

116TH CONGRESS
1ST SESSION

S. _____

To promote a 21st century energy workforce, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. HEINRICH introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To promote a 21st century energy workforce, 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 “Clean Energy Jobs
5 Act of 2019”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) APPRENTICESHIP.—The term “apprentice-
9 ship” means an apprenticeship registered under the
10 Act of August 16, 1937 (29 U.S.C. 50 et seq.) (com-
11 monly known as the “National Apprenticeship Act”).

1 (2) EDUCATIONAL INSTITUTION.—The term
2 “educational institution” means—

3 (A) an elementary school;

4 (B) a secondary school; and

5 (C) an institution of higher education.

6 (3) ELEMENTARY SCHOOL.—The term “elemen-
7 tary school” has the meaning given the term in sec-
8 tion 8101 of the Elementary and Secondary Edu-
9 cation Act of 1965 (20 U.S.C. 7801).

10 (4) ENERGY-RELATED INDUSTRY.—The term
11 “energy-related industry” includes each of the fol-
12 lowing industries:

13 (A) The energy efficiency industry.

14 (B) The renewable energy industry.

15 (C) The chemical manufacturing industry.

16 (D) The utility industry.

17 (E) The alternative fuels industry.

18 (F) The pipeline industry.

19 (G) The nuclear energy industry.

20 (H) The oil and gas industry.

21 (I) The coal industry.

22 (5) INSTITUTION OF HIGHER EDUCATION.—The
23 term “institution of higher education” has the
24 meaning given the term in section 102 of the Higher
25 Education Act of 1965 (20 U.S.C. 1002).

1 (6) LABOR ORGANIZATION.—The term “labor
2 organization” has the meaning given the term in
3 section 2 of the National Labor Relations Act (29
4 U.S.C. 152).

5 (7) LOCAL WORKFORCE DEVELOPMENT
6 BOARD.—The term “local workforce development
7 board” has the meaning given the term “local
8 board” in section 3 of the Workforce Innovation and
9 Opportunity Act (29 U.S.C. 3102).

10 (8) MINORITY-SERVING INSTITUTION.—The
11 term “minority-serving institution” means—

12 (A) a Hispanic-serving institution (as de-
13 fined in section 502(a) of the Higher Education
14 Act of 1965 (20 U.S.C. 1101a(a)));

15 (B) a Tribal College or University (as de-
16 fined in section 316(b) of the Higher Education
17 Act of 1965 (20 U.S.C. 1059c(b)));

18 (C) an Alaska Native-serving institution
19 (as defined in section 317(b) of the Higher
20 Education Act of 1965 (20 U.S.C. 1059d(b)));

21 (D) a Native Hawaiian-serving institution
22 (as defined in section 317(b) of the Higher
23 Education Act of 1965 (20 U.S.C. 1059d(b)));

1 (E) a Predominantly Black Institution (as
2 defined in section 318(b) of the Higher Edu-
3 cation Act of 1965 (20 U.S.C. 1059e(b)));

4 (F) a Native American-serving nontribal
5 institution (as defined in section 319(b) of the
6 Higher Education Act of 1965 (20 U.S.C.
7 1059f(b))); and

8 (G) an Asian American and Native Amer-
9 ican Pacific Islander-serving institution (as de-
10 fined in section 320(b) of the Higher Education
11 Act of 1965 (20 U.S.C. 1059g(b))).

12 (9) SECONDARY SCHOOL.—The term “sec-
13 ondary school” has the meaning given the term in
14 section 8101 of the Elementary and Secondary Edu-
15 cation Act of 1965 (20 U.S.C. 7801).

16 (10) SECRETARY.—The term “Secretary”
17 means the Secretary of Energy.

18 (11) STATE WORKFORCE DEVELOPMENT
19 BOARD.—The term “State workforce development
20 board” has the meaning given the term “State
21 board” in section 3 of the Workforce Innovation and
22 Opportunity Act (29 U.S.C. 3102).

23 (12) WORKFORCE DEVELOPMENT PROGRAM.—
24 The term “workforce development program” has the
25 meaning given the term in section 3 of the Work-

1 force Innovation and Opportunity Act (29 U.S.C.
2 3102).

3 **SEC. 3. ENERGY WORKFORCE DEVELOPMENT PROGRAM.**

4 (a) ESTABLISHMENT.—The Secretary shall establish
5 and carry out a comprehensive and nationwide program
6 (referred to in this section as the “program”) in accord-
7 ance with this section to improve education and training
8 for jobs in energy-related industries (including manufac-
9 turing, engineering, construction, and retrofitting jobs in
10 energy-related industries) to increase the number of
11 skilled workers trained to work in energy-related indus-
12 tries.

13 (b) WORKFORCE DEVELOPMENT.—

14 (1) IN GENERAL.—In carrying out the program,
15 the Secretary shall—

16 (A) encourage underrepresented groups,
17 including religious and ethnic minorities,
18 women, veterans, individuals with disabilities,
19 unemployed energy workers, and
20 socioeconomically disadvantaged individuals, to
21 enter into science, technology, engineering, and
22 mathematics fields;

23 (B) encourage educational institutions to
24 provide students with mentors and equip stu-
25 dents with the skills, training, and technical ex-

1 pertise necessary to fill the employment oppor-
2 tunities vital to managing and operating en-
3 ergy-related industries;

4 (C) provide internships, fellowships,
5 traineeships, apprenticeships, and employment
6 at the Department of Energy, including at Na-
7 tional Laboratories;

8 (D) provide research grants and technical
9 assistance to institutions of higher education,
10 with priority given to minority-serving institu-
11 tions;

12 (E) provide students and other candidates
13 for employment with the necessary skills and
14 certifications for skilled, semiskilled, and highly
15 skilled jobs in energy-related industries;

16 (F) ensure that the program is in align-
17 ment with the Minorities in Energy Initiative of
18 the Department of Energy;

19 (G) engage with other programs and lab-
20 oratories in the Department of Energy that are
21 carrying out the Minorities in Energy Initiative
22 of the Department of Energy; and

23 (H) to the maximum extent practicable,
24 collaborate with and support State workforce

1 development programs to maximize the effi-
2 ciency of the program.

3 (2) PRIORITY.—In carrying out the program,
4 the Secretary shall prioritize the education and
5 training of underrepresented groups for jobs in en-
6 ergy-related industries.

7 (c) DIRECT ASSISTANCE.—

8 (1) IN GENERAL.—To carry out the program,
9 the Secretary shall provide direct assistance (includ-
10 ing financial assistance awards, technical expertise,
11 and guidance on internships) to educational institu-
12 tions, local workforce development boards, State
13 workforce development boards, nonprofit organiza-
14 tions, labor organizations, and apprenticeship pro-
15 grams.

16 (2) DISTRIBUTION.—The Secretary shall dis-
17 tribute direct assistance under paragraph (1) in a
18 manner that—

19 (A) is proportional to the needs of, and de-
20 mand for jobs in, an energy-related industry;
21 and

22 (B) is consistent with the information ob-
23 tained under subsections (e)(3) and (j).

24 (d) RESOURCE CENTER.—The Secretary shall estab-
25 lish an online resource center—

1 (1) to maintain and update information and re-
2 sources on training programs for jobs in energy-re-
3 lated industries (including manufacturing, engineer-
4 ing, construction, and retrofitting jobs in energy-re-
5 lated industries); and

6 (2) as a resource for educational institutions,
7 local workforce development boards, State workforce
8 development boards, nonprofit organizations, labor
9 organizations, and apprenticeship programs that
10 would like to develop and implement training pro-
11 grams for the jobs described in paragraph (1).

12 (e) COLLABORATION AND REPORT.—In carrying out
13 the program, the Secretary shall—

14 (1) collaborate with educational institutions,
15 local workforce development boards, State workforce
16 development boards, nonprofit organizations, labor
17 organizations, apprenticeship programs, and energy-
18 related industries;

19 (2) to facilitate the sharing of best practices
20 and approaches that best suit local, State, and na-
21 tional needs, encourage and foster collaboration,
22 mentorship, and partnership between—

23 (A) industry, local workforce development
24 boards, State workforce development boards,
25 nonprofit organizations, labor organizations,

1 and apprenticeship programs that provide effective
2 training programs for jobs in energy-related
3 industries; and

4 (B) educational institutions that seek to
5 establish those programs; and

6 (3) collaborate with the Commissioner of the
7 Bureau of Labor Statistics, the Secretary of Commerce,
8 the Director of the Bureau of the Census,
9 and energy-related industries—

10 (A) to develop a comprehensive and detailed
11 understanding of the workforce needs of
12 and job opportunities in energy-related industries,
13 by State and by region; and

14 (B) to publish an annual report on job creation
15 in the energy-related industries described
16 in subparagraphs (A) through (L) of subsection
17 (j)(2).

18 (f) GUIDELINES FOR EDUCATIONAL INSTITU-
19 TIONS.—

20 (1) IN GENERAL.—The Secretary, in collaboration
21 with the Secretary of Education, the Secretary
22 of Commerce, the Secretary of Labor, and the Director
23 of the National Science Foundation, shall develop
24 and provide to educational institutions voluntary
25 guidelines or best practices for providing

1 graduates with skills necessary for jobs in energy-re-
2 lated industries (including manufacturing, engineer-
3 ing, construction, and retrofitting jobs in energy-re-
4 lated industries).

5 (2) INPUT FROM INDUSTRY.—In carrying out
6 paragraph (1), the Secretary shall solicit input from
7 energy-related industries.

8 (3) ENERGY EFFICIENCY AND CONSERVATION
9 INITIATIVES.—The voluntary guidelines or best prac-
10 tices developed under paragraph (1) shall include
11 grade-specific guidelines for teaching students and
12 families of students energy efficiency technology,
13 manufacturing efficiency technology, community en-
14 ergy resiliency, and conservation initiatives.

15 (4) STEM EDUCATION.—The guidelines or best
16 practices developed under paragraph (1) shall pro-
17 mote education in science, technology, engineering,
18 and mathematics as it relates to job opportunities in
19 the energy-related industries described in subsection
20 (j)(2).

21 (g) OUTREACH TO MINORITY-SERVING INSTITU-
22 TIONS.—The Secretary shall—

23 (1) give special consideration to increasing out-
24 reach to minority-serving institutions;

1 (2) make resources available to minority-serving
2 institutions to increase the number of skilled minori-
3 ties and women qualified for jobs in energy-related
4 industries (including manufacturing, engineering,
5 construction, and retrofitting jobs in energy-related
6 industries);

7 (3) encourage energy-related industries to im-
8 prove opportunities for students of minority-serving
9 institutions to participate in industry internships
10 and cooperative work-study programs; and

11 (4) work with the laboratories of the Depart-
12 ment of Energy to increase the participation of
13 underrepresented groups in internships, fellowships,
14 training programs, and employment at those labora-
15 tories.

16 (h) OUTREACH TO DISPLACED AND UNEMPLOYED
17 ENERGY WORKERS.—The Secretary shall—

18 (1) give special consideration to increasing out-
19 reach to employers and job trainers preparing dis-
20 placed and unemployed energy workers for emerging
21 jobs in energy-related industries (including manufac-
22 turing, engineering, construction, and retrofitting
23 jobs in energy-related industries);

24 (2) make resources available to institutions that
25 serve displaced and unemployed energy workers to

1 increase the number of individuals trained for jobs
2 in energy-related industries (including manufac-
3 turing, engineering, construction, and retrofitting
4 jobs in energy-related industries); and

5 (3) encourage energy-related industries to im-
6 prove opportunities for displaced and unemployed
7 energy workers to participate in industry internships
8 and cooperative work-study programs.

9 (i) ENROLLMENT IN TRAINING AND APPRENTICE-
10 SHIP PROGRAMS.—The Secretary shall collaborate with
11 industry, local workforce development boards, State work-
12 force development boards, nonprofit organizations, labor
13 organizations, and apprenticeship programs to help iden-
14 tify students and other candidates, including from under-
15 represented communities such as minorities, women, and
16 veterans, to enroll in training and apprenticeship pro-
17 grams for jobs in energy-related industries.

18 (j) GUIDELINES TO DEVELOP SKILLS FOR AN EN-
19 ERGY INDUSTRY WORKFORCE.—The Secretary shall, in
20 collaboration with energy-related industries—

21 (1) identify the areas within each energy-related
22 industry that has the greatest demand for workers;
23 and

1 (2) develop guidelines for the skills necessary to
2 work in each of the following energy-related indus-
3 tries:

4 (A) The energy efficiency industry, includ-
5 ing work in conservation, weatherization, retro-
6 fitting, and inspection and auditing of the in-
7 dustry.

8 (B) The renewable energy industry, includ-
9 ing work in the development, engineering, man-
10 ufacturing, and production of renewable energy
11 from renewable energy sources (such as solar,
12 hydropower, wind, and geothermal energy).

13 (C) The community energy resiliency in-
14 dustry, including work in installation of rooftop
15 solar, battery storage, and microgrid tech-
16 nologies.

17 (D) The fuel cell and hydrogen energy in-
18 dustry.

19 (E) The manufacturing industry, including
20 work in operations technology, operations and
21 design in additive manufacturing, 3-dimensional
22 printing, advanced composites and advanced
23 aluminum and other metal alloys, industrial en-
24 ergy efficiency management systems (including

1 power electronics), and other innovative tech-
2 nologies.

3 (F) The chemical manufacturing industry,
4 including work in construction (such as welding,
5 pipefitting, and tool and die making) and in the
6 position of instrument and electrical technician,
7 machinist, chemical process operator, engineer,
8 quality and safety professional, or reliability en-
9 gineer.

10 (G) The utility industry, including work in
11 the generation, transmission, and distribution
12 of electricity and natural gas, and in the posi-
13 tion of electrician, dispatcher, utility technician,
14 operator, lineworker, engineer, scientist, or in-
15 formation technology specialist.

16 (H) The alternative fuels industry, includ-
17 ing work in biofuel development and production.

18 (I) The pipeline industry, including work
19 in pipeline construction and maintenance and in
20 the position of engineer or technical advisor.

21 (J) The nuclear industry, including in the
22 position of scientist, engineer, technician, math-
23 ematician, or security personnel.

24 (K) The oil and gas industry, including in
25 the position of scientist, engineer, technician,

1 mathematician, petrochemical engineer, or geol-
2 ogist.

3 (L) The coal industry, including in the po-
4 sition of coal miner, engineer, developer and
5 manufacturer of state-of-the-art coal facilities,
6 technology vendor, coal transportation worker
7 or operator, or mining equipment vendor.

8 **SEC. 4. ENERGY WORKFORCE GRANT PROGRAM.**

9 (a) DEFINITIONS.—In this section:

10 (1) ELIGIBLE ENTITY.—The term “eligible enti-
11 ty” means a business or labor management organi-
12 zation that—

13 (A)(i) is directly involved with energy effi-
14 ciency, renewable energy technology, or reduc-
15 tion in greenhouse gas emissions, as determined
16 by the Secretary; or

17 (ii) works on behalf of a business or labor
18 management organization that is directly in-
19 volved with energy efficiency, renewable energy
20 technology, or reduction in greenhouse gas
21 emissions, as determined by the Secretary; and

22 (B) provides services related to—

23 (i) renewable electric energy genera-
24 tion, including solar, wind, geothermal, hy-

1 dropower, and other renewable electric en-
2 ergy generation technologies;

3 (ii) energy efficiency, including energy
4 efficient lighting, heating, ventilation, and
5 air conditioning, air source heat pumps,
6 advanced building materials, insulation and
7 air sealing, and other high efficiency prod-
8 ucts and services, and auditing and inspec-
9 tion in energy efficiency;

10 (iii) grid modernization or energy
11 storage, including smart grid, microgrid
12 and other distributed energy solutions, de-
13 mand response management, and home en-
14 ergy management technology;

15 (iv) advanced technologies that im-
16 prove the conversion, use, and storage of
17 carbon dioxide produced from fossil fuels,
18 including carbon capture and storage and
19 direct air capture;

20 (v) nuclear energy, including nuclear
21 research, development, demonstration, and
22 commercial application; or

23 (vi) fuel cell and hybrid fuel cell gen-
24 eration.

1 (2) LABOR MANAGEMENT ORGANIZATION.—The
2 term “labor management organization” includes a
3 nonprofit organization or qualified youth or con-
4 servation corps that provides training to individuals
5 to work for an eligible entity that is a business, or
6 works on behalf of an eligible entity that is a busi-
7 ness.

8 (b) ESTABLISHMENT.—

9 (1) IN GENERAL.—The Secretary shall establish
10 a program to provide grants to eligible entities to
11 pay the wages of a new or existing employee during
12 the time period in which the employee receives train-
13 ing to work in the renewable energy sector, energy
14 efficiency sector, or grid modernization sector.

15 (2) GUIDELINES.—Not later than 60 days after
16 the date of enactment of this Act, the Secretary, in
17 consultation with stakeholders, contractors, and or-
18 ganizations that work to advance existing residential
19 energy efficiency, shall establish guidelines for the
20 program under paragraph (1) to determine the cri-
21 teria for—

22 (A) the wages or stipends that shall be
23 paid using the grant funds; and

24 (B) training received by an employee that
25 qualifies under the program.

1 (c) GRANTS.—

2 (1) IN GENERAL.—An eligible entity desiring a
3 grant under subsection (b)(1) shall submit to the
4 Secretary an application at such time, in such man-
5 ner, and containing such information as the Sec-
6 retary may require.

7 (2) PRIORITY FOR TARGETED COMMUNITIES.—
8 In providing grants under subsection (b)(1), the Sec-
9 retary shall give priority to an eligible entity that—

10 (A) recruits employees—

11 (i) from the 1 or more communities
12 that are served by the eligible entity; and

13 (ii) that are minorities, women, vet-
14 erans, individuals who are or were foster
15 children, or individuals who are
16 transitioning from fossil energy sector jobs;
17 and

18 (B) provides trainees with the opportunity
19 to obtain real-world experience.

20 (3) USE OF GRANTS.—An eligible entity may
21 use a grant received under subsection (b)(1)—

22 (A) in the case of an eligible entity with 20
23 or fewer employees, to pay not more than—

24 (i) 45 percent of the wages of an em-
25 ployee for the duration of the training, if

1 the training is provided by the eligible enti-
2 ty; and

3 (ii) 90 percent of the wages of an em-
4 ployee for the duration of the training, if
5 the training is provided by an entity other
6 than the eligible entity;

7 (B) in the case of an eligible entity with 21
8 to 99 employees, to pay not more than—

9 (i) 37.5 percent of the wages of an
10 employee for the duration of the training,
11 if the training is provided by the eligible
12 entity; and

13 (ii) 75 percent of the wages of an em-
14 ployee for the duration of the training, if
15 the training is provided by an entity other
16 than the eligible entity; and

17 (C) in the case of an eligible entity with
18 not less than 100 employees, to pay not more
19 than—

20 (i) 25 percent of the wages of an em-
21 ployee for the duration of the training, if
22 the training is provided by the eligible enti-
23 ty; and

24 (ii) 50 percent of the wages of an em-
25 ployee for the duration of the training, if

1 the training is provided by an entity other
2 than the eligible entity.

3 (4) GRANT AMOUNT.—An eligible entity may
4 not receive more than \$100,000 per fiscal year
5 under subsection (b)(1).

6 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
7 authorized to be appropriated to carry out this section
8 \$100,000,000 for each of fiscal years 2020 through 2024.