

115TH CONGRESS  
2D SESSION

# S. 2602

To support carbon dioxide utilization and direct air capture research, to facilitate the permitting and development of carbon capture, utilization, and sequestration projects and carbon dioxide pipelines, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MARCH 22, 2018

Mr. BARRASSO (for himself, Mr. WHITEHOUSE, Mrs. CAPITO, and Ms. HEITKAMP) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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## A BILL

To support carbon dioxide utilization and direct air capture research, to facilitate the permitting and development of carbon capture, utilization, and sequestration projects and carbon dioxide pipelines, 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 “Utilizing Significant  
5 Emissions with Innovative Technologies Act” or the “USE  
6 IT Act”.

1 **TITLE I—ENCOURAGING PROJ-**  
 2 **ECTS TO REDUCE EMISSIONS**

3 **SEC. 101. RESEARCH, INVESTIGATION, TRAINING, AND**  
 4 **OTHER ACTIVITIES.**

5 Section 103 of the Clean Air Act (42 U.S.C. 7403)  
 6 is amended—

7 (1) in subsection (c)(3), in the first sentence of  
 8 the matter preceding subparagraph (A), by striking  
 9 “precursors” and inserting “precursors”; and

10 (2) in subsection (g)—

11 (A) by redesignating paragraphs (1)  
 12 through (4) as subparagraphs (A) through (D),  
 13 respectively, and indenting appropriately;

14 (B) in the undesignated matter following  
 15 subparagraph (D) (as so redesignated)—

16 (i) in the second sentence, by striking  
 17 “The Administrator” and inserting the fol-  
 18 lowing:

19 “(5) COORDINATION AND AVOIDANCE OF DU-  
 20 PPLICATION.—The Administrator”; and

21 (ii) in the first sentence, by striking  
 22 “Nothing” and inserting the following:

23 “(4) EFFECT OF SUBSECTION.—Nothing”;

24 (C) in the matter preceding subparagraph  
 25 (A) (as so redesignated)—

1 (i) in the third sentence, by striking  
 2 “Such program” and inserting the fol-  
 3 lowing:

4 “(3) PROGRAM INCLUSIONS.—The program  
 5 under this subsection”;

6 (ii) in the second sentence—

7 (I) by inserting “States, institu-  
 8 tions of higher education,” after “sci-  
 9 entists,”; and

10 (II) by striking “Such strategies  
 11 and technologies shall be developed”  
 12 and inserting the following:

13 “(2) PARTICIPATION REQUIREMENT.—Such  
 14 strategies and technologies described in paragraph  
 15 (1) shall be developed”; and

16 (iii) in the first sentence, by striking  
 17 “In carrying out” and inserting the fol-  
 18 lowing:

19 “(1) IN GENERAL.—In carrying out”; and

20 (D) by adding at the end the following:

21 “(6) CERTAIN CARBON DIOXIDE ACTIVITIES.—

22 “(A) IN GENERAL.—In carrying out para-  
 23 graph (3)(A) with respect to carbon dioxide, the  
 24 Administrator shall carry out the activities de-  
 25 scribed in each of subparagraphs (B) and (C).

1 “(B) DIRECT AIR CAPTURE RESEARCH.—

2 “(i) DEFINITIONS.—In this subpara-  
3 graph:

4 “(I) BOARD.—The term ‘Board’  
5 means the Direct Air Capture Tech-  
6 nology Advisory Board established by  
7 clause (iii)(I).

8 “(II) DILUTE.—The term ‘dilute’  
9 means a concentration of less than 1  
10 percent by volume.

11 “(III) DIRECT AIR CAPTURE.—

12 “(aa) IN GENERAL.—The  
13 term ‘direct air capture’, with re-  
14 spect to a facility, technology, or  
15 system, means that the facility,  
16 technology, or system uses car-  
17 bon capture equipment to cap-  
18 ture carbon dioxide directly from  
19 the air.

20 “(bb) EXCLUSION.—The  
21 term ‘direct air capture’ does not  
22 include any facility, technology,  
23 or system that captures carbon  
24 dioxide—

1 “(AA) that is delib-  
2 erately released from a natu-  
3 rally occurring subsurface  
4 spring; or

5 “(BB) using natural  
6 photosynthesis.

7 “(IV) INTELLECTUAL PROP-  
8 ERTY.—The term ‘intellectual prop-  
9 erty’ means—

10 “(aa) an invention that is  
11 patentable under title 35, United  
12 States Code; and

13 “(bb) any patent on an in-  
14 vention described in item (aa).

15 “(ii) TECHNOLOGY PRIZES.—

16 “(I) IN GENERAL.—Not later  
17 than 1 year after the date of enact-  
18 ment of the USE IT Act, the Admin-  
19 istrator shall establish a program to  
20 provide, and shall provide, financial  
21 awards on a competitive basis for di-  
22 rect air capture from media in which  
23 the concentration of carbon dioxide is  
24 dilute.

1                   “(II) DUTIES.—In carrying out  
2 this clause, the Administrator shall—

3                   “(aa) subject to subclause  
4 (III), develop specific require-  
5 ments for—

6                   “(AA) the competition  
7 process; and

8                   “(BB) monitoring and  
9 verification procedures for  
10 approved projects;

11                   “(bb) offer financial awards  
12 for a project designed—

13                   “(AA) to capture more  
14 than 10,000 tons of carbon  
15 dioxide per year; and

16                   “(BB) to be deployed  
17 at a cost of less than \$200  
18 per ton of carbon dioxide  
19 captured; and

20                   “(cc) to the maximum ex-  
21 tent practicable, make financial  
22 awards to geographically diverse  
23 projects, including at least—

24                   “(AA) 1 project in a  
25 coastal State; and

1                   “(BB) 1 project in a  
2                   rural State.

3                   “(III) PUBLIC PARTICIPATION.—  
4                   In carrying out subclause (II)(aa), the  
5                   Board shall—

6                   “(aa) provide notice of and,  
7                   for a period of not less than 60  
8                   days, an opportunity for public  
9                   comment on, any draft or pro-  
10                  posed version of the requirements  
11                  described in subclause (II)(aa);  
12                  and

13                  “(bb) take into account pub-  
14                  lic comments received in devel-  
15                  oping the final version of those  
16                  requirements.

17                  “(IV) PEER REVIEW.—No finan-  
18                  cial awards may be provided under  
19                  this clause until the proposal for  
20                  which the award is sought has been  
21                  peer reviewed in accordance with such  
22                  standards for peer review as are es-  
23                  tablished by the Administrator.

24                  “(iii) DIRECT AIR CAPTURE TECH-  
25                  NOLOGY ADVISORY BOARD.—

1                   “(I) ESTABLISHMENT.—There is  
2 established an advisory board to be  
3 known as the ‘Direct Air Capture  
4 Technology Advisory Board’.

5                   “(II) COMPOSITION.—The Board  
6 shall be composed of 9 members ap-  
7 pointed by the Administrator, who  
8 shall provide expertise in—

9                                 “(aa) climate science;

10                                “(bb) physics;

11                               “(cc) chemistry;

12                               “(dd) biology;

13                               “(ee) engineering;

14                               “(ff) economics;

15                               “(gg) business management;

16                               and

17                               “(hh) such other disciplines  
18 as the Administrator determines  
19 to be necessary to achieve the  
20 purposes of this subparagraph.

21                   “(III) TERM; VACANCIES.—

22                               “(aa) TERM.—A member of  
23 the Board shall serve for a term  
24 of 6 years.

1                   “(bb) VACANCIES.—A va-  
2                   cancy on the Board—

3                   “(AA) shall not affect  
4                   the powers of the Board;  
5                   and

6                   “(BB) shall be filled in  
7                   the same manner as the  
8                   original appointment was  
9                   made.

10                  “(IV) INITIAL MEETING.—Not  
11                  later than 30 days after the date on  
12                  which all members of the Board have  
13                  been appointed, the Board shall hold  
14                  the initial meeting of the Board.

15                  “(V) MEETINGS.—The Board  
16                  shall meet at the call of the Chair-  
17                  person.

18                  “(VI) QUORUM.—A majority of  
19                  the members of the Board shall con-  
20                  stitute a quorum, but a lesser number  
21                  of members may hold hearings.

22                  “(VII) CHAIRPERSON AND VICE  
23                  CHAIRPERSON.—The Board shall se-  
24                  lect a Chairperson and Vice Chair-

1 person from among the members of  
2 the Board.

3 “(VIII) COMPENSATION.—Each  
4 member of the Board may be com-  
5 pensated at not to exceed the daily  
6 equivalent of the annual rate of basic  
7 pay in effect for a position at level V  
8 of the Executive Schedule under sec-  
9 tion 5316 of title 5, United States  
10 Code, for each day during which the  
11 member is engaged in the actual per-  
12 formance of the duties of the Board.

13 “(IX) DUTIES.—The Board shall  
14 advise the Administrator on carrying  
15 out the duties of the Administrator  
16 under this subparagraph.

17 “(X) FACA.—The Federal Advi-  
18 sory Committee Act (5 U.S.C. App.)  
19 shall apply to the Board.

20 “(iv) INTELLECTUAL PROPERTY.—

21 “(I) IN GENERAL.—As a condi-  
22 tion of receiving a financial award  
23 under this subparagraph, an applicant  
24 shall agree to vest the intellectual  
25 property of the applicant derived from

1 the technology in 1 or more entities  
2 that are incorporated in the United  
3 States.

4 “(II) RESERVATION OF LI-  
5 CENSE.—The United States—

6 “(aa) may reserve a non-  
7 exclusive, nontransferable, irrev-  
8 ocable, paid-up license, to have  
9 practiced for or on behalf of the  
10 United States, in connection with  
11 any intellectual property de-  
12 scribed in subclause (I); but

13 “(bb) shall not, in the exer-  
14 cise of a license reserved under  
15 item (aa), publicly disclose pro-  
16 prietary information relating to  
17 the license.

18 “(III) TRANSFER OF TITLE.—  
19 Title to any intellectual property de-  
20 scribed in subclause (I) shall not be  
21 transferred or passed, except to an  
22 entity that is incorporated in the  
23 United States, until the expiration of  
24 the first patent obtained in connection  
25 with the intellectual property.

1           “(v) AUTHORIZATION OF APPROPRIA-  
2           TIONS.—There is authorized to be appro-  
3           priated to carry out this subparagraph  
4           \$25,000,000, to remain available until ex-  
5           pended.

6           “(vi) TERMINATION OF AUTHORITY.—  
7           The Board and all authority provided  
8           under this subparagraph shall terminate  
9           on December 31, 2028.

10          “(C) CARBON DIOXIDE UTILIZATION RE-  
11          SEARCH.—

12           “(i) DEFINITION OF CARBON DIOXIDE  
13           UTILIZATION.—In this subparagraph, the  
14           term ‘carbon dioxide utilization’ refers to  
15           technologies or approaches that lead to the  
16           use of carbon dioxide—

17                   “(I) through the fixation of car-  
18                   bon dioxide through photosynthesis or  
19                   chemosynthesis, such as through the  
20                   growing of algae or bacteria;

21                   “(II) through the chemical con-  
22                   version of carbon dioxide to a material  
23                   or chemical compound in which the  
24                   carbon dioxide is securely stored; or

1                   “(III) through the use of carbon  
2                   dioxide for any other purpose for  
3                   which a commercial market exists, as  
4                   determined by the Administrator.

5                   “(ii) PROGRAM.—The Administrator  
6                   shall carry out a research and development  
7                   program for carbon dioxide utilization to  
8                   promote technologies that transform car-  
9                   bon dioxide generated by industrial proc-  
10                  esses into a product of commercial value,  
11                  or as an input to products of commercial  
12                  value.

13                  “(iii) TECHNICAL AND FINANCIAL AS-  
14                  SISTANCE.—Not later than 2 years after  
15                  the date of enactment of the USE IT Act,  
16                  in carrying out this subsection, the Admin-  
17                  istrator shall support research and infra-  
18                  structure activities relating to carbon diox-  
19                  ide utilization by providing technical assist-  
20                  ance and financial assistance in accordance  
21                  with clause (iv).

22                  “(iv) ELIGIBILITY.—To be eligible to  
23                  receive technical assistance and financial  
24                  assistance under clause (iii), a carbon diox-  
25                  ide utilization project shall—

1           “(I) have access to an emissions  
2           stream generated by a stationary  
3           source within the United States that  
4           is capable of supplying not less than  
5           250 metric tons per day of carbon di-  
6           oxide for research;

7           “(II) have access to adequate  
8           space for a laboratory and equipment  
9           for testing small-scale carbon dioxide  
10          utilization technologies, with onsite  
11          access to larger test bays for scale-up;  
12          and

13          “(III) have existing partnerships  
14          with institutions of higher education,  
15          private companies, States, or other  
16          government entities.

17          “(v) COORDINATION.—In supporting  
18          carbon dioxide utilization projects under  
19          this paragraph, the Administrator shall  
20          collaborate, as appropriate, with the head  
21          of any relevant Federal agency, States, the  
22          private sector, and institutions of higher  
23          education to develop methods and tech-  
24          nologies to account for the carbon dioxide

1 emissions avoided by the carbon dioxide  
2 utilization projects.

3 “(vi) AUTHORIZATION OF APPROPRIA-  
4 TIONS.—There is authorized to be appro-  
5 priated to carry out this subparagraph  
6 \$50,000,000, to remain available until ex-  
7 pended.

8 “(D) REPORT ON CARBON DIOXIDE NON-  
9 REGULATORY STRATEGIES AND TECH-  
10 NOLOGIES.—

11 “(i) IN GENERAL.—Not less fre-  
12 quently than once every 2 years, the Ad-  
13 ministrator shall submit to the Committee  
14 on Environment and Public Works of the  
15 Senate and the Committee on Energy and  
16 Commerce of the House of Representatives  
17 a report that describes—

18 “(I) the recipients of assistance  
19 under subparagraphs (B) and (C);  
20 and

21 “(II) a plan for supporting addi-  
22 tional nonregulatory strategies and  
23 technologies that could significantly  
24 prevent carbon dioxide emissions or  
25 reduce carbon dioxide levels in the air,

1 in conjunction with other Federal  
2 agencies.

3 “(ii) INCLUSIONS.—The plan sub-  
4 mitted under clause (i) shall include—

5 “(I) a methodology for evaluating  
6 and ranking technologies based on the  
7 ability of the technologies to cost ef-  
8 fectively reduce carbon dioxide emis-  
9 sions or carbon dioxide levels in the  
10 air; and

11 “(II) a description of any nonair-  
12 related environmental or energy con-  
13 siderations regarding the tech-  
14 nologies.”.

15 **TITLE II—IMPROVEMENT OF**  
16 **PERMITTING PROCESS FOR**  
17 **CARBON DIOXIDE CAPTURE**  
18 **AND INFRASTRUCTURE PROJ-**  
19 **ECTS**

20 **SEC. 201. INCLUSION OF CARBON CAPTURE INFRASTRUC-**  
21 **TURE PROJECTS.**

22 Section 41001(6) of the FAST Act (42 U.S.C.  
23 4370m(6)) is amended—

24 (1) in subparagraph (A)—

1 (A) in the matter preceding clause (i), by  
2 inserting “carbon capture,” before “renewable  
3 or conventional”;

4 (B) in clause (i)(III), by striking “or” at  
5 the end;

6 (C) by redesignating clause (ii) as clause  
7 (iii); and

8 (D) by inserting after clause (i) the fol-  
9 lowing:

10 “(ii) is covered by a programmatic  
11 plan or environmental review developed for  
12 the primary purpose of facilitating develop-  
13 ment of carbon dioxide pipelines; or”; and  
14 (2) by adding at the end the following:

15 “(C) ASSOCIATED DEFINITION.—For pur-  
16 poses of subparagraph (A), the term ‘construc-  
17 tion of infrastructure for carbon capture’ in-  
18 cludes construction of any facility, technology,  
19 or system that captures, utilizes, or sequesters  
20 carbon dioxide emissions and carbon dioxide  
21 pipelines.”.

1 **SEC. 202. DEVELOPMENT OF CARBON CAPTURE, UTILIZA-**  
2 **TION, AND SEQUESTRATION PERMITTING**  
3 **GUIDANCE AND REGIONAL PERMITTING**  
4 **TASK FORCE.**

5 (a) DEVELOPMENT OF GUIDANCE.—

6 (1) IN GENERAL.—Not later than 1 year after  
7 the date of enactment of this Act, the Chair of the  
8 Council on Environmental Quality (referred to in  
9 this section as the “Chair”), in consultation with the  
10 Administrator of the Environmental Protection  
11 Agency, the Secretary of Energy, the Secretary of  
12 the Interior, and the head of any other relevant Fed-  
13 eral agency (as determined by the President), shall  
14 prepare guidance—

15 (A) to facilitate reviews associated with the  
16 deployment of carbon capture, utilization, and  
17 sequestration projects and carbon dioxide pipe-  
18 lines; and

19 (B) that identifies current or emerging ac-  
20 tivities that transform captured carbon dioxide  
21 into a product of commercial value, or as an  
22 input to products of commercial value.

23 (2) REQUIREMENTS.—The guidance under  
24 paragraph (1) shall—

25 (A) address requirements under—

- 1 (i) the National Environmental Policy  
2 Act of 1969 (42 U.S.C. 4321 et seq.);
- 3 (ii) the Federal Water Pollution Con-  
4 trol Act (33 U.S.C. 1251 et seq.);
- 5 (iii) the Clean Air Act (42 U.S.C.  
6 7401 et seq.);
- 7 (iv) the Safe Drinking Water Act (42  
8 U.S.C. 300f et seq.);
- 9 (v) the Endangered Species Act of  
10 1973 (16 U.S.C. 1531 et seq.);
- 11 (vi) division A of subtitle III of title  
12 54, United States Code (formerly known  
13 as the “National Historic Preservation  
14 Act”);
- 15 (vii) the Migratory Bird Treaty Act  
16 (16 U.S.C. 703 et seq.);
- 17 (viii) the Act of June 8, 1940 (16  
18 U.S.C. 668 et seq.) (commonly known as  
19 the “Bald and Golden Eagle Protection  
20 Act”); and
- 21 (ix) any other Federal law that the  
22 Chair determines to be appropriate; and
- 23 (B) include guidance to States for the de-  
24 velopment of programmatic environmental re-  
25 views under the National Environmental Policy

1 Act of 1969 (42 U.S.C. 4321 et seq.) for siting,  
2 analyzing, and authorizing carbon dioxide pipe-  
3 line networks.

4 (3) SUBMISSION; PUBLICATION.—The Chair  
5 shall—

6 (A) submit the guidance under paragraph  
7 (1) to the Committee on Environment and Pub-  
8 lic Works of the Senate and the Committee on  
9 Energy and Commerce of the House of Rep-  
10 resentatives; and

11 (B) publish and make publicly available  
12 the guidance under paragraph (1).

13 (b) TASK FORCE.—

14 (1) ESTABLISHMENT.—Not later than 18  
15 months after the date of enactment of this Act, the  
16 Chair shall establish not less than 2 task forces,  
17 which shall each cover a different geographical area  
18 that faces differing demographic, land use, or geo-  
19 logical issues, to identify permitting challenges that  
20 permitting authorities and project developers and  
21 operators face.

22 (2) MEMBERS AND SELECTION.—

23 (A) IN GENERAL.—The Chair shall—

24 (i) develop criteria for the selection of  
25 members to each task force; and

1 (ii) select members for each task force  
2 in accordance with clause (i) and subpara-  
3 graph (B).

4 (B) MEMBERS.—Each task force—

5 (i) shall include not less than 1 rep-  
6 resentative of each of—

7 (I) the Environmental Protection  
8 Agency;

9 (II) the Department of Energy;

10 (III) the Department of the Inte-  
11 rior;

12 (IV) any other Federal agency  
13 the Chair determines to be appro-  
14 priate;

15 (V) any State that requests par-  
16 ticipation in the geographical area  
17 covered by the task force;

18 (VI) industry; and

19 (VII) nongovernmental organiza-  
20 tions; and

21 (ii) at the request of a Tribal or local  
22 government, may include a representative  
23 of—

1 (I) not less than 1 local govern-  
2 ment in the geographical area covered  
3 by the task force; and

4 (II) not less than 1 Tribal gov-  
5 ernment in the geographical area cov-  
6 ered by the task force.

7 (3) MEETINGS.—

8 (A) IN GENERAL.—Each task force shall  
9 meet not less than twice each year.

10 (B) JOINT MEETING.—To the maximum  
11 extent practicable, the task forces shall meet  
12 collectively not less than once each year.

13 (4) DUTIES.—Each task force shall—

14 (A) inventory existing or potential ap-  
15 proaches to facilitate reviews associated with  
16 the deployment of carbon capture, utilization,  
17 and sequestration projects and carbon dioxide  
18 pipelines;

19 (B) develop common models for State-level  
20 carbon dioxide pipeline regulation and oversight  
21 guidelines that can be shared with States in the  
22 geographical area covered by the task force;

23 (C) provide technical assistance to States  
24 in the geographical area covered by the task  
25 force in implementing regulatory requirements

1 and any models developed under subparagraph  
2 (B); and

3 (D) develop guidance for relevant Federal  
4 agencies on how to develop and research tech-  
5 nologies that—

6 (i) can capture carbon dioxide; and

7 (ii) would be able to be deployed with-  
8 in the region covered by the task force, in-  
9 cluding any projects that have received  
10 technical or financial assistance for re-  
11 search under paragraph (6) of section  
12 103(g) of the Clean Air Act (42 U.S.C.  
13 7403(g)).

14 (5) REPORT.—Each year, each task force shall  
15 prepare and submit to the Chair and to the other  
16 task forces a report that includes—

17 (A) any recommendations for improve-  
18 ments in the issuance or administration of Fed-  
19 eral permits and other Federal authorizations  
20 required under a law described in subsection  
21 (a)(2)(A); and

22 (B) any other nationally relevant informa-  
23 tion that the task force has collected in carrying  
24 out the duties under paragraph (4).

1           (6) EVALUATION AND REVISION.—The Chair  
2 shall—

3           (A) evaluate the reports under paragraph  
4 (5) and, as necessary, revise the guidance under  
5 subsection (a); and

6           (B) submit to the Committee on Environ-  
7 ment and Public Works of the Senate, the Com-  
8 mittee on Energy and Commerce of the House  
9 of Representatives, and relevant Federal agen-  
10 cies each year any revisions to the guidance  
11 under subsection (a) and a report that describes  
12 any recommendations for legislation, rules, or  
13 revisions to rules that would address the issues  
14 identified by the task forces under paragraph  
15 (5).

○