



(Original Signature of Member)

117TH CONGRESS
2D SESSION

H. R. _____

To require the Secretary of Energy to carry out a carbon sequestration research initiative, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

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

A BILL

To require the Secretary of Energy to carry out a carbon sequestration research initiative, 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 (a) IN GENERAL.—The Secretary of Energy, in co-
8 ordination with the Secretary of the Interior and the Sec-
9 retary of Agriculture, shall establish an initiative to evalu-

1 ate terrestrial carbon sequestration and carbon sequestra-
2 tion in geologic formations to—

3 (1) enhance the scientific understanding of, and
4 reduce uncertainties associated with, the long- and
5 short-term behavior and potential environmental ef-
6 fects of sequestered carbon;

7 (2) inform improved risk-assessment methods,
8 risk-management practices, and standards with re-
9 spect to the sequestration of carbon on large and
10 small scales; and

11 (3) provide reference data needed for the devel-
12 opment and demonstration of new carbon sequestra-
13 tion technologies.

14 (b) INITIATIVE COMPONENTS.—In carrying out the
15 initiative under subsection (a), the Secretary of Energy,
16 in coordination with the Secretary of the Interior and the
17 Secretary of Agriculture, shall—

18 (1) identify scientific challenges for widespread
19 adoption of terrestrial carbon sequestration and car-
20 bon sequestration in geological formations, including
21 in shallow formations and sites not used for en-
22 hanced oil recovery;

23 (2) develop, in coordination with relevant Fed-
24 eral agencies' research efforts, a long-term strategic

1 and prioritized research agenda to address such sci-
2 entific challenges; and

3 (3) leverage for the advancement of modeling
4 and analysis the collective body of knowledge and
5 data, including experience and resources from exist-
6 ing carbon utilization and sequestration research,
7 entities, and demonstrations, from—

8 (A) the United States Geological Survey,
9 the Agricultural Research Service, and the na-
10 tional Carbon Utilization Research Center;

11 (B) the Department of Energy, including
12 the Office of Science; and

13 (C) other Federal agencies, research com-
14 munities, and users of the reference data re-
15 ferred to in subsection (a)(3), including the Na-
16 tional Institute of Food and Agriculture, the
17 National Science Foundation, the Forest Serv-
18 ice, and the Natural Resources Conservation
19 Service.

20 (c) PRIORITIES.—In carrying out the initiative under
21 subsection (a), the Secretary of Energy shall prioritize
22 joint research with relevant Federal agencies, including
23 the agencies specified in subsection (b)(3)(C), to achieve
24 the following objectives:

1 (1) Increasing the understanding and develop-
2 ment of permanent terrestrial carbon sequestration,
3 including through organic soil carbon sequestration,
4 soil carbon mineralization, artificial reforestation,
5 and carbon mineralization utilizing mine tailings.

6 (2) Developing computational tools and data
7 sharing practices to assess and manage potential en-
8 vironmental impacts at geologic formations and ter-
9 restrial carbon storage sites across a variety of eco-
10 systems.

11 (3) Collecting, identifying, and utilizing data
12 needed to increase the understanding of terrestrial
13 carbon sequestration, in particular carbon seques-
14 tered through agricultural practices and conservation
15 agriculture, such as rangeland and grazing manage-
16 ment, soil cover, and crop rotations.

17 (4) Advancing the commercialization of new
18 and existing sequestration technologies or methods.

19 (d) COORDINATION.—The Secretary of Energy shall
20 carry out the initiative under subsection (a) with and avoid
21 unnecessary duplication of the following:

22 (1) Other research entities of the Department
23 of Energy, including the National Laboratories and
24 the Advanced Research Projects Agency–Energy.

1 (2) Research entities, services, and partnerships
2 of the Department of Agriculture, including the Ag-
3 ricultural Research Service, the Natural Resources
4 Conservation Service, and the Forest Service.

5 (3) Research entities of the Department of the
6 Interior.

7 (e) RESEARCH PLAN.—Not later than two years after
8 the date of the enactment of this Act and annually there-
9 after, the Secretary of Energy shall submit to the Com-
10 mittee on Science, Space, and Technology, the Committee
11 on Natural Resources, and the Committee on Agriculture
12 of the House of Representatives and the Committee on
13 Energy and Natural Resources and the Committee on Ag-
14 riculture, Nutrition, and Forestry of the Senate the long-
15 term strategic and prioritized research agenda required
16 pursuant to subsection (b)(2).

17 (f) DEFINITIONS.—In this section:

18 (1) TERRESTRIAL CARBON SEQUESTRATION.—
19 The term “terrestrial carbon sequestration” means
20 carbon sequestration methods or technologies engi-
21 neered by humans and targeted at rangelands, agri-
22 cultural lands, or fallow lands to increase soil or-
23 ganic carbon levels or sequester carbon through
24 plant and root biomass, including through soil addi-
25 tives, geochemical approaches, and other engineered

1 solutions that can increase the storage of produced
2 carbon in inorganic or mineral forms, such as
3 biochar and carbon mineralization utilizing mine
4 tailings.

5 (2) CARBON SEQUESTRATION IN GEOLOGIC
6 FORMATIONS.—The term “carbon sequestration in
7 geologic formations” means carbon sequestration
8 methods or technologies utilizing existing permeable
9 or porous formations in geologic basins.