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(Original Signature of Member)

118TH CONGRESS
1ST SESSION

H. R. 4824

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

Mr. BAIRD introduced the following bill; which was referred to the Committee on _____

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”.

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

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

4 (1) in subsection (a)—

5 (A) by redesignating paragraphs (1) and
6 (2) as paragraphs (2) and (3), respectively;

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

9 “(1) CARBON SEQUESTRATION IN GEOLOGIC
10 FORMATIONS.—The term ‘carbon sequestration in
11 geologic formations’ means carbon sequestration
12 methods or technologies utilizing existing permeable
13 or porous formations in geologic settings, such as
14 basins or aquifers.”; and

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

17 “(4) TERRESTRIAL CARBON SEQUESTRATION.—
18 The term ‘terrestrial carbon sequestration’ means
19 carbon sequestration methods or technologies engi-
20 neered by humans and targeted at rangelands, agri-
21 cultural lands, fallow lands, or forest stands to in-
22 crease soil organic carbon levels or sequester carbon
23 through transport processes via plant and root bio-
24 mass, including through soil additives, geochemical
25 approaches, and other engineered solutions that can
26 increase the storage of produced carbon in inorganic

1 or mineral forms, such as biochar and carbon min-
2 eralization utilizing mine tailings.”; and

3 (2) in subsection (b)—

4 (A) in paragraph (1)—

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

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

13 (B) in paragraph (2)—

14 (i) in subparagraph (A)—

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

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

22 (ii) in subparagraph (B)—

23 (I) in the matter preceding clause

24 (i), by inserting “and terrestrial car-

1 bon storage sites” after “geologic for-
2 mations”; and

3 (II) in clause (ii), by striking
4 “geologic storage” and inserting
5 “across a variety of ecosystems”;

6 (iii) in subparagraph (D)—

7 (I) by striking “formation”; and

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

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

18 (v) by striking subparagraphs (F) and
19 (G);

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

23 (vii) in subparagraph (F), as so
24 redesignated, by striking “and” after the
25 semicolon;

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

3 (ix) by adding at the end the following
4 new subparagraphs:

5 “(H) enhancing the scientific under-
6 standing of, and reducing uncertainties associ-
7 ated with, the cycling of carbon in agriculture
8 lands, forests, and geologic formations, includ-
9 ing long- and short-term behavior and potential
10 environmental effects of sequestered carbon;

11 “(I) identifying scientific barriers and pur-
12 suing research solutions to challenges pre-
13 venting terrestrial carbon sequestration and
14 carbon sequestration in geologic formations, in-
15 cluding supporting cost and business model as-
16 sessments to examine the economic viability of
17 technologies and systems developed under the
18 program;

19 “(J) collecting, identifying, standardizing,
20 and utilizing data and data sharing practices
21 needed to—

22 “(i) increase the understanding of ter-
23 restrial carbon sequestration, in particular
24 carbon sequestered through agricultural
25 practices and conservation agriculture,

1 such as rangeland and grazing manage-
2 ment, soil cover, and crop rotations; and

3 “(ii) support the development and
4 demonstration of new carbon sequestration
5 tools and technologies; and

6 “(K) coordinating across Federal agencies
7 research efforts regarding terrestrial carbon se-
8 questration and carbon sequestration in geo-
9 logic formations.”;

10 (C) by redesignating paragraph (3) as
11 paragraph (5);

12 (D) by inserting after paragraph (2) the
13 following new paragraphs:

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

22 “(A) The United States Geological Survey,
23 the Agricultural Research Service, and the na-
24 tional Carbon Utilization Research Center.

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

5 “(C) Interagency research and develop-
6 ment initiatives and data collection activities.

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

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

17 “(A) Other research entities of the Depart-
18 ment of Energy, including the National Labora-
19 tories and the Advanced Research Projects
20 Agency—Energy.

21 “(B) Research entities, services, and part-
22 nerships of the Department of Agriculture, in-
23 cluding the Agricultural Research Service, the
24 Natural Resources Conservation Service, the
25 Farm Service Agency, and the Forest Service.

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

3 “(D) Other entities within Federal agen-
4 cies that conduct research, development, or
5 demonstration on terrestrial carbon sequestra-
6 tion and carbon sequestration in geologic for-
7 mations.”; and

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

10 “(6) RESEARCH PLAN.—Not later than two
11 years after the date of the enactment of this para-
12 graph and annually thereafter, the Secretary shall
13 submit to the Committee on Science, Space, and
14 Technology, the Committee on Natural Resources,
15 and the Committee on Agriculture of the House of
16 Representatives and the Committee on Energy and
17 Natural Resources and the Committee on Agri-
18 culture, Nutrition, and Forestry of the Senate the
19 long-term strategic and prioritized research agenda
20 to identify and address scientific challenges for wide-
21 spread adoption of terrestrial carbon sequestration
22 and carbon sequestration in geological formations,
23 including in shallow formations and sites not used
24 for enhanced oil recovery.”.