

114TH CONGRESS
1ST SESSION

S. _____

To amend the Energy Policy Act of 2005 to repeal certain programs, to establish a coal technology program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. MANCHIN (for himself and Ms. HEITKAMP) introduced the following bill; which was read twice and referred to the Committee on

A BILL

To amend the Energy Policy Act of 2005 to repeal certain programs, to establish a coal technology program, 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. REPEALS.**

4 (a) IN GENERAL.—

5 (1) Sections 962 and 963 of the Energy Policy
6 Act of 2005 (42 U.S.C. 16292, 16293) are repealed.

7 (2) Subtitle A of title IV of the Energy Policy
8 Act of 2005 (42 U.S.C. 15961 et seq.) is repealed.

9 (b) CONFORMING AMENDMENTS.—

1 (1) Section 703(a)(3) of the Energy Independ-
2 ence and Security Act of 2007 (42 U.S.C.
3 17251(a)(3)) is amended—

4 (A) in the matter preceding subparagraph
5 (A), by striking the first and second sentences;
6 and

7 (B) in subparagraph (B), by striking “in-
8 cluding” in the matter preceding clause (i) and
9 all that follows through the period at the end
10 and inserting “, including such geologic seques-
11 tration projects as are approved by the Sec-
12 retary”.

13 (2) Section 704 of the Energy Independence
14 and Security Act of 2007 (42 U.S.C. 17252) is
15 amended in the first sentence by striking “under
16 section 963(c)(3) of the Energy Policy Act of 2005
17 (42 U.S.C. 16293(c)(3)), as added by section 702 of
18 this subtitle, and”.

19 **SEC. 2. ESTABLISHMENT OF COAL TECHNOLOGY PRO-**
20 **GRAM.**

21 (a) IN GENERAL.—The Energy Policy Act of 2005
22 (as amended by section 2) is amended by inserting after
23 section 961 (42 U.S.C. 16291) the following:

24 **“SEC. 962. COAL TECHNOLOGY PROGRAM.**

25 “(a) DEFINITIONS.—In this section:

1 “(1) LARGE-SCALE PILOT PROJECT.—The term
2 ‘large-scale pilot project’ means a pilot project
3 that—

4 “(A) represents the scale of technology de-
5 velopment beyond laboratory development and
6 bench scale testing, but not yet advanced to the
7 point of being tested under real operational con-
8 ditions at commercial scale;

9 “(B) represents the scale of technology
10 necessary to gain the operational data needed
11 to understand the technical and performance
12 risks of the technology before the application of
13 that technology at commercial scale or in com-
14 mercial-scale demonstration; and

15 “(C) is large enough—

16 “(i) to validate scaling factors; and

17 “(ii) to demonstrate the interaction
18 between major components so that control
19 philosophies for a new process can be de-
20 veloped and enable the technology to ad-
21 vance from large-scale pilot plant applica-
22 tion to commercial scale demonstration or
23 application.

24 “(2) PROGRAM.—The term ‘program’ means
25 the program established under subsection (b).

1 “(3) TRANSFORMATIONAL TECHNOLOGY.—

2 “(A) IN GENERAL.—The term ‘trans-
3 formational technology’ means a power genera-
4 tion technology that represents an entirely new
5 way to convert energy that will enable a step
6 change in performance, efficiency, and cost of
7 electricity as compared to the technology in ex-
8 istence on the date of enactment of this Act.

9 “(B) INCLUSIONS.—The term ‘trans-
10 formational technology’ includes a broad range
11 of technology improvements, including—

12 “(i) thermodynamic improvements in
13 energy conversion and heat transfer, in-
14 cluding—

15 “(I) pressurized oxygen combus-
16 tion;

17 “(II) chemical looping; and

18 “(III) the replacement of steam
19 cycles with supercritical carbon diox-
20 ide cycles;

21 “(ii) improvements in turbine tech-
22 nology; and

23 “(iii) improvements in carbon capture
24 systems technology.

25 “(b) COAL TECHNOLOGY PROGRAM.—

1 “(1) IN GENERAL.—The Secretary shall estab-
2 lish a coal technology program to ensure the contin-
3 ued use of the abundant, domestic coal resources of
4 the United States through the development of tech-
5 nologies that will significantly improve the efficiency,
6 effectiveness, costs, and environmental performance
7 of coal use.

8 “(2) REQUIREMENTS.—The program shall in-
9 clude—

10 “(A) a research and development program;

11 “(B) large-scale pilot projects; and

12 “(C) demonstration projects.

13 “(3) PERFORMANCE STANDARDS.—In consulta-
14 tion with the interested entities described in para-
15 graph (4)(C), the Secretary shall develop perform-
16 ance standards for technologies and the application
17 of those technologies included in the program, taking
18 into consideration the following objectives:

19 “(A) Ensure reliable, low cost power from
20 new and existing coal plants.

21 “(B) Have high conversion efficiencies.

22 “(C) Address emissions of carbon dioxide
23 through high efficiency platforms and carbon
24 capture from new and existing coal plants.

1 “(D) Support small-scale and modular
2 technologies to enable incremental capacity ad-
3 ditions and load growth.

4 “(E) Support flexible baseload operations
5 for new and existing applications of coal gen-
6 eration.

7 “(F) Further reduce emissions of criteria
8 pollutants and reduce the use and manage the
9 discharge of water in power plant operations.

10 “(G) Accelerate the development of tech-
11 nologies that have transformational energy con-
12 version characteristics.

13 “(H) Validate geologic storage of large vol-
14 umes of anthropogenic sources of carbon diox-
15 ide and the infrastructure needed to support a
16 carbon dioxide use and storage industry.

17 “(I) Examine methods of converting coal
18 to other valuable products and commodities in
19 addition to electricity.

20 “(4) CONSULTATIONS REQUIRED.—In carrying
21 out the program, the Secretary shall—

22 “(A) undertake international collabora-
23 tions, as recommended by the National Coal
24 Council;

1 “(B) use existing authorities to encourage
2 international cooperation; and

3 “(C) consult with interested entities, in-
4 cluding –

5 “(i) coal producers;

6 “(ii) industries that use coal;

7 “(iii) organizations that promote coal
8 and advanced coal technologies;

9 “(iv) environmental organizations;

10 “(v) organizations representing work-
11 ers; and

12 “(vi) organizations representing con-
13 sumers.

14 “(c) REPORT.—

15 “(1) IN GENERAL.—Not later than 18 months
16 after the date of enactment of this Act, the Sec-
17 retary shall submit to Congress a report describing
18 the performance standards adopted under subsection
19 (b)(3).

20 “(2) UPDATE.—Once every 2 years after the
21 initial report is submitted under paragraph (1), the
22 Secretary shall submit to Congress a report describ-
23 ing the progress made towards achieving the objec-
24 tives and performance standards adopted under sub-
25 section (b)(3).

1 “(d) FUNDING.—

2 “(1) AUTHORIZATION OF APPROPRIATIONS.—

3 There are authorized to be appropriated to the Sec-
4 retary to carry out this Act, to remain available until
5 expended—

6 “(A) \$610,000,000 for each of fiscal years
7 2017 through 2020; and

8 “(B) \$560,000,000 for fiscal year 2021.

9 “(2) ALLOCATIONS.—The amounts made avail-
10 able under paragraph (1) shall be allocated as fol-
11 lows:

12 “(A) For activities under the research and
13 development program component described in
14 subsection (b)(2)(A)—

15 “(i) \$275,000,000 for each of fiscal
16 years 2017 through 2020; and

17 “(ii) \$200,000,000 for fiscal year
18 2021.

19 “(B) For activities under the demonstra-
20 tion projects program component described in
21 subsection (b)(2)(B)—

22 “(i) \$50,000,000 for each of fiscal
23 years 2017 through 2020; and

24 “(ii) \$75,000,000 for fiscal year 2021.

1 “(C) For activities under the large-scale
2 pilot projects program component described in
3 subsection (b)(2)(C), \$285,000,000 for each of
4 fiscal years 2017 through 2021.”.

5 (b) COST SHARING FOR LARGE-SCALE PILOT
6 PROJECTS.—Section 988(c) of the Energy Policy Act of
7 2005 (42 U.S.C. 16352(c)) is amended—

8 (1) in paragraph (1), by striking “paragraph
9 (2)” and inserting “paragraphs (2) and (3)”; and
10 (2) by adding at the end the following:

11 “(3) COST-SHARING FOR LARGE-SCALE PILOT
12 PROJECTS.—Notwithstanding any other provision of
13 this Act, the cost-sharing requirements under this
14 section shall not apply to the coal technology pro-
15 gram established under section 962.”.

16 (c) CONFORMING AMENDMENT.—The table of con-
17 tents of the Energy Policy Act of 2005 (42 U.S.C. 15801
18 note) is amended—

19 (1) by striking the items relating to sections
20 962 and 963 and inserting the following:

“Sec. 962. Coal technology program.”; and

21 (2) by striking the items relating to subtitle A
22 of title IV.