

117TH CONGRESS  
2D SESSION

# H. R. 7434

To require the Secretary of Energy to remove carbon dioxide directly from ambient air or seawater, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 7, 2022

Mr. TONKO (for himself and Mr. PETERS) introduced the following bill; which was referred to the Committee on Energy and Commerce

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## A BILL

To require the Secretary of Energy to remove carbon dioxide directly from ambient air or seawater, 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 “Federal Carbon Diox-  
5 ide Removal Leadership Act of 2022”.

6 **SEC. 2. FEDERAL REQUIREMENT TO REMOVE CARBON DI-**  
7 **OXIDE.**

8 (a) **REQUIRED AMOUNTS.**—The Secretary shall, to  
9 the extent economically feasible as provided in subsection  
10 (d), remove—

1           (1) 50,000 net metric tons of carbon dioxide,  
2           calculated on a lifecycle basis, for each of fiscal  
3           years 2024 through 2025;

4           (2) 500,000 net metric tons of carbon dioxide,  
5           calculated on a lifecycle basis, for each of fiscal  
6           years 2026 through 2028;

7           (3) 5,000,000 net metric tons of carbon dioxide,  
8           calculated on a lifecycle basis, for each of fiscal  
9           years 2029 through 2034; and

10          (4) 10,000,000 net metric tons of carbon diox-  
11          ide, calculated on a lifecycle basis, for fiscal year  
12          2035 and each fiscal year thereafter.

13          (b) TIMING.—The Secretary shall remove each  
14          amount of carbon dioxide required under subsection (a)  
15          by not later than 3 years after the beginning of the fiscal  
16          year for which such removal is required.

17          (c) SMALL REMOVAL PROJECT SET-ASIDE.—To the  
18          extent practicable, at least 20 percent of the net metric  
19          tons of carbon dioxide required to be removed for each  
20          of fiscal years 2024 through 2034 under subsection (a)  
21          shall be removed by small removal projects.

22          (d) ECONOMIC FEASIBILITY.—

23                 (1) IN GENERAL.—The removal of carbon diox-  
24                 ide under this section shall be considered economi-

1 cally feasible if such removal can be accomplished or,  
2 in the case of a contract, purchased—

3 (A) with respect to such removal carried  
4 out for any of fiscal years 2024 through 2025,  
5 at a price per metric ton of carbon dioxide of  
6 not more than \$550;

7 (B) with respect to such removal carried  
8 out for any of fiscal years 2026 through 2028,  
9 at a price per metric ton of carbon dioxide of  
10 not more than \$400;

11 (C) with respect to such removal carried  
12 out for any of fiscal years 2029 through 2031,  
13 at a price per metric ton of carbon dioxide of  
14 not more than \$300;

15 (D) with respect to such removal carried  
16 out for any of fiscal years 2032 through 2034,  
17 at a price per metric ton of carbon dioxide of  
18 not more than \$200; and

19 (E) with respect to such removal carried  
20 out for fiscal year 2035 and each fiscal year  
21 thereafter, at a price per metric ton of carbon  
22 dioxide of not more than \$150.

23 (2) INCLUSION OF MONITORING, REPORTING,  
24 AND VERIFICATION COSTS.—In determining whether  
25 the removal of carbon dioxide is considered economi-

1 cally feasible under paragraph (1), the price for such  
2 removal shall include any costs associated with the  
3 monitoring, reporting, and verification required  
4 under subsection (f)(1).

5 (3) MULTI-YEAR CONTRACTS.—Notwith-  
6 standing paragraph (1), the removal of carbon diox-  
7 ide carried out pursuant to a multi-year contract en-  
8 tered into under subsection (h) shall be considered  
9 economically feasible if such removal can be accom-  
10 plished at the applicable dollar amount for the first  
11 fiscal year of the contract, as provided in paragraph  
12 (1), through the entire length of such contract.

13 (e) FEDERAL ASSISTANCE.—Funds received pursu-  
14 ant to a contract entered into under subsection (h) shall  
15 not be considered Federal assistance or otherwise affect  
16 eligibility for any Federal assistance, including tax incen-  
17 tives.

18 (f) MONITORING, REPORTING, AND VERIFICATION.—

19 (1) IN GENERAL.—The Secretary, or an entity  
20 the Secretary enters into a contract with under sub-  
21 section (h), shall monitor, report, and verify the net  
22 metric tons of carbon dioxide the Secretary or such  
23 entity, as applicable, removed for purposes of this  
24 section.

1           (2) BEST PRACTICES.—The Secretary shall en-  
2           sure that any project for the removal of carbon diox-  
3           ide for which a contract is entered into under sub-  
4           section (h) shall follow the best available practices,  
5           as determined by the Secretary, for monitoring, re-  
6           porting, and verifying the net metric tons of carbon  
7           dioxide removed under the project, including best  
8           practices—

9                   (A) used by similar carbon dioxide removal  
10                  projects; and

11                   (B) necessary to ensure safe, effective, and  
12                  efficient removal of carbon dioxide.

13           (3) PROHIBITION ON DOUBLE COUNTING.—Car-  
14           bon dioxide that is removed for the purposes of com-  
15           pliance with any other greenhouse gas emissions  
16           management program, including any foreign, Fed-  
17           eral, State, local, or private greenhouse gas emis-  
18           sions management program, as determined by the  
19           Secretary, may not be considered removed under  
20           subsection (a) for purposes of meeting the require-  
21           ments of such subsection.

22           (g) PRIORITIES.—In carrying out this section, the  
23           Secretary shall give priority to any project for the removal  
24           of carbon dioxide that—

1           (1) minimizes the amount of greenhouse gas  
2 emissions released by carrying out such project;

3           (2) supports the commercialization of innovative  
4 removal technologies;

5           (3) increases the diversity of commercially  
6 available eligible technologies;

7           (4) provides the greatest potential for domestic  
8 job creation;

9           (5) results in economic development or eco-  
10 nomic diversification in regions or localities that  
11 have historically generated significant economic ac-  
12 tivity from the production, processing, transpor-  
13 tation, or combustion of fossil fuels, including  
14 through the use of coal mines, fossil fuel-fired elec-  
15 tricity generating units, and petroleum refining fa-  
16 cilities;

17           (6) quantifies and mitigates the effect of remov-  
18 ing carbon dioxide on environmental justice, the en-  
19 vironment, and public health; and

20           (7) includes robust public engagement and com-  
21 munity benefits.

22 (h) CONTRACTS.—

23           (1) IN GENERAL.—The Secretary may enter  
24 into contracts to meet the requirements of sub-  
25 section (a).

1           (2) LENGTH.—A contract entered into under  
2           this subsection may not be for a term of more than  
3           15 years.

4           (i) REPORT.—Not later than January 1, 2027, and  
5           every 2 years thereafter, the Secretary shall submit to  
6           Congress, and release to the public, a report on the  
7           progress of carrying out the requirements of this section,  
8           which such report shall include—

9                   (1) the amounts verified under subsection  
10           (f)(1);

11                   (2) the total price, and price per metric ton, to  
12           remove carbon dioxide for the applicable fiscal year  
13           as required under subsection (a);

14                   (3) the methods associated with the monitoring,  
15           reporting, and verification required under subsection  
16           (f)(1);

17                   (4) an estimate of how removing carbon dioxide  
18           under this section affects environmental justice, the  
19           environment, and public health; and

20                   (5) information on potential labor impacts and  
21           job creation resulting from fulfilling the require-  
22           ments of subsection (a).

23           (j) AUTHORIZATION OF APPROPRIATIONS.—There  
24           are authorized to be appropriated such sums as are nec-  
25           essary to carry out this section.

1 (k) DEFINITIONS.—In this section:

2 (1) ELIGIBLE TECHNOLOGY.—

3 (A) IN GENERAL.—The term “eligible  
4 technology” means any equipment, technique,  
5 or technology, placed into service after January  
6 1, 2022, that removes carbon dioxide directly  
7 from ambient air or seawater, as determined  
8 appropriate by the Secretary.

9 (B) EXCLUSION.—The term “eligible tech-  
10 nology” does not include any equipment, tech-  
11 nique, or technology that—

12 (i) removes carbon dioxide which is  
13 deliberately released from naturally occur-  
14 ring subsurface springs;

15 (ii) removes carbon dioxide using nat-  
16 ural photosynthesis; or

17 (iii) is related to the extraction, re-  
18 finement, delivery, or use of fossil fuels, in-  
19 cluding enhanced oil recovery.

20 (C) EXPANSION OF ELIGIBLE TECH-  
21 NOLOGY.—Notwithstanding subparagraph  
22 (B)(ii), any equipment, technique, or technology  
23 that removes carbon dioxide using gasification  
24 or pyrolysis of solid, nonhazardous, and cellu-  
25 losic waste materials may be considered an eli-



1           gible technology under this section if the Sec-  
2           retary, by rule—

3                   (i) determines an entity that carries  
4                   out a removal project under this section is  
5                   able to adequately monitor, report, and  
6                   verify the amount of greenhouse gas emis-  
7                   sions, calculated on a lifecycle basis (in-  
8                   cluding direct emissions and significant in-  
9                   direct emissions), associated with such  
10                  equipment, technique, or technology;

11                  (ii) determines an entity that carries  
12                  out a removal project under this section is  
13                  able to adequately mitigate the environ-  
14                  mental impacts (including impacts on bio-  
15                  diversity, land use, and air and water qual-  
16                  ity) associated with such equipment, tech-  
17                  nique, or technology; and

18                  (iii) requires an entity carrying out a  
19                  removal project under this section to—

20                          (I) adequately monitor, report,  
21                          and verify the amount of greenhouse  
22                          gas emissions, calculated on a lifecycle  
23                          basis (including direct emissions and  
24                          significant indirect emissions), associ-

1           ated with such equipment, technique,  
2           or technology; and

3                   (II) adequately mitigate the envi-  
4           ronmental impacts (including impacts  
5           on biodiversity, land use, and air and  
6           water quality) associated with such  
7           equipment, technique, or technology.

8           (2) REMOVE.—The term “remove” means to—

9                   (A) capture carbon dioxide using eligible  
10           technology; and

11                   (B) permanently store such captured car-  
12           bon dioxide—

13                       (i) in a subsurface geologic formation  
14           or in materials, including building mate-  
15           rials and mineralized carbon materials; or

16                       (ii) using other permanent storage  
17           methods, as determined by the Secretary.

18           (3) SECRETARY.—The term “Secretary” means  
19           the Secretary of Energy.

20           (4) SMALL REMOVAL PROJECT.—The term  
21           “small removal project” means a project for the re-  
22           moval of carbon dioxide that does not remove more  
23           than 5 percent of the net metric tons of carbon diox-

1       ide required to be removed for the applicable fiscal  
2       year under subsection (a).

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