way incandescent  
 22 lamps demonstrates actual unit sales of 3-  
 23 way incandescent lamps that achieve levels  
 24 that are at least 100 percent higher than

1 modeled unit sales for that same year, the  
 2 Secretary shall—

3 “(I) not later than 90 days after  
 4 the end of the previous calendar year,  
 5 issue a finding that the index has  
 6 been exceeded; and

7 “(II) not later than the date that  
 8 is 1 year after the end of the previous  
 9 calendar year, complete an accelerated  
 10 rulemaking to establish an energy  
 11 conservation standard for 3-way in-  
 12 candescent lamps.

13 “(ii) BACKSTOP REQUIREMENT.—If  
 14 the Secretary fails to complete an acceler-  
 15 ated rulemaking in accordance with clause  
 16 (i)(II), effective beginning 1 year after the  
 17 date of issuance of the finding under  
 18 clause (i)(I), the Secretary shall require  
 19 that—

20 “(I) each filament in a 3-way in-  
 21 candescent lamp meet the new max-  
 22 imum wattage requirements for the  
 23 respective lumen range established  
 24 under subsection (i)(1)(A); and

1 “(II) 3-way lamps be sold at re-  
2 tail only in a package containing 1  
3 lamp.

4 “(G) 150-WATT GENERAL SERVICE INCAN-  
5 DESCENT LAMPS.—

6 “(i) IN GENERAL.—Effective begin-  
7 ning with the first year that the reported  
8 annual sales rate demonstrates actual unit  
9 sales of 150-watt general service incandes-  
10 cent lamps in the lumen range of 2,601  
11 through 3,300 lumens (or, in the case of a  
12 modified spectrum, in the lumen range of  
13 1,951 through 2,475 lumens) that achieve  
14 levels that are at least 100 percent higher  
15 than modeled unit sales for that same  
16 year, the Secretary shall—

17 “(I) not later than 90 days after  
18 the end of the previous calendar year,  
19 issue a finding that the index has  
20 been exceeded; and

21 “(II) not later than the date that  
22 is 1 year after the end of the previous  
23 calendar year, complete an accelerated  
24 rulemaking to establish an energy  
25 conservation standard for those 150-

1 watt general service incandescent  
2 lamps.

3 “(ii) BACKSTOP REQUIREMENT.—If  
4 the Secretary fails to complete an acceler-  
5 ated rulemaking in accordance with clause  
6 (i)(II), effective beginning 1 year after the  
7 date of issuance of the finding under  
8 clause (i)(I), the Secretary shall impose—

9 “(I) a maximum 95-watt limita-  
10 tion on general service incandescent  
11 lamps in the lumen range of 2,601  
12 through 3,300 lumens; and

13 “(II) a requirement that those  
14 lamps be sold at retail only in a pack-  
15 age containing 1 lamp.

16 “(H) SHATTER-RESISTANT LAMPS.—

17 “(i) IN GENERAL.—Effective begin-  
18 ning with the first year that the reported  
19 annual sales rate for shatter-resistant  
20 lamps demonstrates actual unit sales of  
21 shatter-resistant lamps that achieve levels  
22 that are at least 100 percent higher than  
23 modeled unit sales for that same year, the  
24 Secretary shall—

1 “(I) not later than 90 days after  
 2 the end of the previous calendar year,  
 3 issue a finding that the index has  
 4 been exceeded; and

5 “(II) not later than the date that  
 6 is 1 year after the end of the previous  
 7 calendar year, complete an accelerated  
 8 rulemaking to establish an energy  
 9 conservation standard for shatter-re-  
 10 sistant lamps.

11 “(ii) BACKSTOP REQUIREMENT.—If  
 12 the Secretary fails to complete an acceler-  
 13 ated rulemaking in accordance with clause  
 14 (i)(II), effective beginning 1 year after the  
 15 date of issuance of the finding under  
 16 clause (i)(I), the Secretary shall impose—

17 “(I) a maximum wattage limita-  
 18 tion of 40 watts on shatter resistant  
 19 lamps; and

20 “(II) a requirement that those  
 21 lamps be sold at retail only in a pack-  
 22 age containing 1 lamp.

23 “(I) RULEMAKINGS BEFORE JANUARY 1,  
 24 2025.—

1           “(i) IN GENERAL.—Except as pro-  
2           vided in clause (ii), if the Secretary issues  
3           a final rule prior to January 1, 2025, es-  
4           tablishing an energy conservation standard  
5           for any of the 5 types of lamps for which  
6           data collection is required under any of  
7           subparagraphs (D) through (G), the re-  
8           quirement to collect and model data for  
9           that type of lamp shall terminate unless,  
10          as part of the rulemaking, the Secretary  
11          determines that continued tracking is nec-  
12          essary.

13          “(ii) BACKSTOP REQUIREMENT.—If  
14          the Secretary imposes a backstop require-  
15          ment as a result of a failure to complete  
16          an accelerated rulemaking in accordance  
17          with clause (i)(II) of any of subparagraphs  
18          (D) through (G), the requirement to collect  
19          and model data for the applicable type of  
20          lamp shall continue for an additional 2  
21          years after the effective date of the back-  
22          stop requirement.”.

1 **SEC. 102. CONSUMER EDUCATION AND LAMP LABELING.**

2 Section 324(a)(2)(C) of the Energy Policy and Con-  
3 servation Act (42 U.S.C. 6294(a)(2)(C)) is amended by  
4 adding at the end the following:

5 “(iii) RULEMAKING TO CONSIDER EF-  
6 FECTIVENESS OF LAMP LABELING.—

7 “(I) IN GENERAL.—Not later  
8 than 1 year after the date of enact-  
9 ment of this clause, the Commission  
10 shall initiate a rulemaking to con-  
11 sider—

12 “(aa) the effectiveness of  
13 current lamp labeling for power  
14 levels or watts, light output or  
15 lumens, and lamp lifetime; and

16 “(bb) alternative labeling  
17 approaches that will help con-  
18 sumers to understand new high-  
19 efficiency lamp products and to  
20 base the purchase decisions of  
21 the consumers on the most ap-  
22 propriate source that meets the  
23 requirements of the consumers  
24 for lighting level, light quality,  
25 lamp lifetime, and total lifecycle  
26 cost.

1 “(II) COMPLETION.—The Com-  
 2 mission shall—

3 “(aa) complete the rule-  
 4 making not later than the date  
 5 that is 30 months after the date  
 6 of enactment of this clause; and

7 “(bb) consider reopening the  
 8 rulemaking not later than 180  
 9 days before the effective dates of  
 10 the standards for general service  
 11 incandescent lamps established  
 12 under section 325(i)(1)(A), if the  
 13 Commission determines that fur-  
 14 ther labeling changes are needed  
 15 to help consumers understand  
 16 lamp alternatives.”.

17 **SEC. 103. MARKET ASSESSMENTS AND CONSUMER AWARE-**  
 18 **NESS PROGRAM.**

19 (a) IN GENERAL.—In cooperation with the Adminis-  
 20 trator of the Environmental Protection Agency, the Sec-  
 21 retary of Commerce, the Federal Trade Commission, light-  
 22 ing and retail industry associations, energy efficiency or-  
 23 ganizations, and any other entities that the Secretary de-  
 24 termines to be appropriate, the Secretary shall—



1           (1) conduct an annual assessment of the mar-  
2           ket for general service lamps and compact fluores-  
3           cent lamps to—

4                   (A) identify trends in the market shares of  
5           lamp types, efficiencies, and light output levels  
6           purchased by residential and nonresidential con-  
7           sumers; and

8                   (B) better understand the degree to which  
9           consumer decisionmaking is based on lamp  
10          power levels or watts, light output or lumens,  
11          lamp lifetime, and other factors, including in-  
12          formation required on labels mandated by the  
13          Federal Trade Commission;

14          (2) provide the results of the market assess-  
15          ment to the Federal Trade Commission for consider-  
16          ation in the rulemaking described in section  
17          324(a)(2)(C)(iii) of the Energy Policy and Conserva-  
18          tion Act (42 U.S.C. 6294(a)(2)(C)(iii)); and

19          (3) in cooperation with industry trade associa-  
20          tions, lighting industry members, utilities, and other  
21          interested parties, carry out a proactive national  
22          program of consumer awareness, information, and  
23          education that broadly uses the media and other ef-  
24          fective communication techniques over an extended  
25          period of time to help consumers understand the

1 lamp labels and make energy-efficient lighting  
 2 choices that meet the needs of consumers.

3 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
 4 authorized to be appropriated to carry out this section  
 5 \$10,000,000 for each of fiscal years 2009 through 2012.

6 **SEC. 104. GENERAL RULE OF PREEMPTION FOR ENERGY**  
 7 **CONSERVATION STANDARDS BEFORE FED-**  
 8 **ERAL STANDARD BECOMES EFFECTIVE FOR**  
 9 **A PRODUCT.**

10 Section 327(b)(1) of the Energy Policy and Con-  
 11 servation Act (42 U.S.C. 6297(b)(1)) is amended—

12 (1) by inserting “(A)” after “(1)”;

13 (2) by inserting “or” after the semicolon at the  
 14 end; and

15 (3) by adding at the end the following:

16 “(B) in the case of any portion of any regula-  
 17 tion that establishes requirements for general service  
 18 incandescent lamps, intermediate base incandescent  
 19 lamps, or candelabra base lamps, was enacted or  
 20 adopted before the date of enactment of this sub-  
 21 paragraph, except that—

22 “(i) the regulation shall only be effective  
 23 until the effective date of the Federal standard  
 24 for the applicable lamp category under subpara-

1           graphs (A), (B), and (C) of section 325(i)(1);  
2           and

3           “(ii) a State may, at any time, modify or  
4           adopt a State standard for general service  
5           lamps to conform with Federal standards and  
6           effective dates.”.

7   **SEC. 105. PROHIBITED ACTS.**

8           Section 332(a) of the Energy Policy and Conserva-  
9   tion Act (42 U.S.C. 6302(a)) is amended—

10          (1) in paragraph (4), by striking “or” at the  
11          end;

12          (2) in paragraph (5), by striking the period at  
13          the end and inserting “; or”; and

14          (3) by adding at the end the following:

15               “(6) for any manufacturer, distributor, retailer,  
16          or private labeler to distribute in commerce an  
17          adapter that—

18                       “(A) is designed to allow an incandescent  
19          lamp that does not have a medium screw base  
20          to be installed into a fixture or lampholder with  
21          a medium screw base socket; and

22                       “(B) has a voltage range that includes 110  
23          and 130 volts.”.

1 **SEC. 106. ENFORCEMENT.**

2 Section 334 of the Energy Policy and Conservation  
3 Act (42 U.S.C. 6304) is amended by inserting after the  
4 second sentence the following: “Any such action to re-  
5 strain any person from distributing in commerce a general  
6 service incandescent lamp that does not comply with the  
7 applicable standard established under section 325(i) or an  
8 adapter prohibited under section 332(a)(6) may also be  
9 brought by the attorney general of a State in the name  
10 of the State.”.

11 **SEC. 107. RESEARCH AND DEVELOPMENT PROGRAM.**

12 (a) IN GENERAL.—The Secretary may carry out a  
13 lighting technology research and development program—

14 (1) to support the research, development, dem-  
15 onstration, and commercial application of lamps and  
16 related technologies sold, offered for sale, or other-  
17 wise made available in the United States; and

18 (2) to assist manufacturers of general service  
19 lamps in the manufacturing of general service lamps  
20 that, at a minimum, achieve the wattage require-  
21 ments imposed as a result of the amendments made  
22 by section 101.

23 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
24 are authorized to be appropriated to carry out this section  
25 \$10,000,000 for each of fiscal years 2008 through 2013.

1 (c) TERMINATION OF AUTHORITY.—The program  
 2 under this section shall terminate on September 30, 2015.

3 **SEC. 108. REPORT ON MERCURY USE AND RELEASE.**

4 Not later than 1 year after the date of enactment  
 5 of this Act, the Secretary, in cooperation with the Admin-  
 6 istrator of the Environmental Protection Agency, shall  
 7 submit to Congress a report describing recommendations  
 8 relating to the means by which the Federal Government  
 9 may reduce or prevent the release of mercury during the  
 10 manufacture, transportation, storage, or disposal of light  
 11 bulbs.

12 **TITLE II—STANDARDS FOR**  
 13 **METAL HALIDE LAMP FIXTURES**

14 **SEC. 201. DEFINITIONS.**

15 Section 321 of the Energy Policy and Conservation  
 16 Act (42 U.S.C. 6291) is amended by adding at the end  
 17 the following:

18 “(52) BALLAST.—The term ‘ballast’ means a  
 19 device used with an electric discharge lamp to obtain  
 20 necessary circuit conditions (including voltage, cur-  
 21 rent, and waveform) for starting and operating.

22 “(53) BALLAST EFFICIENCY.—

23 “(A) IN GENERAL.—The term ‘ballast effi-  
 24 ciency’ means, with respect to a high intensity  
 25 discharge fixture, the efficiency of a lamp and

1 ballast combination this is equal to the percent-  
2 age obtained by dividing  $P_{\text{out}}/P_{\text{in}}$ , as measured,  
3 with—

4 “(i)  $P_{\text{out}}$  equal to the measured oper-  
5 ating lamp wattage; and

6 “(ii)  $P_{\text{in}}$  equal to the measured oper-  
7 ating input wattage.

8 “(B) ADMINISTRATION.—In calculating  
9 ballast efficiency under subparagraph (A)—

10 “(i) the lamp and (if provided) the ca-  
11 pacitor shall constitute a nominal system  
12 in accordance with the ANSI Standard  
13 C78.43–2004; and

14 “(ii)  $P_{\text{in}}$  and  $P_{\text{out}}$  shall be measured  
15 after lamps have been stabilized according  
16 to section 4.4 of ANSI Standard C82.6–  
17 2005 using a wattmeter with—

18 “(I) in the case of ballast with a  
19 frequency of 60 hertz, accuracy speci-  
20 fied in section 4.5 of ANSI Standard  
21 C82.6–2005; and

22 “(II) in the case of ballast with a  
23 frequency greater than 60 hertz, a  
24 basic accuracy of  $\pm 0.5$  percent at the  
25 higher of 3 times the output operating

1 frequency of the ballast, or 2 kilo-  
2 hertz.

3 “(C) MODIFICATION.—The Secretary may,  
4 by rule, modify the definition of ‘ballast effi-  
5 ciency’ if the Secretary determines that the  
6 modification is necessary or appropriate to  
7 carry out this Act.

8 “(54) ELECTRONIC BALLAST.—The term ‘elec-  
9 tronic ballast’ means a device that use semiconduc-  
10 tors as the primary means to control lamp starting  
11 and operation.

12 “(55) GENERAL LIGHTING APPLICATION.—The  
13 term ‘general lighting application’ means lighting  
14 that provides an interior or exterior area with overall  
15 illumination.

16 “(56) METAL HALIDE BALLAST.—The term  
17 ‘metal halide ballast’ means a ballast that is used to  
18 start and operate metal halide lamps.

19 “(57) METAL HALIDE LAMP.—The term ‘metal  
20 halide lamp’ means a high intensity discharge lamp  
21 with the major portion of the light produced by radi-  
22 ation of metal halides and the products of dissocia-  
23 tion of metal halides, possibly in combination with  
24 metallic vapors.

1           “(58) METAL HALIDE LAMP FIXTURE.—The  
2           term ‘metal halide lamp fixture’ means a light fix-  
3           ture for general lighting application that is designed  
4           to be operated with a metal halide lamp and a bal-  
5           last for a metal halide lamp.

6           “(59) PROBE-START METAL HALIDE BAL-  
7           LAST.—The term ‘probe-start metal halide ballast’  
8           means a ballast that—

9                   “(A) starts a probe-start metal halide lamp  
10                  that contains a third starting electrode (probe)  
11                  in the arc tube; and

12                  “(B) does not generally contain an igniter  
13                  and instead starts lamps with high ballast open  
14                  circuit voltage.

15           “(60) PULSE-START METAL HALIDE BAL-  
16           LAST.—The term ‘pulse-start metal halide ballast’  
17           means an electronic or electromagnetic ballast that  
18           starts a pulse start metal halide lamp with high volt-  
19           age pulses, with—

20                  “(A) the lamp started by first providing a  
21                  high voltage pulse for ionization of the gas to  
22                  produce a glow discharge; and

23                  “(B) to complete the starting process,  
24                  power provided by the ballast to sustain the dis-  
25                  charge through the glow-to-arc transition.”.



1 **SEC. 202. COVERAGE.**

2 Section 322(a) of the Energy Policy and Conserva-  
3 tion Act (42 U.S.C. 6292(a)) is amended—

4 (1) by redesignating paragraph (19) as para-  
5 graph (20); and

6 (2) by inserting after paragraph (18) the fol-  
7 lowing:

8 “(19) Metal halide lamp fixture.”.

9 **SEC. 203. TEST PROCEDURES.**

10 Section 323(b) of the Energy Policy and Conserva-  
11 tion Act (42 U.S.C. 6293(b)) is amended by adding at  
12 the end the following:

13 “(17) METAL HALIDE LAMP BALLASTS.—Test  
14 procedures for metal halide lamp ballasts shall be  
15 based on ANSI Standard C82.6–2005, entitled ‘Bal-  
16 lasts for High Intensity Discharge Lamps—Method  
17 of Measurement’.”.

18 **SEC. 204. LABELING.**

19 Section 324(a)(2) of the Energy Policy and Conserva-  
20 tion Act (42 U.S.C. 6293(b)) is amended by adding at  
21 the end the following:

22 “(H) METAL HALIDE LAMP FIXTURES.—

23 “(i) IN GENERAL.—The Commission  
24 shall prescribe labeling rules under this  
25 section applicable to the covered product  
26 specified in section 322(a)(19) and to

which standards are applicable under section 325.

“(ii) LABELING.—The rules shall provide that the labeling of any metal halide lamp fixture manufactured on or after the later of January 1, 2009, or the date that is 270 days after the date of enactment of this subparagraph, shall indicate conspicuously, in a manner prescribed by the Commission under subsection (b) by July 1, 2008, a capital letter ‘E’ printed within a circle on the packaging of the fixture, and on the ballast contained in the fixture.”.

**SEC. 205. ENERGY CONSERVATION STANDARDS.**

Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) by redesignating subsection (gg) as subsection (hh);

(2) by inserting after subsection (ff) the following:

“(gg) STANDARDS FOR METAL HALIDE LAMP FIXTURES.—

“(1) IN GENERAL.—Subject to paragraphs (2) through (5), a metal halide lamp fixture designed to be operated with a lamp that is rated greater than

1 or equal to 150 watts, but less than or equal to 500  
2 watts, shall contain—

3 “(A) a pulse-start metal halide ballast with  
4 a minimum ballast efficiency of 88 percent;

5 “(B) a magnetic probe-start ballast with a  
6 minimum ballast efficiency of 94 percent; or

7 “(C) a non-pulse-start electronic ballast  
8 with a minimum ballast efficiency of—

9 “(i) 92 percent for wattages greater  
10 than 250 watts; and

11 “(ii) 90 percent for wattages less than  
12 or equal to 250 watts.

13 “(2) EXCEPTIONS.—The standards established  
14 under paragraph (1) shall not apply to—

15 “(A) fixtures with regulated lag ballasts;

16 “(B) fixtures that use electronic ballasts  
17 that operate at 480 volts; or

18 “(C) fixtures that—

19 “(i) are rated only for 150 watt  
20 lamps;

21 “(ii) are rated for use in wet loca-  
22 tions, as specified by section 410.4(A) of  
23 the National Electrical Code (2002); and

1 “(iii) contain a ballast that is rated to  
2 operate at ambient air temperatures above  
3 50° celsius, as specified by UL 1029–2001.

4 “(3) AMENDED STANDARDS.—

5 “(A) PRODUCTS MANUFACTURED AFTER  
6 JANUARY 1, 2015.—

7 “(i) IN GENERAL.—Not later than  
8 January 1, 2012, the Secretary shall pub-  
9 lish a final rule to determine whether the  
10 standards established under paragraph (1)  
11 should be amended.

12 “(ii) ADMINISTRATION.—The final  
13 rule shall—

14 “(I) contain the amended stand-  
15 ards, if any; and

16 “(II) apply to products manufac-  
17 tured after January 1, 2015.

18 “(B) PRODUCTS MANUFACTURED AFTER  
19 JANUARY 1, 2022.—

20 “(i) IN GENERAL.—Not later than  
21 January 1, 2019, the Secretary shall pub-  
22 lish a final rule to determine whether the  
23 standards then in effect should be amend-  
24 ed.

1                   “(ii) ADMINISTRATION.—The final  
2 rule shall—

3                   “(I) contain the amended stand-  
4 ards, if any; and

5                   “(II) apply to products manufac-  
6 tured after January 1, 2022.

7           “(4) DESIGN AND PERFORMANCE REQUIRE-  
8 MENTS.—Notwithstanding any other provision of  
9 law, any standard established under this subsection  
10 may contain both design and performance require-  
11 ments.

12           “(5) EFFECTIVE DATE.—The standards estab-  
13 lished under paragraph (1) shall apply to metal ha-  
14 lide lamp fixtures manufactured on or after the later  
15 of—

16                   “(A) January 1, 2009; or

17                   “(B) the date that is 270 days after the  
18 date of enactment of the Energy Efficient  
19 Lighting for a Brighter Tomorrow Act of  
20 2007.”; and

21           (3) in paragraph (2) of subsection (hh) (as re-  
22 designated by paragraph (1)), by striking “(ff)”  
23 each place it appears and inserting “(gg)”.

1 **SEC. 206. EFFECT ON OTHER LAW.**

2 Section 327(c) of the Energy Policy and Conservation  
3 Act (42 U.S.C. 6297(c)) is amended—

4 (1) in paragraph (6), by striking “or” after the  
5 semicolon at the end;

6 (2) in paragraph (8), by striking the period at  
7 the end and inserting “; or”; and

8 (3) by adding at the end the following:

9 “(9) is a regulation concerning metal halide  
10 lamp fixtures adopted by the California Energy  
11 Commission on or before January 1, 2011, except  
12 that (notwithstanding any other provision of this  
13 section)—

14 “(A) if the Secretary fails to issue a final  
15 rule within the 180-day period beginning on the  
16 date of the deadline for rulemaking under sec-  
17 tion 325(gg)(3)(A)(i), preemption shall not  
18 apply to a regulation concerning metal halide  
19 lamp fixtures adopted by the California Energy  
20 Commission on or before July 1, 2015; or

21 “(B) if the Secretary fails to issue a final  
22 rule within the 180-day period beginning on the  
23 deadline specified in section 325(gg)(3)(B)(i),  
24 preemption shall not apply to a regulation con-  
25 cerning metal halide lamp fixtures adopted by

- 1 the California Energy Commission or on or be-
- 2 fore July 1, 2022.”.

○