

112TH CONGRESS
1ST SESSION

S. 1845

To amend the Internal Revenue Code of 1986 to provide for an energy investment credit for energy storage property connected to the grid, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 10, 2011

Mr. WYDEN (for himself, Mr. BINGAMAN, and Ms. COLLINS) 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 provide for an energy investment credit for energy storage property connected to the grid, and for other purposes.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Storage Technology
5 for Renewable and Green Energy Act of 2011” or the
6 “STORAGE 2011 Act”.

1 **SEC. 2. ENERGY INVESTMENT CREDIT FOR ENERGY STOR-**
 2 **AGE PROPERTY CONNECTED TO THE GRID.**

3 (a) UP TO 20 PERCENT CREDIT ALLOWED.—Sub-
 4 paragraph (A) of section 48(a)(2) of the Internal Revenue
 5 Code of 1986 is amended—

6 (1) by striking “and” at the end of subclause
 7 (IV) of clause (i),

8 (2) by striking “clause (i)” in clause (ii) and in-
 9 serting “clause (i) or (ii)”,

10 (3) by redesignating clause (ii) as clause (iii),
 11 and

12 (4) by inserting after clause (i) the following
 13 new clause:

14 “(ii) as provided in subsection
 15 (c)(5)(D), up to 20 percent in the case of
 16 qualified energy storage property, and”.

17 (b) QUALIFIED ENERGY STORAGE PROPERTY.—Sub-
 18 section (c) of section 48 of the Internal Revenue Code of
 19 1986 is amended by adding at the end the following new
 20 paragraph:

21 “(5) QUALIFIED ENERGY STORAGE PROP-
 22 ERTY.—

23 “(A) IN GENERAL.—The term ‘qualified
 24 energy storage property’ means property—

25 “(i) which is directly connected to the
 26 electrical grid, and

1 “(ii) which is designed to receive elec-
2 trical energy, to store such energy, and—

3 “(I) to convert such energy to
4 electricity and deliver such electricity
5 for sale, or

6 “(II) to use such energy to pro-
7 vide improved reliability or economic
8 benefits to the grid.

9 Such term may include hydroelectric pumped
10 storage and compressed air energy storage, re-
11 generative fuel cells, batteries, superconducting
12 magnetic energy storage, flywheels, thermal en-
13 ergy storage systems, and hydrogen storage, or
14 combination thereof, or any other technologies
15 as the Secretary, in consultation with the Sec-
16 retary of Energy, shall determine.

17 “(B) MINIMUM CAPACITY.—The term
18 ‘qualified energy storage property’ shall not in-
19 clude any property unless such property in ag-
20 gregate has the ability to sustain a power rat-
21 ing of at least 1 megawatt for a minimum of
22 1 hour.

23 “(C) ELECTRICAL GRID.—The term ‘elec-
24 trical grid’ means the system of generators,

1 transmission lines, and distribution facilities
2 which—

3 “(i) are under the jurisdiction of the
4 Federal Energy Regulatory Commission or
5 State public utility commissions, or

6 “(ii) are owned by—

7 “(I) the Federal government,

8 “(II) a State or any political sub-
9 division of a State,

10 “(III) an electric cooperative that
11 is eligible for financing under the
12 Rural Electrification Act of 1936 (7
13 U.S.C. 901 et seq.), or

14 “(IV) any agency, authority, or
15 instrumentality of any one or more of
16 the entities described in subclause (I)
17 or (II), or any corporation which is
18 wholly owned, directly or indirectly, by
19 any one or more of such entities.

20 “(D) ALLOCATION OF CREDITS.—

21 “(i) IN GENERAL.—In the case of
22 qualified energy storage property placed in
23 service during the taxable year, the credit
24 otherwise determined under subsection (a)
25 for such year with respect to such property

1 shall not exceed the amount allocated to
2 such project under clause (ii).

3 “(ii) NATIONAL LIMITATION AND AL-
4 LOCATION.—There is a qualified energy
5 storage property investment credit limita-
6 tion of \$1,500,000,000. Such limitation
7 shall be allocated by the Secretary among
8 qualified energy storage property projects
9 selected by the Secretary, in consultation
10 with the Secretary of Energy, for taxable
11 years beginning after the date of the enact-
12 ment of the STORAGE 2011 Act, except
13 that not more than \$40,000,000 shall be
14 allocated to any project for all such taxable
15 years.

16 “(iii) SELECTION CRITERIA.—In mak-
17 ing allocations under clause (ii), the Sec-
18 retary, in consultation with the Secretary
19 of Energy, shall select only those projects
20 which have a reasonable expectation of
21 commercial viability, select projects rep-
22 resenting a variety of technologies, applica-
23 tions, and project sizes, and give priority
24 to projects which—

1 “(I) provide the greatest increase
2 in reliability or the greatest economic
3 benefit,

4 “(II) enable the greatest im-
5 provement in integration of renewable
6 resources into the grid, or

7 “(III) enable the greatest in-
8 crease in efficiency in operation of the
9 grid.

10 “(iv) DEADLINES.—

11 “(I) IN GENERAL.—If a project
12 which receives an allocation under
13 clause (ii) is not placed in service
14 within 2 years after the date of such
15 allocation, such allocation shall be in-
16 valid.

17 “(II) SPECIAL RULE FOR HYDRO-
18 ELECTRIC PUMPED STORAGE.—Not-
19 withstanding subclause (I), in the case
20 of a hydroelectric pumped storage
21 project, if such project has not re-
22 ceived such permits or licenses as are
23 determined necessary by the Sec-
24 retary, in consultation with the Sec-
25 retary of Energy, within 3 years after

1 the date of such allocation, begun con-
2 struction within 5 years after the date
3 of such allocation, and been placed in
4 service within 8 years after the date
5 of such allocation, such allocation
6 shall be invalid.

7 “(III) SPECIAL RULE FOR COM-
8 PRESSED AIR ENERGY STORAGE.—
9 Notwithstanding subclause (I), in the
10 case of a compressed air energy stor-
11 age project, if such project has not
12 begun construction within 3 years
13 after the date of the allocation and
14 been placed in service within 5 years
15 after the date of such allocation, such
16 allocation shall be invalid.

17 “(IV) EXCEPTIONS.—The Sec-
18 retary may extend the 2-year period
19 in subclause (I) or the periods de-
20 scribed in subclauses (II) and (III) on
21 a project-by-project basis if the Sec-
22 retary, in consultation with the Sec-
23 retary of Energy, determines that
24 there has been a good faith effort to
25 begin construction or to place the

1 project in service, whichever is appli-
2 cable, and that any delay is caused by
3 factors not in the taxpayer's control.

4 “(E) REVIEW AND REDISTRIBUTION.—

5 “(i) REVIEW.—Not later than 4 years
6 after the date of the enactment of the
7 STORAGE 2011 Act, the Secretary shall
8 review the credits allocated under subpara-
9 graph (D) as of the date of such review.

10 “(ii) REDISTRIBUTION.—Upon the re-
11 view described in clause (i), the Secretary
12 may reallocate credits allocated under sub-
13 paragraph (D) if the Secretary determines
14 that—

15 “(I) there is an insufficient quan-
16 tity of qualifying applications for cer-
17 tification pending at the time of the
18 review, or

19 “(II) any allocation made under
20 subparagraph (D)(ii) has been re-
21 voked pursuant to subparagraph
22 (D)(iv) because the project subject to
23 such allocation has been delayed.

24 “(F) DISCLOSURE OF ALLOCATIONS.—The
25 Secretary shall, upon making an allocation

1 under subparagraph (D)(ii), publicly disclose
 2 the identity of the applicant, the location of the
 3 project, and the amount of the credit with re-
 4 spect to such applicant.

5 “(G) TERMINATION.—No credit shall be
 6 allocated under subparagraph (D) for any pe-
 7 riod ending after December 31, 2020.”.

8 (c) EFFECTIVE DATE.—The amendments made by
 9 this section shall apply to periods after the date of the
 10 enactment of this Act, under rules similar to the rules of
 11 section 48(m) of the Internal Revenue Code of 1986 (as
 12 in effect on the day before the date of the enactment of
 13 the Revenue Reconciliation Act of 1990).

14 **SEC. 3. ENERGY STORAGE PROPERTY CONNECTED TO THE**
 15 **GRID ELIGIBLE FOR NEW CLEAN RENEWABLE**
 16 **ENERGY BONDS.**

17 (a) IN GENERAL.—Paragraph (1) of section 54C(d)
 18 of the Internal Revenue Code of 1986 is amended to read
 19 as follows:

20 “(1) QUALIFIED RENEWABLE ENERGY FACIL-
 21 ITY.—The term ‘qualified renewable energy facility’
 22 means a facility which is—

23 “(A)(i) a qualified facility (as determined
 24 under section 45(d) without regard to para-

1 graphs (8) and (10) thereof and to any placed
 2 in service date), or

3 “(ii) a qualified energy storage property
 4 (as defined in section 48(c)(5)), and

5 “(B) owned by a public power provider, a
 6 governmental body, or a cooperative electric
 7 company.”.

8 (b) EFFECTIVE DATE.—The amendment made by
 9 this section shall apply to obligations issued after the date
 10 of the enactment of this Act.

11 **SEC. 4. ENERGY INVESTMENT CREDIT FOR ONSITE ENERGY**
 12 **STORAGE.**

13 (a) CREDIT ALLOWED.—Clause (i) of section
 14 48(a)(2)(A) of the Internal Revenue Code of 1986, as
 15 amended by this Act, is amended—

16 (1) by striking “and” at the end of subclause
 17 (III),

18 (2) by inserting “and” at the end of subclause
 19 (IV), and

20 (3) by adding at the end the following new sub-
 21 clause:

22 “(V) qualified onsite energy stor-
 23 age property,”.

24 (b) QUALIFIED ONSITE ENERGY STORAGE PROP-
 25 erty.—Subsection (c) of section 48 of the Internal Rev-

1 enue Code of 1986, as amended by this Act, is amended
2 by adding at the end the following new paragraph:

3 “(6) QUALIFIED ONSITE ENERGY STORAGE
4 PROPERTY.—

5 “(A) IN GENERAL.—The term ‘qualified
6 onsite energy storage property’ means property
7 which—

8 “(i) provides supplemental energy to
9 reduce peak energy requirements primarily
10 on the same site where the property is lo-
11 cated, or

12 “(ii) is designed and used primarily to
13 receive and store, firm, or shape variable
14 renewable or off-peak energy and to deliver
15 such energy primarily for onsite consump-
16 tion.

17 Such term may include thermal energy storage
18 systems and property used to charge plug-in
19 and hybrid electric vehicles if such property or
20 vehicles are equipped with smart grid equip-
21 ment or services which control time-of-day
22 charging and discharging of such vehicles. Such
23 term shall not include any property for which
24 any other credit is allowed under this chapter.

1 “(B) MINIMUM CAPACITY.—The term
2 ‘qualified onsite energy storage property’ shall
3 not include any property unless such property
4 in aggregate—

5 “(i) has the ability to store the energy
6 equivalent of at least 20 kilowatt hours of
7 energy, and

8 “(ii) has the ability to have an output
9 of the energy equivalent of 4 kilowatts of
10 electricity for a period of 5 hours.

11 “(C) LIMITATION.—In the case of qualified
12 onsite energy storage property placed in service
13 during the taxable year, the credit otherwise de-
14 termined under subsection (a) for such year
15 with respect to such property shall not exceed
16 \$1,000,000.”.

17 (c) EFFECTIVE DATE.—The amendments made by
18 this section shall apply to periods after the date of the
19 enactment of this Act, under rules similar to the rules of
20 section 48(m) of the Internal Revenue Code of 1986 (as
21 in effect on the day before the date of the enactment of
22 the Revenue Reconciliation Act of 1990).

1 **SEC. 5. CREDIT FOR RESIDENTIAL ENERGY STORAGE**
 2 **EQUIPMENT.**

3 (a) CREDIT ALLOWED.—Subsection (a) of section
 4 25D of the Internal Revenue Code of 1986 is amended—

5 (1) by striking “and” at the end of paragraph
 6 (4),

7 (2) by striking the period at the end of para-
 8 graph (5) and inserting “, and”, and

9 (3) by adding at the end the following new
 10 paragraph:

11 “(6) 30 percent of the qualified residential en-
 12 ergy storage equipment expenditures made by the
 13 taxpayer during such taxable year, and”.

14 (b) QUALIFIED RESIDENTIAL ENERGY STORAGE
 15 EQUIPMENT EXPENDITURES.—Section 25D(d) of the In-
 16 ternal Revenue Code of 1986 is amended by adding at the
 17 end the following new paragraph:—

18 “(6) QUALIFIED RESIDENTIAL ENERGY STOR-
 19 AGE EQUIPMENT EXPENDITURES.—For purposes of
 20 this section, the term ‘qualified residential energy
 21 storage equipment expenditure’ means an expendi-
 22 ture for property—

23 “(A) which is installed in or on a dwelling
 24 unit located in the United States and owned
 25 and used by the taxpayer as the taxpayer’s
 26 principal residence (within the meaning of sec-

1 tion 121), or on property owned by the tax-
2 payer on which such a dwelling unit is located,

3 “(B) which—

4 “(i) provides supplemental energy to
5 reduce peak energy requirements primarily
6 on the same site where the property is lo-
7 cated, or

8 “(ii) is designed and used primarily to
9 receive and store, firm, or shape variable
10 renewable or off-peak energy and to deliver
11 such energy primarily for onsite consump-
12 tion, and

13 “(C) which—

14 “(i) has the ability to store the energy
15 equivalent of at least 2 kilowatt hours of
16 energy, and

17 “(ii) has the ability to have an output
18 of the energy equivalent of 500 watts of
19 electricity for a period of 4 hours.

20 Such term may include thermal energy storage sys-
21 tems and property used to charge plug-in and hybrid
22 electric vehicles if such property or vehicles are
23 equipped with smart grid equipment or services
24 which control time-of-day charging and discharging
25 of such vehicles. Such term shall not include any

1 property for which any other credit is allowed under
2 this chapter.”.

3 (c) EFFECTIVE DATE.—The amendments made by
4 this section shall apply to property placed in service after
5 the date of the enactment of this Act.

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