

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

# S. 3617

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.

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## IN THE SENATE OF THE UNITED STATES

JULY 20, 2010

Mr. BINGAMAN (for himself, Mr. WYDEN, and Mrs. SHAHEEN) introduced the following bill; which was read twice and referred to the Committee on Finance

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## 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 2010” or the  
6 “STORAGE 2010 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 receives financing under the Rural  
12 Electrification Act of 1936 (7 U.S.C.  
13 901 et seq.) or that sells less than  
14 4,000,000 megawatt hours of elec-  
15 tricity per year, or

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

22 “(D) ALLOCATION OF CREDITS.—

23 “(i) IN GENERAL.—In the case of  
24 qualified energy storage property placed in  
25 service during the taxable year, the credit

1 otherwise determined under subsection (a)  
2 for such year with respect to such property  
3 shall not exceed the amount allocated to  
4 such project under clause (ii).

5 “(ii) NATIONAL LIMITATION AND AL-  
6 LOCATION.—There is a qualified energy  
7 storage property investment credit limita-  
8 tion of \$1,500,000,000. Such limitation  
9 shall be allocated by the Secretary among  
10 qualified energy storage property projects  
11 selected by the Secretary, in consultation  
12 with the Secretary of Energy, for taxable  
13 years beginning after the date of the enact-  
14 ment of the STORAGE 2010 Act, except  
15 that not more than \$30,000,000 shall be  
16 allocated to any project for all such taxable  
17 years.

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

1 tions, and project sizes, and give priority  
2 to projects which—

3 “(I) provide the greatest increase  
4 in reliability or the greatest economic  
5 benefit,

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

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

12 “(iv) DEADLINES.—

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

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

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

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

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

1           there has been a good faith effort to  
2           begin construction or to place the  
3           project in service, whichever is appli-  
4           cable, and that any delay is caused by  
5           factors not in the taxpayer's control.

6           “(E) REVIEW AND REDISTRIBUTION.—

7           “(i) REVIEW.—Not later than 4 years  
8           after the date of the enactment of the  
9           STORAGE 2010 Act, the Secretary shall  
10          review the credits allocated under subpara-  
11          graph (D) as of the date of such review.

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

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

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



1           “(F) DISCLOSURE OF ALLOCATIONS.—The  
2           Secretary shall, upon making an allocation  
3           under subparagraph (D)(ii), publicly disclose  
4           the identity of the applicant, the location of the  
5           project, and the amount of the credit with re-  
6           spect to such applicant.

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

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

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

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

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

1 “(A)(i) a qualified facility (as determined  
2 under section 45(d) without regard to para-  
3 graphs (8) and (10) thereof and to any placed  
4 in service date), or

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

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

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

13 **SEC. 4. ENERGY INVESTMENT CREDIT FOR ONSITE ENERGY**  
14 **STORAGE.**

15 (a) CREDIT ALLOWED.—Clause (i) of section  
16 48(a)(2)(A) of the Internal Revenue Code of 1986, as  
17 amended by this Act, is amended—

18 (1) by striking “and” at the end of subclause  
19 (III),

20 (2) by inserting “and” at the end of subclause  
21 (IV), and

22 (3) by adding at the end the following new sub-  
23 clause:

24 “(V) qualified onsite energy stor-  
25 age property,”.

1 (b) QUALIFIED ONSITE ENERGY STORAGE PROP-  
 2 ERTY.—Subsection (c) of section 48 of the Internal Rev-  
 3 enue Code of 1986, as amended by this Act, is amended  
 4 by adding at the end the following new paragraph:

5 “(6) QUALIFIED ONSITE ENERGY STORAGE  
 6 PROPERTY.—

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

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

14 “(ii) is designed and used primarily to  
 15 receive and store intermittent renewable  
 16 energy generated onsite and to deliver such  
 17 energy primarily for onsite consumption.

18 Such term may include thermal energy storage  
 19 systems and property used to charge plug-in  
 20 and hybrid electric vehicles if such property or  
 21 vehicles are equipped with smart grid services  
 22 which control time-of-day charging and dis-  
 23 charging of such vehicles. Such term shall not  
 24 include any property for which any other credit  
 25 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,

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

11                  “(iii) has a roundtrip energy storage  
12                  efficiency of not less than 80 percent.

13           “(C) LIMITATION.—In the case of qualified  
14           onsite energy storage property placed in service  
15           during the taxable year, the credit otherwise de-  
16           termined under subsection (a) for such year  
17           with respect to such property shall not exceed  
18           \$1,000,000.”.

19           (c) EFFECTIVE DATE.—The amendments made by  
20           this section shall apply to periods after the date of the  
21           enactment of this Act, under rules similar to the rules of  
22           section 48(m) of the Internal Revenue Code of 1986 (as  
23           in effect on the day before the date of the enactment of  
24           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 25C of the Internal Revenue Code of 1986 is amended—

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

7 (2) by redesignating paragraph (2) as para-  
8 graph (3), and

9 (3) by inserting after paragraph (1) the fol-  
10 lowing new paragraph:

11 “(2) 30 percent of the amount paid or incurred  
12 by the taxpayer for qualified residential energy stor-  
13 age equipment installed during such taxable year,  
14 and”.

15 (b) QUALIFIED RESIDENTIAL ENERGY STORAGE  
16 EQUIPMENT.—

17 (1) IN GENERAL.—Section 25C of the Internal  
18 Revenue Code of 1986 is amended—

19 (A) by redesignating subsections (e), (f),  
20 and (g) as subsections (f), (g), and (h), respec-  
21 tively, and

22 (B) by inserting after subsection (d) the  
23 following new subsection:

24 “(d) QUALIFIED RESIDENTIAL ENERGY STORAGE  
25 EQUIPMENT.—For purposes of this section, the term

1 ‘qualified residential energy storage equipment’ means  
2 property—

3 “(1) which is installed in or on a dwelling unit  
4 located in the United States and owned and used by  
5 the taxpayer as the taxpayer’s principal residence  
6 (within the meaning of section 121), or on property  
7 owned by the taxpayer on which such a dwelling unit  
8 is located,

9 “(2) which—

10 “(A) provides supplemental energy to re-  
11 duce peak energy requirements primarily on the  
12 same site where the storage is located, or

13 “(B) is designed and used primarily to re-  
14 ceive and store intermittent renewable energy  
15 generated onsite and to deliver such energy pri-  
16 marily for onsite consumption,

17 “(3) which has a roundtrip energy storage effi-  
18 ciency of not less than 80 percent, and

19 “(4) which—

20 “(A) has the ability to store the energy  
21 equivalent of at least 2 kilowatt hours of en-  
22 ergy, and

23 “(B) has the ability to have an output of  
24 the energy equivalent of 500 watts of electricity  
25 for a period of 4 hours.

1 Such term may include thermal energy storage systems  
2 and property used to charge plug-in and hybrid electric  
3 vehicles if such property or vehicles are equipped with  
4 smart grid services which control time-of-day charging and  
5 discharging of such vehicles. Such term shall not include  
6 any property for which any other credit is allowed under  
7 this chapter.”.

8           (2) CONFORMING AMENDMENT.—Section  
9           1016(a)(33) of such Code is amended by striking  
10           “section 25C(f)” and inserting “section 25C(g)”.

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

○