

116TH CONGRESS
2D SESSION

H. R. 8303

To establish and support the Quantum User Expansion for Science and Technology Program at the Department of Energy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 17, 2020

Mr. LUCAS (for himself and Mr. MCNERNEY) introduced the following bill;
which was referred to the Committee on Science, Space, and Technology

A BILL

To establish and support the Quantum User Expansion for Science and Technology Program at the Department of Energy, and for other purposes.

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. SHORT TITLE.**

4 This Act may be cited as the “QUEST Act of 2020”.

5 **SEC. 2. DEPARTMENT OF ENERGY QUANTUM USER EXPAN-**
6 **SION FOR SCIENCE AND TECHNOLOGY PRO-**
7 **GRAM.**

8 Title IV of the National Quantum Initiative Act (15
9 U.S.C. 8851 et seq.) is amended by adding at the end
10 the following:

1 **“SEC. 403. DEPARTMENT OF ENERGY QUANTUM USER EX-**
2 **PANSION FOR SCIENCE AND TECHNOLOGY**
3 **PROGRAM.**

4 “(a) IN GENERAL.—Not later than 90 days after the
5 date of the enactment of the QUEST Act of 2020, the
6 Secretary of Energy (referred to in this section as the
7 ‘Secretary’) shall establish and carry out a program (to
8 be known as the ‘Quantum User Expansion for Science
9 and Technology program’ or ‘QUEST program’) to en-
10 courage and facilitate access to United States quantum
11 computing hardware and quantum computing clouds for
12 research purposes in order to—

13 “(1) enhance the United States quantum re-
14 search enterprise;

15 “(2) educate the future quantum computing
16 workforce; and

17 “(3) accelerate the advancement of United
18 States quantum computing capabilities.

19 “(b) PROGRAM.—In carrying out this section, the
20 Secretary shall—

21 “(1) coordinate with—

22 “(A) the Director of the National Science
23 Foundation;

24 “(B) the Director of the National Institute
25 of Standards and Technology;

1 “(C) the Chair of the Quantum Informa-
2 tion Science of the National Science and Tech-
3 nology Council established under section
4 103(a); and

5 “(D) the Chair of the subcommittee on the
6 Economic and Security Implications of Quan-
7 tum Science;

8 “(2) provide researchers based within the
9 United States with access to, and use of, United
10 States quantum computing resources through a com-
11 petitive, merit-reviewed process;

12 “(3) consider applications from the National
13 Laboratories, multi-institutional collaborations, insti-
14 tutions of higher education, industry stakeholders,
15 and any other entities that the Secretary determines
16 are appropriate to provide national leadership on
17 quantum computing related issues; and

18 “(4) consult and coordinate with private sector
19 stakeholders, the user community, and interagency
20 partners on program development and best manage-
21 ment practices.

22 “(c) LEVERAGING.—In carrying out this section, the
23 Secretary shall leverage resources and expertise across the
24 Department of Energy and from—

1 “(1) the National Institute of Standards and
2 Technology;

3 “(2) the National Science Foundation;

4 “(3) the National Aeronautics and Space Ad-
5 ministration;

6 “(4) other relevant Federal agencies;

7 “(5) the National Laboratories;

8 “(6) industry stakeholders;

9 “(7) institutions of higher education; and

10 “(8) the National Quantum Information
11 Science Research Centers.

12 “(d) SECURITY.—In carrying out the activities au-
13 thorized by this section, the Secretary, in consultation
14 with the Director of the National Science Foundation and
15 the Director of the National Institute of Standards and
16 Technology, shall ensure proper security controls are in
17 place to protect sensitive information, as appropriate.

18 “(e) REPORT.—Not later than 180 days after the
19 date of the enactment of the QUEST Act of 2020, the
20 Secretary shall submit to the Committee on Science,
21 Space, and Technology of the House of Representatives
22 and the Committee on Energy and Natural Resources of
23 the Senate, a report on the results of the QUEST program
24 activities and any other information the Secretary deter-
25 mines appropriate.

1 “(f) FUNDING.—Funds authorized to be appro-
2 priated for the Department of Energy’s Office of Science,
3 there shall be made available to the Secretary to carry out
4 the activities under this section—

5 “(1) \$30,000,000 for fiscal year 2021;

6 “(2) \$50,000,000 for fiscal year 2022;

7 “(3) \$70,000,000 for fiscal year 2023;

8 “(4) \$90,000,000 for fiscal year 2024; and

9 “(5) \$100,000,000 for fiscal year 2025.”.

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