

117TH CONGRESS  
2D SESSION

# S. 4329

To require the Secretary of Energy to carry out a program to provide grants and loans to support and expand the domestic solar component manufacturing supply chain, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MAY 26, 2022

Ms. CORTEZ MASTO (for herself, Mrs. FEINSTEIN, Mr. BROWN, and Ms. BALDWIN) 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 carry out a program to provide grants and loans to support and expand the domestic solar component manufacturing supply chain, 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 “Reclaiming the Solar  
5 Supply Chain Act of 2022”.

6 **SEC. 2. SOLAR COMPONENT MANUFACTURING SUPPLY**  
7 **CHAIN ASSISTANCE.**

8 (a) **DEFINITIONS.**—In this section:

1           (1) ADVANCED SOLAR TECHNOLOGY.—The  
2 term “advanced solar technology” means any new or  
3 emerging technology, system, or mechanism, or com-  
4 ponent thereof, that uses solar radiation to generate  
5 electrical energy.

6           (2) DIRECT CURRENT OPTIMIZER.—The term  
7 “direct current optimizer” means a product that  
8 converts direct current electricity from 1 or more  
9 solar modules or advanced solar technologies to a  
10 different direct current voltage that is matched to  
11 the input requirements of an inverter.

12           (3) DIRECT LOAN.—The term “direct loan” has  
13 the meaning given the term in section 502 of the  
14 Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

15           (4) ELIGIBLE ENTITY.—The term “eligible enti-  
16 ty” means a private entity, including a manufac-  
17 turer, or a partnership of private entities.

18           (5) EMPLOYEE; EMPLOYER.—The terms “em-  
19 ployee” and “employer” have the meanings given  
20 such terms in section 2 of the National Labor Rela-  
21 tions Act (29 U.S.C. 152).

22           (6) FORCED LABOR.—The term “forced labor”  
23 has the meaning given the term in section 307 of the  
24 Tariff Act of 1930 (19 U.S.C. 1307).

1           (7) INTEGRATED MODULE.—The term “inte-  
2           grated module” means a solar module produced by  
3           a single manufacturer through the conversion of a  
4           photovoltaic wafer or other semiconductor material  
5           into an end product that—

6                   (A) is suitable to generate electricity when  
7                   exposed to sunlight; and

8                   (B) is ready for installation without addi-  
9                   tional manufacturing processes.

10          (8) INVERTER.—The term “inverter” means a  
11          product that converts direct current electricity from  
12          1 or more solar modules or advanced solar tech-  
13          nologies into alternating current electricity.

14          (9) LABOR ORGANIZATION.—The term “labor  
15          organization” has the meaning given the term in  
16          section 2 of the National Labor Relations Act (29  
17          U.S.C. 152).

18          (10) PHOTOVOLTAIC CELL.—The term “photo-  
19          voltaic cell” means the smallest semiconductor ele-  
20          ment of a solar module that performs the immediate  
21          conversion of light into electricity.

22          (11) PHOTOVOLTAIC WAFER.—The term “pho-  
23          tovoltaic wafer” means a thin slice, sheet, or layer  
24          of semiconductor material of at least 240 square  
25          centimeters produced by a single manufacturer—

1 (A)(i) directly from molten solar grade  
2 polysilicon or deposition of solar grade thin film  
3 semiconductor photon absorber layer; or

4 (ii) through formation of an ingot from  
5 molten polysilicon and subsequent slicing; and

6 (B) that comprises the substrate or ab-  
7 sorber layer of 1 or more photovoltaic cells.

8 (12) PROGRAM.—The term “program” means  
9 the program established under subsection (c).

10 (13) RACKING.—The term “racking” means a  
11 structural steel or aluminum support element, of any  
12 cross-section shape and that may be assembled from  
13 individually manufactured segments, spanning longi-  
14 tudinally, on which solar modules are supported.

15 (14) SECRETARY.—The term “Secretary”  
16 means the Secretary of Energy.

17 (15) SOLAR COMPONENT.—The term “solar  
18 component” means—

19 (A) an integrated module;

20 (B) a photovoltaic cell;

21 (C) a photovoltaic wafer;

22 (D) solar grade polysilicon;

23 (E) a solar module;

24 (F) an inverter;

25 (G) racking;

1 (H) a tracker;

2 (I) a direct current optimizer; and

3 (J) any advanced solar technology for  
4 which the Secretary has issued a written find-  
5 ing under subsection (g).

6 (16) SOLAR GRADE POLYSILICON.—The term  
7 “solar grade polysilicon” means silicon that—

8 (A) is suitable for use in photovoltaic man-  
9 ufacturing; and

10 (B) is purified to a minimum purity of  
11 99.999999 percent silicon by mass.

12 (17) SOLAR MODULE.—The term “solar mod-  
13 ule” means the connection and lamination of photo-  
14 voltaic cells into an environmentally protected final  
15 assembly that—

16 (A) is suitable to generate electricity when  
17 exposed to sunlight; and

18 (B) is ready for installation without an ad-  
19 ditional manufacturing process.

20 (18) TRACKER.—The term “tracker” means—

21 (A) a structural steel support on which  
22 solar modules are supported; and

23 (B) the mechanism by which that support  
24 is oriented to varying angles with respect to the  
25 position of the sun.

1           (19) TRADITIONAL SOLAR COMPONENT.—The  
2 term “traditional solar component” means—

- 3                   (A) an integrated module;  
4                   (B) a photovoltaic cell;  
5                   (C) a photovoltaic wafer;  
6                   (D) solar grade polysilicon; and  
7                   (E) a solar module.

8           (b) FINDINGS.—Congress finds that it is in the inter-  
9 est of the United States—

10                   (1) to have a viable solar component manufac-  
11 turing supply chain; and

12                   (2) to reduce the reliance of United States  
13 manufacturers on solar components made in the  
14 People’s Republic of China.

15           (c) ESTABLISHMENT.—Not later than 180 days after  
16 the date of enactment of this Act, the Secretary shall es-  
17 tablish a program to award grants and direct loans to eli-  
18 gible entities to carry out projects in the United States  
19 for—

20                   (1) the construction of new facilities that manu-  
21 facture solar components; and

22                   (2) retooling, retrofitting, or expanding existing  
23 facilities that manufacture, or have the ability to  
24 manufacture, solar components.

1 (d) APPLICATION.—To be eligible to receive a grant  
2 or direct loan under the program, an eligible entity shall  
3 submit to the Secretary an application at such time, in  
4 such manner, and containing such information as the Sec-  
5 retary may require.

6 (e) SELECTION.—In awarding grants and direct  
7 loans under the program, the Secretary shall take into  
8 consideration whether a project proposed by an eligible en-  
9 tity—

10 (1) is strategically located near manufacturers  
11 in the solar component manufacturing supply chain  
12 to create a geographic concentration of manufactur-  
13 ers in the solar component manufacturing supply  
14 chain;

15 (2) has potential to materially reduce the reli-  
16 ance of United States manufacturers on solar com-  
17 ponents, including photovoltaic cells and photovoltaic  
18 wafers, made in the People’s Republic of China;

19 (3) has potential for direct and indirect domes-  
20 tic job creation, including jobs for low-income com-  
21 munities, dislocated workers, and workers from  
22 groups that are underrepresented in the manufac-  
23 turing industry; and

1           (4) will result in economic development or eco-  
2           nomic diversification in economically distressed re-  
3           gions or localities.

4           (f) DIRECT LOAN CONDITIONS.—A direct loan made  
5           under the program shall—

6           (1) bear interest at a rate that does not exceed  
7           a level that the Secretary determines appropriate;  
8           and

9           (2) be subject to such other terms and condi-  
10          tions as the Secretary determines appropriate.

11          (g) ADVANCED SOLAR TECHNOLOGY FINDING.—The  
12          Secretary may issue a written finding that an advanced  
13          solar technology has significant potential to reduce the re-  
14          liance of United States manufacturers on traditional solar  
15          components made in the People’s Republic of China.

16          (h) PROHIBITION.—In carrying out the program, the  
17          Secretary may not award a grant or direct loan for a  
18          project that will source solar components from, or supply  
19          solar components to, facilities that use forced labor.

20          (i) COST SHARING FOR GRANTS.—Section 988(c) of  
21          the Energy Policy Act of 2005 (42 U.S.C. 16352(c)) shall  
22          apply to a grant made under the program.

23          (j) PREVAILING WAGES.—

24                 (1) IN GENERAL.—Any laborer or mechanic em-  
25                 ployed by any contractor or subcontractor in the



1 performance of work funded directly, or assisted in  
2 whole or in part, by the Federal Government pursu-  
3 ant to this section shall be paid wages at rates not  
4 less than those prevailing on work of a similar char-  
5 acter in the locality, as determined by the Secretary  
6 of Labor, in accordance with subchapter IV of chap-  
7 ter 31 of part A of subtitle II of title 40, United  
8 States Code (commonly referred to as the “Davis-  
9 Bacon Act”).

10 (2) **AUTHORITY.**—With respect to the labor  
11 standards specified in paragraph (1), the Secretary  
12 of Labor shall have the authority and functions set  
13 forth in Reorganization Plan Numbered 14 of 1950  
14 (5 U.S.C. App.) and section 3145 of title 40, United  
15 States Code.

16 (k) **LABOR-MANAGEMENT COOPERATION.**—

17 (1) **IN GENERAL.**—Notwithstanding any con-  
18 trary provision of law, including the National Labor  
19 Relations Act (29 U.S.C. 151 et seq.), this sub-  
20 section shall apply with respect to any funding re-  
21 cipient under this section who is an employer and  
22 any labor organization who represents, or seeks to  
23 represent, employees of such a funding recipient.

24 (2) **LABOR PEACE.**—Any employer receiving  
25 funds under this section shall recognize for purposes

1 of collective bargaining a labor organization that  
2 demonstrates that a majority of the employees in a  
3 unit appropriate for such purposes who perform or  
4 will perform work funded by this section have signed  
5 valid authorizations designating the labor organiza-  
6 tion as their bargaining representative and that no  
7 other individual or labor organization is currently  
8 certified or recognized as the exclusive representative  
9 of any of the employees in the unit who perform or  
10 will perform such work pursuant to the National  
11 Labor Relations Act (29 U.S.C. 151 et seq.). Upon  
12 such showing of majority status, the employer shall  
13 notify the labor organization and the National Labor  
14 Relations Board that the employer—

15 (A) has determined that the labor organi-  
16 zation represents a majority of the employees in  
17 such unit who perform or will perform such  
18 work; and

19 (B) is recognizing the labor organization  
20 as the exclusive representative of the employees  
21 in such unit who perform or will perform such  
22 work for the purposes of collective bargaining  
23 pursuant to section 9 of the National Labor Re-  
24 lations Act (29 U.S.C. 159).

1           (3) CERTIFICATION.—If a dispute over majority  
2 status or the appropriateness of the unit described  
3 in paragraph (2) arises between the employer and  
4 the labor organization, either party may request that  
5 the National Labor Relations Board investigate and  
6 resolve the dispute. If the Board finds that a major-  
7 ity of the employees in a unit appropriate for pur-  
8 poses of collective bargaining who perform or will  
9 perform work funded under this section has signed  
10 valid authorizations designating the labor organiza-  
11 tion as their bargaining representative and that no  
12 other individual or labor organization is currently  
13 certified or recognized as the exclusive representative  
14 of any of the employees in the unit who perform or  
15 will perform such work pursuant to the National  
16 Labor Relations Act, the Board shall not direct an  
17 election but shall certify the labor organization as  
18 the representative described in section 9(a) of the  
19 National Labor Relations Act (29 U.S.C. 159(a))  
20 with respect to such employees.

21           (4) COMMENCEMENT OF COLLECTIVE BAR-  
22 GAINING.—Not later than 10 days after an employer  
23 receiving funding under this section receives a writ-  
24 ten request for collective bargaining from a recog-  
25 nized or certified labor organization representing

1 employees who perform or will perform work funded  
2 under this section, or within such period as the par-  
3 ties agree upon, the labor organization and employer  
4 shall meet and commence to bargain collectively and  
5 shall make every reasonable effort to conclude and  
6 sign a collective bargaining agreement.

7 (5) MEDIATION.—If the parties have failed to  
8 reach an agreement before the date that is 90 days  
9 after the date on which bargaining is commenced  
10 under paragraph (4), or any later date agreed upon  
11 by both parties, either party may notify the Federal  
12 Mediation and Conciliation Service of the existence  
13 of a dispute and request mediation. Upon receiving  
14 such a request, the Director of the Federal Medi-  
15 ation and Conciliation Service shall promptly com-  
16 municate with the parties and use best efforts, by  
17 mediation and conciliation, to bring them to agree-  
18 ment.

19 (6) ARBITRATION.—

20 (A) IN GENERAL.—If the Federal Medi-  
21 ation and Conciliation Service is not able to  
22 bring the parties to agreement by mediation or  
23 conciliation before the date that is 30 days after  
24 the date on which a request for mediation is  
25 made under paragraph (5), or any later date

1           agreed upon by both parties, the Service shall  
2           refer the dispute to a tripartite arbitration  
3           panel established in accordance with such regu-  
4           lations as may be prescribed by the Service.

5           (B) MEMBERS.—A tripartite arbitration  
6           panel established under this paragraph with re-  
7           spect to a dispute shall be composed of 1 mem-  
8           ber selected by the labor organization, 1 mem-  
9           ber selected by the employer, and 1 neutral  
10          member mutually agreed to by the parties. The  
11          labor organization and employer shall each se-  
12          lect the members of the tripartite arbitration  
13          panel within 14 days of the Service’s referral.  
14          Any member not so selected by such date shall  
15          be selected by the Service.

16          (C) DISPUTE SETTLEMENT.—A majority  
17          of a tripartite arbitration panel established  
18          under this paragraph with respect to a dispute  
19          shall render a decision settling the dispute as  
20          soon as practicable, and (absent extraordinary  
21          circumstances or by agreement or permission of  
22          the parties) not later than 120 days after the  
23          establishment of such panel. Such a decision  
24          shall be binding upon the parties for a period  
25          of 2 years, unless amended during such period

1 by written consent of the parties. Such decision  
2 shall be based on—

3 (i) the employer's financial status and  
4 prospects;

5 (ii) the size and type of the employer's  
6 operations and business;

7 (iii) the employees' cost of living;

8 (iv) the employees' ability to sustain  
9 themselves, their families, and their de-  
10 pendants on the wages and benefits they  
11 earn from the employer; and

12 (v) the wages and benefits that other  
13 employers in the same business provide  
14 their employees.

15 (7) SUBCONTRACTORS.—Any employer receiv-  
16 ing funds under this section shall require any sub-  
17 contractor whose employees perform, or will per-  
18 form, work funded under this section to comply with  
19 the requirements set forth in this subsection.

20 (I) FUNDS.—

21 (1) AUTHORIZATION OF APPROPRIATIONS.—

22 There is authorized to be appropriated to the Sec-  
23 retary to carry out this section \$600,000,000 for  
24 each of fiscal years 2022 through 2026.

1           (2) COSTS OF DIRECT LOANS.—The Secretary  
2           may use any amounts made available under para-  
3           graph (1) to pay the costs of providing direct loans  
4           under the program.

5           (3) SET ASIDE.—Not less than \$20,000,000 of  
6           the amount made available to carry out this section  
7           each fiscal year under paragraph (1) shall be used  
8           to award grants or direct loans under the program  
9           to eligible entities that are small businesses located  
10          in economically disadvantaged communities.

○