

116TH CONGRESS
1ST SESSION

S. _____

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.

IN THE SENATE OF THE UNITED STATES

Mr. CORNYN (for himself, Mr. CASSIDY, Mr. COONS, and Ms. SINEMA) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

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.

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 “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) ELIGIBLE ENTITY.—The term ‘eligible en-
12 tity’ means an entity that documents to the satisfac-
13 tion of the Secretary that—

14 “(A) the entity is financially responsible;
15 and

16 “(B) the entity will provide sufficient in-
17 formation to the Secretary to enable the Sec-
18 retary to ensure that any funds awarded to the
19 entity are spent efficiently and effectively.

20 “(2) NATURAL GAS.—The term ‘natural gas’
21 means any fuel consisting in whole or in part of—

22 “(A) natural gas;

23 “(B) liquid petroleum gas;

24 “(C) synthetic gas derived from petroleum
25 or natural gas liquids;

1 “(D) any mixture of natural gas and syn-
2 thetic gas; or

3 “(E) any product derived directly from
4 natural gas, including hydrogen.

5 “(3) NATURAL GAS-GENERATED POWER.—The
6 term ‘natural gas-generated power’ means electric
7 energy generated through the use of natural gas.

8 “(4) PROGRAM.—The term ‘program’ means
9 the program established under subsection (b)(1).

10 “(5) QUALIFYING ELECTRIC GENERATION FA-
11 CILITY.—

12 “(A) IN GENERAL.—The term ‘qualifying
13 electric generation facility’ means a facility that
14 generates electric energy using natural gas as
15 the fuel.

16 “(B) INCLUSIONS.—The term ‘qualifying
17 electric generation facility’ includes—

18 “(i) a traditional natural gas plant;

19 “(ii) a simple cycle plant;

20 “(iii) a combined cycle plant;

21 “(iv) a combined heat and power
22 plant; or

23 “(v) any other facility that uses nat-
24 ural gas as the fuel for generating electric
25 energy.

1 “(6) QUALIFYING TECHNOLOGY.—The term
2 ‘qualifying technology’ means any commercially via-
3 ble technology, as determined by the Secretary, for
4 the capture of carbon dioxide produced during the
5 generation of natural gas-generated power.

6 “(b) ESTABLISHMENT OF RESEARCH, DEVELOP-
7 MENT, AND DEMONSTRATION PROGRAM.—

8 “(1) IN GENERAL.—The Secretary shall estab-
9 lish a program of research, development, and dem-
10 onstration of qualifying technologies for use by
11 qualifying electric generation facilities.

12 “(2) OBJECTIVES.—The objectives of the pro-
13 gram shall be—

14 “(A) to identify opportunities to accelerate
15 the development and commercial applications of
16 qualifying technologies to reduce the quantity of
17 carbon dioxide emissions released from quali-
18 fying electric generation facilities;

19 “(B) to enter into cooperative agreements
20 with eligible entities to expedite and carry out
21 demonstration projects (including pilot projects)
22 for qualifying technologies for use by qualifying
23 electric generation facilities to demonstrate the
24 technical feasibility and economic potential of

1 those qualifying technologies for commercial de-
2 ployment; and

3 “(C) to identify any barriers to the com-
4 mercial deployment of any qualifying tech-
5 nologies under development.

6 “(3) PARTICIPATION OF NATIONAL LABORA-
7 TORIES, UNIVERSITIES, AND RESEARCH FACILI-
8 TIES.—The program may include the participation
9 of—

10 “(A) National Laboratories;

11 “(B) institutions of higher education;

12 “(C) research facilities; or

13 “(D) other appropriate entities.

14 “(4) COOPERATIVE AGREEMENTS.—

15 “(A) IN GENERAL.—In carrying out the
16 program, the Secretary may enter into coopera-
17 tive agreements with eligible entities to carry
18 out research, development, and demonstration
19 projects for qualifying technologies.

20 “(B) APPLICATIONS; PROPOSALS.—An eli-
21 gible entity desiring to enter into a cooperative
22 agreement under this paragraph shall submit to
23 the Secretary an application at such time, in
24 such manner, and containing such information
25 as the Secretary may require.

1 “(c) CARBON CAPTURE FACILITIES DEMONSTRATION
2 PROGRAM.—

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

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

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

16 “(B) be financed in part by the private
17 sector;

18 “(C) if necessary, secure agreements for
19 the offtake of the majority of the carbon dioxide
20 emissions captured by qualifying technologies
21 during the project; and

22 “(D) support energy production in the
23 United States.

24 “(3) REQUEST FOR APPLICATIONS.—Not later
25 than 120 days after the date of enactment of this

1 Act, the Secretary shall solicit applications for coop-
2 erative agreements for projects—

3 “(A) to demonstrate qualifying tech-
4 nologies at 3 or more qualifying electric genera-
5 tion facilities;

6 “(B) to obtain any license or permit from
7 a State or Federal agency that is necessary for
8 the construction of 3 or more facilities to cap-
9 ture carbon dioxide from a qualifying electric
10 generation facility; and

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

14 “(4) REVIEW OF APPLICATIONS.—In reviewing
15 applications submitted under paragraph (3), the
16 Secretary, to the maximum extent practicable,
17 shall—

18 “(A) ensure a broad geographic distribu-
19 tion of project sites;

20 “(B) ensure that a broad selection of
21 qualifying electric generation facilities are rep-
22 resented;

23 “(C) ensure that a broad selection of quali-
24 fying technologies are represented;

1 “(D) require information and knowledge
2 gained by each participant in the demonstration
3 program to be transferred and shared among—

4 “(i) all participants in the demonstra-
5 tion program; and

6 “(ii) other interested parties; and

7 “(E) leverage existing—

8 “(i) public-private partnerships; and

9 “(ii) Federal resources.

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

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

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

23 “(1) with respect to subsections (b) and (c), in-
24 cludes recommendations for any legislative changes

1 needed to improve the implementation of those sub-
2 sections;

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

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

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

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

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

19 “(C) a detailed description of how each
20 project carried out pursuant to a cooperative
21 agreement under paragraph (4) of that sub-
22 section will meet the milestones for carbon cap-
23 ture described in the September 2017 report of
24 the Office of Fossil Energy entitled ‘Accel-

1 erating Breakthrough Innovation in Carbon
2 Capture, Utilization, and Storage’; and

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

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

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

12 “(B) a schedule for—

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

17 “(ii) constructing each facility; and

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

22 “(g) FUNDING.—For each of fiscal years 2020
23 through 2025, out of any amounts appropriated to the De-
24 partment to carry out fossil energy research and develop-
25 ment activities and not otherwise obligated, the Secretary

1 may use to carry out this section not more than
2 \$50,000,000.”.

3 (b) CLERICAL AMENDMENT.—The table of contents
4 for the Energy Policy Act of 2005 (Public Law 109–58;
5 119 Stat. 600) is amended by inserting after the item re-
6 lating to section 968 the following:

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