

117TH CONGRESS
2D SESSION

S. 4061

To amend the Energy Policy and Conservation Act to modify the definition of water heater under energy conservation standards, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 7, 2022

Ms. STABENOW (for herself and Mrs. BLACKBURN) 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 modify the definition of water heater under energy conservation standards, 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. WATER HEATERS.**

4 (a) DEFINITION OF WATER HEATER.—Section 321
5 of the Energy Policy and Conservation Act (42 U.S.C.
6 6291) is amended by striking paragraph (27) and insert-
7 ing the following:

8 “(27) WATER HEATER.—

“(A) IN GENERAL.—The term ‘water heater’ means a product that utilizes oil, gas, or electricity to heat potable water for use outside the heater on demand, including—

“(i) storage type units that heat and store water at a thermostatically controlled temperature, including—

“(I) gas storage water heaters with an input of 75,000 Btu per hour or less, including heat pump type units that meet the current and voltage limits described in clause (iii);

“(II) oil storage water heaters with an input of 105,000 Btu per hour or less; and

“(III) electric storage water heaters with an input of 12 kilowatts or less, including heat pump type units that meet the current and voltage limits described in clause (iii);

“(ii)(I) instantaneous type units that heat water but contain not more than 1 gallon of water per 4,000 Btu per hour of input; and

“(II) in the case of—

1 “(aa) gas instantaneous water
2 heaters, have an input of 200,000 Btu
3 per hour or less and are designed and
4 marketed to provide outlet hot water
5 at a thermostatically controlled tem-
6 perature of less than 180 degrees
7 Fahrenheit;

8 “(bb) oil instantaneous water
9 heaters, have an input of 210,000 Btu
10 per hour or less; and

11 “(cc) electric instantaneous water
12 heaters, have an input of 12 kilowatts
13 or less;

14 “(iii) heat pump type units (including
15 add-on heat pumps, integrated heat pumps
16 with storage, split-system heat pumps that
17 consist of a separate heat pump and stor-
18 age tank that are designed and marketed
19 to operate together, and all ancillary equip-
20 ment, such as fans, storage tanks, pumps,
21 electric resistance heating elements, or
22 controls necessary for the device to per-
23 form its function) that—

1 “(I) have a maximum current
2 rating of 24 amperes at a voltage not
3 greater than 250 volts; and

4 “(II) are designed to transfer
5 thermal energy from 1 temperature
6 level to a different temperature level
7 for the purpose of heating water;

8 “(iv) solar thermal-assisted electric
9 storage units; and

10 “(v) solar thermal-assisted fossil fuel
11 storage units.

12 “(B) EXCLUSIONS.—Except as provided by
13 the Secretary in accordance with section
14 325(e)(7)(B), the term ‘water heater’ does not
15 include—

16 “(i) electric storage type units de-
17 scribed in subparagraph (A)(i)(III) that—

18 “(I) are designed and marketed
19 exclusively for commercial building
20 applications; and

21 “(II)(aa) are designed, con-
22 structed, inspected, tested, and
23 stamped in accordance with the most
24 current Section IV, Part HLW, or
25 Section X of the Boiler and Pressure

1 Vessel Code promulgated by the
2 American Society of Mechanical Engi-
3 neers;

4 “(bb) exclusively use 3-phase
5 electricity, are designed and marketed
6 to provide outlet hot water at a
7 thermostatically controlled tempera-
8 ture of 180 degrees Fahrenheit or
9 greater, and operate only at rated
10 voltages of not less than 208 volts; or

11 “(cc) exclusively use single-phase
12 electricity, are designed and marketed
13 to provide outlet hot water at a
14 thermostatically controlled tempera-
15 ture of 180 degrees Fahrenheit or
16 greater, and operate only at a rated
17 voltage of 277 volts; or

18 “(ii) gas storage type units described
19 in subparagraph (A)(i)(I) that—

20 “(I) are designed and marketed
21 exclusively for commercial building
22 applications; and

23 “(II) are designed, constructed,
24 inspected, tested, and stamped in ac-
25 cordance with the most current Sec-

1 tion IV, Part HLW, of the Boiler and
 2 Pressure Vessel Code promulgated by
 3 the American Society of Mechanical
 4 Engineers.

5 “(C) MULTI-INPUT ELECTRIC STORAGE
 6 WATER HEATER.—The term ‘multi-input elec-
 7 tric storage water heater’ means a product
 8 that—

9 “(i) is not a heat pump type unit de-
 10 scribed in subparagraph (A)(iii); and

11 “(ii) is designed, marketed, or shipped
 12 from the manufacturer with a capability of
 13 operating or being configured to operate at
 14 inputs greater than, equal to, or below 12
 15 kilowatts.

16 “(D) SOLAR THERMAL-ASSISTED ELECTRIC
 17 STORAGE UNIT.—The term ‘solar thermal-as-
 18 sisted electric storage unit’ means a unit that—

19 “(i) has an input of 12 kilowatts or
 20 less;

21 “(ii) has at least 2 dedicated ports in
 22 addition to the ports used for introduction
 23 and delivery of potable water for the sup-
 24 ply and return of water or a heat transfer

1 fluid heated externally by solar collector or
 2 solar thermal collector;

3 “(iii) does not have electric resistance
 4 heating elements located in the lower half
 5 of the storage tank;

6 “(iv) has the temperature sensing de-
 7 vice that controls the auxiliary electric heat
 8 source located in the upper half of the
 9 storage tank; and

10 “(v) has a ratio of less than 0.70 for
 11 the proportion that the certified first hour
 12 rating bears to the nominal volume of the
 13 storage tank tested without solar energy
 14 input.”.

15 (b) TEST PROCEDURES.—Section 323(b)(3) of the
 16 Energy Policy and Conservation Act (42 U.S.C.
 17 6293(b)(3)) is amended—

18 (1) by striking “(3) Any test” and inserting the
 19 following:

20 “(3) DESIGN OF TEST PROCEDURES.—

21 “(A) IN GENERAL.—Any test”; and

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

23 “(B) ELECTRIC STORAGE WATER HEATERS
 24 DEMAND RESPONSE CAPABILITIES REQUIRE-
 25 MENTS.—Any test procedures prescribed or

1 amended under this section for electric storage
 2 water heaters for which the Secretary has es-
 3 tablished requirements for demand response ca-
 4 pabilities under section 325A shall be designed
 5 to assess compliance with those requirements in
 6 addition to producing the test results described
 7 in subparagraph (A).”.

8 (c) STANDARDS FOR WATER HEATERS.—Section
 9 325(e) of the Energy Policy and Conservation Act (42
 10 U.S.C. 6295(e)) is amended by adding at the end the fol-
 11 lowing:

12 “(7) EXEMPTED WATER HEATERS.—

13 “(A) DEFINITION OF EXEMPTED WATER
 14 HEATER.—In this paragraph, the term ‘exempt-
 15 ed water heater’ means a water heater de-
 16 scribed in section 321(27)(B).

17 “(B) MONITORING OF SHIPMENTS.—

18 “(i) SUBMISSION OF DATA.—Not later
 19 than 90 days after the date of enactment
 20 of this paragraph, and not later than May
 21 1 of each year thereafter, the Secretary
 22 shall require each manufacturer of water
 23 heaters to report to the Secretary the
 24 quantity of exempted water heaters, in
 25 each category of exempted water heaters,

1 that the manufacturer shipped in the pre-
2 ceding calendar year.

3 “(ii) CONFIDENTIALITY REQUIRE-
4 MENTS.—The Secretary shall treat ship-
5 ment data reported by manufacturers
6 under clause (i) as confidential business in-
7 formation subject to appropriate confiden-
8 tial data safeguards.

9 “(iii) PUBLICATION.—

10 “(I) BASELINE SHIPMENT
11 DATA.—Not later than 120 days after
12 the date of enactment of this para-
13 graph, the Secretary shall publish an
14 analysis of the data collected under
15 clause (i) for public comment, subject
16 to applicable confidentiality safe-
17 guards, which shall serve as the base-
18 line data for the analysis described in
19 subclause (II)(bb).

20 “(II) PERCENTAGE GROWTH
21 FROM BASELINE.—Not later than
22 June 1 of each year after the year in
23 which the Secretary publishes data
24 under subclause (I), the Secretary
25 shall publish—

1 “(aa) an analysis of the data
 2 collected under clause (i) for pub-
 3 lic comment, subject to applicable
 4 confidentiality safeguards;

5 “(bb) the percentage growth
 6 in the number of shipments with-
 7 in each category of exempted
 8 water heater relative to the base-
 9 line data described in subclause
 10 (I); and

11 “(cc) the determination of
 12 the Secretary as to whether the
 13 number of shipments for any cat-
 14 egory of exempted water heater
 15 have increased by more than 25
 16 percent compared to the baseline
 17 data for that category.

18 “(C) INCLUSION OF EXEMPTED WATER
 19 HEATERS.—

20 “(i) IN GENERAL.—If the Secretary
 21 makes an affirmative determination under
 22 subparagraph (B)(iii)(II)(cc) for a cat-
 23 egory of exempted water heater—

24 “(I) the Secretary, by regulation,
 25 shall provide that, for purposes of this

1 part, the term ‘water heater’ includes
2 that category of exempted water heat-
3 er; and

4 “(II) beginning on the effective
5 date of the regulation described in
6 subclause (I), the exclusion described
7 in section 321(27)(B) shall not apply
8 to that category of exempted water
9 heater.

10 “(ii) ENERGY CONSERVATION STAND-
11 ARDS.—Any category of exempted water
12 heater included in the definition of water
13 heater under clause (i) shall be required to
14 meet the energy conservation standards
15 applicable to an electric or gas storage type
16 water heater under this part.

17 “(iii) EFFECTIVE DATE.—For any
18 category of exempted water heater, the
19 Secretary shall carry out clause (i), and re-
20 quire compliance under clause (ii), not
21 later than 1 year after the date on which
22 the Secretary makes the affirmative deter-
23 mination described in clause (i) for that
24 category.

1 “(8) STANDARDS FOR MULTI-INPUT ELECTRIC
2 STORAGE WATER HEATERS.—A multi-input electric
3 storage water heater shall be subject to the test pro-
4 cedures, energy conservation standards, labeling (if
5 applicable), and certification requirements—

6 “(A) for electric storage water heaters
7 under this part; and

8 “(B) for storage water heaters under part
9 C.”.

10 (d) WATER HEATER DEMAND RESPONSE CAPABILI-
11 TIES REQUIREMENTS.—

12 (1) IN GENERAL.—Part B of title III of the
13 Energy Policy and Conservation Act (42 U.S.C.
14 6291 et seq.) is amended by inserting after section
15 325 the following:

16 **“SEC. 325A. WATER HEATER DEMAND RESPONSE CAPABILI-**
17 **TIES REQUIREMENTS.**

18 “(a) DEFINITIONS.—In this section:

19 “(1) DEMAND RESPONSE.—The term ‘demand
20 response’ means changes in electricity usage by de-
21 mand-side resources from the normal consumption
22 patterns of those demand-side resources in response
23 to—

24 “(A) changes in the price of electricity over
25 time; or

1 “(B) incentive payments designed to in-
 2 duce lower electricity use—

3 “(i) at times of high wholesale market
 4 prices; or

5 “(ii) during periods in which system
 6 reliability is jeopardized.

7 “(2) DEMAND RESPONSE CAPABILITIES.—The
 8 term ‘demand response capabilities’ means the hard-
 9 ware or software, including any combination of hard-
 10 ware and software, that is necessary to participate
 11 in a demand response program, as determined by
 12 the Secretary.

13 “(b) REQUIREMENTS.—

14 “(1) INITIAL REQUIREMENTS.—

15 “(A) IN GENERAL.—The Secretary shall—

16 “(i) determine, in accordance with
 17 subparagraph (D), whether to require that
 18 electric storage water heaters possess de-
 19 mand response capabilities; and

20 “(ii) not later than December 31,
 21 2024—

22 “(I) promulgate a final rule with
 23 the requirement described in clause
 24 (i); or

1 “(II) issue a public notice of a
2 negative determination under that
3 clause.

4 “(B) STORAGE CAPACITIES.—The Sec-
5 retary may make separate determinations under
6 subparagraph (A) for water heaters of different
7 storage capacities.

8 “(C) EFFECT OF NEGATIVE DETERMINA-
9 TION.—If the Secretary makes a negative deter-
10 mination under subparagraph (A)(i), nothing in
11 this paragraph shall prohibit the Secretary from
12 completing the rulemaking described in sub-
13 clause (I) of subparagraph (A)(ii) after the date
14 described in that subparagraph if the Secretary
15 later determines that such rulemaking is nec-
16 essary.

17 “(D) DETERMINATION.—

18 “(i) IN GENERAL.—In carrying out
19 subparagraph (A)(i), the Secretary shall
20 make an affirmative determination under
21 that subparagraph if the Secretary deter-
22 mines that—

23 “(I) the requirement is needed to
24 promote participation in demand re-
25 sponse programs; and

1 “(II) the demand response capa-
2 bilities are—

3 “(aa) technologically fea-
4 sible; and

5 “(bb) economically justified.

6 “(ii) ECONOMICALLY JUSTIFIED.—In
7 considering whether demand response ca-
8 pabilities are economically justified under
9 clause (i)(II)(bb), the Secretary shall con-
10 sider—

11 “(I) the factors described in sub-
12 clauses (I), (II), (IV), (V), (VI), and
13 (VII) of section 325(o)(2)(B)(i); and

14 “(II) in the case of the factor de-
15 scribed in subclause (II) of that sec-
16 tion, the projected financial impact on
17 consumers participating in demand re-
18 sponse programs.

19 “(E) REQUIREMENT.—Any rule promul-
20 gated by the Secretary under subparagraph
21 (A)(ii)(I) shall not be used to justify a higher
22 or lower energy conservation standard than
23 would otherwise have been selected.

24 “(F) INDUSTRY STANDARDS.—In estab-
25 lishing requirements for demand response capa-

bilities under a rule promulgated under subparagraph (A)(ii)(I), the Secretary shall consider industry consensus standards developed or recognized by the Air-Conditioning, Heating, and Refrigeration Institute.

“(2) REVISIONS.—

“(A) IN GENERAL.—The Secretary may revise any requirements established under a rule promulgated under paragraph (1)(A)(ii)(I) if, in the determination of the Secretary—

“(i) a revision is needed to promote participation in demand response programs; and

“(ii) the demand response capabilities to be required under the revised requirements are—

“(I) technologically feasible; and

“(II) economically justified.

“(B) REQUIREMENT.—Any revision under this paragraph shall be subject to the requirements of subparagraphs (C) through (E) of paragraph (1).

“(c) PREEMPTION.—

“(1) IN GENERAL.—Except as provided in paragraph (2), effective on the date on which a final rule

1 is issued by the Secretary under subsection
 2 (b)(1)(A)(ii)(I), no law or regulation of a State or
 3 political subdivision of a State requiring electric
 4 storage water heater demand response capabilities
 5 for water heaters subject to requirements established
 6 by the Secretary shall be effective.

7 “(2) EXCEPTION.—

8 “(A) IN GENERAL.—Paragraph (1) shall
 9 not apply to a law or regulation of a State or
 10 political subdivision of a State if the law was in
 11 effect, or the regulation was finalized, before
 12 the date on which the final rule described in
 13 that paragraph is issued.

14 “(B) AMENDMENT OF STATE OR LOCAL
 15 LAW.—

16 “(i) IN GENERAL.—Subject to clause
 17 (ii), paragraph (1) shall not apply to the
 18 amendment of a law or regulation de-
 19 scribed in subparagraph (A) if the amend-
 20 ment is made—

21 “(I) in the case of the first
 22 amendment, not less than 5 years
 23 after the date on which the law or
 24 regulation became effective or was fi-
 25 nalized, respectively; or

1 “(II) in the case of any subse-
2 quent amendment, not less than 5
3 years after the date of any previous
4 amendment to that law or regulation.

5 “(ii) CONSENSUS STANDARDS.—An
6 amendment to a law or regulation de-
7 scribed in subparagraph (A) solely to in-
8 corporate a more recent version of a vol-
9 untary consensus standard (as defined in
10 the document of the Office of Management
11 and Budget entitled ‘Federal Participation
12 in the Development and Use of Voluntary
13 Consensus Standards and in Conformity
14 Assessment Activities’ (OMB Circular A-
15 119)) shall not be considered to be an
16 amendment to that law or regulation for
17 the purposes of this subparagraph.

18 “(d) ENFORCEMENT.—A failure to comply with any
19 requirements established by the Secretary under this sec-
20 tion shall be—

21 “(1) considered to be a violation of section 332;

22 and

23 “(2) subject to the enforcement provisions of
24 sections 333 and 334.

1 “(e) SAVINGS PROVISION.—Nothing in this section
 2 alters the authority of the Secretary to establish product
 3 classes for electric storage water heaters designed to par-
 4 ticipate in demand response programs.”.

5 (2) CLERICAL AMENDMENT.—The table of con-
 6 tents of the Energy Policy and Conservation Act
 7 (Public Law 94–163; 89 Stat. 872) is amended by
 8 inserting after the item relating to section 325 the
 9 following:

“Sec. 325A. Water heater demand response capabilities requirements.”.

10 (3) CONFORMING AMENDMENTS.—

11 (A) Section 326 of the Energy Policy and
 12 Conservation Act (42 U.S.C. 6296) is amend-
 13 ed—

14 (i) in subsection (b)—

15 (I) in paragraph (3)(A)—

16 (aa) by inserting “or a re-
 17 quirement established under sec-
 18 tion 325A” after “section 325”;
 19 and

20 (bb) by inserting “or re-
 21 quirement” after “that stand-
 22 ard”; and

23 (II) in paragraph (5), by striking
 24 “or 325” and inserting “325, or
 25 325A”; and

1 (ii) in subsection (d)(1)—

2 (I) in the second sentence, by
3 striking “In making” and inserting
4 the following:

5 “(C) REQUIREMENT.—In making”;

6 (II) in the first sentence—

7 (aa) by striking “energy effi-
8 ciency” and all that follows
9 through “standard, as” and in-
10 serting “the matters described in
11 subparagraph (B), as”; and

12 (bb) by striking “and energy
13 conservation standards” and in-
14 serting “energy conservation
15 standards, and requirements for
16 water heater demand response
17 capabilities (as defined in section
18 325A(a))”;

19 (III) by striking “(1) For pur-
20 poses” and inserting the following:

21 “(1) INFORMATION AND REPORTS.—

22 “(A) IN GENERAL.—For purposes”; and

23 (IV) by inserting after subpara-
24 graph (A) (as so designated) the fol-
25 lowing:

“(B) MATTERS DESCRIBED.—The matters referred to in subparagraph (A) are, with respect to a covered product described in that subparagraph—

“(i) energy efficiency;

“(ii) energy use;

“(iii) in the case of showerheads, faucets, water closets, and urinals, the water use of that covered product;

“(iv) the economic impact of any proposed energy conservation standard; and

“(v) in the case of electric storage water heaters—

“(I) water heater demand response capabilities (as defined in section 325A(a)); and

“(II) the economic impact of any proposed requirement for water heater demand response capabilities (as defined in that section).”.

(B) Section 335 of the Energy Policy and Conservation Act (42 U.S.C. 6305) is amended by inserting “or 325A” after “section 325” each place it appears.

(C) Section 336 of the Energy Policy and Conservation Act (42 U.S.C. 6306) is amended—

(i) in subsection (a)—

(I) in paragraph (1), by inserting “325A,” after “325,”; and

(II) in paragraph (2), by inserting “or 325A” after “325”; and

(ii) in subsection (b) by striking “or 325” each place it appears and inserting “325, or 325A”.

(e) DEFINITION OF COMMERCIAL WATER HEATER.—

Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended by striking paragraph (12) and inserting the following:

“(12)(A) STORAGE WATER HEATER.—

“(i) IN GENERAL.—The term ‘storage water heater’ means a water heater that—

“(I) heats and stores water within an appliance at a thermostatically controlled temperature for delivery on demand; and

“(II) is not a water heater described in section 321(27)(A).

“(ii) EXCLUSION.—The term ‘storage water heater’ does not include a unit with an

1 input rating of 4,000 Btu per hour or more per
 2 gallon of stored water.

3 “(B) INSTANTANEOUS WATER HEATER.—The
 4 term ‘instantaneous water heater’ means a water
 5 heater that—

6 “(i) has an input rating of at least 4,000
 7 Btu per hour per gallon of stored water; and

8 “(ii) is not a water heater described in sec-
 9 tion 321(27)(A).

10 “(C) UNFIRED HOT WATER STORAGE TANK.—
 11 The term ‘unfired hot water storage tank’ means a
 12 tank used to store water that is heated externally.”.

13 (f) LABELING REQUIREMENTS.—Section 344 of the
 14 Energy Policy and Conservation Act (42 U.S.C. 6315) is
 15 amended by adding at the end the following:

16 “(1) LABELS FOR CERTAIN COMMERCIAL WATER
 17 HEATERS.—

18 “(1) IN GENERAL.—Notwithstanding any other
 19 provision of this section, water heaters described in
 20 section 321(27)(B) shall be required to bear a per-
 21 manent label, applied at the point of manufacture,
 22 that, subject to paragraph (3), satisfies the require-
 23 ments described in paragraph (2).

24 “(2) REQUIREMENTS.—A label required under
 25 paragraph (1) shall—

1 “(A) be made of material not adversely af-
2 fected by water;

3 “(B) be attached by means of nonwater-
4 soluble adhesive; and

5 “(C) bear the following notice printed in
6 16.5 point Arial Narrow Bold font: ‘IMPOR-
7 TANT INFORMATION: Exclusively intended
8 for commercial installations. This model is not
9 certified by the manufacturer to the U.S. De-
10 partment of Energy as a residential water heat-
11 er. This model does not have a certified First
12 Hour or UEF rating.’.

13 “(3) REVISION UPON PETITION.—On receipt of
14 a petition by an interested party, the Secretary may
15 conduct a rulemaking to revise the scope and re-
16 quirements of the label required under paragraph
17 (1).”.

18 (g) EFFECTIVE DATE.—This section and the amend-
19 ments made by this section shall take effect on the date
20 that is 180 days after the date of enactment of this Act.

