

Union Calendar No. 173

118TH CONGRESS
1ST SESSION

H. R. 4824

[Report No. 118-213]

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.

IN THE HOUSE OF REPRESENTATIVES

JULY 24, 2023

Mr. BAIRD (for himself and Ms. LOFGREN) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

SEPTEMBER 22, 2023

Reported from the Committee on Science, Space, and Technology, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

A BILL

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,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Carbon Sequestration
5 Collaboration Act”.

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

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

9 (1) in subsection (a)—

10 (A) by redesignating paragraphs (1) and

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

12 (B) by inserting before paragraph (2), as
13 so redesignated, the following new paragraph:

14 “(1) CARBON SEQUESTRATION IN GEOLOGIC
15 FORMATIONS.—The term ‘carbon sequestration in
16 geologic formations’ means carbon sequestration
17 methods or technologies utilizing existing permeable
18 or porous formations in geologic settings, such as
19 basins or aquifers.”; and

20 (C) by adding at the end the following new
21 paragraph:

22 “(4) TERRESTRIAL CARBON SEQUESTRATION.—
23 The term ‘terrestrial carbon sequestration’ means
24 carbon sequestration methods or technologies engi-
25 neered by humans and targeted at rangelands, agri-

1 cultural lands, fallow lands, or forest stands to in-
2 crease soil organic carbon levels or sequester carbon
3 through transport processes via plant and root bio-
4 mass, including through soil additives, geochemical
5 approaches, and other engineered solutions that can
6 increase the storage of produced carbon in inorganic
7 or mineral forms, such as biochar and carbon min-
8 eralization utilizing mine tailings.”; and

9 (2) in subsection (b)—

10 (A) in paragraph (1)—

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

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

19 (B) in paragraph (2)—

20 (i) in subparagraph (A)—

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

23 (II) by striking “assess the ca-
24 pacity of geologic storage formation”
25 and inserting “evaluate terrestrial

1 carbon sequestration and carbon se-
2 questration in geologic formations”;

3 (ii) in subparagraph (B)—

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

8 (II) in clause (ii), by striking
9 “geologic storage” and inserting
10 “across a variety of ecosystems”;

11 (iii) in subparagraph (D)—

12 (I) by striking “formation”; and

13 (II) by inserting “, and deter-
14 mining the fate of carbon dioxide con-
15 current with and after injection into
16 geologic formations” before the semi-
17 colon;

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

23 (v) by striking subparagraphs (F) and
24 (G);

1 (vi) by redesignating subparagraphs
2 (H) and (I) as subparagraphs (F) and (G),
3 respectively;

4 (vii) in subparagraph (F), as so
5 resesignated, by striking “and” after the
6 semicolon;

7 (viii) in subparagraph (G), as so re-
8 designated, by striking the period; and

9 (ix) by adding at the end the following
10 new subparagraphs:

11 “(H) enhancing the scientific under-
12 standing of, and reducing uncertainties associ-
13 ated with, the cycling of carbon in agriculture
14 lands, forests, and geologic formations, includ-
15 ing long- and short-term behavior and potential
16 environmental effects of sequestered carbon;

17 “(I) identifying scientific barriers and pur-
18 suing research solutions to challenges pre-
19 venting terrestrial carbon sequestration and
20 carbon sequestration in geologic formations, in-
21 cluding supporting cost and business model as-
22 sessments to examine the economic viability of
23 technologies and systems developed under the
24 program;

1 “(J) collecting, identifying, standardizing,
2 and utilizing data and data sharing practices
3 needed to—

4 “(i) increase the understanding of ter-
5 restrial carbon sequestration, in particular
6 carbon sequestered through agricultural
7 practices and conservation agriculture,
8 such as rangeland and grazing manage-
9 ment, soil cover, and crop rotations; and

10 “(ii) support the development and
11 demonstration of new carbon sequestration
12 tools and technologies; and

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

17 (C) by redesignating paragraph (3) as
18 paragraph (5);

19 (D) by inserting after paragraph (2) the
20 following new paragraphs:

21 “(3) LEVERAGING.—In carrying out activities
22 under the program, the Secretary shall leverage for
23 the advancement of monitoring, reporting, and
24 verification, including tools, modeling, and analysis,
25 the collective body of knowledge and data, including

1 experience and resources from existing carbon utili-
2 zation and sequestration research, entities, and dem-
3 onstrations, from the following:

4 “(A) The United States Geological Survey,
5 the Agricultural Research Service, and the na-
6 tional Carbon Utilization Research Center.

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

11 “(C) Interagency research and develop-
12 ment initiatives and data collection activities.

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

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

23 “(A) Other research entities of the Depart-
24 ment of Energy, including the National Labora-

1 tories and the Advanced Research Projects
2 Agency–Energy.

3 “(B) Research entities, services, and part-
4 nerships of the Department of Agriculture, in-
5 cluding the Agricultural Research Service, the
6 Natural Resources Conservation Service, the
7 Farm Service Agency, and the Forest Service.

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

10 “(D) Other entities within Federal agen-
11 cies that conduct research, development, or
12 demonstration on terrestrial carbon sequestra-
13 tion and carbon sequestration in geologic for-
14 mations.”; and

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

17 “(6) RESEARCH PLAN.—Not later than two
18 years after the date of the enactment of this para-
19 graph and annually thereafter, the Secretary shall
20 submit to the Committee on Science, Space, and
21 Technology, the Committee on Natural Resources,
22 and the Committee on Agriculture of the House of
23 Representatives and the Committee on Energy and
24 Natural Resources and the Committee on Agri-
25 culture, Nutrition, and Forestry of the Senate the

1 long-term strategic and prioritized research agenda
2 to identify and address scientific challenges for wide-
3 spread adoption of terrestrial carbon sequestration
4 and carbon sequestration in geological formations,
5 including in shallow formations and sites not used
6 for enhanced oil recovery.”.

Union Calendar No. 173

118TH CONGRESS
1ST Session

H. R. 4824

[Report No. 118-213]

A BILL

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.

SEPTEMBER 22, 2023

Reported from the Committee on Science, Space, and Technology, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed