

118TH CONGRESS  
2D SESSION

# S. 5373

To establish the National Institutes of Clean Energy.

---

IN THE SENATE OF THE UNITED STATES

NOVEMBER 21, 2024

Ms. WARREN (for herself, Mr. SANDERS, Mr. VAN HOLLEN, and Mr. PADILLA) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

## A BILL

To establish the National Institutes of Clean Energy.

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 “National Institutes of  
5       Clean Energy Act of 2024”.

6       **SEC. 2. NATIONAL INSTITUTES OF CLEAN ENERGY.**

7       (a) DEFINITIONS.—In this section:

8               (1) **ADVANCED ENERGY TECHNOLOGY.**—The  
9       term “advanced energy technology” means a tech-  
10      nology that—

1 (A) reduces greenhouse gas emissions with  
2 high conversion efficiency;

3 (B) minimizes energy, water, and material  
4 resource use;

5 (C) was produced by or helps generate a  
6 renewable energy source; and

7 (D) minimizes environmental harms to or  
8 negative public health impacts on frontline, vul-  
9 nerable, and disadvantaged communities.

10 (2) FRONTLINE, VULNERABLE, AND DISADVAN-  
11 TAGED COMMUNITY.—The term “frontline, vulner-  
12 able, and disadvantaged community” means a com-  
13 munity—

14 (A) in an area described in section 301(a)  
15 of the Public Works and Economic Develop-  
16 ment Act of 1965 (42 U.S.C. 3161(a)); and

17 (B) in which climate change, pollution, or  
18 environmental destruction have exacerbated sys-  
19 temic racial, regional, social, environmental,  
20 gender, and economic injustices by dispropor-  
21 tionately affecting Black, Brown, and Indige-  
22 nous peoples, other communities of color, mi-  
23 grant communities, deindustrialized commu-  
24 nities, depopulated rural communities, the poor,

1 low-income workers, women, the elderly, the  
2 unhoused, people with disabilities, or youth.

3 (3) INSTITUTES.—The term “Institutes” means  
4 the National Institutes of Clean Energy established  
5 under subsection (b).

6 (4) LAND-GRANT COLLEGE OR UNIVERSITY.—  
7 The term “land-grant college or university” means—

8 (A) an institution that is eligible to receive  
9 funds under the Act of July 2, 1862 (commonly  
10 known as the “First Morrill Act”) (12 Stat.  
11 503, chapter 130; 7 U.S.C. 301 et seq.) or the  
12 Act of August 30, 1890 (commonly known as  
13 the “Second Morrill Act”) (26 Stat. 417, chap-  
14 ter 841; 7 U.S.C. 321 et seq.), including  
15 Tuskegee University; and

16 (B) a 1994 Institution (as defined in sec-  
17 tion 532 of the Equity in Educational Land-  
18 Grant Status Act of 1994 (7 U.S.C. 301 note;  
19 Public Law 103–382)).

20 (5) MINORITY-SERVING INSTITUTION.—The  
21 term “minority-serving institution” means an insti-  
22 tution of higher education described in section  
23 371(a) of the Higher Education Act of 1965 (20  
24 U.S.C. 1067q(a)).

1           (6) RENEWABLE ENERGY SOURCE.—The term  
2           “renewable energy source” means energy generated  
3           from a renewable source, including the following re-  
4           newable energy sources:

5                   (A) Solar, including electricity.

6                   (B) Wind.

7                   (C) Ocean, including tidal, wave, current,  
8                   and thermal.

9                   (D) Geothermal, including electricity and  
10                  heat pumps.

11                  (E) Hydroelectric generation capacity  
12                  achieved from increased efficiency or additions  
13                  of new capacity at an existing hydroelectric  
14                  project that was placed in service on or after  
15                  January 1, 1999.

16                  (F) Hydrogen derived from a renewable  
17                  energy source.

18                  (G) Thermal energy generated by any of  
19                  the sources described in subparagraphs (A)  
20                  through (F).

21           (b) ESTABLISHMENT.—Not later than January 1,  
22           2028, there shall be established the National Institutes of  
23           Clean Energy, which shall be an agency of the Department  
24           of Energy.

25           (c) ACTIVITIES.—

1 (1) IN GENERAL.—The Institutes shall—

2 (A) invest in clean energy science, climate  
3 science, innovation, and research and develop-  
4 ment to reduce emissions and build climate re-  
5 siliience; and

6 (B) support—

7 (i) clean energy research areas, in-  
8 cluding—

9 (I) demonstration projects for  
10 clean energy and climate research and  
11 development priorities, including  
12 microgrids, energy storage, electric ve-  
13 hicles, and advanced energy tech-  
14 nologies in hard-to-decarbonize sec-  
15 tors, such as the aviation and ship-  
16 ping sectors; and

17 (II) clean energy research areas  
18 that are underrepresented in existing  
19 Federal research and development  
20 funding, such as long-duration grid  
21 storage;

22 (ii) research and development projects  
23 focusing on the impacts of energy produc-  
24 tion in frontline communities, including  
25 communities of color and low-income com-

1 communities, that have been disproportionately  
2 impacted by environmental injustices; and  
3 (iii) research and development  
4 projects focused on impacts of clean energy  
5 and energy production on job loss, job cre-  
6 ation, and workforce development, particu-  
7 larly in heavily unionized workforce sec-  
8 tors.

9 (2) PRIORITY.—In carrying out paragraph (1),  
10 the Institutes shall give priority to—

11 (A) the development of technologies that  
12 will—

13 (i) minimize environmental harms to  
14 or negative public health impacts on front-  
15 line, vulnerable, and disadvantaged com-  
16 munities;

17 (ii) improve the public health of front-  
18 line, vulnerable, and disadvantaged com-  
19 munities; or

20 (iii) create high-quality jobs with  
21 strong labor standards in frontline, vulner-  
22 able, and disadvantaged communities;

23 (B) research and development of advanced  
24 energy technologies;

1 (C) climate science and innovation and  
2 clean energy technology;

3 (D) research and development that will be  
4 conducted at—

5 (i) public universities and colleges;

6 (ii) land-grant colleges and univer-  
7 sities;

8 (iii) minority-serving institutions, in-  
9 cluding historically Black colleges and uni-  
10 versities; and

11 (iv) consortia comprising 1 or more of  
12 the entities described in clauses (i) through  
13 (iii); and

14 (E) research and development in geo-  
15 graphic areas that have seen the worst job  
16 losses between 2016 and 2024, including rural  
17 areas and areas impacted by  
18 deindustrialization.

19 (d) AUTHORIZATION OF APPROPRIATIONS.—There is  
20 authorized to be appropriated \$400,000,000,000 for the  
21 period of fiscal years 2025 through 2034 to establish and  
22 operate the Institutes.

○