

118TH CONGRESS
2D SESSION

H. R. 10174

To direct the Secretary of Transportation to establish a program to support the research, development, demonstration, and deployment of zero-emission vessels and retrofit or replacement of existing vessels with zero-emission technologies and charging or fueling infrastructure, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 20, 2024

Ms. BARRAGÁN (for herself, Mr. MULLIN, Mr. MAGAZINER, Ms. NORTON, Ms. BONAMICI, Mrs. FOUSHEE, Mr. CARTER of Louisiana, and Mr. ROBERT GARCIA of California) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committee on Transportation and Infrastructure, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To direct the Secretary of Transportation to establish a program to support the research, development, demonstration, and deployment of zero-emission vessels and retrofit or replacement of existing vessels with zero-emission technologies and charging or fueling infrastructure, 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 “Zero-Emission Vessel
3 Innovation Act”.

4 **SEC. 2. ZERO-EMISSION VESSEL INNOVATION FUND.**

5 (a) IN GENERAL.—The Secretary of Transportation
6 shall establish a program to be known as the “Zero-Emis-
7 sion Vessel Innovation Program” (in this section referred
8 to as the “Program”) to support the research, design, de-
9 velopment, demonstration, and deployment of zero-emis-
10 sion vessels and retrofit or replacement of existing vessels
11 with zero-emission technologies and charging or fueling in-
12 frastructure.

13 (b) MECHANISMS.—In carrying out the Program, the
14 Secretary may provide eligible entities with finance mecha-
15 nisms to support eligible projects, including grants, low-
16 interest loans, and loan guarantees.

17 (c) PRIORITIZATION.—In carrying out the Program,
18 the Secretary shall prioritize eligible projects that—

19 (1) advance the efficiency and reliability, and
20 reduce the costs, of zero-emission vessel develop-
21 ment;

22 (2) improve the components, controls, manufac-
23 turing, materials, and infrastructure that support
24 zero-emission vessels;

25 (3) reduce underwater noise emissions from ves-
26 sels;

1 (4) emphasize technologies with environmental
2 co-benefits such as biofouling reduction;

3 (5) advance synergies between offshore renew-
4 able energy development and maritime
5 decarbonization and ocean noise, such as through
6 the deployment of zero-emission and quiet offshore
7 wind support vessels;

8 (6) utilizes a project labor agreement or com-
9 munity benefits agreement;

10 (7) advance environmental justice and engage
11 communities affected by maritime transport in all
12 phases of the project including the development,
13 planning, and execution of the project; and

14 (8) support workforce training and development
15 for the research, development, demonstration, de-
16 ployment, and maintenance of zero-emission and
17 clean alternative fuel vessels and charging or fueling
18 infrastructure.

19 (d) TRANSPARENCY.—In carrying out the Program,
20 the Secretary shall make publicly available each year on
21 the website of the Department of Transportation applica-
22 tions submitted for funding mechanisms under this sec-
23 tion, including applications selected and not selected for
24 funding.

1 (e) COORDINATION AND LEVERAGING OF RE-
2 SOURCES.—In carrying out the Program, the Secretary
3 shall, to the maximum extent practicable—

4 (1) coordinate with each relevant office in the
5 Department and any other Federal agency;

6 (2) leverage existing resources and programs of
7 the Department and other relevant Federal agencies;

8 (3) leverage public-private partnerships; and

9 (4) engage and solicit input from environmental
10 justice communities and environmental organizations
11 on project impacts and benefits.

12 (f) ADMINISTRATIVE COSTS.—The Secretary may use
13 up to 10 percent of the amounts made available to carry
14 out this section for administrative costs for carrying out
15 the program under this section.

16 (g) WAGES.—All laborers and mechanics employed by
17 a subgrantee of an eligible entity, and any subgrantee
18 thereof at any tier, to perform construction, alteration, in-
19 stallation, or repair work that is assisted, in whole or in
20 part, by funding awarded under this section shall be paid
21 wages at rates not less than those prevailing on similar
22 construction, alteration, installation, or repair work in the
23 locality as determined by the Secretary of Labor in accord-
24 ance with subchapter IV of chapter 31 of title 40, United
25 States Code.

1 (h) FUNDING.—There is authorized to carry out the
2 program under this section \$1,000,000,000 for each of fis-
3 cal years 2025 through 2034.

4 (i) PROHIBITION.—No funds made available to carry
5 out this section shall be spent for the study, design, imple-
6 mentation, or installation of automated vessels, automated
7 vessel operating systems, automated cargo handling sys-
8 tems on a vessel, or automated cargo handling systems
9 for loading or unloading vessels.

10 (j) DEFINITIONS.—In this section:

11 (1) AUTOMATED.—The term “automated”
12 means any vessel or cargo handling system that per-
13 forms any or all core functions without human oper-
14 ation.

15 (2) CHARGING INFRASTRUCTURE.—The term
16 “charging infrastructure”—

17 (A) means the physical systems, equip-
18 ment, and facilities necessary to supply elec-
19 trical power to vessels for the purpose of re-
20 charging the batteries or energy storage sys-
21 tems of such vessels; and

22 (B) includes, with respect to zero emission
23 vessel technology, shore power facilities, onshore
24 charging stations, and any associated equip-

1 ment required to support the electrification of
2 maritime transportation.

3 (3) COMMUNITY BENEFITS AGREEMENT.—The
4 term “community benefits agreement” means an
5 agreement signed by community groups and an eligi-
6 ble entity, identifying the community or labor bene-
7 fits the entity agrees to deliver in return for commu-
8 nity support or workforce availability for a project.

9 (4) ELIGIBLE ENTITY.—The term “eligible enti-
10 ty” means—

11 (A) an owner or operator of a United
12 States-flagged vessel;

13 (B) a United States based manufacturer of
14 vessels;

15 (C) manufacturers of components, tech-
16 nologies, or materials that support zero-emis-
17 sion and clean alternative fuel vessels;

18 (D) a port authority;

19 (E) a terminal operator at a port; and

20 (F) academic institutions or nonprofit enti-
21 ties in a joint application with an entity listed
22 in subparagraphs (A) through (E).

23 (5) ELIGIBLE PROJECT.—The term “eligible
24 project” means a project to support the research,

1 design, demonstration, development, and deployment
2 of—

3 (A) zero-emission vessels;

4 (B) clean alternative fuel vessels;

5 (C) vessel energy efficiency technology
6 (such as wind assistance and systems that mini-
7 mize underwater noise emissions);

8 (D) shore power and corresponding vessel
9 technology; and

10 (E) zero-emission and clean alternative
11 fuel infrastructure, including bunkering and
12 storage, for vessels.

13 (6) ENVIRONMENTAL CO-BENEFITS.—The term
14 “environmental co-benefits” means the additional
15 positive environmental impacts or advantages that
16 arise as a result of implementing a particular policy,
17 technology, or initiative.

18 (7) FUELING INFRASTRUCTURE.—The term
19 “fueling infrastructure” means the infrastructure
20 and facilities essential for supplying, storing, han-
21 dling, and distributing alternative fuels or energy
22 sources used for powering vessels.

23 (8) MARITIME DECARBONIZATION.—The term
24 “maritime decarbonization” means the process of re-
25 ducing or eliminating carbon dioxide emissions asso-

1 ciated with maritime transportation activities and in-
2 volves implementing a range of strategies, tech-
3 nologies, and policies aimed at mitigating the envi-
4 ronmental impact of shipping operations, including
5 the adoption of alternative fuels, energy efficiency
6 measures, operational improvements, and regulatory
7 measures designed to promote the transition to zero
8 emission vessel technologies.

9 (9) PROJECT LABOR AGREEMENT.—The
10 “project labor agreement” means a pre-hire collec-
11 tive bargaining agreement with 1 or more labor or-
12 ganization that establishes the terms and conditions
13 of employment for a specific construction project
14 and is described in section 8(f) of the National
15 Labor Relations Act (29 U.S.C. 158(f)).

16 (10) CLEAN ALTERNATIVE FUEL.—The term
17 “clean alternative fuel” means a fuel or energy
18 source that results in at least 90 percent fewer
19 greenhouse gas emissions than a baseline of conven-
20 tional marine fossil fuel on a life-cycle (“well-to-
21 wake”) basis, measured in grams of carbon dioxide
22 equivalent emissions per unit of energy, that is prov-
23 en to be safe for people, communities, and the ma-
24 rine environment.

1 (11) ZERO-EMISSION VESSEL.—The term “zero-
2 emission vessel” means a vessel that produces zero
3 emissions of any criteria pollutant, precursor pollut-
4 ant, or greenhouse gas, other than water vapor dur-
5 ing its operation, typically by utilizing renewable en-
6 ergy sources such as wind, clean alternative fuels,
7 and efficiency technologies.

8 **SEC. 3. ZERO-EMISSION VESSEL INNOVATION ADVISORY**
9 **COMMITTEE.**

10 (a) ESTABLISHMENT.—Not later than 180 days after
11 the date of enactment of this Act, the Secretary of Trans-
12 portation, in coordination with the Executive Director of
13 the Maritime Administration, shall establish an advisory
14 committee, to be known as the “Zero-Emission Vessel In-
15 novation Advisory Committee” (in this section referred to
16 as the “Committee”).

17 (b) MEMBERSHIP.—

18 (1) APPOINTMENT.—The Committee shall be
19 composed of not fewer than 15 members, who shall
20 be appointed by the Secretary, in coordination with
21 the Executive Director.

22 (2) REPRESENTATION.—Members appointed
23 pursuant to paragraph (1) shall include—

1 (A) not less than 1 representative of each
2 relevant Federal agency, as determined by the
3 Secretary;

4 (B) not less than 2 representatives of labor
5 groups;

6 (C) not less than 3 representatives of the
7 research community, which shall include aca-
8 demia and National Laboratories;

9 (D) not less than 2 representatives of non-
10 governmental environmental justice organiza-
11 tions;

12 (E) not less than 2 representatives of non-
13 governmental environmental organizations;

14 (F) not less than 2 representatives of the
15 maritime industry;

16 (G) not less than 2 representatives of the
17 zero-emissions fuels industry;

18 (H) not less than 1 representative of a
19 State government;

20 (I) not less than 2 representatives from
21 United States ports; and

22 (J) any other individual whom the Sec-
23 retary, in coordination with the Director, deter-
24 mines to be necessary to ensure that the Com-
25 mittee is composed of a diverse group of rep-

1 representatives of industry, academia, independent
2 researchers, and public and private entities.

3 (3) CHAIR.—The Secretary shall designate a
4 member of the Committee to serve as Chair.

5 (c) DUTIES.—The Committee shall advise the Sec-
6 retary and the Executive Director with respect to the
7 Zero-Emissions Vessel Innovation Fund by—

8 (1) identifying and evaluating any zero-emission
9 shipping technologies being developed by the private
10 sector or other Federal agencies;

11 (2) identifying technology gaps in the private
12 sector in zero-emissions shipping, and making rec-
13 ommendations to address those gaps through the im-
14 plementation of the Fund;

15 (3) surveying and analyzing factors that pre-
16 vent the adoption of zero-emission emissions ship-
17 ping technologies by the private sector;

18 (4) recommending technology screening criteria
19 for technology supported under the fund; and

20 (5) specifying near-term and long-term quali-
21 tative and quantitative objectives relating to the de-
22 velopment of zero-emissions shipping technologies.

23 (d) MEETINGS.—

1 (1) FREQUENCY.—The Committee shall meet
2 not less frequently than 2 times per year, at the call
3 of the Chair.

4 (2) INITIAL MEETING.—Not later than 30 days
5 after the date on which the members are appointed
6 under subsection (b), the Committee shall hold a
7 first meeting.

8 (e) COMMITTEE REPORT.—

9 (1) IN GENERAL.—Not later than 2 years after
10 the date of enactment of this Act, and not less fre-
11 quently than once every 3 years thereafter, the Com-
12 mittee shall submit to the Secretary a report on the
13 progress of achieving the purposes of the program
14 described in section 2(a).

15 (2) CONTENTS.—The report under paragraph
16 (1) shall include—

17 (A) a description of any technology innova-
18 tion opportunities identified by the Committee;

19 (B) a description of any technology gaps
20 identified by the Committee;

21 (C) an evaluation of the progress of the
22 program and the research, development, and
23 demonstration activities funded;

24 (D) an assessment of the extent to which
25 progress has been made under the program in

1 developing commercial, cost-competitive zero-
2 emission shipping technologies; and

3 (E) an assessment of the effectiveness of
4 the program in coordinating efforts within the
5 Department and with other Federal agencies to
6 achieve the purposes of the program.

7 (f) REPORT TO CONGRESS.—Not later than 60 days
8 after receiving a report from the Committee under sub-
9 section (e), the Secretary shall submit a copy of such re-
10 port to the Committee on Transportation and Infrastruc-
11 ture of the House of Representatives and the Committee
12 on Commerce, Science, and Transportation of the Senate.

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