

113TH CONGRESS  
1ST SESSION

# S. 1739

To modify the efficiency standards for grid-enabled water heaters.

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IN THE SENATE OF THE UNITED STATES

NOVEMBER 20, 2013

Mr. HOEVEN (for himself, Mr. PRYOR, Mr. CHAMBLISS, Ms. KLOBUCHAR, and Mr. BLUNT) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To modify the efficiency standards for grid-enabled 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. GRID-ENABLED WATER HEATERS.**

4 Part B of title III of the Energy Policy and Conserva-  
5 tion Act (42 U.S.C. 6291 et seq.) is amended—

6 (1) in section 325(e) (42 U.S.C. 6295(e)), by  
7 adding at the end the following:

8 “(6) **ADDITIONAL STANDARDS FOR GRID-EN-**  
9 **ABLED WATER HEATERS.—**

10 “(A) **DEFINITIONS.—**In this paragraph:

1           “(i) ACTIVATION KEY.—The term ‘ac-  
2           tivation key’ means a physical device or  
3           control directly on the water heater, a soft-  
4           ware code, or a digital communication  
5           means—

6                   “(I) that must be activated to en-  
7                   able the product to operate continu-  
8                   ously and at its designed specifica-  
9                   tions and capabilities; and

10                   “(II) without which activation  
11                   the product will provide not greater  
12                   than 50 percent of the rated first  
13                   hour delivery of hot water certified by  
14                   the manufacturer.

15           “(ii) GRID-ENABLED WATER HEAT-  
16           ER.—The term ‘grid-enabled water heater’  
17           means an electric resistance water heater  
18           that—

19                   “(I) has a rated storage tank vol-  
20                   ume of more than 75 gallons;

21                   “(II) is manufactured on or after  
22                   April 16, 2015;

23                   “(III) has—

24                           “(aa) an energy factor of  
25                           not less than 1.061 minus the

1 product obtained by multi-  
2 plying—

3 “(AA) the rated storage  
4 volume of the tank, ex-  
5 pressed in gallons; and

6 “(BB) 0.00168; or

7 “(bb) an efficiency level  
8 equivalent to the energy factor  
9 under item (aa) and expressed as  
10 a uniform energy descriptor  
11 based on the revised test proce-  
12 dure for water heaters described  
13 in paragraph (5);

14 “(IV) is equipped by the manu-  
15 facturer with an activation key; and

16 “(V) bears a permanent label ap-  
17 plied by the manufacturer that—

18 “(aa) is made of material  
19 not adversely affected by water;

20 “(bb) is attached by means  
21 of non-water-soluble adhesive;  
22 and

23 “(cc) advises purchasers and  
24 end-users of the intended and ap-  
25 propriate use of the product with

1 the following notice printed in  
2 16.5 point Arial Narrow Bold  
3 font:

4 “‘IMPORTANT INFORMATION: This water heater is  
5 intended only for use as part of an electric thermal storage  
6 or demand response program. It will not provide adequate  
7 hot water unless enrolled in such a program and activated  
8 by your utility company or another program operator.  
9 Confirm the availability of a program in your local area  
10 before purchasing or installing this product.’.

11 “(B) REQUIREMENT.—The manufacturer  
12 or private labeler shall provide the activation  
13 key only to utilities or other companies oper-  
14 ating electric thermal storage or demand re-  
15 sponse programs that use grid-enabled water  
16 heaters.

17 “(C) REPORTS.—

18 “(i) MANUFACTURERS.—The Sec-  
19 retary shall require each manufacturer of  
20 grid-enabled water heaters to report to the  
21 Secretary annually the quantity of grid-en-  
22 abled water heaters that the manufacturer  
23 ships each year.

24 “(ii) OPERATORS.—The Secretary  
25 shall require utilities and other demand re-

1           sponse and thermal storage program oper-  
2           ators to report annually the quantity of  
3           grid-enabled water heaters activated for  
4           their programs using forms of the Energy  
5           Information Agency or using such other  
6           mechanism that the Secretary determines  
7           appropriate after an opportunity for notice  
8           and comment.

9           “(iii) CONFIDENTIALITY REQUIRE-  
10          MENTS.—The Secretary shall treat ship-  
11          ment data reported by manufacturers as  
12          confidential business information.

13          “(D) PUBLICATION OF INFORMATION.—

14          “(i) IN GENERAL.—In 2017 and  
15          2019, the Secretary shall publish an anal-  
16          ysis of the data collected under subpara-  
17          graph (C) to assess the extent to which  
18          shipped products are put into use in de-  
19          mand response and thermal storage pro-  
20          grams.

21          “(ii) PREVENTION OF PRODUCT DI-  
22          VERSION.—If the Secretary determines  
23          that sales of grid-enabled water heaters ex-  
24          ceed by 15 percent or greater the quantity  
25          of such products activated for use in de-

1 mand response and thermal storage pro-  
2 grams annually, the Secretary shall, after  
3 opportunity for notice and comment, estab-  
4 lish procedures to prevent product diver-  
5 sion for non-program purposes.

6 “(E) COMPLIANCE.—

7 “(i) IN GENERAL.—Subparagraphs  
8 (A) through (D) shall remain in effect  
9 until the Secretary determines under this  
10 section that grid-enabled water heaters do  
11 not require a separate efficiency require-  
12 ment.

13 “(ii) EFFECTIVE DATE.—If the Sec-  
14 retary exercises the authority described in  
15 clause (i) or amends the efficiency require-  
16 ment for grid-enabled water heaters, that  
17 action will take effect on the date de-  
18 scribed in subsection (m)(4)(A)(ii).

19 “(iii) CONSIDERATION.—In carrying  
20 out this section with respect to electric  
21 water heaters, the Secretary shall consider  
22 the impact on thermal storage and demand  
23 response programs, including the con-  
24 sequent impact on energy savings, electric

1 bills, electric reliability, integration of re-  
2 newable resources, and the environment.

3 “(iv) REQUIREMENTS.—In carrying  
4 out this subparagraph, the Secretary shall  
5 require that grid-enabled water heaters be  
6 equipped with communication capability to  
7 enable the grid-enabled water heaters to  
8 participate in ancillary services programs if  
9 the Secretary determines that the tech-  
10 nology is available, practical, and cost-ef-  
11 fective.”; and

12 (2) in section 332 (42 U.S.C. 6302)—

13 (A) in paragraph (5), by striking “or” at  
14 the end;

15 (B) in the first paragraph (6), by striking  
16 the period at the end and inserting a semicolon;

17 (C) by redesignating the second paragraph  
18 (6) as paragraph (7);

19 (D) in subparagraph (B) of paragraph (7)  
20 (as so redesignated), by striking the period at  
21 the end and inserting “; or”; and

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

23 “(8) with respect to grid-enabled water heaters  
24 that are not used as part of an electric thermal stor-

1       age or demand response program, for any person  
2       knowingly and repeatedly—

3               “(A) to distribute activation keys for those  
4       grid-enabled water heaters;

5               “(B) otherwise to enable the full operation  
6       of those grid-enabled water heaters; or

7               “(C) to remove or render illegible the la-  
8       bels of those grid-enabled water heaters.”.

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