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112TH CONGRESS
1ST SESSION

# H. R. 2208

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

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IN THE HOUSE OF REPRESENTATIVES

JUNE 16, 2011

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

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# A BILL

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

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the ''Smart Grid Advancement Act of 2011''.

**SEC. 2. DEFINITIONS.**

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) APPLICABLE BASELINE.—The term ''applicable baseline'' means the average of the highest three annual peak demands a load-serving entity has experienced during the 5 years immediately prior to the date of enactment of this Act.

(3) COMMISSION.—The term ''Commission'' means the Federal Energy Regulatory Commission.

(4) LOAD-SERVING ENTITY.—The term ''load-serving entity'' means an entity that provides electricity directly to retail consumers with the responsibility to assure power quality and reliability, including such entities that are investor-owned, publicly owned, owned by rural electric cooperatives, or other entities.

(5) PEAK DEMAND.—The term ''peak demand'' means the highest point of electricity demand, net of any distributed electricity generation or storage from sources on the load-serving entity's customers' premises, during any hour on the system of a load-serving entity during a calendar year, expressed in megawatts (MW), or more than one such high point as a function of seasonal demand changes.

(6) PEAK DEMAND REDUCTION.—The term ''peak demand reduction'' means the reduction in annual peak demand as compared to a previous baseline year or period, expressed in megawatts (MW), whether accomplished by—

(A) diminishing the end-use requirements for electricity;

(B) use of locally stored energy or generated electricity to meet those requirements from distributed resources on the load-serving entity's customers' premises and without use of high-voltage transmission; or

(C) energy savings from efficient operation of the distribution grid resulting from the use of a Smart Grid.

(7) PEAK DEMAND REDUCTION PLAN.—The term ''peak demand reduction plan'' means a plan developed by or for a load-serving entity that it will implement to meet its peak demand reduction goals.

(8) PEAK PERIOD.—The term ''peak period'' means the time period on the system of a load-serving entity relative to peak demand that may warrant special measures or electricity resources to maintain system reliability while meeting peak demand.

(9) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(10) SMART GRID.—The term ''Smart Grid'' has the meaning provided by section 1301 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17381).

**SEC. 3. ASSESSMENT OF SMART GRID COST EFFECTIVENESS IN PRODUCTS.**

(a) ASSESSMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary and the Administrator shall each assess the potential for cost-effective integration of Smart Grid technologies and capabilities in all products that are reviewed by the Department of Energy and the Environmental Protection Agency, respectively, for potential designation as Energy Star products.

(b) ANALYSIS.—(1) Not later than 2 years after the date of enactment of this Act, the Secretary and the Administrator shall each prepare an analysis of the potential energy savings, greenhouse gas emission reductions, and electricity cost savings that could accrue for each of the products identified by the assessment in subsection (a) in the following optimal circumstances:

(A) The products possessed Smart Grid capability and interoperability that is tested and proven reliable.

(B) The products were utilized in an electricity utility service area which had Smart Grid capability and offered customers rate or program incentives to use the products.

(C) The utility's rates reflected national average costs, including average peak and valley seasonal and daily electricity costs.

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

(E) The utility avoided incremental investments and rate increases related to such savings.

(2) The analysis under paragraph (1) shall be considered the ''best case'' Smart Grid analysis. On the basis of such an analysis for each product, the Secretary and the Administrator shall determine whether the installation of Smart Grid capability for such a product would be cost effective. For purposes of this paragraph, the term ''cost effective'' means that the cumulative savings from using the product under the best case Smart Grid circumstances for a period of one-half of the product's expected useful life will be greater than the incremental cost of the Smart Grid features included in the product.

(3) To the extent that including Smart Grid capability in any products analyzed under paragraph (2) is found to be cost effective in the best case, the Secretary and the Administrator shall, not later than 3 years after the date of enactment of this Act take each of the following actions:

(A) Inform the manufacturer of such product of such finding of cost effectiveness.

(B) Assess the potential contributions the development and use of products with Smart Grid technologies bring to reducing peak demand and promoting grid stability.

(C) Assess the potential national energy savings and electricity cost savings that could be realized if Smart Grid potential were installed in the relevant products reviewed by the Energy Star program.

(D) Assess and identify options for providing consumers information on products with Smart Grid capabilities, including the necessary conditions for cost-effective savings.

(E) Submit a report to Congress summarizing the results of the assessment for each class of products, and presenting the potential energy and greenhouse gas savings that could result if Smart Grid

capability were installed and utilized on such products.

**SEC. 4. INCLUSIONS OF SMART GRID CAPABILITY ON APPLIANCE ENERGY GUIDE LABELS.**

Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding the following at the end:

''(J)(i) Not later than 1 year after the date of enactment of this subparagraph, the Federal Trade Commission shall initiate a rulemaking to consider making a special note in a prominent manner on any ENERGY GUIDE label for any product actually including Smart Grid capability that—

''(I) Smart Grid capability is a feature of that product;

''(II) the use and value of that feature depended on the Smart Grid capability of the utility system in which the product was installed and the active utilization of that feature by the customer; and

''(III) on a utility system with Smart Grid capability, the use of the product's Smart Grid capability could reduce the customer's cost of the product's annual op-

eration by an estimated dollar amount range representing the result of incremental energy and electricity cost savings that would result from the customer taking full advantage of such Smart Grid capability.

''(ii) Not later than 3 years after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).''.

**SEC. 5. SMART GRID PEAK DEMAND REDUCTION GOALS.**

(a) GOALS.—Not later than 1 year after the date of enactment of this section, each load-serving entity, or, at the option of the State, each State with respect to load-serving entities that the State regulates, shall determine and publish peak demand reduction goals for any load-serving entities that have an applicable baseline in excess of 250 megawatts.

(b) BASELINES.—(1) The Commission, in consultation with the Secretary and the Administrator, shall develop and publish, after an opportunity for public comment, but not later than 180 days after the date of enactment of this section, a methodology to provide for adjustments or normalization to a load-serving entity's applicable baseline over time to reflect changes in the number

of customers served, weather conditions, general economic conditions, and any other appropriate factors external to peak demand management, as determined by the Commission.

(2) The Commission shall support load-serving entities (including any load-serving entities with an applicable baseline of less than 250 megawatts that volunteer to participate) in determining their applicable baselines and in developing their peak demand reduction goals.

(3) The Secretary, in consultation with the Commission, the Administrator, and the North American Electric Reliability Corporation, shall develop a system and rules for measurement and verification of demand reductions.

(c) PEAK DEMAND REDUCTION GOALS.—(1) Peak demand reduction goals may be established for an individual load-serving entity, or, at the determination of a State, tribal, or regional entity, by that State, tribal, or regional entity for a larger region that shares a common system peak demand and for which peak demand reduction measures would offer regional benefit.

(2) A State or regional entity establishing peak demand reduction goals shall cooperate, as necessary and appropriate, with the Commission, the Secretary, State regulatory commissions, State energy offices, the North

American Electric Reliability Corporation, and other relevant authorities.

(3) In determining the applicable peak demand reduction goals—

(A) States and other jurisdictional entities may utilize the results of the 2009 National Assessment of Demand Response Potential, as authorized by section 571 of the National Energy Conservation Policy Act (42 U.S.C. 8279); and

(B) the relative economics of peak demand reduction and generation required to meet peak demand shall be evaluated in a neutral and objective manner.

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

(A) load-serving entities will reduce or mitigate peak demand by a minimum percentage amount from the applicable baseline to a lower peak demand during calendar year 2014;

(B) load-serving entities will reduce or mitigate peak demand by a minimum percentage greater amount from the applicable baseline to a lower peak demand during calendar year 2017; and

(C) the minimum percentage reductions established as peak demand reduction goals shall be the

maximum reductions that are realistically achievable with an aggressive effort to deploy Smart Grid and peak demand reduction technologies and methods, including those listed in subsection (d).

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

(1) Direct reduction in megawatts of peak demand through—

(A) energy efficiency measures (including efficient transmission wire technologies which significantly reduce line loss compared to traditional wire technology) with reliable and continued application during peak demand periods; or

(B) use of a Smart Grid.

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

(A) Megawatts enrolled in demand response programs.

(B) Megawatts subject to the ability of a load-serving entity to call on demand response programs, smart appliances, smart electricity or

energy storage devices, distributed generation resources on the entity's customers' premises, or other measures directly capable of actively, controllably, reliably, and dynamically reducing peak demand (''dynamic peak management control'').

(C) Megawatts available from distributed dynamic electricity or energy storage under agreement with the owner of that storage.

(D) Megawatts committed from dispatchable distributed generation demonstrated to be reliable under peak period conditions and in compliance with air quality regulations.

(E) Megawatts available from smart appliances and equipment with Smart Grid capability available for direct control by the utility through agreement with the customer owning the appliances or equipment or with a third party pursuant to such agreements.

(F) Megawatts from a demonstrated and assured minimum of distributed solar electric generation capacity in instances where peak period and peak demand conditions are directly

related to solar radiation and accompanying heat.

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

(4) Nothing in this section shall require the publication in peak demand reduction goals or in any peak demand reduction plan of any information that is confidential for competitive or other reasons or that identifies individual customers.

(e) EXISTING AUTHORITY AND REQUIREMENTS.—Nothing in this section diminishes or supersedes any authority of a State or political subdivision of a State to adopt or enforce any law or regulation respecting peak demand management, demand response, distributed energy storage, use of distributed generation, or the regulation of load-serving entities. The Commission, in consultation with States and Indian tribes having such peak demand management, demand response, and distributed energy storage programs, shall to the extent practicable, facilitate coordination between the Federal program and such State and tribal programs.

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

(g) OTHER LAWS.—Except as provided in subsections (e) and (f), no law or regulation shall relieve any person of any requirement otherwise applicable under this section.

(h) COMPLIANCE.—(1) The Commission shall, not later than 1 year after the date of enactment of this Act, establish a public website where the Commission shall provide information and data demonstrating compliance by States, Indian tribes, regional entities, and load-serving entities with this section, including the success of load-serving entities in meeting applicable peak demand reduction goals.

(2) The Commission shall, by April 1 of each year beginning in 2014, provide a report to Congress on compliance with this section and success in meeting applicable peak demand reduction goals and, as appropriate, shall make recommendations as to how to increase peak demand reduction efforts.

(3) The Commission shall note in each such report any State, political subdivision of a State, or load-serving entity that has failed to comply with this section, or is

not a part of any region or group of load-serving entities serving a region that has complied with this section.

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

(i) ASSISTANCE AND FUNDING.—

(1) ASSISTANCE.—The Secretary may make grants to States and to other entities with responsibilities to be carried out under the Act to offset any documented costs of carrying out such responsibilities to the extent such costs are deemed burdensome or extraordinary by the Secretary.

(2) FUNDING.—There are authorized to be appropriated such sums as may be necessary to the Commission, the Secretary, and the Administrator to carry out the provisions of this Act.

**SEC. 6. REAUTHORIZATION OF ENERGY EFFICIENCY PUBLIC INFORMATION PROGRAM TO INCLUDE SMART GRID INFORMATION.**

(a) IN GENERAL.—Section 134 of the Energy Policy Act of 2005 (42 U.S.C. 15832) is amended as follows:

(1) By amending the section heading to read as follows: ''**ENERGY EFFICIENCY AND SMART GRID PUBLIC INFORMATION INITIATIVE**''.

(2) In paragraph (1) of subsection (a), by striking ''reduce energy consumption during the 4-year period beginning on the date of enactment of this Act'' and inserting ''increase energy efficiency and to adopt Smart Grid technology and practices''.

(3) In paragraph (2) of subsection (a), by striking ''benefits to consumers of reducing'' and inserting ''economic and environmental benefits to consumers and the United States of optimizing''.

(4) In subsection (a), by inserting at the beginning of paragraph (3) ''the effect of energy efficiency and Smart Grid capability in reducing energy and electricity prices throughout the economy, together with''.

(5) In subsection (a)(4), by redesignating subparagraph (D) as subparagraph (E), by striking ''and'' at the end of subparagraph (C), and by inserting after subparagraph (C) the following:

''(D) purchasing and utilizing equipment that includes Smart Grid features and capability; and''.

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

(7) In subsection (d) by striking ''2010'' and inserting ''2022''.

(8) In subsection (e) by striking ''2010'' and inserting ''2022''.

(b) TABLE OF CONTENTS.—The item relating to section 134 in the table of contents for the Energy Policy Act of 2005 (42 U.S.C. 15801 and following) is amended to read as follows:

''Sec. 134. Energy efficiency and Smart Grid public information initiative.''.

**SEC. 7. INCLUSION OF SMART GRID FEATURES IN APPLIANCE REBATE PROGRAM.**

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

(1) By amending the section heading to read as follows: ''**ENERGY EFFICIENT AND SMART APPLIANCE REBATE PROGRAM**.''.

(2) By redesignating paragraphs (4) and (5) of subsection (a) as paragraphs (5) and (6), respectively, and inserting after paragraph (3) the following:

''(4) SMART APPLIANCE.—The term 'smart appliance' means a product that the Administrator of

the Environmental Protection Agency or the Secretary of Energy has determined qualifies for such a designation in the Energy Star program pursuant to section 3 of the Smart Grid Advancement Act of 2011, or that the Secretary or the Administrator has separately determined includes the relevant Smart Grid capabilities listed in section 1301 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17381).''.

(3) In subsection (b)(1) by inserting ''and smart'' after ''efficient'' and by inserting after ''products'' the first place it appears '', including products designated as being smart appliances''.

(4) In subsection (b)(3), by inserting ''the administration of'' after ''carry out''.

(5) In subsection (d), by inserting ''the administration of'' after ''carrying out'' and by inserting '', and up to 100 percent of the value of the rebates provided pursuant to this section'' before the period at the end.

(6) In subsection (e)(3), by inserting '', with separate consideration as applicable if the product is also a smart appliance,'' after ''Energy Star product'' the first place it appears and by inserting ''or smart appliance'' before the period at the end.

(7) In subsection (f), by striking ''$50,000,000'' through the period at the end and inserting ''$100,000,000 for each fiscal year from 2012 through 2017.''.

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

''Sec. 124. Energy efficient and smart appliance rebate program.''.

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