

111TH CONGRESS
2D SESSION

S. _____

To increase the quantity of solar photovoltaic electricity by providing rebates for the purchase and installation of an additional 10,000,000 solar roofs and additional solar water heating systems with a cumulative capacity of 10,000,000 gallons by 2019.

IN THE SENATE OF THE UNITED STATES

Mr. SANDERS (for himself, Mr. WHITEHOUSE, Mr. CARDIN, Mrs. GILLIBRAND, Mr. MERKLEY, Mr. LAUTENBERG, Mr. LEAHY, Mrs. BOXER, Mr. MENENDEZ, and Mr. SPECTER) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To increase the quantity of solar photovoltaic electricity by providing rebates for the purchase and installation of an additional 10,000,000 solar roofs and additional solar water heating systems with a cumulative capacity of 10,000,000 gallons by 2019.

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 “10 Million Solar Roofs
5 and 10 Million Gallons of Solar Water Heating Act of
6 2010”.

1 **SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1)(A) there is huge potential for increasing the
4 quantity of electricity produced in the United States
5 from distributed solar photovoltaics and solar water
6 heating systems;

7 (B) the use of solar photovoltaics on the roofs
8 of 10 percent of existing buildings could meet 70
9 percent of peak electric demand;

10 (C) a key barrier to increased deployment of
11 solar photovoltaic and hot water heating systems is
12 the upfront cost of capital, even though over time
13 the systems are cost-effective;

14 (2) investment in solar photovoltaics technology
15 will create economies of scale that will allow the
16 technology to deliver electricity at prices that are
17 competitive with electricity from fossil fuels;

18 (3) electricity produced from distributed solar
19 photovoltaics helps to reduce greenhouse gas emis-
20 sions, does not emit harmful air pollutants, such as
21 mercury, sulfur dioxide, and nitrogen oxides, uses
22 existing rooftop space, and does not require addi-
23 tional land for generation, thereby conserving nat-
24 ural resources and wildlife habitat;

25 (4) electricity produced from distributed solar
26 photovoltaics enhances national energy security and

1 helps to meet peak power demand without requiring
2 the construction and siting of new transmission in-
3 frastructure;

4 (5) investments in renewable energy stimulate
5 the development of green jobs in the United States
6 that provide substantial economic benefits;

7 (6)(A) rebate programs in several States have
8 been successful in increasing the quantity of solar
9 energy from distributed solar photovoltaics and solar
10 water heating systems;

11 (B) the State of California leads the United
12 States in installed solar photovoltaic systems and
13 has used rebate programs to promote the installation
14 of more than 500 megawatts of grid-connected solar
15 photovoltaics, with 226 megawatts installed during
16 the 3-year period ending on the date of enactment
17 of this Act due to the Solar Initiative of the State;

18 (C) the State of New Jersey is second in the
19 United States in installed solar photovoltaic systems
20 and has used incentive programs to achieve 90
21 megawatts of installed solar capacity;

22 (D) the State of Hawaii leads the United States
23 in solar water heating systems installed, and will re-
24 quire all new homes to have solar water heating sys-
25 tems starting in 2010, which is projected to save the

1 average household \$600 annually and reduce the oil
2 consumption of the State by 30,000 barrels in 2010
3 alone; and

4 (E) the State of Florida has used consumer and
5 business rebate programs for solar photovoltaic and
6 solar water heating systems and is second in the
7 United States in installed solar hot water systems;

8 (7) despite inventing solar technology, the
9 United States has fallen behind nations with less
10 solar resources because those nations have set in
11 place policies to promote solar energy, and the
12 United States now ranks fourth in installed solar be-
13 hind Germany, Spain, and Japan;

14 (8) there are more than 1,500,000 solar water
15 heating systems in the United States that rely on a
16 free fuel source, the sun, to provide hot water, and
17 there is enormous potential for additional solar hot
18 water systems to displace fossil fuel use in water
19 heating; and

20 (9) homes in the United States spend more
21 than \$13,000,000,000 on energy for water heating,
22 which is equivalent to 11.4 barrels of oil per home
23 and accounts for approximately 30 percent of the
24 carbon dioxide emissions of an average home, but
25 solar water heating systems can reduce the cost of

1 water heating and reduce residential carbon dioxide
2 emissions.

3 **SEC. 3. REBATES FOR PURCHASE AND INSTALLATION OF**
4 **PHOTOVOLTAIC SYSTEMS AND SOLAR WATER**
5 **HEATING SYSTEMS.**

6 (a) IN GENERAL.—The Secretary of Energy (referred
7 to in this Act as the “Secretary”) shall establish a pro-
8 gram under which the Secretary shall provide rebates to
9 eligible individuals or entities for the purchase and instal-
10 lation of solar photovoltaic systems and solar water heat-
11 ing systems for residential and commercial properties in
12 order to install, over the 10-year period beginning on the
13 date of enactment of this Act, at least—

14 (1) an additional 10,000,000 solar systems in
15 the United States (as compared to the number of
16 solar systems installed in the United States as of the
17 date of enactment of this Act) with a cumulative ca-
18 pacity of at least 30,000 megawatts; and

19 (2) an additional 200,000 solar water heating
20 systems in the United States (as compared to the
21 number of solar water heating systems installed in
22 the United States as of the date of enactment of this
23 Act) with a cumulative capacity of 10,000,000 gal-
24 lons.

25 (b) ELIGIBILITY.—

1 (1) IN GENERAL.—To be eligible for a rebate
2 under this section—

3 (A) the recipient of the rebate shall be a
4 homeowner, business, nonprofit entity, or State
5 or local government that purchased and in-
6 stalled a solar photovoltaic system or solar
7 water heating system for a property located in
8 the United States; and

9 (B) the total capacity of the solar photo-
10 voltaic system for the property shall not exceed
11 2 megawatts.

12 (2) OTHER INCENTIVES.—The Secretary shall
13 issue guidance to participating solar installers and
14 contractors to ensure that information is made avail-
15 able to rebate recipients on all available Federal,
16 State, local, and other incentives for energy effi-
17 ciency improvements that can be made in the build-
18 ings on the property at which the solar photovoltaic
19 or hot water heating system is being installed.

20 (3) OTHER ENTITIES.—After public review and
21 comment, the Secretary may identify other individ-
22 uals or entities located in the United States that
23 qualify for a rebate under this section.

24 (c) AMOUNTS.—

25 (1) SOLAR PHOTOVOLTAIC SYSTEMS.—

1 (A) IN GENERAL.—Subject to subpara-
 2 graph (B) and paragraph (3), the amount of a
 3 rebate provided to an eligible individual or enti-
 4 ty for the purchase and installation of a solar
 5 photovoltaic system for a property under this
 6 section shall be a rebate per watt of installed
 7 capacity not to exceed the following amounts:

Calendar year	Dollar per watt
2010	1.75
2011	1.75
2012	1.5
2013	1.25
2014	1
2015	1
2016	0.75
2017	0.75
2018	0.5
2019	0.5.

8 (B) ADJUSTMENTS.—The Secretary may
 9 adjust the maximum amounts described in sub-
 10 paragraph (A)—

- 11 (i) to ensure deployment consistent
- 12 with the purposes of this Act; and
- 13 (ii) to respond to projected and actual
- 14 market conditions.

15 (2) SOLAR WATER HEATING SYSTEMS.—

16 (A) IN GENERAL.—Subject to subpara-
 17 graph (B) and paragraph (3), the amount of a
 18 rebate provided to an eligible individual or enti-
 19 ty for the purchase and installation of a solar
 20 water heating system under this section shall be

1 not more than \$1 for each watt thermal-equiva-
2 lent of installed capacity during calendar year
3 2010.

4 (B) ADJUSTMENTS.—The Secretary shall
5 ensure that the maximum amount described in
6 subparagraph (A) decreases over time at a rate
7 that is similar to the schedule described in
8 paragraph (1)(A), and consistent with projected
9 and actual market conditions and the purposes
10 of this Act, for each watt thermal-equivalent of
11 installed capacity.

12 (3) MAXIMUM AMOUNT.—The total amount of a
13 rebate provided to an eligible individual or entity for
14 the purchase and installation of a solar photovoltaic
15 system or solar water heating system for a property
16 under this section shall not exceed 50 percent of the
17 remaining cost to the purchaser for the purchase
18 and installation of the system (after consideration of
19 all applicable Federal, State, and local incentives
20 and tax credits).

21 (d) RELATIONSHIP TO OTHER LAW.—The authority
22 provided under this section shall be in addition to any
23 other authority under which credits or other types of fi-
24 nancial assistance are provided for installation of a solar
25 photovoltaic or solar water heating system for a property.

1 (e) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated such sums as are nec-
3 essary to carry out this section.