II

117TH CONGRESS
1ST SESSION

S. 1732

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

IN THE SENATE OF THE UNITED STATES

MAY 20, 2021

Mr. CASEY introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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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.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FREIGHT RAIL INNOVATION INSTITUTE.

(a) IN GENERAL.—Chapter 229 of title 49, United States Code, is amended by adding at the end the following:

"§ 22909. Freight Rail Innovation Institute

"(a) ESTABLISHMENT.—Not later than 6 months after the date of the enactment of this section, the Secretary of Transportation, in coordination with the Secretary of Energy, representatives of the National Laboratories, the National Institute of Standards and Technology, and the National Science Foundation, and in partnership with an eligible institution of higher education and a freight rail locomotive manufacturer, shall establish a Freight Rail Innovation Institute (referred to in this section as the 'Institute') to carry out a research and development program—

"(1) to develop—

"(A) technologies necessary for the design, development, manufacturing, and operation of zero-emission battery and hydrogen-powered freight locomotives; and

"(B) technologies that enhance freight rail safety, efficiency and utilization; and

"(2) to accelerate the deployment of—

"(A) zero-emission locomotives, including passenger locomotives;

"(B) supporting supply chains;

"(C) advanced freight and logistics systems; and

"(D) related workforce development and education innovations.

"(b) ACTIVITIES.—The Institute shall—

"(1) research, develop, and deploy zero-emission battery and hydrogen-powered freight locomotives and locomotive technologies;

"(2) develop and operate testing programs and demonstration facilities;

"(3) develop advanced technologies that advance freight rail safety, efficiency, logistics, and utilization;

"(4) develop and deploy an operating prototype hydrogen powered locomotive;

"(5) deploy a revenue service testing and demonstration program to accelerate commercial adoption of battery electric locomotives;

"(6) develop specific technologies and innovations to support the manufacturing and deployment of zero-emission locomotives for passenger rail;

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

"(8) ensure that the freight rail locomotive manufacturer that is associated with the Institute fully complies with the Buy America requirement set forth in section 22905(a) with respect to all manufacturing and production associated with the Institute and as a result of new technologies, innovations, and methods developed (at least in part) by the Institute; and

"(9) carry out other activities that the Secretary of Transportation considers necessary.

"(c) APPLICANT REQUIREMENTS.—Applicants seeking to establish the Institute under this section shall—

"(1) be a partnership consisting of at least 1 institution of higher education and at least 1 freight rail locomotive manufacturer, which shall enter into a cost-sharing agreement for purposes of the Institute; and

"(2) submit a comprehensive proposal to the Secretary of Transportation that—

"(A) identifies how the activities described in subsection (b) will be carried out by the Institute; and

"(B) includes a Memorandum of Understanding, signed by all partners, that comprehensively addresses all aspects of the Institute's work, including how intellectual property and revenue sharing from resulting technological developments will be handled;

"(C) includes such other information as the Secretary may require.

"(d) CONSIDERATIONS.—In selecting the applicant that will receive funding to establish the Institute, the Secretary of Transportation shall consider—

"(1) the extent to which the applicant's proposal maximizes greenhouse gas reductions and other environmental benefits;

"(2) the ability of the applicant's proposal to increase the use of low- and zero- emission freight rail technologies among the United States freight and passenger rail industry;

"(3) the anticipated public benefits of the applicant's proposal, including the creation of construction, manufacturing, and services jobs that pay prevailing wages;

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

"(5) the degree to which the applicant, including its freight rail locomotive manufacturer, has experience—

"(A) carrying out battery and hydrogen research on freight locomotives that reduce greenhouse gas emissions; and

"(B) developing freight rail advanced signaling, network safety, and logistics technologies;

"(6) the extent to which the applicant's proposal increases the proportional amount of goods moved by freight rail in the United States;

"(7) the extent to which such proposal—

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

"(B) sustains the private investment up to and beyond 2026; and

"(8) whether the proposed Institute is located at a site that—

"(A) has legacy rail infrastructure;

"(B) has access to freight rail tracks and rail connections; and

"(C) is located on a redeveloped brownfield site in close proximity to a freight rail locomotive manufacturer, an institution of higher education, and a short line or regional railroad.

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

“(f) NOTIFICATION.—

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

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

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

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

“(A) low- and zero-emission rail technologies;

“(B) increased freight rail utilization; and

"(C) training a workforce in advanced manufacturing, battery- or hydrogen-power, advanced freight utilization, network safety, logistics technology skills, and advanced rail safety and logistics technologies.

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

"(h) DEFINITIONS.—In this section:

"(1) FREIGHT RAIL LOCOMOTIVE MANUFACTURER.—The term 'freight rail locomotive manufacturer' means a company that—

"(A) is headquartered in the United States; and

"(B) is engaged in the design, manufacture, and sale of freight rail locomotives, train network systems, engines, parts, logistics, rail safety and braking systems, and other freight rail and locomotive products.

"(2) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given such term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).".

(b) CLERICAL AMENDMENT.—The analysis for chapter 229 of title 49, United States Code, is amended by adding at the end the following:

"22909. Freight Rail Innovation Institute.".

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