

111TH CONGRESS
1ST SESSION

H. R. 1774

To incorporate smart grid capability into the Energy Star Program, to reduce peak electric demand, to reauthorize energy efficiency public information program to include Smart Grid information, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 30, 2009

Mr. MCNERNEY introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To incorporate smart grid capability into the Energy Star Program, to reduce peak electric demand, to reauthorize energy efficiency public information program to include Smart Grid information, 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 “Smart Grid Advance-
5 ment Act”.

6 **SEC. 2. DEFINITIONS.**

7 For purposes of this Act, the terms:

8 (1) “Secretary” means the Secretary of Energy.

1 (2) “Administrator” means the Administrator
2 of the Environmental Protection Agency.

3 (3) “Commission” means Federal Energy Reg-
4 ulatory Commission.

5 (4) “Smart grid” has the meaning provided by
6 section 1301 of the Energy Independence and Secu-
7 rity Act of 2007 (15 U.S.C. 17381).

8 (5) “Peak demand reduction” means the reduc-
9 tion in annual peak demand as compared to a pre-
10 vious baseline year or period, expressed in
11 Megawatts (MW).

12 (6) “Peak demand” shall mean the highest
13 point of electricity demand during any hour on the
14 system of a load serving entity during a annual cal-
15 endar year, expressed in megawatts, or more than
16 one such high point of electricity demand as a func-
17 tion of seasonal demand changes.

18 (7) “Peak period” shall mean the time period
19 on the system of a load serving entity relative to
20 peak demand that may warrant special measures or
21 electricity resources to maintain system reliability
22 while meeting peak demand.

23 (8) “Load serving entity” means an entity that
24 provides electricity directly to retail consumers with
25 the responsibility to assure power quality and reli-

1 ability, including such entities that are investor-
2 owned, publicly owned, owned by rural electric co-
3 operatives, or other entities.

4 (9) “Applicable baseline” shall mean the aver-
5 age of the highest three annual peak demands a load
6 serving entity has experienced during the 5 years
7 immediately prior to the date of enactment of this
8 Act.

9 (10) “Peak load reduction plan” means a plan
10 developed by or for a load serving entity that it will
11 implement to meet its peak demand management
12 goals.

13 **SEC. 3. INCORPORATION OF SMART GRID CAPABILITY IN**
14 **ENERGY STAR PROGRAM.**

15 (a) ASSESSMENT.—Within one year after the date of
16 enactment of this Act, the Secretary and the Adminis-
17 trator shall each assess the potential for cost-effective in-
18 tegration of Smart Grid technologies and capabilities in
19 all products that are reviewed by the Department of En-
20 ergy and the Environmental Protection Agency, respec-
21 tively, for potential designation as Energy Star products.

22 (b) ANALYSIS.—(1) Within 2 years after the date of
23 enactment of this Act, the Secretary and the Adminis-
24 trator shall each prepare an analysis of the potential en-
25 ergy savings and electricity cost savings that could accrue

1 for each of the products referred to in subsection (a) in
2 the following optimal circumstances:

3 (A) The products possessed full Smart
4 Grid capability.

5 (B) The products were utilized in an elec-
6 tricity utility service area which had Smart Grid
7 capability and time-of-use electric rates.

8 (C) The time-of-use rates reflected national
9 average utility rates including average peak and
10 valley daily electricity costs to the utility.

11 (D) Consumers using such products took
12 full advantage of such capability.

13 (2) The analysis under paragraph (1) shall be consid-
14 ered the “best case” Smart Grid analysis. On the basis
15 of such an analysis for each product, the Secretary and
16 the Administrator shall determine whether the installation
17 of Smart Grid capability for such a product would be cost
18 effective. For purposes of this paragraph, the term “cost
19 effective” means that the cumulative savings from using
20 the product under the “best case” Smart Grid cir-
21 cumstances for a period of 5 years will be greater than
22 the incremental cost of the Smart Grid features included
23 in the product.

24 (3) To the extent that including Smart Grid capa-
25 bility in any products analyzed under paragraph (2) yield-

1 ed a finding that doing so was cost effective in the best
2 case, the Secretary and the Administrator shall, not later
3 than 3 years after the date of enactment of this Act take
4 each of the following actions:

5 (A) Inform the manufacturer of such product of
6 such finding.

7 (B) Make special note in a prominent manner
8 on any Energy Star label for any product actually
9 including Smart Grid capability that—

10 (i) Smart Grid capability is a feature of
11 that product;

12 (ii) the use and value of those features de-
13 pended on the Smart Grid capability of the util-
14 ity system in which the product was installed
15 and the use of those features by the customer;
16 and

17 (iii) on a utility system with Smart Grid
18 capability, the use of the product's Smart Grid
19 capability could potentially reduce the cost of
20 the product's annual operation by an estimated
21 dollar amount representing the result of incre-
22 mental energy and electricity cost savings that
23 would result from the Smart Grid best case for
24 that product.

1 (C) Submit a report to Congress summarizing
2 the results of the analyses for each class of products,
3 and presenting the potential national energy and
4 electricity cost savings that could be realized if cost-
5 effective Smart Grid capability were installed in the
6 relevant products reviewed by the Energy Star pro-
7 gram.

8 **SEC. 4. SMART GRID PEAK DEMAND REDUCTION GOALS.**

9 (a) GOALS.—Not later than one year after the date
10 of enactment of this Act, load serving entities, or States,
11 shall determine and publish peak demand reduction goals
12 for any load serving entities that have an applicable base-
13 line in excess of 250 megawatts.

14 (b) BASELINES.—(1) The Commission, in consulta-
15 tion with the Secretary, shall develop and publish, after
16 an opportunity for public comment, a methodology to pro-
17 vide for adjustments or normalization to a load serving
18 entity’s applicable baseline over time to reflect changes in
19 the number of customers served, weather conditions, gen-
20 eral economic conditions, and any other appropriate fac-
21 tors external to peak load management, as determined by
22 the Commission.

23 (2) The Commission shall support load serving enti-
24 ties in determining their applicable baselines, and in devel-
25 oping their peak demand reduction goals, including any

1 load serving entity with an applicable baseline of less than
2 250 megawatts that volunteers to participate in achieving
3 the purposes of this Act.

4 (3) The Secretary, in consultation with the Commis-
5 sion and the National Electric Reliability Corporation,
6 shall develop a system and rules for measurement and
7 verification of demand reductions.

8 (c) PEAK DEMAND REDUCTION GOALS.—(1) Peak
9 demand reduction goals may be established for an indi-
10 vidual load serving entity, or, at the determination of a
11 State or regional entity, by that State or regional entity
12 for a larger region that shares a common system peak de-
13 mand and for which peak demand reduction measures
14 would offer regional benefit.

15 (2) A State or regional entity establishing peak de-
16 mand reduction goals shall cooperate, as necessary and
17 appropriate, with the Commission, the Secretary, State
18 regulatory commissions, State energy offices, the National
19 Electric Reliability Corporation, and other relevant au-
20 thorities.

21 (3) In determining the applicable peak demand reduc-
22 tion goals, States and other jurisdictional entities may uti-
23 lize the results of the 2009 National Demand Response
24 Potential Assessment, as authorized by section 529 of the
25 Energy Independence and Security Act of 2007.

1 (4) The applicable peak demand reduction goals shall
2 provide that—

3 (A) load serving entities will reduce or mitigate
4 peak demand by a minimum percentage amount
5 from the applicable baseline to a lower peak demand
6 during calendar year 2012;

7 (B) load serving entities will reduce or mitigate
8 peak demand by a minimum percentage greater
9 amount from the applicable baseline to a lower peak
10 demand during calendar year 2015; and

11 (C) the minimum percentage reductions selected
12 are the percentage reductions that are realistically
13 achievable with an aggressive effort to deploy smart
14 grid and peak demand reduction technologies and
15 methods, including but not limited to those listed in
16 subsection (d).

17 (d) PLAN.—Each load serving entity shall prepare a
18 peak load reduction plan that demonstrates its ability to
19 meet each applicable goal by any or a combination of the
20 following options:

21 (1) Direct reduction in megawatts of peak de-
22 mand through energy efficiency measures with reli-
23 able and continued application during peak demand
24 periods.

1 (2) Demonstration that an amount of
2 megawatts equal to a stated portion of the applicable
3 goal is contractually committed to be available for
4 peak reduction through one or more of the following:

5 (A) Megawatts enrolled in demand re-
6 sponse programs.

7 (B) Megawatts subject to the ability of a
8 load serving entity to call on demand response
9 programs, smart appliances, smart electricity
10 storage devices, distributed generation resources
11 on the entity's customers' premises, or other
12 measures directly capable of actively,
13 controllably, reliably, and dynamically reducing
14 peak demand ("dynamic peak management con-
15 trol").

16 (C) Megawatts available from distributed
17 dynamic electricity storage under agreement
18 with the owner of that storage.

19 (D) Megawatts committed from
20 dispatchable distributed generation dem-
21 onstrated to be reliable under peak period con-
22 ditions.

23 (E) Megawatts available from smart appli-
24 ances and equipment with smart grid capability
25 available for direct control by the utility

1 through agreement with the customer owning
2 the appliances or equipment.

3 (F) Megawatts from a demonstrated and
4 assured minimum of distributed solar electric
5 generation capacity in instances where peak pe-
6 riod and peak load conditions are directly re-
7 lated to solar radiation and accompanying heat.

8 (3) If any of the methods listed in subpara-
9 graph (C), (D), or (E) of paragraph (2) are relied
10 upon to meet its peak demand reduction goals, the
11 load serving entity must demonstrate this capability
12 by operating a test during the applicable calendar
13 year.

14 (4) Nothing in this Act shall require the publi-
15 cation in peak demand reduction goals or in any
16 peak demand reduction plan of any information that
17 is confidential for competitive or other reasons or
18 that identifies individual customers.

19 (e) EXISTING AUTHORITY AND REQUIREMENTS.—
20 Nothing in this Act diminishes or supersedes any author-
21 ity of a State or political subdivision of a State to adopt
22 or enforce any law or regulation respecting peak load man-
23 agement, demand response, distributed storage, use of dis-
24 tributed generation, or the regulation of load serving enti-
25 ties. The Commission, in consultation with States having

1 such peak management, demand response and distributed
2 storage programs, shall to the maximum extent prac-
3 ticable, facilitate coordination between the Federal pro-
4 gram and such State programs.

5 (f) RELIEF.—The Commission may, for good cause,
6 grant relief to load serving entities from the requirements
7 of this section.

8 (g) OTHER LAWS.—Except as provided in sub-
9 sections (e) and (f), no law or regulation shall relieve any
10 person of any requirement otherwise applicable under this
11 section.

12 (h) COMPLIANCE.—(1) The Commission shall within
13 one year after the enactment of this Act establish a public
14 domain website where the Commission will provide infor-
15 mation and data demonstrating compliance by States, re-
16 gional entities, and load serving entities with this Act, in-
17 cluding the success of load serving entities in meeting ap-
18 plicable peak demand reduction goals.

19 (2) The Commission shall, by April 1 of each year
20 beginning in 2012, provide a report to Congress on com-
21 pliance with this Act and success in meeting applicable
22 peak demand reduction goals and, as appropriate, shall
23 make recommendations as to how to increase peak de-
24 mand reduction efforts.

1 (3) The Commission shall note in each such report
2 any State, political subdivision of a State, or load serving
3 entity that has failed to comply with this Act, or is not
4 a part of any region or group of load serving entities serv-
5 ing a region that has complied with this Act.

6 (4) The Commission shall have and exercise the au-
7 thority to take reasonable steps to modify the process of
8 establishing peak demand reduction goals and to accept
9 adjustments to them as appropriate when sought by load
10 serving entities.

11 (i) ASSISTANCE AND FUNDING.—

12 (1) ASSISTANCE.—The Secretary may make
13 grants to States and to other entities with respon-
14 sibilities to be carried out under the Act to offset
15 any documented costs of carrying out such respon-
16 sibilities to the extent such costs are deemed burden-
17 some or extraordinary by the Secretary.

18 (2) FUNDING.—There are authorized to be ap-
19 propriated sums as may be necessary to the Com-
20 mission, the Secretary, and the Administrator to
21 carry out the provisions of this Act.

1 **SEC. 5. REAUTHORIZATION OF ENERGY EFFICIENCY PUB-**
2 **LIC INFORMATION PROGRAM TO INCLUDE**
3 **SMART GRID INFORMATION.**

4 Section 134 of the Energy Policy Act of 2005 (42
5 U.S.C. 15832) is amended as follows:

6 (1) By amending the title heading to read
7 **“ENERGY EFFICIENCY AND SMART**
8 **GRID PUBLIC INFORMATION INITIA-**
9 **TIVE.”**.

10 (2) In subsection (a)(1) by striking “reduce en-
11 ergy consumption during the 4-year period beginning
12 on the date of enactment of this Act” and inserting
13 “increase energy efficiency and to adopt Smart Grid
14 technology and practices”.

15 (3) In subsection (a)(2) by striking “benefits to
16 consumers of reducing” and inserting “economic and
17 environmental benefits to consumers and the United
18 States of optimizing”.

19 (4) In subsection (a)(3) by inserting at the be-
20 ginning of that subsection “the effect of energy effi-
21 ciency and Smart Grid capability in reducing energy
22 and electricity prices throughout the economy, to-
23 gether with”.

24 (5) In subsection (a)(4) by redesignating sub-
25 paragraph (D) as (E), by striking “and” at the end

1 of subparagraph (C), and by inserting after subpara-
2 graph (C) the following:

3 “(D) purchasing and utilizing equipment
4 that includes smart grid features and capa-
5 bility; and”.

6 (6) In subsection (c), by striking “Not later
7 than July 1, 2009,” and inserting, “For each year
8 when appropriations pursuant to the authorization
9 in this section exceed \$10,000,000,”.

10 (7) In subsection (d) by striking “2010” and
11 inserting “2020”.

12 (8) In subsection (e) by striking “2010” and in-
13 serting “2020”.

14 **SEC. 6. INCLUSION OF SMART GRID FEATURES IN APPLI-**
15 **ANCE REBATE PROGRAM.**

16 (a) AMENDMENT.—Section 124 of the Energy Policy
17 Act of 2005 (42 U.S.C. 15821) is amended as follows:

18 (1) By amending the section heading to read
19 **“ENERGY EFFICIENT AND SMART APPLIANCE**
20 **REBATE PROGRAM.”**.

21 (2) By redesignating paragraphs (4) and (5) as
22 (5) and (6) and inserting after paragraph (3) the
23 following:

24 “(4) SMART APPLIANCE.—The term ‘smart ap-
25 pliance’ means a product that the Administrator of

1 the Environmental Protection Agency or the sec-
2 retary of Energy has determined qualifies for such
3 a designation in the Energy Star program pursuant
4 to section 213 of the Smart Grid Advancement Act
5 or that the Secretary or the Administrator has sepa-
6 rately determined includes the relevant Smart Grid
7 capabilities listed in section 1301 of the Energy
8 Independence and Security Act of 2007 (15 U.S.C.
9 17381).”.

10 (3) In subsection (b)(1) by inserting “and
11 smart” after “efficient” and by inserting after
12 “products” the first place it appears “, including
13 products designated as being smart appliances,”.

14 (4) In subsection (b)(3), by inserting “the ad-
15 ministration of” after “carry out”.

16 (5) In subsection (d), by inserting “the admin-
17 istration of” after “carrying out” and by inserting
18 “, and up to 100 percent of the value of the rebates
19 provided pursuant to this section” before the period
20 at the end.

21 (6) In subsection (e)(3), by inserting “with sep-
22 arate consideration as applicable if the product is
23 also a smart appliance,” after “Energy Star prod-
24 uct” the first place it appears and by inserting “or
25 smart appliance” before the period at the end.

1 (7) In subsection (f), by striking
2 “\$50,000,000” through the period at the end and
3 inserting “such sums as may be necessary for each
4 fiscal year from 2010 through 2015.”.

5 (b) TABLE OF CONTENTS.—The item relating to sec-
6 tion 124 in the table of contents for the Energy Policy
7 Act of 2005 (42 U.S.C. 15801 and following) is amended
8 to read as follows:

“Sec. 124. Energy efficient and smart appliance rebate program.”.

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