

118TH CONGRESS
1ST SESSION

S. 1643

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.

IN THE SENATE OF THE UNITED STATES

MAY 17, 2023

Ms. CORTEZ MASTO (for herself, Ms. BALDWIN, Mr. BROWN, and Mrs. FEINSTEIN) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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 2023”.

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) NON-ALLIED FOREIGN NATION.—The term
 19 “non-allied foreign nation” has the meaning given
 20 the term “covered nation” in section 4872(d)(2) of
 21 title 10, United States Code.

22 (11) PHOTOVOLTAIC CELL.—The term “photo-
 23 voltaic cell” means the smallest semiconductor ele-
 24 ment of a solar module that performs the immediate
 25 conversion of light into electricity.

1 (12) PHOTOVOLTAIC WAFER.—The term “pho-
2 tovoltaic wafer” means a thin slice, sheet, or layer
3 of semiconductor material of at least 240 square
4 centimeters produced by a single manufacturer—

5 (A)(i) directly from molten solar grade
6 polysilicon or deposition of solar grade thin film
7 semiconductor photon absorber layer; or

8 (ii) through formation of an ingot from
9 molten polysilicon and subsequent slicing; and

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

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

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

19 (15) SECRETARY.—The term “Secretary”
20 means the Secretary of Energy.

21 (16) SOLAR COMPONENT.—The term “solar
22 component” means—

23 (A) an integrated module;

24 (B) a photovoltaic cell;

25 (C) a photovoltaic wafer;

- 1 (D) solar grade polysilicon;
- 2 (E) a solar module;
- 3 (F) an inverter;
- 4 (G) racking;
- 5 (H) a tracker;
- 6 (I) a direct current optimizer; and
- 7 (J) any advanced solar technology for
- 8 which the Secretary has issued a written find-
- 9 ing under subsection (g).

10 (17) SOLAR GRADE POLYSILICON.—The term

11 “solar grade polysilicon” means silicon that—

- 12 (A) is suitable for use in photovoltaic man-
- 13 ufacturing; and
- 14 (B) is purified to a minimum purity of
- 15 99.999999 percent silicon by mass.

16 (18) SOLAR MODULE.—The term “solar mod-

17 ule” means the connection and lamination of photo-

18 voltaic cells into an environmentally protected final

19 assembly that—

- 20 (A) is suitable to generate electricity when
- 21 exposed to sunlight; and
- 22 (B) is ready for installation without an ad-
- 23 ditional manufacturing process.

24 (19) TRACKER.—The term “tracker” means—

1 (A) a structural steel support on which
2 solar modules are supported; and

3 (B) the mechanism by which that support
4 is oriented to varying angles with respect to the
5 position of the sun.

6 (20) TRADITIONAL SOLAR COMPONENT.—The
7 term “traditional solar component” means—

8 (A) an integrated module;

9 (B) a photovoltaic cell;

10 (C) a photovoltaic wafer;

11 (D) solar grade polysilicon; and

12 (E) a solar module.

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

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

17 (2) to reduce the reliance of United States
18 manufacturers on solar components made in the
19 People’s Republic of China.

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

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

3 (2) retooling, retrofitting, or expanding existing
4 facilities that manufacture, or have the ability to
5 manufacture, solar components.

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

11 (e) SELECTION.—In awarding grants and direct
12 loans under the program, the Secretary shall take into
13 consideration whether a project proposed by an eligible en-
14 tity—

15 (1) is strategically located near manufacturers
16 in the solar component manufacturing supply chain
17 to create a geographic concentration of manufactur-
18 ers in the solar component manufacturing supply
19 chain;

20 (2) has potential to materially reduce the reli-
21 ance of United States manufacturers on solar com-
22 ponents, including solar grade polysilicon and photo-
23 voltaic wafers, made in a non-allied foreign nation;

24 (3) has potential for direct and indirect domes-
25 tic job creation, including jobs for low-income com-

1 munities, dislocated workers, and workers from
2 groups that are underrepresented in the manufac-
3 turing industry; and

4 (4) will result in economic development or eco-
5 nomic diversification in economically distressed re-
6 gions or localities.

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

9 (1) bear interest at a rate that does not exceed
10 a level that the Secretary determines appropriate;
11 and

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

14 (g) ADVANCED SOLAR TECHNOLOGY FINDING.—The
15 Secretary may issue a written finding that an advanced
16 solar technology has significant potential to reduce the re-
17 liance of United States manufacturers on traditional solar
18 components made in a non-allied foreign nation.

19 (h) PROHIBITION.—In carrying out the program, the
20 Secretary may not award a grant or direct loan for a
21 project that will source solar components from, or supply
22 solar components to, facilities that use forced labor or are
23 owned and operated by a non-allied foreign nation.

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

4 (j) PREVAILING WAGES.—

5 (1) IN GENERAL.—Any laborer or mechanic em-
6 ployed by any contractor or subcontractor in the
7 performance of work funded directly, or assisted in
8 whole or in part, by the Federal Government pursu-
9 ant to this section shall be paid wages at rates not
10 less than those prevailing on work of a similar char-
11 acter in the locality, as determined by the Secretary
12 of Labor, in accordance with subchapter IV of chap-
13 ter 31 of part A of subtitle II of title 40, United
14 States Code (commonly referred to as the “Davis-
15 Bacon Act”).

16 (2) AUTHORITY.—With respect to the labor
17 standards specified in paragraph (1), the Secretary
18 of Labor shall have the authority and functions set
19 forth in Reorganization Plan Numbered 14 of 1950
20 (5 U.S.C. App.) and section 3145 of title 40, United
21 States Code.

22 (k) LABOR-MANAGEMENT COOPERATION.—

23 (1) IN GENERAL.—Notwithstanding any con-
24 trary provision of law, including the National Labor
25 Relations Act (29 U.S.C. 151 et seq.), this sub-

1 section shall apply with respect to any funding re-
2 cipient under this section who is an employer and
3 any labor organization who represents, or seeks to
4 represent, employees of such a funding recipient.

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

21 (A) has determined that the labor organi-
22 zation represents a majority of the employees in
23 such unit who perform or will perform such
24 work; and

1 (B) is recognizing the labor organization
2 as the exclusive representative of the employees
3 in such unit who perform or will perform such
4 work for the purposes of collective bargaining
5 pursuant to section 9 of the National Labor Re-
6 lations Act (29 U.S.C. 159).

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

1 National Labor Relations Act (29 U.S.C. 159(a))
2 with respect to such employees.

3 (4) COMMENCEMENT OF COLLECTIVE BAR-
4 GAINING.—Not later than 10 days after an employer
5 receiving funding under this section receives a writ-
6 ten request for collective bargaining from a recog-
7 nized or certified labor organization representing
8 employees who perform or will perform work funded
9 under this section, or within such period as the par-
10 ties agree upon, the labor organization and employer
11 shall meet and commence to bargain collectively and
12 shall make every reasonable effort to conclude and
13 sign a collective bargaining agreement.

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

1 (6) ARBITRATION.—

2 (A) IN GENERAL.—If the Federal Medi-
3 ation and Conciliation Service is not able to
4 bring the parties to agreement by mediation or
5 conciliation before the date that is 30 days after
6 the date on which a request for mediation is
7 made under paragraph (5), or any later date
8 agreed upon by both parties, the Service shall
9 refer the dispute to a tripartite arbitration
10 panel established in accordance with such regu-
11 lations as may be prescribed by the Service.

12 (B) MEMBERS.—A tripartite arbitration
13 panel established under this paragraph with re-
14 spect to a dispute shall be composed of 1 mem-
15 ber selected by the labor organization, 1 mem-
16 ber selected by the employer, and 1 neutral
17 member mutually agreed to by the parties. The
18 labor organization and employer shall each se-
19 lect the members of the tripartite arbitration
20 panel within 14 days of the Service's referral.
21 Any member not so selected by such date shall
22 be selected by the Service.

23 (C) DISPUTE SETTLEMENT.—A majority
24 of a tripartite arbitration panel established
25 under this paragraph with respect to a dispute

1 shall render a decision settling the dispute as
2 soon as practicable, and (absent extraordinary
3 circumstances or by agreement or permission of
4 the parties) not later than 120 days after the
5 establishment of such panel. Such a decision
6 shall be binding upon the parties for a period
7 of 2 years, unless amended during such period
8 by written consent of the parties. Such decision
9 shall be based on—

10 (i) the employer's financial status and
11 prospects;

12 (ii) the size and type of the employer's
13 operations and business;

14 (iii) the employees' cost of living;

15 (iv) the employees' ability to sustain
16 themselves, their families, and their de-
17 pendants on the wages and benefits they
18 earn from the employer; and

19 (v) the wages and benefits that other
20 employers in the same business provide
21 their employees.

22 (7) SUBCONTRACTORS.—Any employer receiv-
23 ing funds under this section shall require any sub-
24 contractor whose employees perform, or will per-

1 form, work funded under this section to comply with
2 the requirements set forth in this subsection.

3 (l) FUNDS.—

4 (1) AUTHORIZATION OF APPROPRIATIONS.—

5 There is authorized to be appropriated to the Sec-
6 retary to carry out this section \$600,000,000 for
7 each of fiscal years 2024 through 2028.

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

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

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