

117TH CONGRESS
2D SESSION

S. 4139

To amend the Internal Revenue Code of 1986 to establish a tax credit for manufacturers of high-efficiency heat pumps and heat pump water heaters.

IN THE SENATE OF THE UNITED STATES

MAY 4, 2022

Ms. KLOBUCHAR (for herself, Ms. SMITH, Mr. HICKENLOOPER, Mr. WHITEHOUSE, Mr. LEAHY, Mr. MERKLEY, and Mr. BOOKER) introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

To amend the Internal Revenue Code of 1986 to establish a tax credit for manufacturers of high-efficiency heat pumps and heat pump water heaters.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Heating Efficiency and
5 Affordability through Tax Relief Act” or the “HEATR
6 Act”.

7 **SEC. 2. ENERGY EFFICIENT PROPERTY CREDIT.**

8 (a) IN GENERAL.—Subpart D of part IV of sub-
9 chapter A of chapter 1 of the Internal Revenue Code of

1 1986 is amended by inserting after section 45L the fol-
2 lowing:

3 **“SEC. 45M. ENERGY EFFICIENT HEAT PUMP CREDIT.**

4 “(a) ESTABLISHMENT OF CREDIT.—

5 “(1) IN GENERAL.—For purposes of section 38,
6 the energy efficient heat pump credit determined
7 under this section for any taxable year is an amount
8 equal to the sum of the credit amounts determined
9 under paragraph (2) for each type of qualified en-
10 ergy efficient heat pump produced by the taxpayer
11 during the calendar year ending with or within the
12 taxable year.

13 “(2) CREDIT AMOUNTS.—The credit amount
14 determined for any type of qualified energy efficient
15 heat pump is—

16 “(A) the applicable amount determined
17 under subsection (b) with respect to such type,
18 multiplied by

19 “(B) the eligible production for such type,
20 as determined under subsection (c).

21 “(b) APPLICABLE AMOUNT.—For purposes of sub-
22 section (a) and subject to subsections (f) and (h)(4), the
23 applicable amount shall be determined as follows:

24 “(1) HEAT PUMP WATER HEATERS.—

1 “(A) CONSUMER HEAT PUMP WATER
2 HEATERS.—In the case of a consumer heat
3 pump water heater which meets the require-
4 ments of the Energy Star Water Heater pro-
5 gram which are in effect at the time that such
6 water heater is produced by the taxpayer, the
7 applicable amount shall be—

8 “(i) in the case of a water heater with
9 a volume of less than 55 gallons, \$600, or

10 “(ii) in the case of a water heater
11 with a volume of not less than 55 gallons,
12 \$800.

13 “(B) COMMERCIAL HEAT PUMP WATER
14 HEATERS.—In the case of a commercial heat
15 pump water heater which meets the require-
16 ments of the Energy Star Commercial Water
17 Heater program which are in effect at the time
18 that such water heater is produced by the tax-
19 payer, the applicable amount shall be the
20 amount equal to the product of—

21 “(i) the heating capacity of such
22 water heater, expressed in Btus per hour,
23 multiplied by

24 “(ii) 2.4 cents.

25 “(2) HEAT PUMPS.—

1 “(A) CONSUMER UNITARY HEAT PUMPS.—

2 “(i) IN GENERAL.—In the case of a
3 consumer unitary heat pump, the applica-
4 ble amount shall be—

5 “(I) in the case of a heat pump
6 which satisfies the applicable require-
7 ment under clause (ii)—

8 “(aa) in the case of a heat
9 pump which is a ducted system
10 with a heating capacity of not
11 less than 22,000 Btus per hour
12 and which satisfies the Energy
13 Star Energy-Efficient Criteria
14 for Certified Residential Cold Cli-
15 mate Heat Pumps or the Energy
16 Star Energy-Efficient Criteria
17 for Geothermal Heat Pumps
18 which are in effect at the time
19 that such heat pump is produced
20 by the taxpayer, \$1,000,

21 “(bb) in the case of an elec-
22 tric heat pump which is not de-
23 scribed in item (aa) and is pro-
24 duced during any calendar year
25 beginning after December 31,

1 2023, by a taxpayer which has
2 not produced any consumer cen-
3 tral air conditioner units during
4 such calendar year, \$600, or

5 “*(cc)* in the case of a heat
6 pump which is not described in
7 item *(aa)* or *(bb)*, \$400, and

8 “*(II)* subject to clause *(iii)*, in the
9 case of a heat pump which does not
10 satisfy the applicable requirement
11 under clause *(ii)* and is produced dur-
12 ing any calendar year beginning after
13 December 31, 2023, by a taxpayer
14 which has not produced any consumer
15 central air conditioner units during
16 such calendar year, \$600.

17 “*(ii)* **ADDITIONAL REQUIREMENT.—**
18 The requirement described in this clause is
19 the Energy Star Central Air Conditioner
20 and Air Source Heat Pump Specification
21 which is in effect at the time that the heat
22 pump is produced by the taxpayer.

23 “*(iii)* **LIMITATION.—**For purposes of
24 clause *(i)(II)*, if the total number of heat
25 pumps described in such clause which are

1 produced by the taxpayer during any cal-
2 endar year beginning after December 31,
3 2023, exceeds the number of heat pumps
4 described in clause (i)(I)(bb) which are
5 produced by the taxpayer during such cal-
6 endar year, clause (i)(II) shall not apply
7 with respect to the amount of such excess.

8 “(B) COMMERCIAL HEAT PUMPS.—

9 “(i) IN GENERAL.—In the case of a
10 commercial heat pump which satisfies the
11 applicable requirements under clause (ii),
12 the applicable amount shall be the amount
13 equal to the product of—

14 “(I) the heating capacity of such
15 heat pump, expressed in Btus per
16 hour, multiplied by

17 “(II) 2.4 cents.

18 “(ii) REQUIREMENTS.—The require-
19 ment described in this clause is—

20 “(I) in the case of an air-source
21 unitary heat pump which has a cool-
22 ing capacity of not greater than
23 240,000 Btus per hour, such heat
24 pump satisfies—

1 “(aa) the requirements of
2 the Energy Star Light Commer-
3 cial HVAC program which are in
4 effect at the time that such heat
5 pump is produced by the tax-
6 payer, or

7 “(bb) the highest efficiency
8 tier (not including any advanced
9 tier) established by the Consor-
10 tium for Energy Efficiency which
11 is in effect at the time that such
12 heat pump is produced by the
13 taxpayer, or

14 “(II) in the case of any heat
15 pump which is not described in sub-
16 clause (I), such heat pump exceeds
17 the minimum efficiency standards
18 under Reference Standard 90.1 by not
19 less than 10 percent, as determined
20 under testing conditions specified in
21 Reference Standard 90.1.

22 “(iii) HEATING CAPACITY.—For pur-
23 poses of clause (i)(I), in the case of an air-
24 source heat pump, the heating capacity of
25 such heat pump shall be determined using

1 an ambient temperature of 17 degrees
2 Fahrenheit.

3 “(C) INDUSTRIAL HEAT PUMP.—In the
4 case of an industrial heat pump, the applicable
5 amount shall be the amount equal to the prod-
6 uct of—

7 “(i) the heating capacity of such heat
8 pump, expressed in Btus per hour, multi-
9 plied by

10 “(ii)(I) in the case of a heat pump
11 with a heating capacity of not greater than
12 2,400,000 Btus per hour, 3.6 cents, or

13 “(II) in the case of a heat pump with
14 a heating capacity greater than 2,400,000
15 Btus per hour and a coefficient of perform-
16 ance of not less than 2.0, 1.8 cents.

17 “(c) ELIGIBLE PRODUCTION.—Subject to subsection
18 (h)(4), the eligible production in a calendar year with re-
19 spect to each type of qualified energy efficient heat pump
20 is the excess of—

21 “(1) the number of heat pumps of such type
22 which are produced by the taxpayer in the United
23 States during such calendar year, over

24 “(2) the average number of heat pumps of such
25 type which were produced by the taxpayer (or any

1 predecessor) in the United States during the pre-
2 ceding 3-calendar year period.

3 “(d) TYPES OF QUALIFIED ENERGY EFFICIENT
4 HEAT PUMPS.—For purposes of this section, the types of
5 qualified energy efficient heat pumps are—

6 “(1) consumer heat pump water heaters de-
7 scribed in subparagraph (A) of subsection (b)(1),

8 “(2) commercial heat pump water heaters de-
9 scribed in subparagraph (B) of such subsection,

10 “(3) consumer unitary heat pumps described in
11 subparagraph (A)(i) of subsection (b)(2),

12 “(4) commercial heat pumps described in sub-
13 paragraph (B)(i) of such subsection, and

14 “(5) industrial heat pumps described in sub-
15 paragraph (C) of such subsection.

16 “(e) LIMITATIONS.—

17 “(1) AGGREGATE CREDIT AMOUNT ALLOWED.—

18 The aggregate amount of credit allowed under sub-
19 section (a) with respect to a taxpayer for any tax-
20 able year shall not exceed an amount equal to the
21 sum of—

22 “(A) with respect to any consumer unitary
23 heat pumps described in subsection
24 (b)(2)(A)(i)(I)(bb), \$300,000,000 reduced by
25 the amount of the credit allowed under sub-

1 section (a) to the taxpayer (or any predecessor)
2 with respect to such heat pumps for all prior
3 taxable years beginning after December 31,
4 2023, plus

5 “(B) with respect to any qualified energy
6 efficient heat pumps (including any consumer
7 unitary heat pumps described in subsection
8 (b)(2)(A)(i)(I)(bb) which are not included under
9 subparagraph (A)), \$400,000,000 reduced by
10 the amount of the credit allowed under sub-
11 section (a) to the taxpayer (or any predecessor)
12 with respect to such heat pumps for all prior
13 taxable years beginning after December 31,
14 2021.

15 “(2) LIMITATION BASED ON GROSS RE-
16 CEIPTS.—The credit allowed under subsection (a)
17 with respect to a taxpayer for the taxable year shall
18 not exceed an amount equal to 4 percent of the aver-
19 age annual gross receipts of the taxpayer for the 3
20 taxable years preceding the taxable year in which
21 the credit is determined.

22 “(3) GROSS RECEIPTS.—For purposes of this
23 subsection, the rules of paragraphs (2) and (3) of
24 section 448(c) shall apply.

1 “(f) ADJUSTMENT OF ENERGY EFFICIENCY CRI-
2 TERIA AND TEST PROCEDURES.—

3 “(1) ADJUSTMENT OF ENERGY EFFICIENCY
4 CRITERIA FOR INDUSTRIAL HEAT PUMPS.—Not later
5 than December 31, 2023, and every 2 years there-
6 after, the Secretary, in consultation with the Sec-
7 retary of Energy, shall—

8 “(A) review the requirement with respect
9 to coefficient of performance for industrial heat
10 pumps under subsection (b)(2)(C)(ii)(II), and

11 “(B) as necessary, prescribe regulations or
12 other guidance which revise any such require-
13 ment to ensure that—

14 “(i) the credit allowed under sub-
15 section (a) only applies to industrial heat
16 pumps which are the most efficient indus-
17 trial heat pumps that are commercially
18 available, and

19 “(ii) not less than 3 manufacturers
20 produce such heat pumps across a range of
21 product heating capacities.

22 “(2) TEST METHODS AND PROCEDURES.—

23 “(A) INDUSTRIAL HEAT PUMPS.—Not later
24 than the date which is 12 months after the date
25 of enactment of this Act, the Secretary of En-

1 ergy shall prescribe regulations or other guid-
2 ance which establish test methods and proce-
3 dures to determine the coefficient of perform-
4 ance for industrial heat pumps.

5 “(B) ANSI AND ISO TEST METHODS AND
6 PROCEDURES.—For purposes of developing the
7 test methods and procedures described in sub-
8 paragraph (A), the Secretary of Energy shall
9 expand upon any relevant test methods and
10 procedures established by the American Na-
11 tional Standards Institute and the International
12 Organization for Standardization which are in
13 effect as of the date of enactment of the Heat-
14 ing Efficiency and Affordability through Tax
15 Relief Act.

16 “(g) DEFINITIONS.—In this section—

17 “(1) BTUS.—The term ‘Btus’ means British
18 thermal units.

19 “(2) COEFFICIENT OF PERFORMANCE.—

20 “(A) IN GENERAL.—The term ‘coefficient
21 of performance’ means the ratio of heat output
22 to energy input.

23 “(B) DEFAULT.—Until such time as the
24 Secretary of Energy issues regulations or guid-
25 ance under subsection (f)(2), in the case of any

1 industrial heat pump, any determination with
2 respect to coefficient of performance for pur-
3 poses of this section shall be determined using
4 any test methods or procedures employed by the
5 taxpayer which produced such heat pump, pro-
6 vided that such taxpayer makes any test condi-
7 tions and assumptions with respect to such
8 methods or procedures publicly available.

9 “(3) COMMERCIAL HEAT PUMP.—The term
10 ‘commercial heat pump’ means a heat pump which—

11 “(A) is designed to provide space heating
12 and cooling, and

13 “(B) is not described in subparagraph (B)
14 of paragraph (6).

15 “(4) COMMERCIAL HEAT PUMP WATER HEAT-
16 ER.—The term ‘commercial heat pump water heater’
17 means a water heater which uses a heat pump to
18 heat water and is not described in subparagraph (A)
19 or (B) of paragraph (5).

20 “(5) CONSUMER HEAT PUMP WATER HEAT-
21 ER.—The term ‘consumer heat pump water heater’
22 means a water heater which uses a heat pump to
23 heat water and has a maximum current rating of 24
24 amperes at a voltage not greater than 250 volts.

1 “(6) CONSUMER UNITARY HEAT PUMP.—The
2 term ‘consumer unitary heat pump’ means a heat
3 pump which—

4 “(A) is designed to provide space heating
5 and cooling, and

6 “(B) has a cooling capacity of not greater
7 than 65,000 Btus per hour.

8 “(7) INDUSTRIAL HEAT PUMP.—The term ‘in-
9 dustrial heat pump’ means a heat pump which—

10 “(A) upgrades industrial waste heat to a
11 higher temperature, and

12 “(B) such heat is produced and supplied to
13 an industrial facility in a manner which is more
14 energy efficient than conventional heating
15 methods, such as a steam or electric resistance
16 boiler.

17 “(8) QUALIFIED ENERGY EFFICIENT HEAT
18 PUMP.—The term ‘qualified energy efficient heat
19 pump’ means—

20 “(A) any consumer heat pump water heat-
21 er described in subparagraph (A) of subsection
22 (b)(1),

23 “(B) any commercial heat pump water
24 heater described in subparagraph (B) of such
25 subsection,

1 “(C) any consumer unitary heat pump de-
2 scribed in subparagraph (A) of subsection
3 (b)(2),

4 “(D) any commercial heat pump described
5 in subparagraph (B) of such subsection, and

6 “(E) any industrial heat pump described in
7 subparagraph (C) of such subsection.

8 “(9) PRODUCED.—The term ‘produced’ in-
9 cludes manufactured or assembled.

10 “(10) REFERENCE STANDARD 90.1.—The term
11 ‘Reference Standard 90.1’ means, with respect to
12 any heat pump, the most recent Standard 90.1 pub-
13 lished by the American Society of Heating, Refrig-
14 erating, and Air Conditioning Engineers which is in
15 effect at the time that such heat pump is produced
16 by the taxpayer.

17 “(h) SPECIAL RULES.—For purposes of this sec-
18 tion—

19 “(1) IN GENERAL.—Rules similar to the rules
20 of subsections (c), (d), and (e) of section 52 shall
21 apply.

22 “(2) CONTROLLED GROUP.—

23 “(A) IN GENERAL.—All persons treated as
24 a single employer under subsection (a) or (b) of

1 section 52 or subsection (m) or (o) of section
2 414 shall be treated as a single producer.

3 “(B) INCLUSION OF FOREIGN CORPORA-
4 TIONS.—For purposes of subparagraph (A), in
5 applying subsections (a) and (b) of section 52
6 to this section, section 1563 shall be applied
7 without regard to subsection (b)(2)(C) thereof.

8 “(3) VERIFICATION.—No amount shall be al-
9 lowed as a credit under subsection (a) with respect
10 to which the taxpayer has not submitted such infor-
11 mation or certification as the Secretary, in consulta-
12 tion with the Secretary of Energy, determines nec-
13 essary.

14 “(4) 10 PERCENT INCREASE IN APPLICABLE
15 AMOUNT FOR HEAT PUMPS PRODUCED IN UNION FA-
16 CILITIES.—In the case of any qualified energy effi-
17 cient heat pump which is produced in a facility oper-
18 ating under a collective bargaining agreement nego-
19 tiated by an employee organization (as defined in
20 section 412(c)(4)), determined in a manner con-
21 sistent with section 7701(a)(46), for purposes of de-
22 termining the credit amount under subsection (a)(2)
23 with respect to such heat pump, the applicable
24 amount determined under subsection (b) with re-
25 spect to such heat pump shall be increased by an

1 amount equal to 10 percent of the applicable amount
2 otherwise in effect under such subsection.

3 “(i) ELECTION FOR DIRECT PAYMENT.—

4 “(1) IN GENERAL.—In the case of a taxpayer
5 making an election (at such time and in such man-
6 ner as the Secretary may provide) under this sub-
7 section with respect to any credit determined under
8 subsection (a) with respect to such taxpayer, such
9 taxpayer shall be treated as making a payment
10 against the tax imposed by subtitle A (for the tax-
11 able year with respect to which such credit was de-
12 termined) equal to the amount of such credit.

13 “(2) SPECIAL RULES.—For purposes of this
14 subsection—

15 “(A) APPLICATION TO PARTNERSHIPS AND
16 S CORPORATIONS.—

17 “(i) IN GENERAL.—In the case of any
18 credit determined under subsection (a)
19 with respect to any property produced by
20 a partnership or S corporation, if such
21 partnership or S corporation makes an
22 election under paragraph (1) (in such man-
23 ner as the Secretary may provide) with re-
24 spect to such credit—

1 “(I) the Secretary shall make a
2 payment to such partnership or S cor-
3 poration equal to the amount of such
4 credit,

5 “(II) paragraph (4) shall be ap-
6 plied with respect to such credit be-
7 fore determining any partner’s dis-
8 tributive share, or shareholder’s pro
9 rata share, of such credit,

10 “(III) any amount with respect
11 to which the election in paragraph (1)
12 is made shall be treated as tax exempt
13 income for purposes of sections 705
14 and 1366, and

15 “(IV) a partner’s distributive
16 share of such tax exempt income shall
17 be based on such partner’s distribu-
18 tive share of such credit for each tax-
19 able year.

20 “(ii) COORDINATION WITH APPLICA-
21 TION AT PARTNER OR SHAREHOLDER
22 LEVEL.—In the case of any partnership or
23 S corporation, paragraph (1) shall be ap-
24 plied at the partner or shareholder level
25 after application of clause (i)(II).

1 “(B) ELECTIONS.—Any election under
2 paragraph (1) shall be made not later than the
3 due date (including extensions of time) for the
4 return of tax for the taxable year for which the
5 election is made. Any such election, once made,
6 shall be irrevocable. Any election under para-
7 graph (1) shall apply with respect to any credit
8 for the taxable year for which the election is
9 made.

10 “(C) TIMING.—The payment described in
11 paragraph (1) shall be treated as made on the
12 later of the due date (determined without re-
13 gard to extensions) of the return of tax for the
14 taxable year or the date on which such return
15 is filed.

16 “(D) TREATMENT OF PAYMENTS TO PART-
17 NERSHIPS AND S CORPORATIONS.—For pur-
18 poses of section 1324 of title 31, United States
19 Code, the payments under subparagraph
20 (A)(i)(I) shall be treated in the same manner as
21 a refund due from a credit provision referred to
22 in subsection (b)(2) of such section.

23 “(E) ADDITIONAL INFORMATION.—As a
24 condition of, and prior to, a payment under this
25 subsection, the Secretary may require such in-

1 formation or registration as the Secretary
2 deems necessary or appropriate for purposes of
3 preventing duplication, fraud, improper pay-
4 ments, or excessive payments under this sub-
5 section.

6 “(F) EXCESSIVE PAYMENT.—

7 “(i) IN GENERAL.—In the case of a
8 payment made to a taxpayer under this
9 paragraph or any amount treated as a pay-
10 ment which is made by the taxpayer under
11 paragraph (1) which the Secretary deter-
12 mines constitutes an excessive payment,
13 the tax imposed on such taxpayer by chap-
14 ter 1 for the taxable year in which such de-
15 termination is made shall be increased by
16 an amount equal to the sum of—

17 “(I) the amount of such excessive
18 payment, plus

19 “(II) an amount equal to 20 per-
20 cent of such excessive payment.

21 “(ii) REASONABLE CAUSE.—Clause
22 (i)(II) shall not apply if the taxpayer dem-
23 onstrates to the satisfaction of the Sec-
24 retary that the excessive payment resulted
25 from reasonable cause.

1 “(iii) EXCESSIVE PAYMENT DE-
2 FINED.—For purposes of this subpara-
3 graph, the term ‘excessive payment’ means,
4 with respect to an election is made under
5 this subsection for any taxable year, an
6 amount equal to the excess of—

7 “(I) the amount of the payment
8 made to the taxpayer under this para-
9 graph or any amount treated as a
10 payment which is made by the tax-
11 payer under paragraph (1) for such
12 taxable year, over

13 “(II) the amount of the credit
14 which, without application of this
15 paragraph, would be otherwise allow-
16 able (determined without regard to
17 section 38(c)) under subsection (a) for
18 such taxable year.

19 “(3) DENIAL OF DOUBLE BENEFIT.—In the
20 case of a taxpayer making an election under this
21 subsection with respect to the credit allowed under
22 subsection (a), such credit shall be reduced to zero
23 and shall, for any other purposes under this title, be
24 deemed to have been allowed to the taxpayer for
25 such taxable year.

1 “(4) MIRROR CODE POSSESSIONS.—In the case
2 of any possession of the United States with a mirror
3 code tax system (as defined in section 24(k)), this
4 subsection shall not be treated as part of the income
5 tax laws of the United States for purposes of deter-
6 mining the income tax law of such possession unless
7 such possession elects to have this subsection be so
8 treated.

9 “(5) REGULATIONS.—The Secretary shall issue
10 such regulations or other guidance as may be nec-
11 essary or appropriate to carry out the purposes of
12 this subsection, including—

13 “(A) regulations or other guidance pro-
14 viding rules for determining a partner’s dis-
15 tributive share of the tax exempt income de-
16 scribed in paragraph (2)(A)(i)(III), and

17 “(B) guidance to ensure that the amount
18 of the payment or deemed payment made under
19 this subsection is commensurate with the
20 amount of the credit that would be otherwise al-
21 lowable (determined without regard to section
22 38(c)).

23 “(j) TERMINATION.—This section shall not apply
24 with respect to any property produced after December 31,
25 2031.”.

1 (b) CONFORMING AMENDMENTS.—

2 (1) Section 38(b) of the Internal Revenue Code
3 of 1986 is amended—

4 (A) by redesignating paragraphs (26)
5 through (33) as paragraphs (27) through (34),
6 respectively, and

7 (B) by inserting after paragraph (25) the
8 following:

9 “(26) the energy efficient heat pump credit de-
10 termined under section 45M,”.

11 (2) The table of sections for subpart D of part
12 IV of subchapter A of chapter 1 of the Internal Rev-
13 enue Code of 1986 is amended by inserting after the
14 item relating to section 45L the following item:

“Sec. 45M. Energy efficient heat pump credit.”.

15 (c) EFFECTIVE DATE.—The amendments made by
16 this section shall apply to property produced after the date
17 of enactment of this Act.

○