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117TH CONGRESS
2D SESSION

H. R. 9000

To amend the Energy Policy Act of 2005 to establish a Hydrogen Technologies for Heavy Industry Grant Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 28, 2022

Mr. MICHAEL F. DOYLE of Pennsylvania (for himself, Mr. FITZPATRICK, Mr. PETERS, and Mr. MCKINLEY) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committees on Energy and Commerce, and 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

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A BILL

To amend the Energy Policy Act of 2005 to establish a Hydrogen Technologies for Heavy Industry Grant Program, and for other purposes.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Hydrogen for Industry Act of 2022''.

SEC. 2. HYDROGEN TECHNOLOGIES FOR HEAVY INDUSTRY GRANT PROGRAM.

(a) EMISSION REDUCTION PROGRAM.—Subtitle F of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is amended by adding at the end the following:

"SEC. 969E. HYDROGEN TECHNOLOGIES FOR HEAVY INDUSTRY GRANT PROGRAM.

''(a) DEFINITION OF LOW-INCOME OR DISADVANTAGED COMMUNITY.—The term 'low-income or disadvantaged community' means a community (including a city, town, county, or reasonably isolated and divisible segment of a larger municipality) with an annual median household income that is less than 100 percent of the statewide annual median household income for the State in which the community is located, according to the most recent decennial census.

''(b) PROGRAM.—Not later than 180 days after the date of enactment of the Hydrogen for Industry Act of 2022, the Secretary shall establish a program, to be known as the 'Hydrogen Technologies for Heavy Industry Grant Program' (referred to in this section as the 'Program'), under which the Secretary shall award grants to demonstrate industrial end-use applications of hydrogen for—

''(1) iron, steel, and metals manufacturing;

''(2) cement manufacturing;

''(3) glass manufacturing;

''(4) ammonia and fertilizer production;

''(5) industrial food processes;

''(6) production of synthetic fuels from hydrogen, including with carbon oxides;

''(7) fuel refining, including biorefining;

''(8) chemical synthesis, including synthesis of methanol and ethylene;

''(9) process heaters, including hydrogen combustion with environmental controls; and

''(10) any other use of hydrogen for heavy industry, as determined by the Secretary.

''(c) PURPOSE.—The purpose of the Program is to support the adoption of hydrogen as an emissions reduction technology for heavy industry, including in applications where hydrogen is blended with other fuels or feedstocks.

''(d) DEMONSTRATION PROJECTS AND OTHER AUTHORIZED PROJECTS.—

''(1) IN GENERAL.—The Secretary shall provide grants to commercial-scale demonstration projects for end-use applications of hydrogen and other authorized projects, as described in paragraph (5).

''(2) AMOUNT OF GRANT.—The amount of a grant provided under this subsection shall be not more than $400,000,000.

''(3) APPLICATION.—An entity seeking a grant to conduct a demonstration project or other authorized project under this subsection shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a description of the manner in which the project—

''(A) will contribute to the reduction of carbon emissions at the applicable facility; and

''(B) in the case of a project for industrial end-use application that already uses hydrogen at scale, will reduce or avoid emissions of greenhouse gases.

''(4) SELECTION.—

''(A) LIMITATIONS.—The Secretary shall only provide a grant under this subsection after reviewing each applicant and application under paragraph (3) with respect to—

''(i) the financial strength of the applicant;

''(ii) the proposed construction schedule;

"(iii) the market risk of the technology that the applicant seeks to demonstrate, as applicable; and

"(iv) the contractor history of the applicant.

"(B) PRIORITY.—In providing grants under this subsection, the Secretary shall give priority to projects that will provide greater net impact in avoiding or reducing emissions of greenhouse gases.

"(C) OTHER CONSIDERATIONS.—In providing grants under this subsection, the Secretary shall, to the maximum extent practicable, award grants for projects that—

"(i) represent a variety of end uses of hydrogen;

"(ii) will use at least 50 percent hydrogen blends;

"(iii) will generate the greatest benefit to low-income or disadvantaged communities; and

"(iv) will maximize creation or retention of domestic jobs and provide the highest job quality.

''(5) AUTHORIZED PROJECTS.—Grant amounts provided under this subsection may be used—

''(A) to carry out demonstration projects for end uses of hydrogen;

''(B) to construct a new commercial-scale facility that will use hydrogen as a fuel or feedstock; or

''(C) to retool, retrofit, or expand an existing facility determined to be qualified by the Secretary to enable use of hydrogen as a fuel or feedstock in industrial end-use applications of hydrogen, including at multiple points within a larger facility.

''(6) REQUIREMENTS.—A demonstration project receiving a grant under this subsection shall—

''(A) use technologies that have completed pilot-scale testing or the equivalent, as determined by the Secretary;

''(B) on completion, demonstrate hydrogen technologies used by heavy industry; and

''(C) conduct hydrogen leakage monitoring, reporting, and verification programs and leak detection and repair programs.

''(7) COST SHARING.—The non-Federal share of the cost of a demonstration project carried out

using a grant under this subsection shall be not less than 20 percent.

''(8) ENGINEERING AND DESIGN STUDIES.—The Secretary may fund front-end engineering and design studies in addition to, or in advance of, providing a grant for a demonstration project or other authorized project under this subsection.

''(e) APPLICABILITY.—No technology, or level of emission reduction, shall be treated as adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411), achievable for purposes of best available control technologies (as defined in section 169 of that Act (42 U.S.C. 7479)), or achievable in practice for purposes of the terms defined in section 171 of that Act (42 U.S.C. 7501) solely by reason of the identification of that technology or level of emission reduction in programs established under this Act.

''(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out the Program $1,200,000,000 for the period of fiscal years 2023 through 2027.''.

(b) CLERICAL AMENDMENT.—The table of contents of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 600) is amended by inserting after the item relating to section 969D the following:

''Sec. 969E. Hydrogen Technologies for Heavy Industry Grant Program.''.

SEC. 3. STUDY.

(a) IN GENERAL.—Not later than 270 days after the date of enactment of this Act, the Secretary of Energy, the Secretary of Commerce, and the Secretary of Transportation shall jointly conduct and submit to Congress a report describing the results of a study—

(1) to examine the potential for emissions reductions at industrial facilities through hydrogen applications, including—

(A) the potential use of levelized cost of carbon abatement, or a similar metric, in analyzing industrial uses of hydrogen; and

(B) the feasibility and impact of incorporating levelized cost of carbon abatement to compare the costs of technology options to reduce emissions across a range of industrial applications;

(2) to fully address existing challenges with respect to ensuring the safe use and handling of hydrogen and hydrogen-based fuels in industrial systems, including health and environmental impacts associated with the leakage of hydrogen and hydrogen carriers;

(3) to identify and evaluate the feasibility, safety, and best practices of the use of hydrogen and ammonia as industrial fuel and feedstock;

(4) to examine the feasibility of blending increasing levels of hydrogen with natural gas to supplement process heat requirements;

(5) to examine the environmental impacts of hydrogen combustion in hydrogen-fueled gas turbines as pure hydrogen or at different ratios if used in blended fuel; and

(6) to identify and evaluate considerations for transport and storage of hydrogen and hydrogen carriers, including—

(A) at industrial facilities;

(B) in salt caverns, hard rock caverns, and other dedicated geological storage systems; and

(C) in pipelines.

(b) REQUIREMENTS.—In conducting the study under subsection (a), the Secretary of Energy and the Secretary of Commerce shall—

(1) take into account lessons learned from demonstration projects in other industries and projects in other countries; and

(2) evaluate the applicability of the lessons described in paragraph (1) to the use of hydrogen in industrial applications.

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