

114TH CONGRESS  
1ST SESSION

# S. 1713

To require the Secretary of Energy to provide loans and grants for solar installations in low-income and underserved areas.

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IN THE SENATE OF THE UNITED STATES

JULY 7, 2015

Mr. SANDERS (for himself and Mr. MERKLEY) 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 require the Secretary of Energy to provide loans and grants for solar installations in low-income and underserved areas.

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 “Low-Income Solar  
5 Act”.

6 **SEC. 2. LOAN AND GRANT PROGRAM FOR SOLAR INSTALLA-**  
7 **TIONS IN LOW-INCOME AND UNDERSERVED**  
8 **AREAS.**

9 (a) DEFINITIONS.—In this section:

1           (1) ADMINISTRATIVE EXPENSES.—The term  
2           “administrative expenses” has such meaning as may  
3           be established by the Secretary.

4           (2) COMMUNITY SOLAR FACILITY.—The term  
5           “community solar facility” means a community-  
6           based distributed photovoltaic solar electricity gener-  
7           ating facility that, as determined by the Secretary—

8                   (A) is owned by a subscriber organization;

9                   (B) has a nameplate rating of 2 megawatts  
10           or less;

11                   (C) is located in or near a community of  
12           subscribers to whom the beneficial use of the  
13           electricity generated by the facility belongs; and

14                   (D) reserves not less than 25 percent of  
15           the quantity of electricity generated by the fa-  
16           cility for low-income households that are sub-  
17           scribers to the facility.

18           (3) GRANT-ELIGIBLE HOUSEHOLD.—The term  
19           “grant-eligible household” means a household the  
20           members of which—

21                   (A) earn an income equal to 80 percent or  
22           less of the applicable area median income, as  
23           defined for the applicable year by the Secretary  
24           of Housing and Urban Development; and

25                   (B) reside in an owner-occupied home.

1           (4) INDIAN TRIBE.—The term “Indian tribe”  
2 means any Indian tribe, band, nation, or other orga-  
3 nized group or community, including any Alaskan  
4 Native village or regional or village corporation (as  
5 defined in, or established pursuant to, the Alaska  
6 Native Claims Settlement Act (43 U.S.C. 1601 et  
7 seq.)), that is recognized as eligible for the special  
8 programs and services provided by the United States  
9 to Indians because of their status as Indians.

10           (5) LOAN-ELIGIBLE ENTITY.—The term “loan-  
11 eligible entity” means—

12                   (A) a nonprofit entity;

13                   (B) a unit of State, territorial, or local  
14 government;

15                   (C) an Indian tribe;

16                   (D) a rural community (as defined in sec-  
17 tion 343(a) of the Consolidated Farm and  
18 Rural Development Act (7 U.S.C. 1991(a));  
19 and

20                   (E) any other national or regional entity  
21 that—

22                           (i) deploys a safe, high-quality photo-  
23 voltaic solar electricity generating facility  
24 for consumers under a model that maxi-

1 mizes energy savings to those consumers;  
2 and

3 (ii) has experience, as determined by  
4 the Secretary, installing solar systems  
5 using a job training or community volun-  
6 teer-based installation model.

7 (6) LOW-INCOME HOUSEHOLD.—The term  
8 “low-income household” means a household with an  
9 income equal to 80 percent or less of the applicable  
10 area median income, as defined for the applicable  
11 year by the Secretary of Housing and Urban Devel-  
12 opment.

13 (7) MULTI-FAMILY AFFORDABLE HOUSING.—  
14 The term “multi-family affordable housing” means  
15 any federally subsidized affordable housing complex  
16 in which at least 50 percent of the units are reserved  
17 for low-income households.

18 (8) PHOTOVOLTAIC SOLAR ELECTRICITY GEN-  
19 ERATING FACILITY.—The term “photovoltaic solar  
20 electricity generating facility” means—

21 (A) a generator that creates electricity  
22 from light photons; and

23 (B) the accompanying hardware enabling  
24 that electricity to flow—

25 (i) onto the electric grid; or

1 (ii) into an energy storage device.

2 (9) SECRETARY.—The term “Secretary” means  
3 the Secretary of Energy.

4 (10) SUBSCRIBER.—The term “subscriber”  
5 means an electricity consumer who—

6 (A) owns a subscription, or an equivalent  
7 unit or share of the capacity or generation, of  
8 a community solar facility;

9 (B) has identified 1 or more physical loca-  
10 tions—

11 (i) to which the subscription will be  
12 attributed;

13 (ii) within the same electric utility  
14 service territory, or within the same geo-  
15 graphical area, as the community solar fa-  
16 cility, in accordance with applicable State  
17 and local law; and

18 (iii) that may change from time to  
19 time, subject to the condition that the  
20 physical location shall be within the geo-  
21 graphical limits allowed for a subscriber of  
22 the applicable community solar facility;  
23 and

1           (C) confirms the status of the consumer as  
2           a grant-eligible household for each applicable  
3           fiscal year.

4           (11) SUBSCRIPTION.—The term “subscription”  
5           means a share in the capacity, or a proportional in-  
6           terest in the solar electricity generation, of a com-  
7           munity solar facility.

8           (12) UNDERSERVED AREA.—The term “under-  
9           served area” means a geographical area with low or  
10          no photovoltaic solar deployment, as determined by  
11          the Secretary.

12          (b) ESTABLISHMENT OF LOAN AND GRANT PRO-  
13          GRAM.—

14           (1) IN GENERAL.—The Secretary shall establish  
15           a program under which the Secretary shall provide  
16           loans and grants to grant-eligible households and  
17           loan-eligible entities for use in accordance with this  
18           section.

19           (2) FUNDING.—

20           (A) IN GENERAL.—Subject to the avail-  
21           ability of appropriations, the Secretary shall  
22           make grants and issue loans in accordance with  
23           this subsection.

24           (B) LOANS.—Subject to subparagraph  
25           (D), not more than 50 percent of funds made

1 available under subparagraph (A) for a fiscal  
2 year shall be used to provide loans to loan-elig-  
3 ble entities for—

4 (i) community solar facilities; or

5 (ii) multi-family affordable housing  
6 solar installations.

7 (C) GRANTS.—After allocating amounts to  
8 carry out subparagraph (B), the Secretary shall  
9 use the remaining funds made available under  
10 subparagraph (A) for a fiscal year to provide  
11 grants to grant-eligible households—

12 (i) to pay the upfront costs of photo-  
13 voltaic solar electricity generating facilities;

14 or

15 (ii) for any other eligible use described  
16 in subsection (e).

17 (D) INCREASE IN GRANT AMOUNT.—Not-  
18 withstanding subparagraph (A), if the Secretary  
19 determines that more than 50 percent of the  
20 amounts described in that subparagraph are  
21 necessary during any of fiscal years 2016  
22 through 2030 to provide grants to encourage  
23 innovative financing and installation models to  
24 reach underserved markets, the Secretary may

1 use more than 50 percent of those amounts to  
2 provide those grants.

3 (3) GOALS AND ACCOUNTABILITY.—

4 (A) IN GENERAL.—In providing loans and  
5 grants under this subsection, the Secretary  
6 shall take such actions as may be necessary to  
7 ensure that—

8 (i) the assistance provided under this  
9 subsection is used to facilitate and encour-  
10 age innovative solar installation and fi-  
11 nancing models, under which the recipients  
12 develop and install photovoltaic solar elec-  
13 tricity generating facilities that provide sig-  
14 nificant savings to low-income households  
15 while providing job training or community  
16 engagement opportunities with respect to  
17 each solar system installed;

18 (ii) loan and grant recipients shall—

19 (I) have installed not less than  
20 600 kilowatts of photovoltaic solar en-  
21 ergy during the 2-year period pre-  
22 ceding the date on which the loan or  
23 grant is provided to ensure consumer  
24 protection; or



1 (II) until the goal described in  
2 subclause (I) is achieved, enter into  
3 partnership with an entity that—

4 (aa) has not less than 2  
5 years of experience deploying  
6 solar photovoltaic systems for  
7 low-income households in a man-  
8 ner that maximizes the savings  
9 benefits of solar access; and

10 (bb) was primarily respon-  
11 sible for the installation of at  
12 least 2 megawatts of solar energy  
13 during the 2-year period pre-  
14 ceeding the date on which the loan  
15 or grant is provided;

16 (iii) the photovoltaic solar electricity  
17 generating facilities installed using assist-  
18 ance provided under this subsection are  
19 safe, high-quality systems that comply with  
20 local building and safety codes and stand-  
21 ards;

22 (iv) the provision of assistance under  
23 this subsection establishes and fosters a  
24 partnership between the Federal Govern-  
25 ment and grant-eligible households and

1 loan-eligible entities, resulting in efficient  
2 development of solar installations with—

3 (I) minimal governmental inter-  
4 vention;

5 (II) limited governmental regula-  
6 tion; and

7 (III) significant involvement by  
8 nonprofit and private entities;

9 (v) solar projects installed using as-  
10 sistance provided under this subsection—

11 (I) shall include job training; and

12 (II) may include community par-  
13 ticipation in which job trainees and  
14 volunteers assist in the development of  
15 solar projects;

16 (vi) assistance provided under this  
17 subsection prioritizes development in—

18 (I) areas with low photovoltaic  
19 penetration;

20 (II) rural areas;

21 (III) Indian tribal areas; and

22 (IV) other underserved areas, in-  
23 cluding Alaskan Native and Appa-  
24 lachian communities;

1 (vii) solar systems are developed using  
2 assistance provided under this subsection  
3 on a geographically diverse basis among  
4 the grant-eligible households and loan-eli-  
5 ble entities; and

6 (viii) to the maximum extent prac-  
7 ticable, solar installation activities for  
8 which assistance is provided under this  
9 section leverage, or connect grant-eligible  
10 households to, federally or locally sub-  
11 sidized weatherization and energy effi-  
12 ciency efforts that meet or exceed local en-  
13 ergy efficiency standards.

14 (B) DETERMINATION.—If, at any time, the  
15 Secretary determines that the goals described in  
16 this paragraph cannot be met by providing as-  
17 sistance in accordance with this subsection, the  
18 Secretary shall immediately submit to the ap-  
19 propriate committees of Congress a written no-  
20 tice of that determination, including any pro-  
21 posed changes necessary to achieve the goals  
22 under this paragraph.

23 (4) COMMUNITY SOLAR FACILITIES.—

24 (A) IN GENERAL.—A community solar fa-  
25 cility may use a loan provided under this sub-

1 section only to offset the costs of generation  
2 and provision of solar energy to low-income  
3 households that are subscribers of the commu-  
4 nity solar facility.

5 (B) TRANSFER AND ASSIGNMENT OF SUB-  
6 SCRIPTIONS.—A subscription to a community  
7 solar facility that receives assistance under this  
8 subsection may be transferred or assigned by  
9 the subscriber to—

10 (i) any subscriber organization; or

11 (ii) any individual or entity who quali-  
12 fies to be a subscriber to that community  
13 solar facility.

14 (C) TREATMENT.—

15 (i) IN GENERAL.—No owner, oper-  
16 ator, or subscriber of a community solar  
17 facility that receives assistance under this  
18 subsection shall be subject to regulation by  
19 the Federal Energy Regulatory Commis-  
20 sion solely as a result of an interest in the  
21 community solar facility.

22 (ii) PRICE OF SUBSCRIPTION.—The  
23 price paid for any subscription to a com-  
24 munity solar facility shall not be subject to

1                   the regulation of any Federal department,  
2                   agency, or commission.

3           (c) NATIONAL COMPETITION.—

4                   (1) IN GENERAL.—The Secretary shall select  
5                   grant-eligible households and loan-eligible entities to  
6                   receive loans or grants under this section through a  
7                   nationwide competitive process, to be established by  
8                   the Secretary.

9                   (2) APPLICATIONS.—To be eligible to receive a  
10                  loan or grant under this section, a grant-eligible  
11                  household or loan-eligible entity shall submit to the  
12                  Secretary an application at such time, in such man-  
13                  ner, and containing such information as the Sec-  
14                  retary may require.

15                  (3) REQUIREMENTS.—In selecting grant-eligible  
16                  households and loan-eligible entities to receive loans  
17                  or grants under this section, the Secretary shall, at  
18                  a minimum—

19                           (A) require that the grant-eligible house-  
20                           hold or loan-eligible entity—

21                                   (i) enter into a grant or loan agree-  
22                                   ment, as applicable, under subsection (d);  
23                                   and

24                                   (ii) has obtained financial commit-  
25                                   ments (or has demonstrated the capacity

1 to obtain financial commitments) necessary  
2 to comply with that agreement;

3 (B) ensure that loans and grants are pro-  
4 vided, and amounts are used, in a manner that  
5 results in geographical diversity throughout the  
6 United States and within States, territories,  
7 and Indian tribal land among photovoltaic solar  
8 electricity generating facilities installed using  
9 the assistance provided under this section;

10 (C) to the maximum extent practicable, ex-  
11 pand photovoltaic solar energy availability to—

12 (i) geographical areas, throughout the  
13 United States and within States, terri-  
14 tories, and Indian tribal land, with—

15 (I) low photovoltaic solar pene-  
16 tration; or

17 (II) areas with a higher cost bur-  
18 den with respect to the deployment or  
19 installation of photovoltaic solar elec-  
20 tricity generating facilities;

21 (ii) rural communities;

22 (iii) Indian tribes; and

23 (iv) other underserved areas, including  
24 Appalachian and Alaska Native commu-  
25 nities;

1 (D) take into account the warranty period  
2 and quality of the applicable photovoltaic solar  
3 electricity generating facility equipment and any  
4 necessary interconnecting equipment; and

5 (E) ensure all calculations for estimated  
6 household energy savings are based solely on  
7 electricity offsets from the photovoltaic solar  
8 electricity generating facilities.

9 (d) LOAN AND GRANT AGREEMENTS.—

10 (1) IN GENERAL.—As a condition of receiving a  
11 loan or grant under this section, a grant-eligible  
12 household or loan-eligible entity shall enter into a  
13 loan or grant agreement, as applicable, with the Sec-  
14 retary.

15 (2) REQUIREMENTS.—A loan or grant agree-  
16 ment under this subsection shall—

17 (A) require the grant-eligible household or  
18 loan-eligible entity—

19 (i) to use the assistance provided  
20 under this section only in accordance with  
21 this section;

22 (ii) to install such number of solar  
23 systems with such defined capacity target  
24 (expressed in megawatts) as may be estab-  
25 lished by the Secretary, taking into consid-

1           eration the costs associated with carrying  
2           out loan or grant obligations in the areas  
3           in which the solar systems will be devel-  
4           oped;

5                   (iii) to use the assistance in a manner  
6           that leverages other sources of funding  
7           (other than loans or grants under this sec-  
8           tion), including private or public funds, in  
9           developing the solar projects; and

10                   (iv) to establish loan terms, if applica-  
11           ble, that maximize the benefit to the low-  
12           income households receiving solar energy  
13           from the loan-eligible entity;

14                   (B) require the Secretary to rescind any  
15           amounts provided to the grant-eligible house-  
16           hold or loan-eligible entity that are not used  
17           during the 2-year period beginning on the date  
18           on which the amounts are initially distributed  
19           to the grant-eligible household or loan-eligible  
20           entity, except in any case in which the grant-  
21           eligible household or loan-eligible entity has  
22           demonstrated to the satisfaction of the Sec-  
23           retary that a longer period, not to exceed 3  
24           years after the date of initial distribution, is  
25           necessary to deliver proposed services;



1 (C) for a loan provided under this section,  
2 establish—

3 (i) an interest rate equal to the then-  
4 current cost of funds to the Department of  
5 the Treasury for obligations of comparable  
6 maturity to the loan; and

7 (ii) a payout time that maximizes the  
8 savings to customers during the effective  
9 period of the agreement; and

10 (D) contain such other terms as the Sec-  
11 retary may require to ensure compliance with  
12 the requirements of this section.

13 (e) USE.—A grant-eligible household or loan-eligible  
14 entity shall use a loan or grant provided under this section  
15 only for the following activities, for the purpose of devel-  
16 oping new photovoltaic solar projects in the United States  
17 for low-income households and individuals who otherwise  
18 would likely be unable to afford or purchase photovoltaic  
19 solar systems:

20 (1) PHOTOVOLTAIC SOLAR EQUIPMENT AND IN-  
21 STALLATION.—To pay the costs of—

22 (A) solar equipment, including only photo-  
23 voltaic solar equipment and storage and all  
24 hardware or software components relating to  
25 safely producing, monitoring, and connecting

1 the system to the electric grid or onsite storage;  
2 and

3 (B) installation, including all direct labor  
4 associated with installing the photovoltaic solar  
5 equipment.

6 (2) JOB TRAINING.—To fund onsite job train-  
7 ing and community or volunteer engagement, includ-  
8 ing—

9 (A) only job training costs directly associ-  
10 ated with the solar projects funded under this  
11 section; and

12 (B) job training opportunities that may  
13 cover the full range of the solar value chain,  
14 such as marketing and outreach, customer ac-  
15 quisition, system design, and installation posi-  
16 tions.

17 (3) DEPLOYMENT SUPPORT.—To fund entities  
18 that have a demonstrated ability, as determined by  
19 the Secretary—

20 (A) to advise State and local entities re-  
21 garding low-income solar policy, regulatory, and  
22 program design to continue and expand the  
23 work of the entities;

24 (B) to foster community outreach and edu-  
25 cation regarding the benefits of photovoltaic

1 solar energy for low-income and disadvantaged  
2 communities; or

3 (C) to provide apprenticeship program op-  
4 portunities registered and approved by—

5 (i) the Office of Apprenticeship of the  
6 Department of Labor pursuant to part 29  
7 of title 29, Code of Federal Regulations (or  
8 successor regulations); or

9 (ii) a State Apprenticeship Agency  
10 recognized by that Office.

11 (4) ADMINISTRATION.—To pay the administra-  
12 tive expenses of the grant-eligible household or loan-  
13 eligible entity, including preproject feasibility efforts,  
14 in carrying out the duties of the Secretary associ-  
15 ated with delivering proposed services, subject to the  
16 requirement that not more than 15 percent of the  
17 total amount of the assistance provided to the grant-  
18 eligible household or loan-eligible entity under this  
19 section may be used for administrative expenses.

20 (f) COMPLIANCE.—

21 (1) RECORDS AND AUDITS.—During the period  
22 beginning on the date of initial distribution to a  
23 grant-eligible household or loan-eligible entity of a  
24 loan or grant under this section and ending on the  
25 termination date of the loan or grant under sub-

1 section (g), the grant-eligible household or loan-eligible  
2 ble entity shall maintain such records and adopt  
3 such administrative practices as the Secretary may  
4 require to ensure compliance with the requirements  
5 of this section and the applicable loan or grant  
6 agreement.

7 (2) DETERMINATION BY SECRETARY.—If the  
8 Secretary determines that a grant-eligible household  
9 or loan-eligible entity that receives a grant or loan  
10 under this section has not, during the 2-year period  
11 beginning on the date of initial distribution to the  
12 grant-eligible household or loan-eligible entity of the  
13 assistance (or such longer period as is established  
14 under subsection (d)(2)(B)), substantially fulfilled  
15 the obligations of the grant-eligible household or  
16 loan-eligible entity under the applicable loan or  
17 grant agreement, the Secretary shall—

18 (A) rescind the balance of any funds dis-  
19 tributed to, but not used by, the grant-eligible  
20 household or loan-eligible entity under this sec-  
21 tion; and

22 (B) use those amounts to provide other  
23 loans or grants in accordance with this section.

24 (g) TERMINATION.—The Secretary shall terminate a  
25 loan or grant provided under this section on a determina-

1 tion that the total amount of the loan or grant (excluding  
2 any interest, fees, and other earnings of the loan or grant)  
3 has been—

4           (1) fully expended by the grant-eligible house-  
5 hold or loan-eligible entity; or

6           (2) returned to the Secretary.

7       (h) REGULATIONS.—Not later than 90 days after the  
8 date of enactment of this Act, the Secretary shall promul-  
9 gate such regulations as the Secretary determines to be  
10 necessary to carry out this section, to take effect on the  
11 date of promulgation.

12       (i) FUNDING.—There is authorized to be appro-  
13 priated to the Secretary to carry out this section  
14 \$200,000,000 for each of fiscal years 2016 through 2030,  
15 to remain available until expended.

○