

***In the Senate of the United States,***

*September 22 (legislative day, September 21), 2012.*

*Resolved*, That the bill from the House of Representatives (H.R. 4850) entitled “An Act to allow for innovations and alternative technologies that meet or exceed desired energy efficiency goals.”, do pass with the following

**AMENDMENT:**

At the end of the bill, add the following:

1 ***SEC. 3. UNIFORM EFFICIENCY DESCRIPTOR FOR COVERED***  
2 ***WATER HEATERS.***

3 *Section 325(e) of the Energy Policy and Conservation*  
4 *Act (42 U.S.C. 6295(e)) is amended by adding at the end*  
5 *the following:*

6 *“(5) UNIFORM EFFICIENCY DESCRIPTOR FOR*  
7 *COVERED WATER HEATERS.—*

8 *“(A) DEFINITIONS.—In this paragraph:*

9 *“(i) COVERED WATER HEATER.—The*  
10 *term ‘covered water heater’ means—*

11 *“(I) a water heater; and*

1                   “(II) a storage water heater, in-  
2                   stantaneous water heater, and unfired  
3                   water storage tank (as defined in sec-  
4                   tion 340).

5                   “(ii) FINAL RULE.—The term ‘final  
6                   rule’ means the final rule published under  
7                   this paragraph.

8                   “(B) PUBLICATION OF FINAL RULE.—Not  
9                   later than 180 days after the date of enactment  
10                  of this paragraph, the Secretary shall publish a  
11                  final rule that establishes a uniform efficiency  
12                  descriptor and accompanying test methods for  
13                  covered water heaters.

14                  “(C) PURPOSE.—The purpose of the final  
15                  rule shall be to replace with a uniform efficiency  
16                  descriptor—

17                         “(i) the energy factor descriptor for  
18                         water heaters established under this sub-  
19                         section; and

20                         “(ii) the thermal efficiency and stand-  
21                         by loss descriptors for storage water heaters,  
22                         instantaneous water heaters, and unfired  
23                         water storage tanks established under sec-  
24                         tion 342(a)(5).

25                         “(D) EFFECT OF FINAL RULE.—

1           “(i) *IN GENERAL.*—*Notwithstanding*  
2           *any other provision of this title, effective be-*  
3           *ginning on the effective date of the final*  
4           *rule, the efficiency standard for covered*  
5           *water heaters shall be denominated accord-*  
6           *ing to the efficiency descriptor established*  
7           *by the final rule.*

8           “(ii) *EFFECTIVE DATE.*—*The final rule*  
9           *shall take effect 1 year after the date of pub-*  
10           *lication of the final rule under subpara-*  
11           *graph (B).*

12           “(E) *CONVERSION FACTOR.*—

13           “(i) *IN GENERAL.*—*The Secretary shall*  
14           *develop a mathematical conversion factor*  
15           *for converting the measurement of efficiency*  
16           *for covered water heaters from the test pro-*  
17           *cedures in effect on the date of enactment of*  
18           *this paragraph to the new energy descriptor*  
19           *established under the final rule.*

20           “(ii) *APPLICATION.*—*The conversion*  
21           *factor shall apply to models of covered*  
22           *water heaters affected by the final rule and*  
23           *tested prior to the effective date of the final*  
24           *rule.*

1           “(iii) *EFFECT ON EFFICIENCY RE-*  
2           *QUIREMENTS.—The conversion factor shall*  
3           *not affect the minimum efficiency require-*  
4           *ments for covered water heaters otherwise*  
5           *established under this title.*

6           “(iv) *USE.—During the period de-*  
7           *scribed in clause (v), a manufacturer may*  
8           *apply the conversion factor established by*  
9           *the Secretary to rerate existing models of*  
10           *covered water heaters that are in existence*  
11           *prior to the effective date of the rule de-*  
12           *scribed in clause (v)(II) to comply with the*  
13           *new efficiency descriptor.*

14           “(v) *PERIOD.—Subclause (E) shall*  
15           *apply during the period—*

16                   “(I) *beginning on the date of pub-*  
17                   *lication of the conversion factor in the*  
18                   *Federal Register; and*

19                   “(II) *ending on April 16, 2015.*

20           “(F) *EXCLUSIONS.—The final rule may ex-*  
21           *clude a specific category of covered water heaters*  
22           *from the uniform efficiency descriptor established*  
23           *under this paragraph if the Secretary determines*  
24           *that the category of water heaters—*

1           “(i) does not have a residential use  
2           and can be clearly described in the final  
3           rule; and

4           “(ii) are effectively rated using the  
5           thermal efficiency and standby loss  
6           descriptors applied (as of the date of enact-  
7           ment of this paragraph) to the category  
8           under section 342(a)(5).

9           “(G) *OPTIONS*.—The descriptor set by the  
10          final rule may be—

11           “(i) a revised version of the energy fac-  
12           tor descriptor in use as of the date of enact-  
13           ment of this paragraph;

14           “(ii) the thermal efficiency and stand-  
15           by loss descriptors in use as of that date;

16           “(iii) a revised version of the thermal  
17           efficiency and standby loss descriptors;

18           “(iv) a hybrid of descriptors; or

19           “(v) a new approach.

20           “(H) *APPLICATION*.—The efficiency  
21           descriptor and accompanying test method estab-  
22           lished under the final rule shall apply, to the  
23           maximum extent practicable, to all water heat-  
24           ing technologies in use as of the date of enact-

1           *ment of this paragraph and to future water heat-*  
2           *ing technologies.*

3           “(I) *PARTICIPATION.*—*The Secretary shall*  
4           *invite interested stakeholders to participate in*  
5           *the rulemaking process used to establish the final*  
6           *rule.*

7           “(J)     *TESTING     OF     ALTERNATIVE*  
8           *DESCRIPTORS.*—*In establishing the final rule,*  
9           *the Secretary shall contract with the National*  
10          *Institute of Standards and Technology, as nec-*  
11          *essary, to conduct testing and simulation of al-*  
12          *ternative descriptors identified for consideration.*

13          “(K) *EXISTING COVERED WATER HEAT-*  
14          *ERS.*—*A covered water heater shall be considered*  
15          *to comply with the final rule on and after the ef-*  
16          *fective date of the final rule and with any re-*  
17          *vised labeling requirements established by the*  
18          *Federal Trade Commission to carry out the final*  
19          *rule if the covered water heater—*

20                 *“(i) was manufactured prior to the ef-*  
21                 *fective date of the final rule; and*

22                 *“(ii) complied with the efficiency*  
23                 *standards and labeling requirements in ef-*  
24                 *fect prior to the final rule.”.*

1 **SEC. 4. SERVICE OVER THE COUNTER, SELF-CONTAINED,**  
2 **MEDIUM TEMPERATURE COMMERCIAL RE-**  
3 **FRIGERATORS.**

4 *Section 342(c) of the Energy Policy and Conservation*  
5 *Act (42 U.S.C. 6313(c)) is amended—*

6 *(1) in paragraph (1)—*

7 *(A) by redesignating subparagraph (C) as*  
8 *subparagraph (E); and*

9 *(B) by inserting after subparagraph (B) the*  
10 *following:*

11 *“(C) The term ‘service over the counter, self-*  
12 *contained, medium temperature commercial re-*  
13 *frigerator’ or ‘(SOC–SC–M)’ means a medium*  
14 *temperature commercial refrigerator—*

15 *“(i) with a self-contained condensing*  
16 *unit and equipped with sliding or hinged*  
17 *doors in the back intended for use by sales*  
18 *personnel, and with glass or other trans-*  
19 *parent material in the front for displaying*  
20 *merchandise; and*

21 *“(ii) that has a height not greater than*  
22 *66 inches and is intended to serve as a*  
23 *counter for transactions between sales per-*  
24 *sonnel and customers.*

1           “(D) *The term ‘TDA’ means the total display area (ft<sup>2</sup>) of the refrigerated case, as defined*  
 2           *in AHRI Standard 1200.*”;

3           (2) *by redesignating paragraphs (4) and (5) as*  
 4           *paragraphs (5) and (6), respectively; and*

5           (3) *by inserting after paragraph (3) the following:*

6           “(4) *Each SOC–SC–M manufactured on or after*  
 7           *January 1, 2012, shall have a total daily energy consumption (in kilowatt hours per day) of not more*  
 8           *than 0.6 x TDA + 1.0.*”.

9           **SEC. 5. SMALL DUCT HIGH VELOCITY SYSTEMS AND ADMIN-**  
 10           **ISTRATIVE CHANGES.**

11           (a) *THROUGH-THE-WALL CENTRAL AIR CONDI-*  
 12           *TIONERS, THROUGH-THE-WALL CENTRAL AIR CONDI-*  
 13           *TIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOCITY*  
 14           *SYSTEMS.—Section 325(d) of the Energy Policy and Con-*  
 15           *servation Act (42 U.S.C. 6295(d)) is amended by adding*  
 16           *at the end the following:*

17           “(4) *STANDARDS FOR THROUGH-THE-WALL CEN-*  
 18           *TRAL AIR CONDITIONERS, THROUGH-THE-WALL CEN-*  
 19           *TRAL AIR CONDITIONING HEAT PUMPS, AND SMALL*  
 20           *DUCT, HIGH VELOCITY SYSTEMS.—*

21           “(A) *DEFINITIONS.—In this paragraph:*



1                   “(i) *SMALL DUCT, HIGH VELOCITY SYS-*  
2                   *TEM.—The term ‘small duct, high velocity*  
3                   *system’ means a heating and cooling prod-*  
4                   *uct that contains a blower and indoor coil*  
5                   *combination that—*

6                   “(I) *is designed for, and produces,*  
7                   *at least 1.2 inches of external static*  
8                   *pressure when operated at the certified*  
9                   *air volume rate of 220–350 CFM per*  
10                   *rated ton of cooling; and*

11                   “(II) *when applied in the field,*  
12                   *uses high velocity room outlets gen-*  
13                   *erally greater than 1,000 fpm that*  
14                   *have less than 6.0 square inches of free*  
15                   *area.*

16                   “(ii) *THROUGH-THE-WALL CENTRAL*  
17                   *AIR CONDITIONER; THROUGH-THE-WALL*  
18                   *CENTRAL AIR CONDITIONING HEAT PUMP.—*  
19                   *The terms ‘through-the-wall central air con-*  
20                   *ditioner’ and ‘through-the-wall central air*  
21                   *conditioning heat pump’ mean a central air*  
22                   *conditioner or heat pump, respectively, that*  
23                   *is designed to be installed totally or par-*  
24                   *tially within a fixed-size opening in an ex-*  
25                   *terior wall, and—*

1                   “(I) is not weatherized;

2                   “(II) is clearly and permanently  
3 marked for installation only through  
4 an exterior wall;

5                   “(III) has a rated cooling capac-  
6 ity no greater than 30,000 Btu/hr;

7                   “(IV) exchanges all of its outdoor  
8 air across a single surface of the equip-  
9 ment cabinet; and

10                  “(V) has a combined outdoor air  
11 exchange area of less than 800 square  
12 inches (split systems) or less than  
13 1,210 square inches (single packaged  
14 systems) as measured on the surface  
15 area described in subclause (IV).

16                  “(iii) REVISION.—The Secretary may  
17 revise the definitions contained in this sub-  
18 paragraph through publication of a final  
19 rule.

20                  “(B) SMALL-DUCT HIGH-VELOCITY SYS-  
21 TEMS.—

22                  “(i) SEASONAL ENERGY EFFICIENCY  
23 RATIO.—The seasonal energy efficiency  
24 ratio for small-duct high-velocity systems  
25 shall be not less than—

1                   “(I) 11.00 for products manufac-  
2                   tured on or after January 23, 2006;  
3                   and

4                   “(II) 12.00 for products manufac-  
5                   tured on or after January 1, 2015.

6                   “(ii) *HEATING SEASONAL PERFORM-*  
7                   *ANCE FACTOR.—The heating seasonal per-*  
8                   *formance factor for small-duct high-velocity*  
9                   *systems shall be not less than—*

10                   “(I) 6.8 for products manufac-  
11                   tured on or after January 23, 2006;  
12                   and

13                   “(II) 7.2 for products manufac-  
14                   tured on or after January 1, 2015.

15                   “(C) *SUBSEQUENT RULEMAKINGS.—The*  
16                   *Secretary shall conduct subsequent rulemakings*  
17                   *for through-the-wall central air conditioners,*  
18                   *through-the-wall central air conditioning heat*  
19                   *pumps, and small duct, high velocity systems as*  
20                   *part of any rulemaking under this section used*  
21                   *to review or revise standards for other central*  
22                   *air conditioners and heat pumps.”.*

23                   (b) *DUTY TO REVIEW COMMERCIAL EQUIPMENT.—*  
24                   *Section 342(a)(6) of the Energy Policy and Conservation*  
25                   *Act (42 U.S.C. 6313(a)(6)) is amended—*

1           (1) in subparagraph (A)(i), by inserting “the  
2           standard levels or design requirements applicable  
3           under that standard to” immediately before “any  
4           small commercial”; and

5           (2) in subparagraph (C)—

6           (A) in clause (i)—

7           (i) by striking “Not later than 6 years  
8           after issuance of any final rule establishing  
9           or amending a standard, as required for a  
10          product under this part,” and inserting  
11          “Every 6 years,”; and

12          (ii) by inserting after “the Secretary  
13          shall” the following: “conduct an evaluation  
14          of each class of covered equipment and  
15          shall”; and

16          (B) by adding at the end the following:

17          “(vi) For any covered equipment as to  
18          which more than 6 years has elapsed since  
19          the issuance of the most recent final rule es-  
20          tablishing or amending a standard for the  
21          product as of the date of enactment of this  
22          clause, the first notice required under clause  
23          (i) shall be published by December 31,  
24          2013.”.

1       (c) *PETITION FOR AMENDED STANDARDS.*—Section  
2 325(n) of the *Energy Policy and Conservation Act* (42  
3 U.S.C. 6295(n)) is amended—

4           (1) by redesignating paragraph (3) as para-  
5 graph (5); and

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

8           “(3) *NOTICE OF DECISION.*—Not later than 180  
9 days after the date of receiving a petition, the Sec-  
10 retary shall publish in the *Federal Register* a notice  
11 of, and explanation for, the decision of the Secretary  
12 to grant or deny the petition.

13           “(4) *NEW OR AMENDED STANDARDS.*—Not later  
14 than 3 years after the date of granting a petition for  
15 new or amended standards, the Secretary shall pub-  
16 lish in the *Federal Register*—

17           “(A) a final rule that contains the new or  
18 amended standards; or

19           “(B) a determination that no new or  
20 amended standards are necessary.”.

21 **SEC. 6. TECHNICAL CORRECTIONS.**

22       (a) *TITLE III OF ENERGY INDEPENDENCE AND SECUR-*  
23 *ITY ACT OF 2007—ENERGY SAVINGS THROUGH IM-*  
24 *PROVED STANDARDS FOR APPLIANCES AND LIGHTING.*—

1           (1) *Section 325(u) of the Energy Policy and*  
2 *Conservation Act (42 U.S.C. 6295(u)) (as amended by*  
3 *section 301(c) of the Energy Independence and Secu-*  
4 *rity Act of 2007 (121 Stat. 1550)) is amended—*

5                   (A) *by redesignating paragraph (7) as*  
6 *paragraph (4); and*

7                   (B) *in paragraph (4) (as so redesignated),*  
8 *by striking “supplies is” and inserting “supply*  
9 *is”.*

10           (2) *Section 302(b) of the Energy Independence*  
11 *and Security Act of 2007 (121 Stat. 1551) is amend-*  
12 *ed by striking “6313(a)” and inserting “6314(a)”.*

13           (3) *Section 342(a)(6) of the Energy Policy and*  
14 *Conservation Act (42 U.S.C. 6313(a)(6)) (as amended*  
15 *by section 305(b)(2) of the Energy Independence and*  
16 *Security Act of 2007 (121 Stat. 1554)) is amended—*

17                   (A) *in subparagraph (B)—*

18                           (i) *by striking “If the Secretary” and*  
19 *inserting the following:*

20                                   “(i) *IN GENERAL.—If the Secretary*”;

21                           (ii) *by striking “clause (ii)(II)” and*  
22 *inserting “subparagraph (A)(ii)(II)”;*

23                           (iii) *by striking “clause (i)” and in-*  
24 *serting “subparagraph (A)(i)”;* and

25                           (iv) *by adding at the end the following:*

1           “(i) *FACTORS.*—In deter-  
2           mining whether a standard is eco-  
3           nomically justified for the pur-  
4           poses of subparagraph (A)(ii)(II),  
5           the Secretary shall, after receiving  
6           views and comments furnished  
7           with respect to the proposed  
8           standard, determine whether the  
9           benefits of the standard exceed the  
10          burden of the proposed standard  
11          by, to the maximum extent prac-  
12          ticable, considering—

13           “(I) *the economic impact of the*  
14          *standard on the manufacturers and on*  
15          *the consumers of the products subject to*  
16          *the standard;*

17           “(II) *the savings in operating*  
18          *costs throughout the estimated average*  
19          *life of the product in the type (or class)*  
20          *compared to any increase in the price*  
21          *of, or in the initial charges for, or*  
22          *maintenance expenses of, the products*  
23          *that are likely to result from the impo-*  
24          *sition of the standard;*

1           “(III) the total projected quantity  
2 of energy savings likely to result di-  
3 rectly from the imposition of the stand-  
4 ard;

5           “(IV) any lessening of the utility  
6 or the performance of the products like-  
7 ly to result from the imposition of the  
8 standard;

9           “(V) the impact of any lessening  
10 of competition, as determined in writ-  
11 ing by the Attorney General, that is  
12 likely to result from the imposition of  
13 the standard;

14           “(VI) the need for national energy  
15 conservation; and

16           “(VII) other factors the Secretary  
17 considers relevant.

18           “(iii) ADMINISTRATION.—

19           “(I) ENERGY USE AND EFFI-  
20 CIENCY.—The Secretary may not pre-  
21 scribe any amended standard under  
22 this paragraph that increases the max-  
23 imum allowable energy use, or de-  
24 creases the minimum required energy  
25 efficiency, of a covered product.



1                   “(II) *UNAVAILABILITY.*—

2                   “*(aa) IN GENERAL.*—*The*  
3                   *Secretary may not prescribe an*  
4                   *amended standard under this sub-*  
5                   *paragraph if the Secretary finds*  
6                   *(and publishes the finding) that*  
7                   *interested persons have established*  
8                   *by a preponderance of the evi-*  
9                   *dence that a standard is likely to*  
10                   *result in the unavailability in the*  
11                   *United States in any product*  
12                   *type (or class) of performance*  
13                   *characteristics (including reli-*  
14                   *ability, features, sizes, capacities,*  
15                   *and volumes) that are substan-*  
16                   *tially the same as those generally*  
17                   *available in the United States at*  
18                   *the time of the finding of the Sec-*  
19                   *retary.*

20                   “*(bb) OTHER TYPES OR*  
21                   *CLASSES.*—*The failure of some*  
22                   *types (or classes) to meet the cri-*  
23                   *terion established under this sub-*  
24                   *clause shall not affect the deter-*  
25                   *mination of the Secretary on*

1                   *whether to prescribe a standard*  
2                   *for the other types or classes.”;*  
3                   *and*

4                   *(B) in subparagraph (C)(iv), by striking*  
5                   *“An amendment prescribed under this sub-*  
6                   *section” and inserting “Notwithstanding sub-*  
7                   *paragraph (D), an amendment prescribed under*  
8                   *this subparagraph”.*

9                   *(4) Section 342(a)(6)(B)(iii) of the Energy Pol-*  
10                  *icy and Conservation Act (as added by section 306(c)*  
11                  *of the Energy Independence and Security Act of 2007*  
12                  *(121 Stat. 1559)) is transferred and redesignated as*  
13                  *clause (vi) of section 342(a)(6)(C) of the Energy Pol-*  
14                  *icy and Conservation Act (as amended by section*  
15                  *305(b)(2) of the Energy Independence and Security*  
16                  *Act of 2007 (121 Stat. 1554)).*

17                  *(5) Section 345 of the Energy Policy and Con-*  
18                  *servaion Act (42 U.S.C. 6316) (as amended by sec-*  
19                  *tion 312(e) of the Energy Independence and Security*  
20                  *Act of 2007 (121 Stat. 1567)) is amended—*

21                   *(A) by striking “subparagraphs (B) through*  
22                   *(G)” each place it appears and inserting “sub-*  
23                   *paragraphs (B), (C), (D), (I), (J), and (K)”;*

24                   *(B) by striking “part A” each place it ap-*  
25                   *pears and inserting “part B”; and*

1           (C) in subsection (a)—

2                 (i) in paragraph (8), by striking  
3                 “and” at the end;

4                 (ii) in paragraph (9), by striking the  
5                 period at the end and inserting “; and”;  
6                 and

7                 (iii) by adding at the end the fol-  
8                 lowing:

9                 “(10) section 327 shall apply with respect to the  
10                 equipment described in section 340(1)(L) beginning  
11                 on the date on which a final rule establishing an en-  
12                 ergy conservation standard is issued by the Secretary,  
13                 except that any State or local standard prescribed or  
14                 enacted for the equipment before the date on which the  
15                 final rule is issued shall not be preempted until the  
16                 energy conservation standard established by the Sec-  
17                 retary for the equipment takes effect.”;

18                 (D) in subsection (b)(1), by striking “sec-  
19                 tion 325(p)(5)” and inserting “section  
20                 325(p)(4)”; and

21                 (E) in subsection (h)(3), by striking “sec-  
22                 tion 342(f)(3)” and inserting “section 342(f)(4)”.

23                 (6) Section 321(30)(D)(i)(III) of the Energy Pol-  
24                 icy and Conservation Act (42 U.S.C.  
25                 6291(30)(D)(i)(III)) (as amended by section

1       321(a)(1)(A) of the *Energy Independence and Security*  
2       *Act of 2007* (121 Stat. 1574)) is amended by in-  
3       serting before the semicolon the following: “or, in the  
4       case of a modified spectrum lamp, not less than 232  
5       lumens and not more than 1,950 lumens”.

6               (7) Section 321(30)(T) of the *Energy Policy and*  
7       *Conservation Act* (42 U.S.C. 6291(30)(T)) (as amend-  
8       ed by section 321(a)(1)(B) of the *Energy Independ-*  
9       *ence and Security Act of 2007* (121 Stat. 1574)) is  
10       amended—

11               (A) in clause (i)—

12                       (i) by striking the comma after “house-

13                       hold appliance” and inserting “and”; and

14                       (ii) by striking “and is sold at retail,”;

15               and

16               (B) in clause (ii), by inserting “when sold  
17       at retail,” before “is designated”.

18               (8) Section 325(l)(4)(A) of the *Energy Policy*  
19       *and Conservation Act* (42 U.S.C. 6295(l)(4)(A)) (as  
20       amended by section 321(a)(3)(B) of the *Energy Inde-*  
21       *pendence and Security Act of 2007* (121 Stat. 1581))  
22       is amended by striking “only”.

23               (9) Section 327(b)(1)(B) of the *Energy Policy*  
24       *and Conservation Act* (42 U.S.C. 6297(b)(1)(B)) (as  
25       amended by section 321(d)(3) of the *Energy Inde-*

1        *pendence and Security Act of 2007 (121 Stat. 1585))*  
2        *is amended—*

3                *(A) in clause (i), by inserting “and” after*  
4                *the semicolon at the end;*

5                *(B) in clause (ii), by striking “; and” and*  
6                *inserting a period; and*

7                *(C) by striking clause (iii).*

8                *(10) Section 321(30)(C)(i) of the Energy Policy*  
9                *and Conservation Act (42 U.S.C. 6291(30)(C)(i)) (as*  
10                *amended by section 322(a)(1)(B) of the Energy Inde-*  
11                *pendence and Security Act of 2007 (121 Stat. 1587))*  
12                *is amended by inserting a period after “40 watts or*  
13                *higher”.*

14                *(11) Section 322(b) of the Energy Independence*  
15                *and Security Act of 2007 (121 Stat. 1588) is amend-*  
16                *ed by striking “6995(i)” and inserting “6295(i)”.*

17                *(12) Section 325(b) of the Energy Independence*  
18                *and Security Act of 2007 (121 Stat. 1596) is amend-*  
19                *ed by striking “6924(c)” and inserting “6294(c)”.*

20                *(13) This subsection and the amendments made*  
21                *by this subsection take effect as if included in the En-*  
22                *ergy Independence and Security Act of 2007 (Public*  
23                *Law 110–140; 121 Stat. 1492).*

24        *(b) ENERGY POLICY ACT OF 2005.—*

1           (1) *Section 325(g)(8)(C)(ii) of the Energy Policy*  
2 *and Conservation Act (42 U.S.C. 6295(g)(8)(C)(ii))*  
3 *(as added by section 135(c)(2)(B) of the Energy Pol-*  
4 *icy Act of 2005) is amended by striking “20F” and*  
5 *inserting “20°F”.*

6           (2) *This subsection and the amendment made by*  
7 *this subsection take effect as if included in the Energy*  
8 *Policy Act of 2005 (Public Law 109–58; 119 Stat.*  
9 *594).*

10 *(c) ENERGY POLICY AND CONSERVATION ACT.—*

11           (1) *Section 340(2)(B) of the Energy Policy and*  
12 *Conservation Act (42 U.S.C. 6311(2)(B)) is amend-*  
13 *ed—*

14           (A) *in clause (xi), by striking “and” at the*  
15 *end;*

16           (B) *in clause (xii), by striking the period at*  
17 *the end and inserting “; and”; and*

18           (C) *by adding at the end the following:*

19           “*(xiii) other motors.*”.

20           (2) *Section 343(a) of the Energy Policy and*  
21 *Conservation Act (42 U.S.C. 6314(a)) is amended by*  
22 *striking “Air-Conditioning and Refrigeration Insti-*  
23 *tute” each place it appears in paragraphs (4)(A) and*  
24 *(7) and inserting “Air-Conditioning, Heating, and*  
25 *Refrigeration Institute”.*

1    **TITLE II—INDUSTRIAL ENERGY**  
2                    **EFFICIENCY**

3    **SEC. 201. COORDINATION OF RESEARCH AND DEVELOP-**  
4                    **MENT OF ENERGY EFFICIENT TECHNOLOGIES**  
5                    **FOR INDUSTRY.**

6            (a) *IN GENERAL.*—As part of the research and develop-  
7    ment activities of the Industrial Technologies Program of  
8    the Department of Energy, the Secretary of Energy (re-  
9    ferred to in this title as the “Secretary”) shall establish,  
10   as appropriate, collaborative research and development  
11   partnerships with other programs within the Office of En-  
12   ergy Efficiency and Renewable Energy (including the  
13   Building Technologies Program), the Office of Electricity  
14   Delivery and Energy Reliability, and the Office of Science  
15   that—

16            (1) *leverage the research and development exper-*  
17    *tise of those programs to promote early stage energy*  
18    *efficiency technology development;*

19            (2) *support the use of innovative manufacturing*  
20    *processes and applied research for development, dem-*  
21    *onstration, and commercialization of new technologies*  
22    *and processes to improve efficiency (including im-*  
23    *provements in efficient use of water), reduce emis-*  
24    *sions, reduce industrial waste, and improve indus-*  
25    *trial cost-competitiveness; and*

1           (3) *apply the knowledge and expertise of the In-*  
2           *dustrial Technologies Program to help achieve the*  
3           *program goals of the other programs.*

4           (b) *REPORTS.*—*Not later than 2 years after the date*  
5           *of enactment of this Act and biennially thereafter, the Sec-*  
6           *retary shall submit to Congress a report that describes ac-*  
7           *tions taken to carry out subsection (a) and the results of*  
8           *those actions.*

9   **SEC. 202. REDUCING BARRIERS TO THE DEPLOYMENT OF**  
10                                   **INDUSTRIAL ENERGY EFFICIENCY.**

11           (a) *DEFINITIONS.*—*In this section:*

12                   (1) *INDUSTRIAL ENERGY EFFICIENCY.*—*The term*  
13                   *“industrial energy efficiency” means the energy effi-*  
14                   *ciency derived from commercial technologies and*  
15                   *measures to improve energy efficiency or to generate*  
16                   *or transmit electric power and heat, including electric*  
17                   *motor efficiency improvements, demand response, di-*  
18                   *rect or indirect combined heat and power, and waste*  
19                   *heat recovery.*

20                   (2) *INDUSTRIAL SECTOR.*—*The term “industrial*  
21                   *sector” means any subsector of the manufacturing sec-*  
22                   *tor (as defined in North American Industry Classi-*  
23                   *fication System codes 31-33 (as in effect on the date*  
24                   *of enactment of this Act)) establishments of which*  
25                   *have, or could have, thermal host facilities with elec-*



1 *tricity requirements met in whole, or in part, by on-*  
2 *site electricity generation, including direct and indi-*  
3 *rect combined heat and power or waste recovery.*

4 *(b) REPORT ON THE DEPLOYMENT OF INDUSTRIAL*  
5 *ENERGY EFFICIENCY.—*

6 *(1) IN GENERAL.—Not later than 1 year after*  
7 *the date of enactment of this Act, the Secretary shall*  
8 *submit to the Committee on Energy and Commerce of*  
9 *the House of Representatives and the Committee on*  
10 *Energy and Natural Resources of the Senate a report*  
11 *describing—*

12 *(A) the results of the study conducted under*  
13 *paragraph (2); and*

14 *(B) recommendations and guidance devel-*  
15 *oped under paragraph (3).*

16 *(2) STUDY.—The Secretary, in coordination*  
17 *with the industrial sector, shall conduct a study of the*  
18 *following:*

19 *(A) The legal, regulatory, and economic*  
20 *barriers to the deployment of industrial energy*  
21 *efficiency in all electricity markets (including*  
22 *organized wholesale electricity markets, and reg-*  
23 *ulated electricity markets), including, as appli-*  
24 *cable, the following:*

1                   (i) *Transmission and distribution*  
2 *interconnection requirements.*

3                   (ii) *Standby, back-up, and mainte-*  
4 *nance fees (including demand ratchets).*

5                   (iii) *Exit fees.*

6                   (iv) *Life of contract demand ratchets.*

7                   (v) *Net metering.*

8                   (vi) *Calculation of avoided cost rates.*

9                   (vii) *Power purchase agreements.*

10                  (viii) *Energy market structures.*

11                  (ix) *Capacity market structures.*

12                  (x) *Other barriers as may be identified*  
13 *by the Secretary, in coordination with the*  
14 *industrial sector.*

15                  (B) *Examples of —*

16                   (i) *successful State and Federal poli-*  
17 *cies that resulted in greater use of indus-*  
18 *trial energy efficiency;*

19                   (ii) *successful private initiatives that*  
20 *resulted in greater use of industrial energy*  
21 *efficiency; and*

22                   (iii) *cost-effective policies used by for-*  
23 *ign countries to foster industrial energy ef-*  
24 *iciency.*

1           (C) *The estimated economic benefits to the*  
2           *national economy of providing the industrial*  
3           *sector with Federal energy efficiency matching*  
4           *grants of \$5,000,000,000 for 5- and 10-year peri-*  
5           *ods, including benefits relating to—*

6                   (i) *estimated energy and emission re-*  
7                   *ductions;*

8                   (ii) *direct and indirect jobs saved or*  
9                   *created;*

10                  (iii) *direct and indirect capital invest-*  
11                  *ment;*

12                  (iv) *the gross domestic product; and*

13                  (v) *trade balance impacts.*

14           (D) *The estimated energy savings available*  
15           *from increased use of recycled material in en-*  
16           *ergy-intensive manufacturing processes.*

17           (3) *RECOMMENDATIONS AND GUIDANCE.—The*  
18           *Secretary, in coordination with the industrial sector,*  
19           *shall develop policy recommendations regarding the*  
20           *deployment of industrial energy efficiency, including*  
21           *proposed regulatory guidance to States and relevant*  
22           *Federal agencies to address barriers to deployment.*

1 **SEC. 203. STUDY OF ADVANCED ENERGY TECHNOLOGY**  
2 **MANUFACTURING CAPABILITIES IN THE**  
3 **UNITED STATES.**

4 (a) *IN GENERAL.*—Not later than 60 days after the  
5 date of enactment of this Act, the Secretary shall enter into  
6 an arrangement with the National Academy of Sciences  
7 under which the Academy shall conduct a study of the devel-  
8 opment of advanced manufacturing capabilities for various  
9 energy technologies, including—

10 (1) *an assessment of the manufacturing supply*  
11 *chains of established and emerging industries;*

12 (2) *an analysis of—*

13 (A) *the manner in which supply chains*  
14 *have changed over the 25-year period ending on*  
15 *the date of enactment of this Act;*

16 (B) *current trends in supply chains; and*

17 (C) *the energy intensity of each part of the*  
18 *supply chain and opportunities for improve-*  
19 *ment;*

20 (3) *for each technology or manufacturing sector,*  
21 *an analysis of which sections of the supply chain are*  
22 *critical for the United States to retain or develop to*  
23 *be competitive in the manufacturing of the technology;*

24 (4) *an assessment of which emerging energy tech-*  
25 *nologies the United States should focus on to create or*  
26 *enhance manufacturing capabilities; and*

1           (5) *recommendations on leveraging the expertise*  
 2           *of energy efficiency and renewable energy user facili-*  
 3           *ties so that best materials and manufacturing prac-*  
 4           *tices are designed and implemented.*

5           (b) *REPORT.*—*Not later than 2 years after the date*  
 6           *on which the Secretary enters into the agreement with the*  
 7           *Academy described in subsection (a), the Academy shall*  
 8           *submit to the Committee on Energy and Natural Resources*  
 9           *of the Senate, the Committee on Energy and Commerce of*  
 10          *the House of Representatives, and the Secretary a report*  
 11          *describing the results of the study required under this sec-*  
 12          *tion, including any findings and recommendations.*

13 **SEC. 204. INDUSTRIAL TECHNOLOGIES STEERING COM-**  
 14   **MITTEE.**

15          *The Secretary shall establish an advisory steering com-*  
 16          *mittee that includes national trade associations rep-*  
 17          *resenting energy-intensive industries or energy service pro-*  
 18          *viders to provide recommendations to the Secretary on*  
 19          *planning and implementation of the Industrial Tech-*  
 20          *nologies Program of the Department of Energy.*

21                                   **TITLE III—FEDERAL AGENCY**  
 22   **ENERGY EFFICIENCY**

23 **SEC. 301. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.**

24          *Section 3307 of title 40, United States Code, is amend-*  
 25          *ed—*

1           (1) *by redesignating subsections (d) through (h)*  
2 *as subsections (e) through (i), respectively; and*

3           (2) *by inserting after subsection (c) the fol-*  
4 *lowing:*

5       “(d) *AVAILABILITY OF FUNDS FOR DESIGN UP-*  
6 *DATES.—*

7           “(1) *IN GENERAL.—Subject to paragraph (2), for*  
8 *any project for which congressional approval is re-*  
9 *ceived under subsection (a) and for which the design*  
10 *has been substantially completed but construction has*  
11 *not begun, the Administrator of General Services may*  
12 *use appropriated funds to update the project design*  
13 *to meet applicable Federal building energy efficiency*  
14 *standards established under section 305 of the Energy*  
15 *Conservation and Production Act (42 U.S.C. 6834)*  
16 *and other requirements established under section*  
17 *3312.*

18           “(2) *LIMITATION.—The use of funds under para-*  
19 *graph (1) shall not exceed 125 percent of the esti-*  
20 *mated energy or other cost savings associated with the*  
21 *updates as determined by a life-cycle cost analysis*  
22 *under section 544 of the National Energy Conserva-*  
23 *tion Policy Act (42 U.S.C. 8254).”.*

1 **SEC. 302. BEST PRACTICES FOR ADVANCED METERING.**

2 *Section 543(e) of the National Energy Conservation*  
3 *Policy Act (42 U.S.C. 8253(e) is amended by striking para-*  
4 *graph (3) and inserting the following:*

5 “(3) *PLAN.*—

6 “(A) *IN GENERAL.*—*Not later than 180*  
7 *days after the date on which guidelines are es-*  
8 *tablished under paragraph (2), in a report sub-*  
9 *mitted by the agency under section 548(a), each*  
10 *agency shall submit to the Secretary a plan de-*  
11 *scribing the manner in which the agency will*  
12 *implement the requirements of paragraph (1),*  
13 *including—*

14 “(i) *how the agency will designate per-*  
15 *sonnel primarily responsible for achieving*  
16 *the requirements; and*

17 “(ii) *a demonstration by the agency,*  
18 *complete with documentation, of any find-*  
19 *ing that advanced meters or advanced me-*  
20 *tering devices (as those terms are used in*  
21 *paragraph (1)), are not practicable.*

22 “(B) *UPDATES.*—*Reports submitted under*  
23 *subparagraph (A) shall be updated annually.*

24 “(4) *BEST PRACTICES REPORT.*—

25 “(A) *IN GENERAL.*—*Not later than 180*  
26 *days after the date of enactment of this para-*

1           *graph, the Secretary of Energy, in consultation*  
2           *with the Secretary of Defense and the Adminis-*  
3           *trator of General Services, shall develop, and*  
4           *issue a report on, best practices for the use of ad-*  
5           *vanced metering of energy use in Federal facili-*  
6           *ties, buildings, and equipment by Federal agen-*  
7           *cies.*

8           “(B) *UPDATING.*—*The report described*  
9           *under subparagraph (A) shall be updated annu-*  
10          *ally.*

11          “(C) *COMPONENTS.*—*The report shall in-*  
12          *clude, at a minimum—*

13                  “(i) *summaries and analysis of the re-*  
14                  *ports by agencies under paragraph (3);*

15                  “(ii) *recommendations on standard re-*  
16                  *quirements or guidelines for automated en-*  
17                  *ergy management systems, including—*

18                          “(I) *potential common commu-*  
19                          *nications standards to allow data shar-*  
20                          *ing and reporting;*

21                          “(II) *means of facilitating contin-*  
22                          *uous commissioning of buildings and*  
23                          *evidence-based maintenance of build-*  
24                          *ings and building systems; and*



1                   “(III) standards for sufficient lev-  
2                   els of security and protection against  
3                   cyber threats to ensure systems cannot  
4                   be controlled by unauthorized persons;  
5                   and

6                   “(iii) an analysis of—

7                   “(I) the types of advanced meter-  
8                   ing and monitoring systems being pi-  
9                   loted, tested, or installed in Federal  
10                  buildings; and

11                  “(II) existing techniques used  
12                  within the private sector or other non-  
13                  Federal government buildings.”.

14 **SEC. 303. FEDERAL ENERGY MANAGEMENT AND DATA COL-**  
15 **LECTION STANDARD.**

16                  Section 543 of the National Energy Conservation Pol-  
17                  icy Act (42 U.S.C. 8253) is amended—

18                  (1) by redesignating the second subsection (f) (as  
19                  added by section 434(a) of Public Law 110–140 (121  
20                  Stat. 1614)) as subsection (g); and

21                  (2) in subsection (f)(7), by striking subpara-  
22                  graph (A) and inserting the following:

23                  “(A) *IN GENERAL.*—For each facility that  
24                  meets the criteria established by the Secretary  
25                  under paragraph (2)(B), the energy manager

1           *shall use the web-based tracking system under*  
2           *subparagraph (B)—*

3                   *“(i) to certify compliance with the re-*  
4                   *quirements for—*

5                           *“(I) energy and water evaluations*  
6                           *under paragraph (3);*

7                           *“(II) implementation of identified*  
8                           *energy and water measures under*  
9                           *paragraph (4); and*

10                           *“(III) follow-up on implemented*  
11                           *measures under paragraph (5); and*

12                           *“(ii) to publish energy and water con-*  
13                           *sumption data on an individual facility*  
14                           *basis.”.*

15 **SEC. 304. FEDERAL PURCHASE REQUIREMENT.**

16           *Section 203 of the Energy Policy Act of 2005 (42*  
17 *U.S.C. 15852) is amended—*

18                   (1) *in subsections (a) and (b)(2), by striking*  
19                   *“electric energy” each place it appears and inserting*  
20                   *“electric, direct, and thermal energy”;*

21                   (2) *in subsection (b)(2)—*

22                           (A) *by inserting “, or avoided by,” after*  
23                           *“generated from”; and*

1           (B) by inserting “(including ground-source,  
2           reclaimed, and ground water)” after “geo-  
3           thermal”;

4           (3) by redesignating subsection (d) as subsection  
5           (e); and

6           (4) by inserting after subsection (c) the fol-  
7           lowing:

8           “(d) *SEPARATE CALCULATION.*—Renewable energy  
9           produced at a Federal facility, on Federal land, or on In-  
10          dian land (as defined in section 2601 of the Energy Policy  
11          Act of 1992 (25 U.S.C. 3501))—

12           “(1) shall be calculated (on a BTU-equivalent  
13          basis) separately from renewable energy used; and

14           “(2) may be used individually or in combination  
15          to comply with subsection (a).”.

16 **SEC. 305. STUDY ON FEDERAL DATA CENTER CONSOLIDA-**  
17 **TION.**

18          (a) *IN GENERAL.*—The Secretary of Energy shall con-  
19          duct a study on the feasibility of a government-wide data  
20          center consolidation, with an overall Federal target of a  
21          minimum of 800 Federal data center closures by October  
22          1, 2015.

23          (b) *COORDINATION.*—In conducting the study, the Sec-  
24          retary shall coordinate with Federal data center program  
25          managers, facilities managers, and sustainability officers.

1       (c) *REPORT.*—*Not later than 1 year after the date of*  
2 *enactment of this Act, the Secretary shall submit to Con-*  
3 *gress a report that describes the results of the study, includ-*  
4 *ing a description of agency best practices in data center*  
5 *consolidation.*

Attest:

*Secretary.*



112<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

**H.R. 4850**

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**AMENDMENT**