

116TH CONGRESS  
1ST SESSION

# S. 3135

To provide for the establishment of clean technology consortia to enhance the economic, environmental, and energy security of the United States by promoting domestic development, manufacture, and deployment of clean technologies, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

DECEMBER 19, 2019

Mr. MARKEY 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 provide for the establishment of clean technology consortia to enhance the economic, environmental, and energy security of the United States by promoting domestic development, manufacture, and deployment of clean technologies, 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 “Consortia-Led Energy  
5 and Advanced Manufacturing Networks Act of 2019”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

1           (1) CLEAN TECHNOLOGY.—The term “clean  
2           technology” means a technology, production process,  
3           or methodology that—

4                   (A) produces energy from solar, wind, geo-  
5                   thermal, biomass, tidal, wave, ocean, or another  
6                   renewable energy source (as defined in section  
7                   609 of the Public Utility Regulatory Policies  
8                   Act of 1978 (7 U.S.C. 918c));

9                   (B) more efficiently transmits, distributes,  
10                  or stores energy;

11                  (C) enhances energy efficiency for build-  
12                  ings and industry, including combined heat and  
13                  power;

14                  (D) enables the development of a Smart  
15                  Grid (as described in section 1301 of the En-  
16                  ergy Independence and Security Act of 2007  
17                  (42 U.S.C. 17381)), including integration of re-  
18                  newable energy sources and distributed genera-  
19                  tion, demand response, demand side manage-  
20                  ment, and systems analysis;

21                  (E) produces an advanced or sustainable  
22                  material with energy or energy efficiency appli-  
23                  cations;

24                  (F) improves energy efficiency for trans-  
25                  portation, including electric vehicles; or

1 (G) enhances water security through im-  
2 proved water management, conservation, dis-  
3 tribution, or end use applications.

4 (2) ADVANCED MANUFACTURING.—The term  
5 “advanced manufacturing”—

6 (A) means a manufacturing process that  
7 makes extensive use of computer, high preci-  
8 sion, or information technologies integrated  
9 with a high performance workforce in a produc-  
10 tion system capable of furnishing a hetero-  
11 geneous mix of products in small or large vol-  
12 umes with either the efficiency of mass produc-  
13 tion or the flexibility of custom manufacturing  
14 in order to respond quickly to customer de-  
15 mands; and

16 (B) includes both new ways to manufac-  
17 ture existing products and the manufacture of  
18 new products emerging from new advanced  
19 technologies.

20 (3) CLUSTER.—The term “cluster” means a  
21 network of entities directly involved in the research,  
22 development, finance, and commercial application of  
23 clean technologies and advanced manufacturing  
24 whose geographic proximity facilitates the use and  
25 sharing of skilled human resources, infrastructure,

1 research facilities, educational and training institu-  
 2 tions, venture capital, and input suppliers.

3 (4) CONSORTIUM.—The term “consortium”  
 4 means a clean technology consortium established in  
 5 accordance with this Act.

6 (5) PROJECT.—The term “project” means an  
 7 activity with respect to which a consortium provides  
 8 support under this Act.

9 (6) QUALIFYING ENTITY.—The term “quali-  
 10 fying entity” means—

11 (A) an institution of higher education that  
 12 has entered into a partnership agreement with  
 13 a private-sector entity;

14 (B) a Federal or State entity with a focus  
 15 on developing clean technologies or clusters, as  
 16 determined by the Secretary;

17 (C) a nongovernmental organization with  
 18 expertise in translational research, clean tech-  
 19 nology, or cluster development; or

20 (D) any other entity determined appro-  
 21 priate by the Secretary.

22 (7) SECRETARY.—The term “Secretary” means  
 23 the Secretary of Commerce.

24 (8) TRANSLATIONAL RESEARCH.—The term  
 25 “translational research” means the coordination of

1        basic or applied research with technical applications  
2        to enable promising discoveries or inventions to  
3        achieve commercial application.

4    **SEC. 3. ESTABLISHMENT OF CLEAN TECHNOLOGY CON-**  
5                    **SORTIA PROGRAM.**

6        (a) IN GENERAL.—The Secretary shall establish and  
7        carry out a program to establish clean technology con-  
8        sortia to enhance the economic, environmental, and energy  
9        security of the United States by promoting domestic devel-  
10       opment, manufacture, and deployment of clean, state-of-  
11       the-art technologies.

12       (b) PROGRAM.—The Secretary shall carry out the  
13       program established under subsection (a) by leveraging  
14       the expertise and resources of private research commu-  
15       nities, institutions of higher education, industry, venture  
16       capital, National Laboratories (as defined in section 2 of  
17       the Energy Policy Act of 2005 (42 U.S.C. 15801)), and  
18       other participants in technology innovation—

19                (1) to support collaborative, cross-disciplinary  
20       research and development in clean technologies and  
21       advanced manufacturing; and

22                (2) to develop and accelerate the commercial  
23       application of innovative clean technologies and ad-  
24       vanced manufacturing practices.

1       (c) ROLE OF THE SECRETARY.—The Secretary  
2 shall—

3           (1) carry out and oversee all aspects of the pro-  
4 gram established under subsection (a);

5           (2) select recipients of grants for the establish-  
6 ment and operation of consortia through a competi-  
7 tive selection process; and

8           (3) coordinate the innovation activities of con-  
9 sortia with activities carried out by the Secretary of  
10 Energy, the Secretary of Defense, other Federal  
11 agency heads, industry, and institutions of higher  
12 education, including by annually—

13           (A) issuing guidance regarding national  
14 clean technology and advanced manufacturing  
15 development priorities and strategic objectives;  
16 and

17           (B) convening a conference relating to  
18 clean technology and advanced manufacturing,  
19 which shall bring together representatives of  
20 Federal agencies, industry, institutions of high-  
21 er education, and other entities to share re-  
22 search and commercialization results, program  
23 plans, and opportunities for collaboration.

24       (d) PURPOSES OF CONSORTIA.—The purposes of the  
25 consortia shall include—

1           (1) promoting new innovative clean technologies  
2           that have demonstrated interest and potential for  
3           commercialization;

4           (2) expanding advanced manufacturing capabili-  
5           ties, networks, supply chains, and assets, in the area  
6           of clean technologies, that contribute to regional and  
7           national manufacturing competitiveness and poten-  
8           tial for growth;

9           (3) promoting job creation and entrepreneur-  
10          ship through the establishment of new companies,  
11          the expansion of existing companies, and commer-  
12          cialization of clean technologies;

13          (4) providing technical or financial assistance to  
14          companies looking to invest in clean technologies,  
15          new products or services, or enhanced processes that  
16          will grow sales and jobs;

17          (5) determining opportunities and challenges  
18          that companies are facing and how to improve their  
19          use or production of clean technologies;

20          (6) assisting individual small- and medium-sized  
21          enterprises with adopting and utilizing new clean  
22          technologies and related business and advanced  
23          manufacturing practices;

1           (7) accelerating investment in and deployment  
2           of clean technologies through public-private partner-  
3           ships;

4           (8) encouraging partnering between and among  
5           emerging and established clean technology and ad-  
6           vanced manufacturing enterprises; or

7           (9) demonstrating a comprehensive and success-  
8           ful model for commercialization of clean technologies  
9           for promotion and emulation.

10 **SEC. 4. APPLICATIONS.**

11           (a) IN GENERAL.—To receive a grant under this Act,  
12           a consortium shall submit to the Secretary an application  
13           in such manner, at such time, and containing such infor-  
14           mation as the Secretary determines to be necessary.

15           (b) ELIGIBILITY.—A consortium shall be eligible to  
16           receive a grant under this Act if—

17                   (1) the consortium consists of—

18                           (A) one or more research universities that  
19                           can demonstrate a significant annual clean  
20                           technology research budget, entrepreneurial  
21                           support programs, and technology licensing ex-  
22                           pertise; and

23                           (B) a total of three or more qualifying en-  
24                           tities that can demonstrate expertise in



1 translational research, clean technology, and  
2 cluster development;

3 (2) the members of the consortium have estab-  
4 lished a binding agreement that documents—

5 (A) the structure of the partnership agree-  
6 ment;

7 (B) a governance and management struc-  
8 ture that enables cost-effective implementation  
9 of the program;

10 (C) a conflicts-of-interest policy, including  
11 procedures, consistent with those of the Depart-  
12 ment of Commerce, to ensure that employees  
13 and designees for consortium activities who are  
14 in decision-making capacities disclose all mate-  
15 rial conflicts of interest, including financial, or-  
16 ganizational, and personal conflicts of interest;

17 (D) an accounting structure that meets the  
18 requirements of the Secretary and that may be  
19 audited under this Act; and

20 (E) the existence of an external advisory  
21 committee;

22 (3) the consortium receives funding from non-  
23 Federal sources, such as a State and participants of  
24 the consortium, that may be used to support  
25 projects;

1           (4) the consortium is part of an existing cluster  
2           or demonstrates high potential to develop a new  
3           cluster; and

4           (5) the consortium operates as a nonprofit or-  
5           ganization or as a public-private partnership under  
6           an operating agreement led by a nonprofit organiza-  
7           tion.

8           (c) DISQUALIFICATION.—The Secretary may dis-  
9           qualify an application from a consortium under this Act  
10          if the Secretary determines that the conflicts-of-interest  
11          policy of the consortium is inadequate.

12          (d) EXTERNAL ADVISORY COMMITTEES.—

13               (1) IN GENERAL.—To be eligible to receive a  
14               grant under this Act, a consortium shall establish an  
15               external advisory committee, the members of which  
16               shall have extensive and relevant scientific, technical,  
17               industry, financial, or research management exper-  
18               tise.

19               (2) DUTIES.—An external advisory committee  
20               shall—

21                       (A) review the proposed plans, programs,  
22                       project selection criteria, and projects of the  
23                       consortium; and

1 (B) ensure that projects selected by the  
2 consortium meet the applicable conflicts-of-in-  
3 terest policy of the consortium.

4 (3) MEMBERS.—An external advisory com-  
5 mittee shall consist of—

6 (A) representatives of the members of the  
7 consortium; and

8 (B) such representatives of industry, in-  
9 cluding entrepreneurs and venture capitalists,  
10 as the members of the consortium determine to  
11 be necessary.

12 (4) SECRETARY AS MEMBER.—The Secretary  
13 shall join the external advisory committee of a con-  
14 sortium that receives a grant under this Act.

15 **SEC. 5. GRANTS.**

16 (a) IN GENERAL.—The Secretary shall award grants,  
17 on a competitive basis—

18 (1) not later than 2 years after the date of the  
19 enactment of this Act, to at least 1 consortium; and

20 (2) not later than 10 years after such date of  
21 enactment, to not fewer than 6 consortia.

22 (b) TERMS.—

23 (1) IN GENERAL.—The initial term of a grant  
24 awarded under this Act shall not exceed 5 years.

1           (2) EXTENSION.—The Secretary may extend  
2       the term of a grant awarded under this Act for a  
3       period of not more than 5 additional years.

4       (c) AMOUNTS.—

5           (1) IN GENERAL.—A grant awarded to a con-  
6       sortium under this Act shall not exceed the lesser  
7       of—

8                 (A) \$30,000,000 per fiscal year; or

9                 (B) the collective contributions of non-Fed-  
10       eral entities to the consortium, as described  
11       under section 4(b)(3).

12          (2) FLEXIBILITY.—In determining the amount  
13       of a grant under this section, the Secretary shall  
14       consider—

15                 (A) the translational research capacity of  
16       the consortium;

17                 (B) the financial, human, and facility re-  
18       sources of the qualifying entities; and

19                 (C) the cluster of which the consortium is  
20       a part.

21          (3) INCREASES IN AMOUNTS.—Subject to para-  
22       graph (1), a consortium may request an increase in  
23       the amount of a grant awarded under this Act at the  
24       time the consortium requests an extension of an ini-  
25       tial grant.

1 (d) USE OF AMOUNTS.—

2 (1) IN GENERAL.—Subject to paragraph (3), a  
3 consortium awarded a grant under this Act shall use  
4 the amounts to support translational research, tech-  
5 nology development, manufacturing innovation, and  
6 commercialization activities relating to clean tech-  
7 nology.

8 (2) PROJECT SELECTION.—As a condition of  
9 receiving a grant under this Act, a consortium  
10 shall—

11 (A) develop and make available to the pub-  
12 lic on the website of the Department of Com-  
13 merce proposed plans, programs, project selec-  
14 tion criteria, and terms for individual project  
15 awards;

16 (B) establish policies—

17 (i) to prevent resources provided to  
18 the consortium from being used to displace  
19 private sector investment otherwise likely  
20 to occur, including investment from private  
21 sector entities that are members of the  
22 consortium;

23 (ii) to facilitate the participation of  
24 private entities that invest in clean tech-  
25 nologies to perform due diligence on award

1 proposals, to participate in the award re-  
2 view process, and to provide guidance to  
3 projects supported by the consortium; and

4 (iii) to facilitate the participation of  
5 parties with a demonstrated history of  
6 commercial application of clean tech-  
7 nologies in the development of consortium  
8 projects;

9 (C) oversee project solicitations, review  
10 proposed projects, and select projects for  
11 awards; and

12 (D) monitor project implementation.

13 (3) LIMITATIONS.—

14 (A) ADMINISTRATIVE EXPENSES.—A con-  
15 sortium may use not more than 10 percent of  
16 the amounts awarded to the consortium for ad-  
17 ministrative expenses.

18 (B) PROHIBITION ON USE.—A consortium  
19 may not use any amounts awarded to the con-  
20 sortium under this Act to construct a new  
21 building or facility.

22 (e) AUDITS.—

23 (1) IN GENERAL.—A consortium that receives a  
24 grant under this Act shall carry out, in accordance  
25 with such requirements as the Secretary may pre-

1 scribe, an annual audit to determine whether the  
2 grant has been used in accordance with this Act.

3 (2) REPORT.—The consortium shall submit a  
4 copy of each audit under paragraph (1) to the Sec-  
5 retary and the Comptroller General of the United  
6 States.

7 (3) GAO REVIEW.—As a condition of receiving  
8 a grant under this Act, a consortium shall allow the  
9 Comptroller General of the United States, on the re-  
10 quest of the Comptroller General, full access to the  
11 books, records, and personnel of consortium.

12 (4) REPORTS TO CONGRESS.—The Secretary  
13 shall submit to Congress annually a report that in-  
14 cludes—

15 (A) a copy of each audit carried out under  
16 paragraph (1); and

17 (B) any recommendations of the Secretary  
18 relating to the clean technology consortia pro-  
19 gram.

20 (f) REVOCATION OF AWARDS.—The Secretary shall  
21 have the authority—

22 (1) to review grants awarded under this Act;  
23 and

24 (2) to revoke a grant awarded under this Act  
25 if the Secretary determines that a consortium has

1       used the grant in a manner that is not consistent  
2       with this Act.

3       (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
4       authorized to be appropriated to the Secretary to carry  
5       out this section \$100,000,000.

○