

116TH CONGRESS  
1ST SESSION

# H. R. 4148

To require the Secretary of Labor, in consultation with the Secretary of Energy and Secretary of Education, to submit a report on current and future trends and shortages in the clean energy technology industry to achieve a clean energy economy, and to provide grants to establish and enhance training programs for any occupation or field of work for which a shortage is identified, and for other purposes.

---

## IN THE HOUSE OF REPRESENTATIVES

AUGUST 2, 2019

Mr. DELGADO (for himself, Mr. POCAN, Mr. SEAN PATRICK MALONEY of New York, Ms. WILD, Mr. CISNEROS, Ms. NORTON, Mr. HUFFMAN, Ms. MENG, Ms. JAYAPAL, Ms. HAALAND, Mr. COHEN, Mr. SCHNEIDER, Ms. CLARKE of New York, Mr. MORELLE, Mr. RYAN, Mr. SERRANO, Mr. CARBAJAL, Ms. OMAR, Mr. GARCÍA of Illinois, Mr. CARSON of Indiana, Mr. SIRES, Mr. THOMPSON of Mississippi, Mr. KILDEE, Mr. TONKO, Mr. SUOZZI, Mr. LARSON of Connecticut, Mr. LOWENTHAL, Mr. ESPAILLAT, Ms. SPANBERGER, Mr. HORSFORD, Mr. PRICE of North Carolina, Ms. BROWNLEY of California, Mr. RASKIN, Mr. RUPPERSBERGER, Mrs. TRAHAN, and Mr. ROUDA) introduced the following bill; which was referred to the Committee on Education and Labor

---

## A BILL

To require the Secretary of Labor, in consultation with the Secretary of Energy and Secretary of Education, to submit a report on current and future trends and shortages in the clean energy technology industry to achieve a clean energy economy, and to provide grants to establish and enhance training programs for any occupation or

field of work for which a shortage is identified, 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 “Green Jobs and Oppor-  
5 tunity Act”.

6 **SEC. 2. FINDINGS AND PURPOSE.**

7       (a) FINDINGS.—Congress finds the following:

8           (1) The 21st century has some of the highest  
9 recorded temperatures in known history.

10          (2) Scientists have high confidence that global  
11 temperatures will continue to rise for decades to  
12 come, largely due to greenhouse gases produced by  
13 human activities.

14          (3) According to the Intergovernmental Panel  
15 on Climate Change (IPCC), which includes more  
16 than 1,300 scientists from the United States and  
17 other countries, there will likely be a temperature  
18 rise of 2.5 to 10 degrees Fahrenheit over the next  
19 century.

20          (4) With only around 4.4 percent of the Earth’s  
21 population, World Bank studies have found that the  
22 United States is the second largest contributor of  
23 carbon dioxide emissions at 14.6 metric tons of CO<sub>2</sub>  
24 per capita.

1           (5) When the world gets hotter, it can fuel the  
2 proliferation of drought, typhoons, hurricanes, wild-  
3 fires, and general habitat change, and can affect the  
4 availability of food and water, among other issues.

5           (6) IPCC findings have revealed that the  
6 United States is projected to lose more than  
7 \$500,000,000,000 in annual economic output by the  
8 year 2100 from global warming.

9           (7) Additionally, the IPCC discovered that to  
10 avoid the most severe impacts of a changing climate,  
11 net-zero global emissions by 2050 will be required.

12           (8) According to the Brookings Institution, a  
13 clean economy would encompass a vast array of in-  
14 dustries and jobs directly involved in producing  
15 goods and providing services with an environmental  
16 benefit.

17           (9) Under the 2019 Clean Jobs America report  
18 by E2 (Environmental Entrepreneurs), it is esti-  
19 mated that 3.26 million workers are currently em-  
20 ployed in, or are engaged in closely related activities,  
21 to the clean economy.

22           (10) According to the International Labor Or-  
23 ganization, by 2030, it is projected that over 24 mil-  
24 lion new clean energy jobs will be needed globally to  
25 transition to a clean economy.

1           (11) To meet this clean energy agenda, invest-  
2         ing in job training will be crucial to ensuring the  
3         United States has a readied workforce.

4         (b) PURPOSE.—The purpose of this Act is to ensure  
5         the current United States workforce is prepared to transi-  
6         tion to a clean energy economy.

7         **SEC. 3. 21ST CENTURY WORKFORCE TRENDS AND SHORT-**  
8                     **AGES.**

9         (a) MONITORING.—The Secretary of Labor, in con-  
10         sultation with the Secretary of Energy, shall collect data  
11         to monitor current and future trends and shortages within  
12         the clean energy technology industry, which includes  
13         skilled technical personnel, electric power engineers, trans-  
14         mission engineers, and other occupations or fields of work  
15         under—

16                 (1) the agriculture and forestry industry;

17                 (2) the electric utility industry;

18                 (3) the manufacturing industry;

19                 (4) the wholesale trade industry;

20                 (5) the professional and business services indus-  
21         try; and

22                 (6) the manufacturing and operation and main-  
23         tenance industries for component parts of clean en-  
24         ergy technologies.

1 (b) REPORT ON CURRENT TRENDS AND SHORT-  
2 AGES.—Not later than 120 days after the date of enact-  
3 ment of this Act, and on a quarterly basis thereafter, the  
4 Secretary shall submit to Congress, based on the data col-  
5 lected under subsection (a), a report on—

6 (1) trends and shortages as of the date of such  
7 report, and recommendations to prepare the work-  
8 force to address such trends and shortages to meet  
9 the demands of a clean energy economy; and

10 (2) other recommendations the Secretary deter-  
11 mines appropriate.

12 (c) REPORT ON FUTURE TRENDS AND SHORT-  
13 AGES.—Not later than 1 year after the date of enactment  
14 of this Act, the Secretary shall submit to Congress, based  
15 on the data collected under subsection (a), a report on—

16 (1) trends and shortages projected in the next  
17 10 years, and recommendations to address such  
18 trends and shortages to prepare the workforce to  
19 meet the demands of a clean energy economy; and

20 (2) other recommendations the Secretary deter-  
21 mines appropriate.

22 **SEC. 4. TRAINEESHIP GRANTS.**

23 (a) GRANTS.—The Secretary, in consultation with  
24 the Secretary of Energy and the Secretary of Education,  
25 shall provide grants to eligible entities described in sub-

1 section (b) to establish training programs (including dis-  
2 tance learning) for any occupation or field of work for  
3 which a workforce shortage is identified or projected under  
4 subsection (b) or (c) of section 3.

5 (b) ELIGIBLE ENTITY.—To be eligible to receive a  
6 grant under this subsection, an entity shall be—

7 (1) an institution of higher education (as such  
8 term is defined in section 101(a) of the Higher Edu-  
9 cation Act of 1965 (20 U.S.C. 1001(a))), including  
10 a junior or community college (as such term is de-  
11 fined in section 312(f) of such Act (20 U.S.C.  
12 1058(f)));

13 (2) a postsecondary vocational institution (as  
14 such term is defined in section 102(c) of the Higher  
15 Education Act of 1965 (20 U.S.C. 1002(c)));

16 (3) an elementary school (as such term is de-  
17 fined in section 8101 of the Elementary Education  
18 Act of 1965 (20 U.S.C. 7801));

19 (4) a secondary school (as such term is defined  
20 in section 8101 of the Elementary Education Act of  
21 1965 (20 U.S.C. 7801));

22 (5) a Bureau-funded school (as such term is de-  
23 fined in section 1141 of the Education Amendments  
24 of 1978 (25 U.S.C. 2021));

25 (6) a labor organization;

1           (7) an entity that is registered under the Act of  
2           August 16, 1937 (commonly known as the “National  
3           Apprenticeship Act”; 50 Stat. 664, chapter 663; 29  
4           U.S.C. 50 et seq.) that pays all participants of an  
5           apprenticeship or on-the-job-training program com-  
6           pensation at least the higher of \$15 an hour or the  
7           applicable Federal, State, or local minimum wage in  
8           the location of the program; or

9           (8) an education and training provider that is  
10          listed as an eligible provider of training services for  
11          a program under section 122(d) of the Workforce  
12          Innovation Opportunity Act (29 U.S.C. 3152 (d))  
13          that pays all participants of an apprenticeship or on-  
14          the-job-training program compensation at least the  
15          higher of \$15 an hour or the applicable Federal,  
16          State, or local minimum wage in the location of the  
17          program.

18          (c) APPLICATION.—To be eligible to receive a grant  
19          from the Secretary under this section, an entity shall sub-  
20          mit an application to the Secretary containing such infor-  
21          mation as the Secretary may require, including but not  
22          limited to—

23                (1) a description of the training the entity  
24                would provide with funds from such a grant, how  
25                such training fulfills the workforce needs described

1 in subsection (b) or (c) of section 3, and that the  
2 workforce need being met is in an industry or occu-  
3 pation in the region in which the training is con-  
4 ducted;

5 (2) evidence of experience in conducting worker  
6 training programs in the clean energy technology  
7 sector;

8 (3) evidence that the program funded by such  
9 a grant will aid a participating individual in finding  
10 new or more advanced employment or training op-  
11 portunities in the clean energy technology sector and  
12 that such employment or training will help the indi-  
13 vidual achieve economic self-sufficiency; and

14 (4) information about the entity and any rel-  
15 evant partnerships with the Federal Government,  
16 other worker training entities, employers or em-  
17 ployer-sponsored organizations, State or local agen-  
18 cies, labor unions, educational institutions, commu-  
19 nity organizations, or faith-based organizations.

20 (d) PRIORITY.—In awarding grants under this sec-  
21 tion, the Secretary shall give priority to eligible entities  
22 that, in carrying out training programs under this section,  
23 give priority to the following:

24 (1) Displaced workers (particularly workers  
25 from the fossil fuel industry).



1           (2) Individuals with a barrier to employment  
2           (as such term is defined in section 3 of the Work-  
3           force Innovation and Opportunity Act (29 U.S.C.  
4           3102)).

5           (3) Veterans, members of the reserve compo-  
6           nents of the Armed Forces, or former members of  
7           such reserve components.

8           (4) Members of underrepresented populations.

9           (5) Frontline and vulnerable communities.

10          (6) Any other identified group the Secretary de-  
11          termines appropriate.

12          (e) GRANT PERIOD AND AMOUNT.—A grant awarded  
13          under this section shall be awarded for a one year period  
14          and may not exceed \$2,500,000.

15          (f) REPORTING.—Not later than two years after the  
16          date of enactment of this Act, the Secretary shall submit  
17          a report to Congress on the grant program carried out  
18          under this section, which shall include—

19                (1) a description of each eligible entity awarded  
20                a grant under this section;

21                (2) the amount of each such grant;

22                (3) the activities for which such grant was used;

23                (4) policy recommendations; and

24                (5) any other information the Secretary deter-  
25                mines appropriate.

1 **SEC. 5. SECRETARY'S NATIONAL ADVISORY COMMITTEE.**

2       The Secretary shall establish a National Advisory  
3 Committee on the Clean Energy Technology workforce, re-  
4 ferred to in this section as the “Advisory Committee”, to  
5 meet the objectives of this Act.

6           (1) COMPOSITION.—The Advisory Committee  
7 shall have—

8           (A) 24 voting members appointed by the  
9 Secretary, composed of—

10           (i) 6 representatives of employers who  
11 participate in the clean energy technology  
12 industry, including employers who partici-  
13 pate in a registered apprenticeship pro-  
14 gram in the clean energy technology indus-  
15 try sponsored by a joint labor-management  
16 partnership;

17           (ii) 6 representatives of labor organi-  
18 zations who represent workers in the clean  
19 energy technology industry;

20           (iii) 6 representatives of institutions  
21 of higher education, postsecondary voca-  
22 tional institutions, public high schools, an  
23 entity that carries out programs registered  
24 under the Act of August 16, 1937, and  
25 other education and training providers that  
26 are listed as an eligible provider of training

1 services for a program under section  
2 122(d) of the Workforce Innovation Oppor-  
3 tunity Act; and

4 (iv) 6 representatives of environmental  
5 and clean energy community organizations;  
6 and

7 (B) members who are ex officio nonvoting  
8 representatives from the Departments of Labor,  
9 Education, and Energy.

10 (2) QUALIFICATIONS.—The members shall be  
11 selected upon the basis of their experience and com-  
12 petence concerning workforce development and train-  
13 ing in the clean energy technology industry.

14 (3) TERMS.—The Secretary shall appoint the  
15 members for terms of 3 years.

16 (4) CHAIRPERSON.—The Secretary shall des-  
17 ignate one of the members of the Advisory Com-  
18 mittee to serve as Chairperson of the Advisory Com-  
19 mittee.

20 (5) MEETINGS.—The Advisory Committee shall  
21 hold not fewer than 2 meetings during each calendar  
22 year. All meetings of the Advisory Committee shall  
23 be open to the public. A transcript shall be kept of  
24 each meeting and made available for public inspec-  
25 tion.

1           (6) DUTIES.—The Advisory Committee shall  
2           advise, consult with, and make recommendations to  
3           the Secretary on matters relating to the administra-  
4           tion of this Act.

5 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

6           There are authorized to be appropriated to carry out  
7           this Act, \$260,000,000 for each of fiscal years 2020  
8           through 2022.

9 **SEC. 7. DEFINITIONS.**

10          In this Act:

11           (1) CLEAN ENERGY ECONOMY.—The term  
12           “clean energy economy” means United States energy  
13           production resulting in net-zero carbon emissions in  
14           accordance with the timeline described in the IPCC  
15           Report to limit global warming to 1.5 °C above pre-  
16           industrialized levels.

17           (2) CLEAN ENERGY TECHNOLOGY INDUSTRY.—  
18           The term “clean energy technology industry” in-  
19           cludes—

20                   (A) the renewable, clean, and low-carbon  
21                   electric power energy generation sector;

22                   (B) the electric transmission sector;

23                   (C) the energy storage sector; and

24                   (D) the energy efficiency sector.

1           (3) DEPARTMENT.—The term “Department”  
2 means the Department of Labor.

3           (4) DISTANCE LEARNING.—The term “distance  
4 learning” means the transmission of educational or  
5 instructional programming to geographically dis-  
6 persed individuals and groups via telecommuni-  
7 cations.

8           (5) FRONTLINE AND VULNERABLE COMMU-  
9 NITIES.—The term “frontline and vulnerable com-  
10 munities” means deindustrialized communities, de-  
11 populated rural communities, and communities  
12 where indigenous people, people of color, migrants,  
13 low-income workers, women, the elderly, people with  
14 disabilities, and the youth are disproportionately im-  
15 pacted.

16           (6) HIGH SCHOOL.—The term “high school”  
17 has the meaning given the term in section 8101 of  
18 the Elementary and Secondary Education Act of  
19 1965 (20 U.S.C. 7801).

20           (7) IPCC REPORT.—The term “IPCC Report”  
21 means the report entitled “IPCC, 2018: Global  
22 warming of 1.5 °C. An IPCC Special Report on the  
23 impacts of global warming of 1.5 °C above pre-indus-  
24 trial levels and related global greenhouse gas emis-  
25 sion pathways, in the context of strengthening the

1 global response to the threat of climate change, sus-  
2 tainable development, and efforts to eradicate pov-  
3 erty” published by the Intergovernmental Panel on  
4 Climate Change on October 8, 2018.

5 (8) SECRETARY.—The term “Secretary” means  
6 the Secretary of Labor.

7 (9) SHORTAGES.—The term “shortages” refers  
8 to when workforce demand outweighs supply within  
9 an occupation or field of work.

10 (10) SKILLED TECHNICAL PERSONNEL.—The  
11 term “skilled technical personnel” means—

12 (A) journey- and apprentice-level workers  
13 (including such workers who work in full supply  
14 chain and manufacturing, and operation and  
15 maintenance), who are enrolled in, or have com-  
16 pleted, a registered apprenticeship program  
17 under the Act of August 16, 1937 (commonly  
18 known as the “National Apprenticeship Act”;  
19 50 Stat. 664, chapter 663; 29 U.S.C. 50 et  
20 seq.); and

21 (B) other skilled workers in the clean en-  
22 ergy technology industry, as determined by the  
23 Secretary.

24 (11) TREND.—The term “trend” refers to jobs  
25 being created, jobs being eliminated, lifespan of jobs,

1 required competencies of jobs, skill gaps of jobs, geo-  
2 graphical locations of jobs, ongoing training for jobs,  
3 cleanliness of jobs (based on greenhouse gas reduc-  
4 tions), current job openings, projected job openings,  
5 current wages of jobs, projected wages of jobs,  
6 unionization rates of jobs, and other information the  
7 Secretary determines appropriate.

8 (12) UNDERREPRESENTED POPULATIONS.—  
9 The term “underrepresented populations” is a group  
10 that comprises less than 25 percent of the individ-  
11 uals employed in each occupation or field of work  
12 within the clean-energy technology industry.

○