

111TH CONGRESS  
1ST SESSION

**S.** \_\_\_\_\_

To ensure the energy independence and economic viability of the United States by promoting the responsible use of coal through accelerated carbon capture and storage and through advanced clean coal technology research, development, demonstration, and deployment programs, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

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Mr. CASEY introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

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**A BILL**

To ensure the energy independence and economic viability of the United States by promoting the responsible use of coal through accelerated carbon capture and storage and through advanced clean coal technology research, development, demonstration, and deployment programs, 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 “Responsible Use of  
5       Coal Act of 2009”.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) CARBON CAPTURE AND STORAGE TECH-  
4 NOLOGY.—The term “carbon capture and storage  
5 technology” means an advanced technology or con-  
6 cept that the Secretary determines to have the po-  
7 tential—

8 (A) to capture or remove—

9 (i) carbon dioxide that is emitted from  
10 a coal-fired power plant; and

11 (ii) other industrial sources;

12 (B) to store carbon dioxide in geological  
13 formations; and

14 (C) to use carbon dioxide for—

15 (i) enhanced oil and natural gas re-  
16 covery; or

17 (ii) other large-volume, beneficial uses.

18 (2) CARBON CAPTURE TECHNOLOGY.—

19 (A) IN GENERAL.—The term “carbon cap-  
20 ture technology” means any precombustion  
21 technology, post-combustion technology, or oxy-  
22 combustion technology or process.

23 (B) INCLUSION.—The term “carbon cap-  
24 ture technology” includes carbon dioxide com-  
25 pression technology.

1           (3) ENHANCED OIL AND NATURAL GAS RECOV-  
2           ERY.—The term “enhanced oil and natural gas re-  
3           covery” means the use of carbon dioxide to improve  
4           or enhance the recovery of oil or natural gas from  
5           a depleted oil or natural gas field.

6           (4) PRECOMBUSTION TECHNOLOGY.—The term  
7           “precombustion technology” means a coal or coal-  
8           biomass gasification or integrated gasification com-  
9           bined-cycle process coupled with carbon dioxide stor-  
10          age or reuse.

11          (5) SECRETARY.—The term “Secretary” means  
12          the Secretary of Energy.

13 **SEC. 3. PURPOSES.**

14          The purposes of this Act are—

15           (1) to promote the continued responsible use of  
16           the abundant, secure, and low-cost coal resources of  
17           the United States through the research, develop-  
18           ment, demonstration, and deployment of—

19                   (A) carbon capture and storage tech-  
20                   nologies; and

21                   (B) advanced coal power generation tech-  
22                   nologies;

23           (2) to promote the exportation of the carbon  
24           capture and storage technologies and advanced coal  
25           power generation technologies developed by the

1 United States to countries that rely on coal as the  
2 dominant energy source of the countries (including  
3 China and India); and

4 (3) to support the deployment of carbon cap-  
5 ture and storage technologies by—

6 (A) quantifying the risks of the tech-  
7 nologies; and

8 (B) helping to establish the most appro-  
9 priate framework for managing liabilities asso-  
10 ciated with all phases of carbon capture and  
11 storage technology projects, including—

12 (i) the capture and transportation of  
13 carbon dioxide; and

14 (ii) the siting, design, operation, clo-  
15 sure, and long-term stewardship of carbon  
16 dioxide storage facilities.

17 **SEC. 4. PROGRAMS.**

18 (a) RESEARCH AND DEVELOPMENT PROGRAM.—

19 (1) IN GENERAL.—As soon as practicable after  
20 the date of enactment of this Act, in accordance  
21 with paragraph (2) and subsection (b), the Sec-  
22 retary, acting through the Director of the National  
23 Energy Technology Laboratory, shall carry out a re-  
24 search, development, and demonstration program  
25 through the National Energy Technology Laboratory

1 to further advance carbon capture and storage and  
2 coal power generation technologies.

3 (2) REQUIRED PROGRAMS.—The program de-  
4 scribed in paragraph (1) shall include each program  
5 described in paragraphs (3) through (6).

6 (3) COMMERCIAL DEMONSTRATION PROGRAM.—  
7 As soon as practicable after the date of enactment  
8 of this Act, the Secretary, acting through the Direc-  
9 tor of the National Energy Technology Laboratory,  
10 shall carry out a large-scale commercial demonstra-  
11 tion program to evaluate the most promising carbon  
12 capture and storage technologies.

13 (4) RESEARCH AND DEVELOPMENT PROGRAM  
14 REGARDING CARBON CAPTURE TECHNOLOGIES.—As  
15 soon as practicable after the date of enactment of  
16 this Act, the Secretary shall carry out a research  
17 and development program under which the Secretary  
18 shall evaluate carbon capture technologies to de-  
19 crease the cost, and increase the performance, of  
20 carbon capture technologies.

21 (5) RESEARCH AND DEVELOPMENT PROGRAM  
22 REGARDING CARBON DIOXIDE STORAGE.—As soon as  
23 practicable after the date of enactment of this Act,  
24 the Secretary shall carry out a research and develop-  
25 ment program under which the Secretary shall

1 evaluate options for carbon dioxide storage in geo-  
2 logical formations—

3 (A) for enhanced oil and natural gas recov-  
4 ery; and

5 (B) to decrease the cost, and increase the  
6 performance, of carbon capture and storage  
7 technologies in existence as of the date of enact-  
8 ment of this Act.

9 (6) RESEARCH AND DEVELOPMENT PROGRAM  
10 REGARDING ADVANCED CLEAN COAL POWER GEN-  
11 ERATION TECHNOLOGIES.—As soon as practicable  
12 after the date of enactment of this Act, the Sec-  
13 retary shall carry out a research and development  
14 program under which the Secretary shall evaluate  
15 advanced clean coal power generation technologies to  
16 make practicable—

17 (A) the capture and storage of carbon di-  
18 oxide; and

19 (B) highly efficient power generation (in-  
20 cluding advanced turbines, fuel cells, hydrogen  
21 production, and advanced gasification).

22 (b) COST-SHARING REQUIREMENTS.—

23 (1) COMMERCIAL DEMONSTRATION PROGRAM.—  
24 The Federal share of the cost of any competitively  
25 procured project carried out using funds provided

1 under the commercial demonstration program de-  
2 scribed in subsection (a)(3) shall be not more than  
3 50 percent.

4 (2) OTHER PROGRAMS.—The Federal share of  
5 the cost of any competitively procured project car-  
6 ried out using funds provided under a program de-  
7 scribed in paragraph (4), (5), or (6) of subsection  
8 (a) shall be not more than 80 percent.

9 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

10 There are authorized to be appropriated to the Sec-  
11 retary—

12 (1) to carry out the commercial demonstration  
13 program under section 4(a)(3)—

14 (A) \$300,000,000 for fiscal year 2010;

15 (B) \$350,000,000 for fiscal year 2011;

16 (C) \$400,000,000 for fiscal year 2012; and

17 (D) \$400,000,000 for fiscal year 2013;

18 (2) to carry out the research and development  
19 program under section 4(a)(4)—

20 (A) \$80,000,000 for fiscal year 2010;

21 (B) \$100,000,000 for fiscal year 2011;

22 (C) \$120,000,000 for fiscal year 2012; and

23 (D) \$120,000,000 for fiscal year 2013;

24 (3) to carry out the research and development  
25 program under section 4(a)(5)—

- 1 (A) \$170,000,000 for fiscal year 2010;
- 2 (B) \$200,000,000 for fiscal year 2011;
- 3 (C) \$225,000,000 for fiscal year 2012; and
- 4 (D) \$225,000,000 for fiscal year 2013;
- 5 and
- 6 (4) to carry out the research and development
- 7 program under section 4(a)(6)—
- 8 (A) \$250,000,000 for fiscal year 2010;
- 9 (B) \$270,000,000 for fiscal year 2011;
- 10 (C) \$300,000,000 for fiscal year 2012; and
- 11 (D) \$300,000,000 for fiscal year 2013.