

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

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

**IN THE SENATE OF THE UNITED STATES—113th Cong., 1st Sess.**

**S. 1392**

To promote energy savings in residential buildings and industry, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. HOEVEN (for himself and Mr. PRYOR)

Viz:

1 On page 48, after line 16, add the following:

2 **SEC. 4 \_\_\_\_ . GRID-ENABLED WATER HEATERS.**

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

5 (1) in section 325(e), by adding at the end the  
6 following:

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

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

10 “(i) **ACTIVATION KEY.—**The term ‘ac-  
11 tivation key’ means a physical device or

1 control directly on the water heater, a soft-  
2 ware code, or a digital communication  
3 means—

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

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

13 “(ii) GRID-ENABLED WATER HEAT-  
14 ER.—The term ‘grid-enabled water heater’  
15 means an electric resistance water heat-  
16 er—

17 “(I) with a rated storage tank  
18 volume of more than 75 gallons;

19 “(II) manufactured on or after  
20 April 16, 2015;

21 “(III) that has—

22 “(aa) an energy factor of  
23 not less than 1.061 minus the  
24 product obtained by multi-  
25 plying—

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

4                   “(BB) 0.00168; or

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

12                  “(IV) equipped by the manufac-  
13                  turer with an activation key; and

14                  “(V) that bears a permanent  
15                  label applied by the manufacturer  
16                  that—

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

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

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

1 16.5 point Arial Narrow Bold  
2 font:

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

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

16 “(C) REPORTS.—

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

23 “(ii) OPERATORS.—The Secretary  
24 shall require utilities and other demand re-  
25 sponse and thermal storage program oper-

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

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

12          “(D) PUBLICATION OF INFORMATION.—

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

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

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

5           “(E) COMPLIANCE.—

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

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

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

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

10                   (2) in section 332—

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

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

15                   (C) by redesignating the second paragraph  
16                   (6) as paragraph (7);

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

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

21                   “(8) with respect to grid-enabled water heaters  
22                   that are not used as part of an electric thermal stor-  
23                   age or demand response program, for any person  
24                   knowingly and repeatedly—

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

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

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