

118TH CONGRESS
2D SESSION

H. R. 4824

IN THE SENATE OF THE UNITED STATES

MAY 1, 2024

Received; read twice and referred to the Committee on Energy and Natural
Resources

AN ACT

To amend the Energy Policy Act of 2005 to require the Secretary of Energy to carry out terrestrial carbon sequestration research and development activities, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Carbon Sequestration
3 Collaboration Act”.

4 **SEC. 2. CARBON SEQUESTRATION RESEARCH INITIATIVE.**

5 Section 963 of the Energy Policy Act of 2005 (42
6 U.S.C. 16293) is amended—

7 (1) in subsection (a)—

8 (A) by redesignating paragraphs (1) and

9 (2) as paragraphs (2) and (3), respectively;

10 (B) by inserting before paragraph (2), as

11 so redesignated, the following new paragraph:

12 “(1) CARBON SEQUESTRATION IN GEOLOGIC

13 FORMATIONS.—The term ‘carbon sequestration in

14 geologic formations’ means carbon sequestration

15 methods or technologies utilizing existing permeable

16 or porous formations in geologic settings, such as

17 basins or aquifers.”; and

18 (C) by adding at the end the following new

19 paragraph:

20 “(4) TERRESTRIAL CARBON SEQUESTRATION.—

21 The term ‘terrestrial carbon sequestration’ means

22 carbon sequestration methods or technologies engi-

23 neered by humans and targeted at rangelands, agri-

24 cultural lands, fallow lands, or forest stands to in-

25 crease soil organic carbon levels or sequester carbon

26 through transport processes via plant and root bio-

1 mass, including through soil additives, geochemical
2 approaches, and other engineered solutions that can
3 increase the storage of produced carbon in inorganic
4 or mineral forms, such as biochar and carbon min-
5 eralization utilizing mine tailings.”; and

6 (2) in subsection (b)—

7 (A) in paragraph (1)—

8 (i) by striking “shall establish” and
9 inserting “, in coordination with the heads
10 of relevant Federal agencies, carry out”;
11 and

12 (ii) by inserting “, including through
13 terrestrial carbon sequestration and carbon
14 sequestration in geologic formations” be-
15 fore the period;

16 (B) in paragraph (2)—

17 (i) in subparagraph (A)—

18 (I) by striking “in coordination
19 with relevant Federal agencies,”; and

20 (II) by striking “assess the ca-
21 pacity of geologic storage formation”
22 and inserting “evaluate terrestrial
23 carbon sequestration and carbon se-
24 questration in geologic formations”;

25 (ii) in subparagraph (B)—

1 (I) in the matter preceding clause
2 (i), by inserting “and terrestrial car-
3 bon storage sites” after “geologic for-
4 mations”; and

5 (II) in clause (ii), by striking
6 “geologic storage” and inserting
7 “across a variety of ecosystems”;
8 (iii) in subparagraph (D)—

9 (I) by striking “formation”; and
10 (II) by inserting “, and deter-
11 mining the fate of carbon dioxide con-
12 current with and after injection into
13 geologic formations” before the semi-
14 colon;

15 (iv) in subparagraph (E), by striking
16 “geologic sequestration of carbon dioxide”
17 and inserting “terrestrial carbon sequestra-
18 tion and carbon sequestration in geologic
19 formations”;

20 (v) by striking subparagraphs (F) and
21 (G);

22 (vi) by redesignating subparagraphs
23 (H) and (I) as subparagraphs (F) and (G),
24 respectively;

1 (vii) in subparagraph (F), as so rededesignated, by striking “and” after the semicolon;
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4 (viii) in subparagraph (G), as so redesignated, by striking the period and inserting a semicolon; and
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7 (ix) by adding at the end the following new subparagraphs:
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9 “(H) enhancing the scientific understanding of, and reducing uncertainties associated with, the cycling of carbon in agriculture
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“ (I) identifying scientific barriers and pursuing research solutions to challenges preventing terrestrial carbon sequestration and carbon sequestration in geologic formations, including supporting cost and business model assessments to examine the economic viability of technologies and systems developed under the program;
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“(J) collecting, identifying, standardizing, and utilizing data and data sharing practices needed to—
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1 “(i) increase the understanding of ter-
2 restrial carbon sequestration, in particular
3 carbon sequestered through agricultural
4 practices and conservation agriculture,
5 such as rangeland and grazing manage-
6 ment, soil cover, and crop rotations; and

7 “(ii) support the development and
8 demonstration of new carbon sequestration
9 tools and technologies; and

10 “(K) coordinating across Federal agencies
11 research efforts regarding terrestrial carbon se-
12 questration and carbon sequestration in geo-
13 logic formations.”;

14 (C) by redesignating paragraph (3) as
15 paragraph (5);

16 (D) by inserting after paragraph (2) the
17 following new paragraphs:

18 “(3) LEVERAGING.—In carrying out activities
19 under the program, the Secretary shall leverage for
20 the advancement of monitoring, reporting, and
21 verification, including tools, modeling, and analysis,
22 the collective body of knowledge and data, including
23 experience and resources from existing carbon utili-
24 zation and sequestration research, entities, and dem-
25 onstrations, from the following:

1 “(A) The United States Geological Survey,
2 the Agricultural Research Service, and the na-
3 tional Carbon Utilization Research Center.

4 “(B) The Department of Energy, including
5 the Office of Science, the Office of Fossil En-
6 ergy and Carbon Management, and the Office
7 of Clean Energy Demonstrations.

8 “(C) Interagency research and develop-
9 ment initiatives and data collection activities.

10 “(D) Other Federal agencies, research
11 communities, and users of the data referred to
12 in subparagraph (J) of paragraph (2), including
13 the Farm Service Agency, the National Insti-
14 tute of Food and Agriculture, the Forest Serv-
15 ice, and the Natural Resources Conservation
16 Service.

17 “(4) COORDINATION.—The Secretary of Energy
18 shall carry out the program in coordination with,
19 and avoid unnecessary duplication of, the following:

20 “(A) Other research entities of the Depart-
21 ment of Energy, including the National Labora-
22 tories and the Advanced Research Projects
23 Agency–Energy.

24 “(B) Research entities, services, and part-
25 nerships of the Department of Agriculture, in-

cluding the Agricultural Research Service, the Natural Resources Conservation Service, the Farm Service Agency, and the Forest Service.

“(C) Research entities of the Department of the Interior.

“(D) Other entities within Federal agencies that conduct research, development, or demonstration on terrestrial carbon sequestration and carbon sequestration in geologic formations.”; and

(E) by adding at the end the following new paragraph:

“(6) RESEARCH PLAN.—Not later than two years after the date of the enactment of this paragraph and annually thereafter, the Secretary shall submit to the Committee on Science, Space, and Technology, the Committee on Natural Resources, and the Committee on Agriculture of the House of Representatives and the Committee on Energy and Natural Resources and the Committee on Agriculture, Nutrition, and Forestry of the Senate the long-term strategic and prioritized research agenda to identify and address scientific challenges for widespread adoption of terrestrial carbon sequestration and carbon sequestration in geological formations,

1 including in shallow formations and sites not used
2 for enhanced oil recovery.”.

Passed the House of Representatives April 30, 2024.

Attest: KEVIN F. MCCUMBER,
Clerk.