

111TH CONGRESS  
1ST SESSION

# H. R. 3918

To amend the Internal Revenue Code of 1986 to provide a tax credit for qualified distributed thermal energy storage property, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

OCTOBER 22, 2009

Mr. THOMPSON of California (for himself, Mr. HERGER, Mr. POMEROY, Mr. LARSON of Connecticut, Mr. MICHAUD, and Ms. PINGREE of Maine) introduced the following bill; which was referred to the Committee on Ways and Means

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## A BILL

To amend the Internal Revenue Code of 1986 to provide a tax credit for qualified distributed thermal energy storage property, 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 “Thermal Energy Cool-  
5 ing and Heating Act of 2009”.

1 **SEC. 2. CREDIT FOR QUALIFIED DISTRIBUTED THERMAL**  
2 **STORAGE PROPERTY INSTALLED IN A PRIN-**  
3 **CIPAL RESIDENCE.**

4 (a) **IN GENERAL.**—Subsection (a) of section 25D of  
5 the Internal Revenue Code of 1986 is amended by striking  
6 “and” at the end of paragraph (4), by striking the period  
7 at the end of paragraph (5) and inserting “, and”, and  
8 by adding at the end the following new paragraph:

9 “(6) 30 percent of the qualified distributed  
10 thermal energy storage property expenditures made  
11 by the taxpayer during such year.”.

12 (b) **QUALIFIED DISTRIBUTED THERMAL ENERGY**  
13 **STORAGE PROPERTY EXPENDITURE.**—Section 25D(d) of  
14 such Code is amended by adding at the end the following  
15 new paragraph:

16 “(6) **QUALIFIED DISTRIBUTED THERMAL EN-**  
17 **ERGY STORAGE PROPERTY EXPENDITURE.**—The  
18 term ‘qualified distributed thermal energy storage  
19 property expenditure’ means an expenditure for  
20 qualified distributed thermal energy storage property  
21 (as defined in section 48(e)) installed on or in con-  
22 nection with a dwelling unit located in the United  
23 States and used as a principal residence (within the  
24 meaning of section 121) by the taxpayer.”.

25 (c) **MODIFICATION OF MAXIMUM CREDIT.**—

1           (1) IN GENERAL.—Paragraph (1) of section  
2           25D(b) of such Code is amended by striking “and”  
3           at the end of subparagraph (B), by striking the pe-  
4           riod at the end of subparagraph (C), and by adding  
5           at the end the following new subparagraphs:

6                   “(D) \$500 with respect to each half kilo-  
7                   watt of peak demand reduction (as defined in  
8                   section 48(e)(3)) by cooling systems which are  
9                   qualified distributed thermal energy storage  
10                  property (as defined in section 48(e)) for which  
11                  qualified distributed thermal energy storage  
12                  property expenditures are made, and

13                  “(E) \$150 for each nameplate kilowatt  
14                  input of thermal heat storage by heating sys-  
15                  tems which are qualified distributed thermal en-  
16                  ergy storage property (as defined in section  
17                  48(e)) for which qualified distributed thermal  
18                  energy storage property expenditures are  
19                  made.”.

20           (2) CONFORMING AMENDMENTS.—Paragraph  
21           (4) of section 25D(e) of such Code is amended—

22                   (A) by amending so much of such para-  
23                   graph as precedes subparagraph (B) to read as  
24                   follows:

1           “(4) LIMITATIONS IN CASE OF JOINT OCCU-  
2 PANCY.—In the case of any dwelling unit which is  
3 jointly occupied and used during any calendar year  
4 as a residence by two or more individuals the fol-  
5 lowing rules shall apply:

6           “(A) MAXIMUM EXPENDITURES.—The  
7 maximum amount of expenditures which may  
8 be taken into account under subsection (a) by  
9 all such individuals with respect to such dwell-  
10 ing unit during such calendar year shall be—

11           “(i) \$1,667 in the case of each half  
12 kilowatt of capacity of qualified fuel cell  
13 property (as defined in section 48(c)(1))  
14 for which qualified fuel cell property ex-  
15 penditures are made,

16           “(ii) \$1,667 in case of each half kilo-  
17 watt of peak demand reduction (as defined  
18 in section 48(e)(3)) by cooling systems  
19 which are qualified distributed thermal en-  
20 ergy storage property (as defined in section  
21 48(e)) for which qualified distributed ther-  
22 mal energy storage property expenditures  
23 are made, and

24           “(iii) \$333 in the case of each name-  
25 plate kilowatt input of thermal heat stor-

1                   age by heating systems which are qualified  
 2                   distributed thermal energy storage prop-  
 3                   erty (as defined in section 48(e)) for which  
 4                   qualified distributed thermal energy stor-  
 5                   age property expenditures are made.”, and  
 6                   (B) by adding at the end of subparagraph  
 7                   (B) the following:

8                   “‘This subparagraph shall be applied separately  
 9                   with respect to qualified fuel cell property ex-  
 10                  penditures, qualified distributed thermal energy  
 11                  storage property expenditures with respect cool-  
 12                  ing systems, and qualified distributed thermal  
 13                  energy storage property with respect to heating  
 14                  systems.’”.

15                  (d) EFFECTIVE DATE.—The amendments made by  
 16                  this section shall apply to taxable years beginning after  
 17                  the date of the enactment of this Act.

18                  **SEC. 3. BUSINESS CREDIT FOR QUALIFIED DISTRIBUTED**  
 19                  **THERMAL ENERGY STORAGE PROPERTY.**

20                  (a) IN GENERAL.—Subparagraph (A) of section  
 21                  48(a)(3) of the Internal Revenue Code of 1986 is amended  
 22                  by deleting “or” at the end of clause (vi), by inserting  
 23                  “or” at the end of clause (vii), and by inserting clause  
 24                  (vii) the following new clause:

1                   “(viii) qualified distributed thermal  
2                   energy storage property but only with re-  
3                   spect to periods ending before January 1,  
4                   2017,”.

5           (b) 30 PERCENT CREDIT.—Clause (i) of section  
6 48(a)(2)(A) of such Code is amended by striking “and”  
7 at the end of subclause (III) and by inserting after sub-  
8 clause (IV) the following new subclause:

9                   “(V) qualified distributed ther-  
10                   mal energy storage property, and”.

11           (c) QUALIFIED DISTRIBUTED THERMAL ENERGY  
12 STORAGE PROPERTY.—Section 48 of such Code is amend-  
13 ed by adding at the end the following new subsection:

14           “(e) QUALIFIED DISTRIBUTED THERMAL ENERGY  
15 STORAGE PROPERTY.—For the purposes of this section:

16                   “(1) IN GENERAL.—The term ‘qualified distrib-  
17                   uted thermal energy storage property’ means a heat-  
18                   ing or cooling system which—

19                   “(A) consists of mechanical thermal heat  
20                   storage or cooling storage components which  
21                   are designed to create, store, and supply off  
22                   peak or renewable electric distributed thermal  
23                   energy or to reduce or avoid peak electrical de-  
24                   mand of conventional mechanical cooling or  
25                   heating equipment,

1           “(B) has a nameplate operational capa-  
2           bility to deliver a minimum of 29,000 Btu per  
3           hour of cooling capacity or a minimum of in-  
4           stalled nameplate thermal heat storage capacity  
5           of 85,000 Btu,

6           “(C) is designed to deliver such cooling ca-  
7           pacity for a minimum continuous period of 3  
8           hours, available daily from May 1 through Sep-  
9           tember 30, or a minimum of 15,000 Btu per  
10          hour of heating capacity for a minimum contin-  
11          uous period of 3 hours, available daily from Oc-  
12          tober 1 through April 30, coincident with day-  
13          time peak load periods,

14          “(D) is designed so as to utilize off-peak or  
15          renewable electricity or reduce peak kilowatt de-  
16          mand by 90 percent for the heating and cooling  
17          load served, and

18          “(E) is certified by the manufacturer as  
19          designed so as not to exceed the energy con-  
20          sumption of conventional HVAC equipment by  
21          more than 10 percent.

22          “(2) INCLUSION OF RELATED EQUIPMENT.—  
23          Such term shall include any secondary components  
24          which integrate the distributed thermal energy stor-  
25          age system described in paragraph (1) with the con-

1       ventional heating or cooling system, including equip-  
2       ment and controls for measuring and reporting oper-  
3       ation and performance, but shall not include any  
4       portion of the conventional heating or cooling sys-  
5       tem.

6           “(3) LIMITATION.—

7           “(A) IN GENERAL.—In case of qualified  
8       distributed thermal energy storage property  
9       placed in service during the taxable year, the  
10      credit otherwise determined under this section  
11      for such year with respect to such property  
12      shall not exceed an amount equal to \$500 for  
13      each 0.5 kilowatt of peak demand reduction for  
14      property placed in service for cooling or \$150  
15      for each nameplate kilowatt input for property  
16      placed in service for heating.

17          “(B) PEAK DEMAND REDUCTION.—For  
18      purposes of this subsection, the term ‘peak de-  
19      mand reduction’ means the removal or avoid-  
20      ance of electrical demand (kW) on the utility  
21      grid system during the daily time period of high  
22      electrical demand. The peak demand reduction  
23      for air conditioning property shall be deter-  
24      mined based on Energy Efficiency Ratio (EER)  
25      standards for residential and commercial air



1 conditioning equipment, established under the  
2 Energy Policy and Conservation Act of 1975.”.

3 (d) EFFECTIVE DATE.—The amendments made by  
4 this Act shall apply to taxable years beginning after the  
5 date of the enactment of this Act.

6 **SEC. 4. QUALIFIED DISTRIBUTED THERMAL ENERGY STOR-**  
7 **AGE PROPERTY MADE ELIGIBLE FOR NEW**  
8 **CLEAN RENEWABLE ENERGY BONDS.**

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

12 “(1) QUALIFIED RENEWABLE ENERGY FACIL-  
13 ITY.—The term ‘qualified renewable energy facility’  
14 means—

15 “(A) any qualified facility (as determined  
16 under section 45(d) without regard to para-  
17 graphs (8) and (10) thereof and to any placed  
18 in service date), and

19 “(B) any qualified distributed thermal en-  
20 ergy storage property (as defined in section  
21 48(e)),

22 owned by a public power provider, a governmental  
23 body, or a cooperative electric company.”.

1           (b) **EFFECTIVE DATE.**—The amendments made by  
2 this section shall apply to obligations issued after the date  
3 of the enactment of this Act.

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