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(Original Signature of Member)

118TH CONGRESS
1ST SESSION

H. R. _____

To expand capacity in quantum information science, engineering, and technology, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. KEAN of New Jersey (for himself and Ms. MCCLELLAN) introduced the following bill; which was referred to the Committee on _____

A BILL

To expand capacity in quantum information science, engineering, and technology, 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 ''Expanding Capacity in Quantum Information Science, Engineering, and Technology Act'' or the ''Expand QISET Act''.

SEC. 2. EXPANDING CAPACITY IN QUANTUM INFORMATION SCIENCE, ENGINEERING, AND TECHNOLOGY (QISET).

(a) IN GENERAL.—The Director of the National Science Foundation, in consultation with the heads of Federal agencies the Director considers appropriate, shall make awards on a competitive, merit-reviewed basis to eligible institutions of higher education or eligible nonprofit organizations (or consortia thereof) to increase research capacity, education and infrastructure capacity, and broaden participation in quantum information science, engineering, and technology and related disciplines, including by—

(1) supporting curriculum development in quantum information science, engineering, and technology as described in section 301(d) of the National Quantum Initiative Act (15 U.S.C. 8841(d));

(2) building upon the activities carried out under the Next Generation Quantum Leaders Pilot Program authorized under section 10661(f) of the Research and Development, Competition, and Innovation Act (Public Law 117–167; 42 U.S.C. 19261(f)); and

(3) leveraging the readiness for the involvement of local research and education communities to secure a talent pipeline in quantum information

science, engineering, and technology to meet the workforce needs of industry, government, and academia.

(b) COLLABORATIONS.—A collaboration receiving an award under this subsection may include institutions of higher education, nonprofit organizations, and private sector entities.

(c) ELIGIBLE INSTITUTION OF HIGHER EDUCATION DEFINED.—In this section, the term ''eligible institution of higher education'' means an institution of higher education, that, according to the data published by the National Center for Science and Engineering Statistics, is not, on average, among the top 100 institutions in Federal research and development expenditures during the 3- year period prior to the year of the award.

(d) REQUIREMENTS.—To receive an award under this section, an eligible institution shall submit to the Director of the National Science Foundation an application that includes the following:

(1) A plan to sustain proposed activities beyond the duration of the award.

(2) Proposed quantum information science, engineering, and technology disciplines and focus areas the eligible institution is prepared to engage in to significantly build up its quantum information

science, engineering, and technology research and education capacity.

(3) A plan for education and workforce development, which may include K-12 and post-secondary education programs and activities, workforce training and career and technical education programs and activities, undergraduate, graduate, and postdoctoral education, and informal education programs and activities.

(e) ACTIVITIES.—Awards under this section to support research and related activities may include the activities relating to the following:

(1) Development or expansion of research programs in disciplines and focus areas specified in subsection (d)(2).

(2) Faculty recruitment and professional development in disciplines and focus areas specified in subsection (d)(2).

(3) Bridge programs focused on preparing post-baccalaureate students for graduate programs in quantum information science, engineering, and technology.

(4) To build research capacity and infrastructure at an eligible institution in disciplines and focus areas specified in subsection (d)(2).

(5) An assessment of capacity-building and research infrastructure needs identified in subsection (d)(2).

(6) Administrative research development support.

(7) Other activities necessary to build research capacity in quantum information science, engineering, and technology.

(f) ADDITIONAL CONSIDERATIONS.—In making awards under this section, the Director of the National Science Foundation may also consider the following:

(1) The extent to which the eligible applicant will support students from diverse backgrounds, including first-generation undergraduate students.

(2) The geographic and institutional diversity of eligible applicants.

(3) How the eligible applicant can leverage public-private partnerships and existing research partnerships with Federal agencies.

(g) DUPLICATION.—The Director of the National Science Foundation shall ensure awards made under this section are complimentary to and not duplicative of existing programs.