



(Original Signature of Member)

117TH CONGRESS  
1ST SESSION

# H. R. \_\_\_\_\_

To establish a Freight Rail Innovation Institute to carry out a research and development program to develop new technologies for freight rail locomotives.

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## IN THE HOUSE OF REPRESENTATIVES

Mr. LAMB introduced the following bill; which was referred to the Committee on \_\_\_\_\_

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# A BILL

To establish a Freight Rail Innovation Institute to carry out a research and development program to develop new technologies for freight rail locomotives.

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. FREIGHT RAIL INNOVATION INSTITUTE.**

4 (a) IN GENERAL.—Chapter 229 of title 49, United  
5 States Code, is amended by adding at the end the fol-  
6 lowing:

1 **“§ 22909. Freight Rail Innovation Institute**

2       “(a) ESTABLISHMENT.—Not later than 6 months  
3 after the date of the enactment of this section, the Sec-  
4 retary of Transportation, in coordination with the Sec-  
5 retary of Energy, representatives of the National Labora-  
6 tories, the National Institute of Standards and Tech-  
7 nology, and the National Science Foundation, and in part-  
8 nership with an eligible institution of higher education and  
9 a freight rail locomotive manufacturer, shall establish a  
10 Freight Rail Innovation Institute (referred to in this sec-  
11 tion as the ‘Institute’) to carry out a research and develop-  
12 ment program—

13               “(1) to develop—

14                       “(A) technologies necessary for the design,  
15 development, manufacturing, and operation of  
16 zero-emission battery and hydrogen-powered  
17 freight locomotives; and

18                       “(B) technologies that enhance freight rail  
19 safety, efficiency and utilization; and

20               “(2) to accelerate the deployment of—

21                       “(A) zero-emission locomotives, including  
22 passenger locomotives;

23                       “(B) supporting supply chains;

24                       “(C) advanced freight and logistics sys-  
25 tems; and

1           “(D) related workforce development and  
2           education innovations.

3           “(b) ACTIVITIES.—The Institute shall—

4           “(1) research, develop, and deploy zero-emission  
5           battery and hydrogen-powered freight locomotives  
6           and locomotive technologies;

7           “(2) develop and operate testing programs and  
8           demonstration facilities;

9           “(3) develop advanced technologies that ad-  
10          vance freight rail safety, efficiency, logistics, and uti-  
11          lization;

12          “(4) develop and deploy an operating prototype  
13          hydrogen powered locomotive;

14          “(5) deploy a revenue service testing and dem-  
15          onstration program to accelerate commercial adop-  
16          tion of battery electric locomotives;

17          “(6) develop specific technologies and innova-  
18          tions to support the manufacturing and deployment  
19          of zero-emission locomotives for passenger rail;

20          “(7) pay wages to all laborers and mechanics  
21          employed by the Institute at rates that are not less  
22          than those prevailing for the same type of work for  
23          similar projects in the immediate locality, consistent  
24          with the wage requirement set forth in section  
25          113(a) of title 23, United States Code;

1           “(8) ensure that the freight rail locomotive  
2 manufacturer that is associated with the Institute  
3 fully complies with the Buy America requirement set  
4 forth in section 22905(a) with respect to manufac-  
5 turing and production associated with the Institute  
6 and as a result of new technologies, innovations, and  
7 methods developed at least in part by the Institute;  
8 and

9           “(9) carry out other activities that the Sec-  
10 retary of Transportation considers necessary.

11       “(c) APPLICANT REQUIREMENTS.—Applicants seek-  
12 ing to establish the Institute under this section shall—

13           “(1) be a partnership consisting of at least 1  
14 institution of higher education and at least 1 freight  
15 rail locomotive manufacturer, which shall enter into  
16 a cost-sharing agreement for purposes of the Insti-  
17 tute; and

18           “(2) submit a comprehensive proposal to the  
19 Secretary of Transportation that—

20           “(A) identifies how activities described in  
21 subsection (b) will be carried out by the Insti-  
22 tute; and

23           “(B) includes a Memorandum of Under-  
24 standing, signed by all partners, that com-  
25 prehensively addresses all aspects of the Insti-

1           tute’s work, including how intellectual property  
2           and revenue sharing from resulting techno-  
3           logical developments will be handled;

4                   “(C) includes such other information as  
5           the Secretary may require.

6           “(d) CONSIDERATIONS.—In selecting the applicant  
7           that will receive funding to establish the Institute, the Sec-  
8           retary of Transportation shall consider—

9                   “(1) the extent to which the applicant’s pro-  
10          posal maximizes greenhouse gas reductions and  
11          other environmental benefits;

12                   “(2) the ability of the applicant’s proposal to  
13          increase the use of low- and zero- emission freight  
14          rail technologies among the United States freight  
15          and passenger rail industry;

16                   “(3) the anticipated public benefits of the appli-  
17          cant’s proposal, including the creation of construc-  
18          tion, manufacturing, and services jobs that pay pre-  
19          vailing wages;

20                   “(4) proposed plans to train workers from the  
21          area surrounding the Institute to develop competitive  
22          advanced manufacturing, battery- or hydrogen-  
23          power, and advanced freight utilization, network  
24          safety and logistics technology skills;

1           “(5) the degree to which the applicant, includ-  
2           ing its freight rail locomotive manufacturer, has ex-  
3           perience—

4                   “(A) carrying out battery and hydrogen re-  
5                   search on freight locomotives that reduce green-  
6                   house gas emissions; and

7                   “(B) developing freight rail advanced sig-  
8                   naling, network safety, and logistics tech-  
9                   nologies;

10           “(6) the extent to which the applicant’s pro-  
11           posal increases the proportional amount of goods  
12           moved by freight rail in the United States;

13           “(7) the extent to which such proposal—

14                   “(A) maximizes the private share of the  
15                   total cost of the institute beyond the minimum  
16                   level required under subsection (d); and

17                   “(B) sustains the private investment up to  
18                   and beyond 2026; and

19           “(8) whether the proposed Institute is located  
20           at a site that—

21                   “(A) has legacy rail infrastructure;

22                   “(B) has access to freight rail tracks and  
23                   rail connections; and

24                   “(C) is located on a redeveloped brownfield  
25                   site in close proximity to a freight rail loco-

1           motive manufacturer, an institution of higher  
2           education, and a short line or regional railroad.

3           “(e) FUNDING REQUIREMENT.—The non-Federal  
4 share of the costs of the Institute’s research and develop-  
5 ment program shall be not less than 50 percent.

6           “(f) NOTIFICATION.—

7           “(1) NOTICE.—Not later than 3 days after  
8 Congress appropriates funds for the Institute for  
9 any fiscal year, the Secretary of Transportation shall  
10 submit to the Committee on Commerce, Science, and  
11 Transportation of the Senate and the Committee on  
12 Transportation and Infrastructure of the House of  
13 Representatives—

14           “(A) the institution of higher education  
15 and freight rail locomotive manufacturer that  
16 have been selected to receive such funding to  
17 operate the Institute; and

18           “(B) a summary of activities to be carried  
19 out by the Institute.

20           “(2) ANNUAL REPORT.—Not later than 1 year  
21 after Congress appropriates funds for the Institute  
22 for any fiscal year, the Secretary shall submit a re-  
23 port to the committees listed under paragraph (1)  
24 that summarizes the work of the Institute on—

1           “(A) low- and zero-emission rail tech-  
2           nologies;

3           “(B) increased freight rail utilization; and

4           “(C) training a workforce in advanced  
5           manufacturing, battery- or hydrogen-power, ad-  
6           vanced freight utilization, network safety, logis-  
7           tics technology skills, and advanced rail safety  
8           and logistics technologies.

9           “(g) AUTHORIZATION OF APPROPRIATIONS.—There  
10          is authorized to be appropriated \$120,000,000 for each  
11          of the fiscal years 2022 through 2026, to carry out the  
12          activities of the Institute described in subsection (b). Such  
13          sums shall remain available until expended.

14          “(h) DEFINITIONS.—In this section:

15                 “(1) FREIGHT RAIL LOCOMOTIVE MANUFAC-  
16                 TURER.—The term ‘freight rail locomotive manufac-  
17                 turer’ means a company—

18                         “(A) headquartered in the United States;

19                         and

20                         “(B) that is engaged in the design, manu-  
21                         facture, and sale of freight rail locomotives,  
22                         train network systems, engines, parts, logistics,  
23                         rail safety and braking systems, and other  
24                         freight rail and locomotive products.



1           “(2) INSTITUTION OF HIGHER EDUCATION.—

2           The term ‘institution of higher education’ has the  
3           meaning given such term in section 101 of the High-  
4           er Education Act of 1965 (20 U.S.C. 1001).”.

5           (b) CLERICAL AMENDMENT.—The analysis for chap-  
6           ter 229 of title 49, United States Code, is amended by  
7           adding at the end the following:

          “22909. Freight Rail Innovation Institute.”.