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2 Councilmember Mary M. Cheh

Councilmember Kwame Brown

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7 Councilmember Tommy Wells

Councilmember Phil Mendelson

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12 Councilmember Harry Thomas, Jr.

Chairman Vincent C. Gray

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17 Councilmember Marion Barry

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20 A BILL

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24 IN THE COUNCIL OF THE DISTRICT OF COLUMBIA

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30 Councilmember Mary M. Cheh introduced the following bill, which was referred to
31 the Committee on _____.

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33 To establish minimum energy efficiency standards for certain products sold or installed in
34 the District of Columbia.

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36 BE IT ENACTED BY THE COUNCIL OF THE DISTRICT OF COLUMBIA, That
37 this act may be cited as the “Energy Efficiency Standards Act of 2007”.

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39 Sec. 2. Definitions.

40 For the purposes of this act, the term:

41 (1) “Ballast” means a device used with an electric discharge lamp to obtain
42 necessary circuit conditions (voltage, current, and waveform) for starting and operating the
43 lamp.

1 (2) “Bottle-type water dispenser” means a water dispenser that uses a bottle or
2 reservoir as the source of potable water.

3 (3) “Director” means the Director of the Department of Consumer and
4 Regulatory Affairs.

5 (4) “Commercial hot food holding cabinet” means a heated, fully-enclosed
6 compartment with one or more solid or glass doors that is designed to maintain the
7 temperature of hot food that has been cooked in a separate appliance. The term “commercial
8 hot food holding cabinet” does not include heated glass merchandizing cabinets, drawer
9 warmers, or cook-and-hold appliances.

10 (5) “Compensation” means money or any other valuable thing, regardless of
11 form, received or to be received by a person for services rendered.

12 (6) “Construction Codes” means the standards and requirements adopted
13 pursuant to the Construction Codes Approval and Amendments Act of 1986, effective March
14 21, 1987 (D.C. Law 6-216; D.C. Official Code § 6-1401 *et seq.*).

15 (7) “High-intensity discharge lamp” means a lamp in which light is produced
16 by the passage of an electric current through a vapor or gas and in which the light-producing
17 arc is stabilized by bulb wall temperature and the arc tube has a bulb wall loading in excess of
18 three watts per square centimeter.

19 (8) “Metal halide lamp” means a high intensity discharge lamp in which the
20 major portion of the light is produced by radiation of metal halides and their products of
21 dissociation, possibly in combination with metallic vapors.

22 (9) “Metal halide lamp fixture” means a light fixture designed to be operated
23 with a metal halide lamp and a ballast for a metal halide lamp.

1 (10) “Probe-start metal halide ballast” means a ballast used to operate metal
2 halide lamps, which does not contain an igniter and which starts lamps by using a 3rd starting
3 electrode probe in the arc tube.

4 (11) “Single-voltage external AC to DC power supply” means a device that:

5 (A) Is designed to convert line voltage AC input into lower voltage DC
6 output;

7 (B) Is able to convert to only one DC output voltage at a time;

8 (C) Is sold with, or intended to be used with, a separate end-use product
9 that constitutes the primary power load;

10 (D) Is contained within a separate physical enclosure from the end-use
11 product;

12 (E) Is connected to the end-use product through a removable or hard-
13 wired male/female electrical connection, cable, cord or other wiring;

14 (F) Does not have batteries or battery packs, including those that are
15 removable, that physically attach directly to the power supply unit;

16 (G) Does not have a battery chemistry or type selector switch and
17 indicator light; or does not have a battery chemistry or type selector switch and a state of
18 charge meter; and

19 (H) Has a nameplate output power not exceeding 250 watts.

20 (12) “State-regulated incandescent reflector lamp” means a lamp, not colored
21 or designed for rough or vibration service applications, with an inner reflective coating on the
22 outer bulb to direct the light, an E26 medium screw base, a rated voltage or voltage range that
23 lies at least partially within 115 to 130 volts, and that falls into either of the following
24 categories:

1 (A) A blown PAR, bulged reflector, elliptical reflector or similar bulb
2 shape with a diameter equal to or greater than 2.25 inches; or

3 (B) A reflector, parabolic aluminized reflector, or similar bulb shape
4 with a diameter of 2.25 to 2.75 inches.

5 (13) "Walk-in refrigerator and freezer" means a refrigerated space that can be
6 walked into and has a total chilled and frozen storage area of less than 3,000 square feet,
7 operates at chilled (above 32°F) or frozen (at or below 32°F) temperature, and is connected to
8 a self-contained or remote condensing unit. The term "walk-in refrigerator and freezer"
9 excludes products designed and marketed exclusively for medical, scientific, or research
10 purposes, and refrigerated warehouses.

11 (14) "Water dispenser" means a factory-made assembly that mechanically
12 cools and heats potable water and that dispenses the cooled or heated water by integral or
13 remote means.

14 Sec. 3. Scope.

15 (a) This act shall apply to the following types of new products sold, offered for sale, or
16 installed in the District of Columbia:

17 (1) Bottle-type water dispensers;

18 (2) Commercial hot food holding cabinets;

19 (3) Metal halide lamp fixtures;

20 (4) Single-voltage external AC to DC power supplies;

21 (5) State-regulated incandescent reflector lamps;

22 (6) Walk-in refrigerators and walk-in freezers; and

23 (7) Any other products as may be designated by the Director in accordance

24 with section 7.

1 (b) This act shall not apply to –

2 (1) New products manufactured in the District of Columbia and sold outside
3 the District;

4 (2) New products manufactured outside the District of Columbia and sold at
5 wholesale inside the District for final retail sale and installation outside the District;

6 (3) Products installed in mobile manufactured homes at the time of
7 construction; or

8 (4) Products designed expressly for installation and use in recreational
9 vehicles.

10 Sec. 4. Efficiency standards.

11 (a) Not later than one year after the effective date of this act, the Director shall adopt
12 rules establishing minimum efficiency standards for each type of new products set forth in
13 section 4; provided, that a substantially identical standard for any product included in the rules
14 shall have been adopted by statute or regulation in either Maryland or Virginia.

15 (b) The rules shall provide for the following minimum efficiency standards:

16 (1) Bottle-type water dispensers designed for dispensing both hot and cold
17 water shall not have standby energy consumption greater than 1.2 kilowatt-hours per day, as
18 measured in accordance with the test criteria contained in version 1.1 of the U.S.
19 Environmental Protection Agency’s “Energy Star Program Requirements for Bottled Water
20 Coolers,” except units with an integral, automatic timer shall not be tested using Section D,
21 “Timer Usage,” of the test criteria.

22 (2) Commercial hot food holding cabinets shall have a maximum idle energy
23 rate not exceeding 40 watts per cubic foot of interior volume, as determined by the "idle
24 energy rate-dry test" in ASTM F2140-01, “Standard Test Method for Performance of Hot

1 Food Holding Cabinets” published by ASTM International. Interior volume shall be
2 measured in accordance with the method shown in the U.S. Environmental Protection
3 Agency’s “Energy Star Program Requirements for Commercial Hot Food Holding Cabinets”
4 as in effect on August 15, 2003.

5 (3) Metal halide lamp fixtures designed to be operated with lamps rated greater
6 than or equal to 150 watts but less than or equal to 500 watts shall not contain a probe-start
7 metal halide ballast.

8 (4)(A) Single-voltage external AC to DC power supplies shall meet the energy
9 efficiency requirements in the following table:

Nameplate Output Power	Minimum Efficiency in Active Mode
From 0 to less than 1 watt	0.49 times the nameplate output
From 1 watt to not more than 49 watts	The sum of 0.09 times the natural logarithm of the nameplate output power (expressed in watts) and 0.49
Greater than 49 watts	0.84
Maximum Energy Consumption in No-Load Mode	
From 0 to less than 10 watts	0.5 watts
From 10 watts to not more than 250 watts	0.75 watts

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11 (B) This standard shall apply to single voltage AC to DC power supplies that
12 are sold individually and to those that are sold as a component of or in conjunction with
13 another product.

14 (C) Single voltage external AC to DC power supplies that require U.S.
15 Food and Drug Administration listing and approval as a medical device are exempt from the
16 requirements of this section.

17 (D) Single voltage external AC to DC power supplies made available
18 by a manufacturer directly to a consumer or to a service or repair facility after and separate

1 from the original sale of the product requiring the power supply as a service part or spare part
2 shall not be required to meet the standards of this section until January 1, 2013.

3 (E) For purposes of this paragraph, the efficiency of single-voltage
4 external AC to DC power supplies shall be measured in accordance with the test methodology
5 specified by the U.S. Environmental Protection Agency’s Energy Star Program, “Test Method
6 for Calculating the Energy Efficiency of Single-Voltage External AC-DC and AC-AC Power
7 Supplies (August 11, 2004)” except that tests shall be conducted at 115 volts only.

8 (5)(A) State-regulated incandescent reflector lamps shall meet the minimum
9 average lamp efficacy requirements for federally-regulated incandescent reflector lamps
10 contained in section 325 of the Energy Policy and Conservation Act, effective July 2, 1985
11 (89 Stat. 723; 42 U.S.C. § 6295(i)(1)(A)).

12 (B) The following types of incandescent reflector lamps shall be
13 exempt from these requirements:

14 (1) Lamps rated at 50 watts or less of the following types:
15 BR30, ER30, BR40, and ER40;

16 (2) Lamps rated at 65 watts of the following types: BR30,
17 BR40, and ER40; and

18 (3) R20 lamps of 45 watts or less.

19 (6) Walk-in refrigerators and walk-in freezers shall meet the following
20 requirements:

21 (A) Walk-in refrigerators and walk-in freezers shall:

22 (i)(I) Have automatic door closers that firmly close all reach-in
23 doors and that firmly close all walk-in doors that have been closed to within one inch of full
24 closure.

1 (II) This requirement shall not apply to walk-in doors
2 wider than 3 feet, 9 inches or higher than 6 feet, 11 inches.

3 (ii)(I) Contain wall, ceiling, and door insulation of at least R-28
4 for refrigerators and at least R-32 for freezers;

5 (II) Door insulation requirements shall not apply to
6 glazed portions of doors, or to structural members;

7 (iii) Contain floor insulation of at least R-28 for freezers;

8 (iv)(I) For single-phase evaporator fan motors of under one
9 horsepower and less than 460 volts, electronically commutated motors.

10 (II) The Director may delay implementation of this
11 paragraph upon a determination that the motors are only available from one manufacturer or
12 in insufficient quantities to serve the needs of the walk-in industry for evaporator-fan
13 applications;

14 (v) For condenser fan motors of under one horsepower, use
15 either:

16 (i) Electronically commutated motors;

17 (ii) Permanent split capacitor-type motors; or

18 (iii) Polyphase motors of one-half (1/2) horsepower or
19 more; and

20 (vi)(I) For all interior lights, use light sources with an efficacy
21 of 40 lumens per watt or more, including ballast losses.

22 (II) Light sources with an efficacy of 40 lumens per watt
23 or less, including ballast losses (if any), may be used in conjunction with a timer or device
24 that turns off the lights within 15 minutes after the enclosure ceases to be occupied.

1 (B) Walk-in refrigerators and walk-in freezers with transparent reach-in
2 doors and walk-in door windows shall also meet the following specifications:

3 (i) Transparent reach-in doors and windows in walk-in doors for
4 walk-in freezers shall be of triple-pane glass with either heat-reflective treated glass or gas
5 fill.

6 (ii) Transparent reach-in doors and windows in walk-in doors
7 for walk-in refrigerators shall be:

8 (I) Double-pane glass with heat-reflective treated glass
9 and gas fill; or

10 (II) triple pane glass with either heat-reflective treated
11 glass or gas fill.

12 (3) For appliances with an anti-sweat heater without anti-sweat
13 heat controls, the appliance shall have a total door rail, glass, and frame heater power draw of
14 no more than 7.1 watts per square foot of door opening (freezers) and 3 watts per square foot
15 of door opening (refrigerators).

16 (4) For appliances with an anti-sweat heater with anti-sweat
17 heat controls, and a total door rail, glass, and frame heater power draw of more than 7.1 watts
18 per square foot of door opening (freezers) and more than 3 watts per square foot of door
19 opening (refrigerators), the anti-sweat heat controls shall reduce the energy use of the anti-
20 sweat heater in an amount corresponding to the relative humidity in the air outside the door or
21 to the condensation on the inner glass pane.

22 Sec. 5. Implementation.

23 (a) On or after January 1, 2009, a new bottle-type water dispenser, commercial hot
24 food holding cabinet, metal halide lamp fixture, state-regulated incandescent reflector lamp,

1 or walk-in refrigerator or walk-in freezer shall not be sold or offered for sale in the District of
2 Columbia unless the efficiency of the new product meets or exceeds the efficiency standards
3 set forth in the regulations adopted pursuant to section 5.

4 (b) On or after January 1, 2010, a product listed in subsection (a) of this section shall
5 not be installed for compensation in the District of Columbia unless the efficiency of the new
6 product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant
7 to Section 5.

8 (c) On or after January 1, 2012, a new single-voltage external AC to DC power supply
9 shall not be sold or offered for sale in the District of Columbia unless the efficiency of the
10 new product meets or exceeds the efficiency standards set forth in the regulations adopted
11 pursuant to section 5.

12 Sec. 6. New and revised standards.

13 The Director may adopt rules to establish increased efficiency standards for the
14 products listed in section 4. The Director may also adopt rules to establish standards for
15 products not specifically listed in section 4. If he or she determines that increased efficiency
16 standards would serve to promote energy conservation in the District of Columbia and would
17 be cost-effective for consumers who purchase and use such new products; provided, that no
18 new or increased efficiency standards shall become effective in less than one year following
19 the adoption of any regulations establishing such efficiency standards; provided further, that a
20 substantially identical standard for any such product included in such regulations shall have
21 been adopted by statute or regulation in Maryland or Virginia. The Director may apply for a
22 waiver of federal preemption in accordance with federal procedures under section 325 of the
23 Energy Policy and Conservation Act, effective July 2, 1985, (89 Stat. 723; 42 U.S.C. §

1 6295(i)(1)(A)) for state efficiency standards for any product regulated by the federal
2 government.

3 Sec. 7. Testing, certification, labeling, and enforcement.

4 (a) The manufacturers of products covered by this act shall test samples of their
5 products in accordance with the test procedures adopted pursuant to this act or those specified
6 in the Construction Codes. The Director shall adopt, by rule, test procedures for determining
7 the energy efficiency of the products covered by section 4 if such procedures are not provided
8 for in section 5 or in the Construction Codes. The Director shall adopt U.S. Department of
9 Energy approved test methods, or in the absence of such test methods, other appropriate
10 nationally recognized test methods. The Director may adopt updated test methods when new
11 versions of test procedures become available.

12 (b) Manufacturers of new products covered by section 4, except for single voltage
13 external AC to DC power supplies, walk-in refrigerators, and walk-in freezers, shall certify to
14 the Director that such products are in compliance with the provisions of this act. The
15 certifications shall be based on test results. The Director shall promulgate rules governing the
16 certification of such products and shall coordinate with the certification programs of other
17 states and federal agencies with similar standards.

18 (c) Manufacturers of new products covered by section 4 shall identify each product
19 offered through retailers for sale or installation in the District of Columbia as in compliance
20 with the provisions of this act by means of a mark, label, or tag on the product or packaging at
21 the time of sale or installation. The Director shall promulgate rules governing the
22 identification of such products and packaging, which shall be coordinated to the greatest
23 practical extent with the labeling programs and requirements of other states and federal
24 agencies with equivalent efficiency standards. The Director shall allow the use of existing

1 marks, labels, or tags which connote compliance with the efficiency requirements of this act.
2 All display models of products covered by section 4 shall be displayed with a mark, label, or
3 tag on the product indicating compliance with the efficiency requirements of this act. If a
4 national efficiency standard is established by federal law or regulation for a product covered
5 by section 4, the labeling requirements of this subsection shall not apply to that product.

6 (d) The Director may test products covered by section 4. If products so tested are
7 found not to be in compliance with the minimum efficiency standards established under
8 Section 5, the Director shall:

9 (1) Charge the manufacturer of such product for the cost of product purchase
10 and testing; and

11 (2) Make information available to the public on products found not to be in
12 compliance with the standards.

13 (e) With prior notice and at reasonable and convenient hours, the Director may cause
14 periodic inspections to be made of distributors or retailers of new products covered by section
15 4 in order to determine compliance with the provisions of this act. The Director may also
16 undertake inspections prior to occupancy of newly constructed buildings containing such new
17 products that are also covered by the Construction Codes.

18 (f) The Director shall investigate complaints received concerning violations of this act
19 and shall report the results of such investigations to the Attorney General. The Attorney
20 General may institute proceedings to enforce the provisions of this act. Any manufacturer,
21 distributor, or retailer, or any person who installs a product covered by this act for
22 compensation, who violates any provision of this act shall be issued a warning by the Director
23 for any first violation. Repeat violations shall be subject to a civil penalty of not more than
24 two hundred fifty dollars. Each violation shall constitute a separate offense, and each day that

1 such violation continues shall constitute a separate offense. Penalties assessed under this
2 paragraph shall be in addition to costs assessed under subsection (d) of this section.

3 (g) The Director may adopt such further regulations as necessary to ensure the proper
4 implementation and enforcement of the provisions of this act.

5 Sec. 8. Electric company purchases of distribution transformers – Public Service
6 Commission rule.

7 (a) For the purposes of this section, the term:

8 (i) “Liquid-immersed distribution transformer” means a transformer that:

9 (A) Has an input voltage of 34,500 volts or less;

10 (B) Has an output voltage of 600 volts or less;

11 (C) Uses oil or other liquid as a coolant; and

12 (D) Is rated for operation at a frequency of 60 Hertz.

13 (ii) “Transformer” means a device consisting of two or more coils of insulated
14 wire and that is designed to transfer alternating current by electromagnetic induction from one
15 coil to another to change the original voltage or current value.

16 (b) On or before July 1, 2008, the Commission shall adopt a rule governing the
17 purchase of liquid-immersed distribution transformers by the electric company, as defined in
18 section 8(1) of An Act Making appropriations to provide for the expenses of the government
19 of the District of Columbia for the fiscal year ending June thirtieth, nineteen hundred and
20 fourteen, and for other purposes, approved March 4, 1913 (37 Stat. 974; D.C. Official Code §
21 34-207). The rule shall ensure that, subject to availability, all such purchases occurring on or
22 after January 1, 2009, are based on the life-cycle cost methodology contained in section 2 of
23 Standard TP 1-2002 published by the National Electrical Manufacturers Association. The
24 Commission may also consider additional inventory management costs as costs for inclusion

1 within the life-cycle cost methodology to be used by an electric company for purposes of this
2 section. Except as provided herein, the rule shall be consistent with regulations pertaining to
3 liquid-immersed distribution transformers adopted by the U.S. Department of Energy.

4 Sec. 9. Section 8 of An Act Making appropriations to provide for the expenses of the
5 government of the District of Columbia for the fiscal year ending June thirtieth, nineteen
6 hundred and fourteen, and for other purposes, approved March 4, 1913 (37 Stat. 974; D.C.
7 Official Code § 34-101 *et. Seq.*), is amended by adding a new paragraph (56A) to read as
8 follows:

9 “Par. 56A. The Commission shall adopt a rule in accordance with section 8 of the
10 Energy Efficiency Standards Act of 2007, passed on 2nd reading on _____, 2007
11 (Enrolled version of Bill 17-).”.

12 Sec. 10. Fiscal impact statement.

13 The Council adopts the fiscal impact statement in the committee report as the fiscal
14 impact statement required by section 602(c)(3) of the District of Columbia Home Rule Act,
15 approved December 24, 1973 (87 Stat. 813; D.C. Official Code § 1-206.02(c)(3)).

16 Sec. 11. Effective date.

17 This act shall take effect following approval by the Mayor (or in the event of veto by
18 the Mayor, action by the Council to override the veto), a 30-day period of Congressional
19 review as provided in section 602(c)(1) of the District of Columbia Home Rule Act, approved
20 December 24, 1973 (87 Stat. 813; D.C. Official Code § 1-206.02(c)(1)), and publication in the
21 District of Columbia Register.