

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—116th Cong., 1st Sess.

S. 1685

To require the Secretary of Energy to establish a program for the research, development, and demonstration of commercially viable technologies for the capture of carbon dioxide produced during the generation of natural gas-generated power.

Referred to the Committee on _____ and
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended
to be proposed by Mr.
(CASSIDY)

Viz:

- 1 Strike all after the enacting clause and insert the fol-
- 2 lowing:
- 3 **SECTION 1. SHORT TITLE.**
- 4 This Act may be cited as the “Launching Energy Ad-
- 5 vancement and Development through Innovations for Nat-
- 6 ural Gas Act of 2019”.

1 **SEC. 2. NATURAL GAS CARBON CAPTURE RESEARCH, DE-**
2 **VELOPMENT, AND DEMONSTRATION PRO-**
3 **GRAM.**

4 (a) IN GENERAL.—Subtitle F of title IX of the En-
5 ergy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is
6 amended by adding at the end the following:

7 **“SEC. 969. NATURAL GAS CARBON CAPTURE RESEARCH,**
8 **DEVELOPMENT, AND DEMONSTRATION PRO-**
9 **GRAM.**

10 “(a) DEFINITIONS.—In this section:

11 “(1) COMMERCIALY VIABLE TECHNOLOGY.—
12 The term ‘commercially viable technology’ means
13 technology that has the potential to be successfully
14 deployed and compete effectively in the marketplace
15 at an appropriate size or scale.

16 “(2) ELIGIBLE ENTITY.—The term ‘eligible en-
17 tity’ means an entity that documents to the satisfac-
18 tion of the Secretary that—

19 “(A) the entity is financially responsible;
20 and

21 “(B) the entity will provide sufficient in-
22 formation to the Secretary to enable the Sec-
23 retary to ensure that any funds awarded to the
24 entity are spent efficiently and effectively.

25 “(3) NATURAL GAS.—The term ‘natural gas’
26 means any fuel consisting in whole or in part of—

1 “(A) natural gas;

2 “(B) liquid petroleum gas;

3 “(C) synthetic gas derived from petroleum
4 or natural gas liquids;

5 “(D) any mixture of natural gas and syn-
6 thetic gas; or

7 “(E) biomethane.

8 “(4) NATURAL GAS-GENERATED POWER.—The
9 term ‘natural gas-generated power’ means—

10 “(A) electric energy generated through the
11 use of natural gas; and

12 “(B) the generation of hydrogen from nat-
13 ural gas.

14 “(5) PROGRAM.—The term ‘program’ means
15 the program established under subsection (b)(1).

16 “(6) QUALIFYING ELECTRIC GENERATION FA-
17 CILITY.—

18 “(A) IN GENERAL.—The term ‘qualifying
19 electric generation facility’ means a facility that
20 generates electric energy using natural gas as
21 the fuel.

22 “(B) INCLUSIONS.—The term ‘qualifying
23 electric generation facility’ includes a new or ex-
24 isting—

25 “(i) simple cycle plant;

- 1 “(ii) combined cycle plant;
- 2 “(iii) combined heat and power plant;
- 3 “(iv) steam methane reformer that
- 4 produces hydrogen from natural gas for
- 5 use in the production of electric energy; or
- 6 “(v) facility that uses natural gas as
- 7 the fuel for generating electric energy.

8 “(7) QUALIFYING TECHNOLOGY.—The term

9 ‘qualifying technology’ means any commercially via-

10 ble technology, as determined by the Secretary, for

11 the capture of carbon dioxide produced during the

12 generation of natural gas-generated power.

13 “(b) ESTABLISHMENT OF RESEARCH, DEVELOP-

14 MENT, AND DEMONSTRATION PROGRAM.—

15 “(1) IN GENERAL.—The Secretary shall estab-

16 lish a program of research, development, and dem-

17 onstration of qualifying technologies for use by

18 qualifying electric generation facilities.

19 “(2) OBJECTIVES.—The objectives of the pro-

20 gram shall be—

21 “(A) to identify opportunities to accelerate

22 the development and commercial applications of

23 qualifying technologies to reduce the quantity of

24 carbon dioxide emissions released from quali-

25 fying electric generation facilities;

1 “(B) to enter into cooperative agreements
2 with eligible entities to expedite and carry out
3 demonstration projects (including pilot projects)
4 for qualifying technologies for use by qualifying
5 electric generation facilities to demonstrate the
6 technical and commercial viability of those
7 qualifying technologies for commercial deploy-
8 ment; and

9 “(C) to identify any barriers to the com-
10 mercial deployment of any qualifying tech-
11 nologies under development.

12 “(3) PARTICIPATION OF NATIONAL LABORA-
13 TORIES, UNIVERSITIES, AND RESEARCH FACILI-
14 TIES.—The program may include the participation
15 of—

16 “(A) National Laboratories;

17 “(B) institutions of higher education;

18 “(C) research facilities; or

19 “(D) other appropriate entities.

20 “(4) COOPERATIVE AGREEMENTS.—

21 “(A) IN GENERAL.—In carrying out the
22 program, the Secretary may enter into coopera-
23 tive agreements with eligible entities to carry
24 out research, development, and demonstration
25 projects for qualifying technologies.

1 “(B) APPLICATIONS; PROPOSALS.—An eli-
2 gible entity desiring to enter into a cooperative
3 agreement under this paragraph shall submit to
4 the Secretary an application at such time, in
5 such manner, and containing such information
6 as the Secretary may require.

7 “(c) CARBON CAPTURE FACILITIES DEMONSTRATION
8 PROGRAM.—

9 “(1) ESTABLISHMENT.—As part of the pro-
10 gram, the Secretary shall establish a demonstration
11 program under which the Secretary shall enter into
12 cooperative agreements with eligible entities for dem-
13 onstration or pilot projects to license, permit, con-
14 struct, and operate, by not later than September 30,
15 2025, 3 or more facilities to capture carbon dioxide
16 from qualifying electric generation facilities.

17 “(2) GOALS.—Each demonstration or pilot
18 project under the demonstration program shall—

19 “(A) be designed to further the develop-
20 ment of qualifying technologies that may be
21 used by a qualifying electric generation facility;

22 “(B) be financed in part by the private
23 sector;

24 “(C) if necessary, secure agreements for
25 the offtake of the majority of the carbon dioxide

1 emissions captured by qualifying technologies
2 during the project; and

3 “(D) support energy production in the
4 United States.

5 “(3) REQUEST FOR APPLICATIONS.—Not later
6 than 120 days after the date of enactment of this
7 Act, the Secretary shall solicit applications for coop-
8 erative agreements for projects—

9 “(A) to demonstrate qualifying tech-
10 nologies at 3 or more qualifying electric genera-
11 tion facilities;

12 “(B) to obtain any license or permit from
13 a State or Federal agency that is necessary for
14 the construction of 3 or more facilities to cap-
15 ture carbon dioxide from a qualifying electric
16 generation facility; and

17 “(C) to construct and operate 3 or more
18 facilities to capture carbon dioxide from a quali-
19 fying electric generation facility.

20 “(4) REVIEW OF APPLICATIONS.—In reviewing
21 applications submitted under paragraph (3), the
22 Secretary, to the maximum extent practicable,
23 shall—

24 “(A) ensure a broad geographic distribu-
25 tion of project sites;

1 “(B) ensure that a broad selection of
2 qualifying electric generation facilities are rep-
3 resented;

4 “(C) ensure that a broad selection of quali-
5 fying technologies are represented; and

6 “(D) leverage existing—

7 “(i) public-private partnerships; and

8 “(ii) Federal resources.

9 “(d) COST SHARING.—In carrying out this section,
10 the Secretary shall require cost sharing in accordance with
11 section 988.

12 “(e) FEE TITLE.—The Secretary may vest fee title
13 or other property interests acquired under cooperative
14 agreements entered into under subsection (b)(4) in any
15 entity, including the United States.

16 “(f) REPORT.—Not later than 180 days after the
17 date on which the Secretary solicits applications under
18 subsection (c)(3), and annually thereafter, the Secretary
19 shall submit to the appropriate committees of jurisdiction
20 of the Senate and the House of Representatives a report
21 that—

22 “(1) with respect to subsections (b) and (c), in-
23 cludes recommendations for any legislative changes
24 needed to improve the implementation of those sub-
25 sections;

1 “(2) with respect to subsection (b), includes—

2 “(A) a detailed description of how applica-
3 tions for cooperative agreements under para-
4 graph (4) of that subsection will be solicited
5 and evaluated, including—

6 “(i) a list of any activities carried out
7 by the Secretary to solicit or evaluate ap-
8 plications; and

9 “(ii) a process for ensuring that any
10 projects carried out under a cooperative
11 agreement are designed to result in the de-
12 velopment or demonstration of qualifying
13 technologies;

14 “(B) a detailed list of technical milestones
15 for each qualifying technology pursued under
16 that subsection;

17 “(C) a detailed description of how each
18 project carried out pursuant to a cooperative
19 agreement under paragraph (4) of that sub-
20 section will meet the milestones for carbon cap-
21 ture described in the September 2017 report of
22 the Office of Fossil Energy entitled ‘Accel-
23 erating Breakthrough Innovation in Carbon
24 Capture, Utilization, and Storage’; and

1 “(D) an affirmation from the Secretary
2 that all recipients of funding under that sub-
3 section are eligible entities; and

4 “(3) with respect to the demonstration program
5 established under subsection (c), includes—

6 “(A) an estimate of the cost of licensing,
7 permitting, constructing, and operating each
8 carbon capture facility expected to be con-
9 structed under that demonstration program;

10 “(B) a schedule for—

11 “(i) obtaining any license or permit
12 necessary to construct and operate each
13 carbon capture facility expected to be con-
14 structed; and

15 “(ii) constructing each facility; and

16 “(C) an estimate of any financial assist-
17 ance, compensation, or incentives proposed to
18 be paid by the host State, Indian Tribe, or local
19 government with respect to each facility.

20 “(g) FUNDING.—For each of fiscal years 2020
21 through 2025, out of any amounts appropriated to the De-
22 partment to carry out fossil energy research and develop-
23 ment activities and not otherwise obligated, the Secretary
24 may use to carry out this section not more than
25 \$50,000,000.”.

1 (b) CLERICAL AMENDMENT.—The table of contents
2 for the Energy Policy Act of 2005 (Public Law 109–58;
3 119 Stat. 600) is amended by inserting after the item re-
4 lating to section 968 the following:

“Sec. 969. Natural gas carbon capture research, development, and demonstra-
tion program.”.

