

116TH CONGRESS  
1ST SESSION

# S. 477

To authorize the National Oceanic and Atmospheric Administration to establish a Climate Change Education Program, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

FEBRUARY 13, 2019

Mr. MARKEY (for himself, Ms. HARRIS, Ms. WARREN, Mr. VAN HOLLEN, Mrs. SHAHEEN, Ms. KLOBUCHAR, Mr. MERKLEY, Mrs. GILLIBRAND, Mr. WYDEN, Mrs. FEINSTEIN, Mr. BLUMENTHAL, Mr. BOOKER, Mr. SANDERS, Mr. CARDIN, Ms. HIRONO, and Mr. LEAHY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To authorize the National Oceanic and Atmospheric Administration to establish a Climate Change Education Program, 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 “Climate Change Edu-  
5       cation Act”.

6       **SEC. 2. FINDINGS.**

7       Congress makes the following findings:

1           (1) The evidence for human-induced climate  
2 change is overwhelming and undeniable.

3           (2) Atmospheric carbon can be significantly re-  
4 duced through conservation, by shifting to renewable  
5 energy sources such as solar, wind, tidal, and geo-  
6 thermal, and by increasing the efficiency of build-  
7 ings, including domiciles, and transportation.

8           (3) Providing clear information about climate  
9 change, in a variety of forms, can remove the fear  
10 and the sense of helplessness, and encourage individ-  
11 uals and communities to take action.

12           (4) Implementation of measures that promote  
13 energy efficiency, conservation, and renewable en-  
14 ergy will greatly reduce human impact on the envi-  
15 ronment.

16           (5) Informing people of new technologies and  
17 programs as they become available will ensure max-  
18 imum understanding and maximum effect of those  
19 measures.

20           (6) More than 3,000,000 students graduate  
21 from high schools and colleges each year, armed  
22 with attitudes, skills, and knowledge about the cli-  
23 mate that inform their actions.

1           (7) The effect on the climate, positive or nega-  
2           tive, of each of those 3,000,000 students lasts be-  
3           yond a lifetime.

4           (8) Those students need to be prepared to im-  
5           plement changes in professional and personal prac-  
6           tices, to support and help develop new technology  
7           and policy, and to address the coming social and  
8           economic challenges and opportunities arising from a  
9           changing climate.

10          (9) It has been demonstrated that the people of  
11          the United States overwhelmingly support teaching  
12          students about the causes, consequences, and poten-  
13          tial solutions to climate change in all 50 States and  
14          more than 3,000 counties across the United States.

15          (10) Only 30 percent of middle school and 45  
16          percent of high school science teachers understand  
17          the extent of the scientific consensus on climate  
18          change.

19 **SEC. 3. DEFINITIONS.**

20          In this Act:

21               (1) **CLIMATE CHANGE EDUCATION.**—The term  
22               “climate change education” means informal and for-  
23               mal interdisciplinary learning at all age levels  
24               about—

1 (A) climate change, climate adaptation and  
2 mitigation, and climate resilience; and

3 (B) the effects of climate change, climate  
4 adaptation and mitigation, and climate resil-  
5 ience on the environmental, energy, social, and  
6 economic systems of the United States.

7 (2) GREEN COLLAR JOB.—The term “green col-  
8 lar job” means a job—

9 (A) in a business that produces goods or  
10 provides services that benefit the environment  
11 or conserve natural resources; or

12 (B) in which the duties of the worker in-  
13 volve making the production processes of the  
14 employer more environmentally friendly or use  
15 fewer natural resources.

16 (3) GREEN ECONOMY.—The term “green econ-  
17 omy” means an economy that results in improved  
18 human well-being and social equity by significantly  
19 reducing environmental risks and ecological scar-  
20 cities.

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

1           (5) LOCAL EDUCATIONAL AGENCY; STATE EDU-  
2           CATIONAL AGENCY.—The terms “local educational  
3           agency” and “State educational agency” have the  
4           meanings given those terms in section 8101 of the  
5           Elementary and Secondary Education Act of 1965  
6           (20 U.S.C. 7801).

7           (6) NONPROFIT ORGANIZATION.—The term  
8           “nonprofit organization” means an organization de-  
9           scribed in section 501(c)(3) of the Internal Revenue  
10          Code of 1986 and exempt from taxation under  
11          501(a) of that Code.

12 **SEC. 4. CLIMATE CHANGE EDUCATION PROGRAM.**

13          The Administrator of the National Oceanic and At-  
14          mospheric Administration shall establish a Climate  
15          Change Education Program to—

16                (1) increase the climate literacy of the United  
17                States by broadening the understanding of climate  
18                change, including possible long-term and short-term  
19                consequences and potential solutions;

20                (2) apply the latest scientific and technological  
21                discoveries, including through the use of the sci-  
22                entific assets of the Administration, to provide for-  
23                mal and informal learning opportunities to individ-  
24                uals of all ages, including individuals of diverse cul-  
25                tural and linguistic backgrounds; and

1           (3) emphasize actionable information to help  
2           people understand and promote implementation of  
3           new technologies, programs, and incentives related  
4           to climate change, climate adaptation and mitiga-  
5           tion, and climate resilience.

6 **SEC. 5. GRANT PROGRAM.**

7           (a) IN GENERAL.—As part of the Climate Change  
8           Education Program established under section 4, the Ad-  
9           ministrators of the National Oceanic and Atmospheric Ad-  
10          ministration shall establish a program to make grants—

11           (1) to States to encourage and support plans  
12           and programs for kindergarten through grade 12  
13           formal and informal climate change education—

14           (A) to ensure that students graduate from  
15           high school with high climate literacy, includ-  
16           ing—

17           (i) relevant teacher training and pro-  
18           fessional development;

19           (ii) science, technology, engineering,  
20           arts and design, and mathematics edu-  
21           cation; and

22           (iii) interdisciplinary studies; and

23           (B) with a particular focus on programs  
24           that advance widespread State and local edu-  
25           cational agency adoption of climate change edu-

1 cation, including funding for State educational  
2 agencies in partnership with local educational  
3 agencies and local nonprofit organizations to—

4 (i) integrate key principles of climate  
5 change education into existing kinder-  
6 garten through grade 12 State academic  
7 content standards, student academic  
8 achievement standards, or State cur-  
9 riculum frameworks;

10 (ii) create model State climate change  
11 curricula;

12 (iii) develop and implement State  
13 teacher training programs; and

14 (iv) support secondary school prepara-  
15 tion or work-based experiences in green  
16 collar jobs; and

17 (2) to institutions of higher education to—

18 (A) improve the quality of and access to  
19 training, certification, and higher education for  
20 green collar jobs in the future green economy,  
21 such as green construction, design, technology,  
22 health, engineering, business, and policy stud-  
23 ies, including sustainability science, and with a  
24 particular focus on programs that address re-  
25 structuring institutional incentives and reducing

1 institutional barriers to widespread faculty  
2 adoption of interdisciplinary teaching of climate  
3 change education; and

4 (B) engage teams of faculty and students  
5 to develop applied climate research and deliver  
6 to local communities direct services related to  
7 local climate mitigation and adaptation issues,  
8 with a priority focus on communities impacted  
9 by climate change; and

10 (3) to professional associations for projects that  
11 build capacity at the State and national levels for  
12 continuing education by practicing professionals and  
13 the general public in green economy fields.

14 (b) CLIMATE CHANGE EDUCATION OFFICE.—There  
15 shall be, within the Office of Education of the National  
16 Oceanic and Atmospheric Administration, a Climate  
17 Change Education Office to administer the grant program  
18 required by subsection (a).

19 **SEC. 6. REPORT.**

20 Not later than one year after the date of the enact-  
21 ment of this Act, and annually thereafter, the Adminis-  
22 trator of the National Oceanic and Atmospheric Adminis-  
23 tration shall submit to Congress a report that evaluates  
24 the scientific merits, educational effectiveness, and broad-  
25 er effects of activities carried out under this Act.

1 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

2       There are authorized to be appropriated to the Na-  
3 tional Oceanic and Atmospheric Administration  
4 \$20,000,000 for each of fiscal years 2020 through 2025  
5 to carry out this Act.

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