

118TH CONGRESS  
2ND SESSION

# S. 4117

To require the Administrator of 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

APRIL 11 (legislative day, APRIL 10), 2024

Mr. MARKEY (for himself, Mr. BLUMENTHAL, Mr. BOOKER, Ms. BUTLER, Mr. CARDIN, Mr. DURBIN, Mr. HEINRICH, Ms. HIRONO, Ms. KLOBUCHAR, Mr. LUJÁN, Mr. MENENDEZ, Mr. MERKLEY, Mr. MURPHY, Mr. PADILLA, Mr. SANDERS, Ms. SMITH, Ms. STABENOW, Mr. VAN HOLLEN, Ms. WARREN, Mr. WELCH, and Mr. WYDEN) 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 require the Administrator of 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) According to the Fifth National Climate As-  
4 sessment, atmospheric carbon can be significantly  
5 reduced through conservation, by shifting to renew-  
6 able energy sources such as solar, wind, tidal, and  
7 geothermal, and by increasing the efficiency of build-  
8 ings, including domiciles, and transportation.

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

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

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

21           (6) More than 3,500,000 students graduate  
22 from high schools and colleges in the United States  
23 each year, armed with attitudes, skills, and knowl-  
24 edge about the climate that inform their actions.

1           (7) The effect on the climate, positive or nega-  
2           tive, of each of those 3,500,000 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 science  
16          teachers and 45 percent of high school science teach-  
17          ers understand the extent of the scientific consensus  
18          on climate change.

19          (11) Section 4002(a) of the America COM-  
20          PETES Act (33 U.S.C. 893a(a)) requires the Na-  
21          tional Oceanic and Atmospheric Administration to  
22          “conduct, develop, support, promote, and coordinate  
23          formal and informal educational activities at all lev-  
24          els”.

1           (12) The existing Environmental Literacy Pro-  
2           gram of the National Oceanic and Atmospheric Ad-  
3           ministration was established in 2005 by the Bush  
4           administration as a backbone to an agency effort to  
5           advance sound environmental education for children  
6           and adults.

7           (13) Expanding the popular Environmental Lit-  
8           eracy Program (less than 5 percent of applications  
9           in 2020 received funding) to include climate edu-  
10          cation for professional educators and students is  
11          within the established expertise of the National Oce-  
12          anic and Atmospheric Administration and will effec-  
13          tively leverage critical resources for foundational  
14          learning and career preparation.

15 **SEC. 3. DEFINITIONS.**

16          In this Act:

17           (1) CLIMATE CHANGE EDUCATION.—The term  
18           “climate change education” means nonformal and  
19           formal interdisciplinary learning at all age levels  
20           about—

21                   (A) climate change, climate adaptation and  
22                   mitigation, climate resilience, and climate jus-  
23                   tice; and

24                   (B) the effects of climate change, climate  
25                   adaptation and mitigation, climate resilience,

1           and climate justice on the environmental, en-  
2           ergy, social, and economic systems of the  
3           United States.

4           (2) CLIMATE JUSTICE.—The term “climate jus-  
5           tice” means the fair treatment and meaningful in-  
6           volvement of all people, regardless of race, color, cul-  
7           ture, national origin, or income, with respect to the  
8           development, implementation, and enforcement of  
9           policies and projects to ensure that each person en-  
10          joys the same degree of protection from the adverse  
11          effects of climate change.

12          (3) CLIMATE LITERACY.—The term “climate  
13          literacy” means competence or knowledge of climate  
14          change, its causes and impacts, and the technical,  
15          scientific, economic, and social dynamics of prom-  
16          ising solutions.

17          (4) ENVIRONMENTAL JUSTICE.—The term “en-  
18          vironmental justice” means the fair treatment and  
19          meaningful involvement of all people, regardless of  
20          race, color, culture, national origin, or income, with  
21          respect to the development, implementation, and en-  
22          forcement of environmental laws, regulations, and  
23          policies to ensure that each person enjoys—

24                  (A) the same degree of protection from en-  
25                  vironmental and health hazards; and

1 (B) equal access to any Federal agency ac-  
2 tion on environmental justice issues in order to  
3 have a healthy environment in which to live,  
4 learn, work, and recreate.

5 (5) ENVIRONMENTAL JUSTICE COMMUNITY.—  
6 The term “environmental justice community” means  
7 a community with significant representation of com-  
8 munities of color, low-income communities, or Tribal  
9 and indigenous communities that experiences, or is  
10 at risk of experiencing, higher or more adverse  
11 human health or environmental effects as compared  
12 to other communities.

13 (6) GREEN ECONOMY.—The term “green econ-  
14 omy” means an economy that results in improved  
15 human and economic well-being and social equity by  
16 significantly reducing environmental risks and eco-  
17 logical scarcities.

18 (7) INSTITUTION OF HIGHER EDUCATION.—The  
19 term “institution of higher education” has the  
20 meaning given the term in section 101 of the Higher  
21 Education Act of 1965 (20 U.S.C. 1001).

22 (8) LOCAL EDUCATIONAL AGENCY; STATE EDU-  
23 CATIONAL AGENCY.—The terms “local educational  
24 agency” and “State educational agency” have the  
25 meanings given those terms in section 8101 of the

1 Elementary and Secondary Education Act of 1965  
2 (20 U.S.C. 7801).

3 (9) NONFORMAL.—The term “nonformal”  
4 means, with respect to learning, out-of-school edu-  
5 cational programming carried out by nonprofit orga-  
6 nizations and public agencies.

7 (10) 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 sec-  
11 tion 501(a) of that Code.

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

13 Not later than 1 year after the date of the enactment  
14 of this Act, the Administrator of the National Oceanic and  
15 Atmospheric Administration shall establish a Climate  
16 Change Education Program within the Office of Edu-  
17 cation of the Administration to—

18 (1) increase the climate literacy of the United  
19 States by broadening the understanding of climate  
20 change, including possible long-term and short-term  
21 consequences, disproportionate impacts of those con-  
22 sequences, and potential solutions;

23 (2) apply the latest scientific and technological  
24 discoveries, including through the use of the sci-  
25 entific assets of the Administration, to provide for-

1 mal and nonformal learning opportunities to individ-  
2 uals of all ages, including individuals of diverse cul-  
3 tural and linguistic backgrounds; and

4 (3) emphasize actionable information to help  
5 people understand and promote implementation of  
6 new technologies, jobs, career training, programs,  
7 and incentives related to climate change, climate ad-  
8 aptation and mitigation, climate resilience, climate  
9 justice, and environmental justice.

10 **SEC. 5. GRANTS AND COOPERATIVE AGREEMENTS.**

11 (a) IN GENERAL.—Not later than 1 year after the  
12 date of the enactment of this Act, as part of the Climate  
13 Change Education Program established under section 4,  
14 the Administrator of the National Oceanic and Atmos-  
15 pheric Administration shall establish a program to award  
16 grants to, or establish cooperative agreements with, the  
17 following:

18 (1) State educational agencies, in partnership  
19 with local educational agencies and local nonprofit  
20 organizations, and, subject to subsection (c), local  
21 educational agencies—

22 (A) for the development and implementa-  
23 tion of aspects of climate literacy plans for  
24 grades 4 through 12 formal and nonformal cli-  
25 mate change education that—



1 (i) are aligned with State education  
2 standards; and

3 (ii) ensure that students graduate  
4 from high school with climate literacy; and

5 (B) for the implementation of projects  
6 that—

7 (i) in the case of State educational  
8 agencies, include—

9 (I) relevant training and profes-  
10 sional development for educators,  
11 which may include tiered mentorship  
12 frameworks;

13 (II) integration of key climate  
14 change concepts into State education  
15 standards for science, technology, en-  
16 gineering, and mathematics (STEM),  
17 civics and social studies, career and  
18 technical education, and other rel-  
19 evant subject areas during the next  
20 revision of such standards;

21 (III) development of climate  
22 change education frameworks and  
23 model curricula and curation and dis-  
24 semination of existing such frame-  
25 works and curricula;

1 (IV) creation of applied learning  
2 project-based models, particularly  
3 those that allow for student leadership  
4 in project development and applied  
5 field work, such as models making op-  
6 timum use of green features improve-  
7 ments, such as low-cost environmental  
8 monitoring sensors, to school facilities  
9 such as energy systems, lighting sys-  
10 tems, food systems, water manage-  
11 ment systems, waste management sys-  
12 tems, and school grounds; and

13 (V) incorporation of climate  
14 change mitigation and green tech-  
15 nologies into new and existing high-  
16 quality career and technical education  
17 career pathways and work-based  
18 learning experiences in high-demand  
19 climate-related jobs, including devel-  
20 opment of partnerships with labor or-  
21 ganizations, trade organizations, and  
22 apprenticeship programs; and

23 (ii) in the case of local educational  
24 agencies—

1 (I) develop, modify, or implement  
2 district-level plans to advance climate  
3 change education that consider facili-  
4 ties, curriculum, environmental health,  
5 professional development for edu-  
6 cators, student experiences, and eq-  
7 uity; and

8 (II) support community partner-  
9 ships among local educational agen-  
10 cies, nonformal education providers,  
11 community-based organizations, and  
12 other partners to advance climate  
13 change education priorities.

14 (2) Institutions of higher education and net-  
15 works or partnerships of such institutions to engage  
16 teams of faculty and students to develop applied cli-  
17 mate research and deliver to local communities di-  
18 rect services related to local climate mitigation and  
19 adaptation issues, with priority given to projects  
20 that—

21 (A) foster long-term campus-community  
22 partnerships;

23 (B) show potential to scale work beyond  
24 the term of the grant or cooperative agreement;

1 (C) involve significant student input in the  
2 project development process;

3 (D) are inclusive for all segments of the  
4 population; and

5 (E) promote equitable and just outcomes.

6 (3) Professional associations and academic dis-  
7 ciplinary societies for projects that build capacity at  
8 the State and national levels for continuing edu-  
9 cation by practicing professionals and the general  
10 public in green economy fields.

11 (4) Youth corps organizations to engage in  
12 community-based climate mitigation and adaptation  
13 work that includes a substantive educational compo-  
14 nent.

15 (b) COMMUNITIES OF PRACTICE.—The Climate  
16 Change Education Program shall establish communities of  
17 practice with respect to each of paragraphs (1) through  
18 (4) of subsection (a) in order to accelerate learning.

19 (c) LOCAL EDUCATIONAL AGENCIES.—The Adminis-  
20 trator of the National Oceanic and Atmospheric Adminis-  
21 tration may not award a grant to, or establish a coopera-  
22 tive agreement with, a local educational agency in any fis-  
23 cal year under paragraph (1) of subsection (a) unless  
24 amounts appropriated for grants and cooperative agree-

1 ments under such subsection for that fiscal year exceed  
2 \$5,000,000.

3 (d) ALLOCATION OF AMOUNTS.—

4 (1) IN GENERAL.—Except as provided in para-  
5 graph (2), amounts appropriated for grants and co-  
6 operative agreements under subsection (a) shall be  
7 allocated as follows:

8 (A) 50 percent for grants and cooperative  
9 agreements under paragraph (1) of such sub-  
10 section.

11 (B) 30 percent for grants and cooperative  
12 agreements under paragraph (2) of such sub-  
13 section.

14 (C) 10 percent for grants and cooperative  
15 agreements under paragraph (3) of such sub-  
16 section.

17 (D) 10 percent for grants and cooperative  
18 agreements under paragraph (4) of such sub-  
19 section.

20 (2) EXCEPTION.—If amounts appropriated for  
21 grants and cooperative agreements under subsection  
22 (a) do not exceed \$5,000,000 in any fiscal year, the  
23 Administrator of the National Oceanic and Atmos-  
24 pheric Administration may use in that fiscal year—

1 (A) 60 percent of such amounts for grants  
2 and cooperative agreements under paragraph  
3 (1) of such subsection; and

4 (B) 40 percent of such amounts for grants  
5 and cooperative agreements under paragraph  
6 (2) of such subsection.

7 (3) ENVIRONMENTAL JUSTICE COMMUNITIES.—  
8 40 percent of all amounts allocated for grants and  
9 cooperative agreements under paragraphs (2) and  
10 (4) of subsection (a) shall be directed into environ-  
11 mental justice communities.

12 (e) GRANT AND COOPERATIVE AGREEMENT MIN-  
13 IMUM.—If amounts appropriated for grants and coopera-  
14 tive agreements under subsection (a) exceed \$5,000,000  
15 in any fiscal year, any grant awarded to, or cooperative  
16 agreement established with, an entity under paragraph (1)  
17 of such subsection shall provide the entity a minimum of  
18 \$1,000,000 in that fiscal year.

19 **SEC. 6. ANNUAL REPORT.**

20 Not later than 2 years 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 is authorized to be appropriated to the Na-  
3 tional Oceanic and Atmospheric Administration to carry  
4 out this Act \$50,000,000 for each of fiscal years 2025  
5 through 2030.

○