

118TH CONGRESS  
1ST SESSION

**S.** \_\_\_\_\_

To require the Secretary of Transportation to establish a grant program to support the use of hydrogen- or ammonia-fueled equipment at ports and to require the Secretary of the department in which the Coast Guard is operating to conduct a study, together with the Secretary of Energy and the Secretary of Transportation, regarding the feasibility and safety of using hydrogen and ammonia as fuels in maritime applications.

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IN THE SENATE OF THE UNITED STATES

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Mr. CORNYN (for himself, Mr. COONS, Mr. CASSIDY, Mr. HICKENLOOPER, Ms. MURKOWSKI, Mr. HEINRICH, and Mr. LUJÁN) introduced the following bill; which was read twice and referred to the Committee on

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## **A BILL**

To require the Secretary of Transportation to establish a grant program to support the use of hydrogen- or ammonia-fueled equipment at ports and to require the Secretary of the department in which the Coast Guard is operating to conduct a study, together with the Secretary of Energy and the Secretary of Transportation, regarding the feasibility and safety of using hydrogen and ammonia as fuels in maritime applications.

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 “Hydrogen for Ports  
3 Act of 2023”.

4 **SEC. 2. MARITIME FUEL MODERNIZATION GRANT PRO-**  
5 **GRAM.**

6 (a) DEFINITIONS.—In this section:

7 (1) ELIGIBLE ENTITY.—The term “eligible enti-  
8 ty” means an entity described in subsection (d).

9 (2) ELIGIBLE FUEL.—The term “eligible fuel”  
10 means—

11 (A) hydrogen; or

12 (B) ammonia.

13 (3) LOW-INCOME OR DISADVANTAGED COMMU-  
14 NITY.—The term “low-income or disadvantaged  
15 community” means a community (including a city, a  
16 town, a county, and any reasonably isolated and di-  
17 visible segment of a larger municipality) with an an-  
18 nual median household income that is less than 100  
19 percent of the statewide annual median household  
20 income for the State in which the community is lo-  
21 cated, according to the most recent decennial census.

22 (4) PROGRAM.—The term “program” means  
23 the program established under subsection (b).

24 (5) SECRETARY.—The term “Secretary” means  
25 the Secretary of Transportation.

1           (6) TRIBAL GOVERNMENT.—The term “Tribal  
2           government” means the recognized governing body  
3           of any Indian or Alaska Native Tribe, band, nation,  
4           pueblo, village, community, component band, or com-  
5           ponent reservation, individually identified (including  
6           parenthetically) on the list published most recently  
7           as of the date of enactment of this Act pursuant to  
8           section 104 of the Federally Recognized Indian  
9           Tribe List Act of 1994 (25 U.S.C. 5131).

10          (b) ESTABLISHMENT OF PROGRAM.—Not later than  
11 180 days after the date of enactment of this Act, the Sec-  
12 retary, in coordination with the Secretary of Energy, shall  
13 establish a program under which the Secretary shall pro-  
14 vide grants, on a competitive basis, to eligible entities  
15 for—

16           (1) the purchase, installation, planning, design,  
17           or construction of, as appropriate—

18                   (A) fuel cell cargo-handling equipment that  
19                   uses an eligible fuel;

20                   (B) fuel cell drayage or long-haul trucks  
21                   that—

22                           (i) use an eligible fuel; and

23                           (ii) are for use at ports;

24                   (C) fuel cell ferries, tugboats, dredging ves-  
25                   sels, container ships, bulk carriers, fuel tankers,

1 commercial fishing vessels, cruise ships, or  
2 other marine vessels that use an eligible fuel;

3 (D) fuel cell locomotives that—

4 (i) use an eligible fuel; and

5 (ii) are for use at ports;

6 (E) fuel cell shore power systems that—

7 (i) use an eligible fuel; and

8 (ii) are used for ships while docked at  
9 port;

10 (F) onsite fuel cell power plants that—

11 (i) use an eligible fuel; and

12 (ii) are located at port facilities; or

13 (G) port infrastructure for establishing or  
14 expanding the supply of eligible fuel for import,  
15 export, storage, bunkering, or fueling; and

16 (2) the training of ship crew and shore per-  
17 sonnel—

18 (A) to safely handle eligible fuel; and

19 (B) to perform operation and maintenance  
20 on equipment that uses an eligible fuel.

21 (c) GOALS.—The goals of the program shall be—

22 (1) to demonstrate hydrogen, ammonia, or fuel  
23 cell technologies in maritime and associated logistics  
24 applications;

1           (2) to assist in the development and validation  
2 of technical targets for hydrogen, ammonia, and fuel  
3 cell systems for maritime and associated logistics ap-  
4 plications;

5           (3) to benchmark the conditions required for  
6 broad commercialization of hydrogen, ammonia, and  
7 fuel cell technologies in maritime and associated lo-  
8 gistics applications;

9           (4) to assess the operational and technical con-  
10 siderations for—

11                 (A) installing, constructing, and using  
12 hydrogen- or ammonia-fueled equipment; and

13                 (B) supporting infrastructure at ports; and

14           (5) to reduce greenhouse gas emissions and im-  
15 prove air quality in areas located in and around  
16 ports.

17 (d) ELIGIBLE ENTITIES.—

18           (1) IN GENERAL.—An entity eligible to receive  
19 a grant under the program is—

20                 (A) a State;

21                 (B) a political subdivision of a State;

22                 (C) a local government;

23                 (D) a public agency or publicly chartered  
24 authority established by 1 or more States;

1 (E) a special purpose district with a trans-  
2 portation function;

3 (F) a Tribal government or a consortium  
4 of Tribal governments;

5 (G) a port authority for a port;

6 (H) an Alaska Native or Native Hawaiian  
7 entity that has jurisdiction over a port author-  
8 ity or a port;

9 (I) a multistate or multijurisdictional  
10 group of entities described in any of subpara-  
11 graphs (A) through (H); or

12 (J) subject to paragraph (2), a private en-  
13 tity or group of private entities, including the  
14 owners or operators of 1 or more facilities at a  
15 port.

16 (2) JOINT ELIGIBILITY WITH PRIVATE ENTI-  
17 TIES.—A private entity or group of private entities  
18 is eligible for a grant under the program if—

19 (A) the private entity or group of private  
20 entities partners with an entity described in any  
21 of subparagraphs (A) through (I) of paragraph  
22 (1) for purposes of applying for, and carrying  
23 out activities under, the grant; and

24 (B) the entity described in the applicable  
25 subparagraph of paragraph (1) is the lead enti-

1           ty with respect to the application and those ac-  
2           tivities.

3           (e) APPLICATIONS.—

4           (1) IN GENERAL.—An eligible entity desiring a  
5           grant under the program shall submit to the Sec-  
6           retary an application at such time, in such manner,  
7           and containing such information as the Secretary  
8           may require.

9           (2) REQUIREMENT.—The application of an eli-  
10          gible entity described in subparagraph (J) of sub-  
11          section (d)(1) shall be submitted jointly with an en-  
12          tity described in subparagraphs (A) through (I) of  
13          that subsection.

14          (f) CONSIDERATIONS.—In providing grants under the  
15          program, the Secretary, to the maximum extent prac-  
16          ticable, shall select projects that—

17               (1) will generate the greatest benefit to low-in-  
18               come or disadvantaged communities;

19               (2) represent a combination of land-side and  
20               vessel-side end-uses of eligible fuel;

21               (3) maximize the creation or retention of jobs  
22               in the United States; and

23               (4) provide the highest job quality.

24          (g) PRIORITY.—In selecting eligible entities to receive  
25          grants under the program, the Secretary shall give priority

1 to projects that will provide greater net impact in avoiding  
2 or reducing emissions of greenhouse gases.

3 (h) LEAK DETECTION.—Each eligible entity that re-  
4 ceives a grant under the program shall conduct—

5 (1) a hydrogen leakage monitoring, reporting,  
6 and verification (also known as “MRV”) program  
7 for all eligible fuel used by the eligible entity; and

8 (2) a hydrogen leak detection and repair (also  
9 known as “LDAR”) program for all eligible fuel  
10 used by the eligible entity.

11 (i) FUNDING.—

12 (1) AUTHORIZATION OF APPROPRIATIONS.—  
13 There is authorized to be appropriated to the Sec-  
14 retary to carry out the program \$100,000,000 for  
15 each of fiscal years 2024 through 2028.

16 (2) HUMAN-OPERATED EQUIPMENT REQUIRE-  
17 MENT.—In carrying out the program, the Secretary  
18 shall ensure that funding is made available for each  
19 fiscal year for cargo-handling equipment that uses  
20 an eligible fuel and is human-operated.

21 **SEC. 3. STUDY ON FEASIBILITY AND SAFETY OF USING HY-**  
22 **DROGEN AND AMMONIA AS FUELS IN MARI-**  
23 **TIME APPLICATIONS.**

24 (a) IN GENERAL.—Not later than 270 days after the  
25 date of enactment of this Act, the Secretary of the depart-

1 ment in which the Coast Guard is operating, in consulta-  
2 tion with the Secretary of Energy, the Secretary of Trans-  
3 portation, and the heads of other Federal departments and  
4 agencies, as appropriate, shall conduct, and submit to the  
5 Committee on Commerce, Science, and Transportation of  
6 the Senate and the Committee on Transportation and In-  
7 frastructure of the House of Representatives a report de-  
8 scribing the results of, a study—

9           (1) to fully address the challenges to ensure the  
10 safe use and handling of hydrogen, ammonia, and  
11 other hydrogen-based fuels on vessels and in ports;

12           (2) to identify, compare, and evaluate the feasi-  
13 bility of, the safety, environmental, and health im-  
14 pacts of, and best practices with respect to, the use  
15 of hydrogen-derived fuels, including ammonia, as a  
16 shipping fuel;

17           (3) to identify and evaluate considerations for  
18 hydrogen and ammonia storage, including—

19                   (A) at ports;

20                   (B) on board vessels; and

21                   (C) for subsea hydrogen storage; and

22           (4) to assess the cost and value of a hydrogen  
23 or ammonia strategic reserve, either as a new facility  
24 or as a modification to the Strategic Petroleum Re-  
25 serve established under part B of title I of the En-

1 energy Policy and Conservation Act (42 U.S.C. 6231  
2 et seq.).

3 (b) REQUIREMENTS.—In carrying out subsection (a),  
4 the Secretary of the department in which the Coast Guard  
5 is operating shall—

6 (1) consult with entities in the private sector  
7 with experience in the hydrogen or ammonia indus-  
8 try;

9 (2) take into account lessons learned from dem-  
10 onstration projects in other industries, including—

11 (A) projects carried out in the United  
12 States;

13 (B) projects carried out in other countries;  
14 and

15 (C) projects relating to the automotive in-  
16 dustry, buses, petroleum refining, chemical pro-  
17 duction, fertilizer production, and stationary  
18 power; and

19 (3) evaluate the applicability of the lessons de-  
20 scribed in paragraph (2) to the use of hydrogen in  
21 maritime and associated logistics applications.