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118TH CONGRESS
1ST SESSION

H. R. 2980

To provide for Department of Energy and National Science Foundation research and development coordination, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 27, 2023

Ms. STEVENS (for herself and Mr. BAIRD) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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A BILL

To provide for Department of Energy and National Science Foundation research and development coordination, 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 ''DOE and NSF Interagency Research Act''.

SEC. 2. DEPARTMENT OF ENERGY AND NATIONAL SCIENCE FOUNDATION RESEARCH AND DEVELOPMENT COORDINATION.

(a) IN GENERAL.—The Secretary of Energy (in this section referred to as the ''Secretary'') and the Director

of the National Science Foundation (in this section referred to as the ''Director'') shall carry out cross-cutting and collaborative research and development activities focused on the joint advancement of Department of Energy and National Science Foundation mission requirements and priorities.

(b) MEMORANDUM OF UNDERSTANDING.—The Secretary and the Director shall coordinate the activities under subsection (a) through the establishment of a memorandum of understanding, or other appropriate interagency agreement. Such memorandum or agreement, as the case may be, shall require the use of a competitive, merit-reviewed process, which considers applications from Federal agencies, National Laboratories, institutions of higher education, non-profit institutions, and other appropriate entities.

(c) COORDINATION.—In carrying out the activities under subsection (a), the Secretary and the Director may—

(1) conduct collaborative research in a variety of focus areas, such as—

(A) basic plasma science and engineering, including applications in astrophysics, materials science, fusion science, and accelerator science;

(B) fundamental biological and computational science and engineering, including computational neuroscience and neuromorphic computing, including in collaboration with the program authorized under section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644);

(C) modeling and simulation, machine learning, artificial intelligence, data assimilation, large-scale data analytics, and predictive analysis in order to optimize algorithms for purposes related to energy and climate;

(D) quantum information sciences, including quantum computing and quantum network infrastructure, including in collaboration with the programs authorized under sections 403 and 404 of the National Quantum Initiative Act (15 U.S.C. 8853 and 8854);

(E) energy and materials science and engineering, including artificial photosynthesis, plasma, solar fuels, and fusion, including in collaboration with the programs authorized under sections 303 and 307 of the Department of Energy Research and Innovation Act (42 U.S.C.

18641 and 18645), and section 973 of the Energy Policy Act of 2005 (42 U.S.C. 16313);

(F) advanced manufacturing technologies, including efficient storage systems and alternatives to high-temperature processing, for the purposes of optimizing energy consumption, including in collaboration with the program authorized under section 975 of the Department of Energy Research and Innovation Act (42 U.S.C. 16315);

(G) microelectronics, including novel chip architectures, memory systems, and interconnects; and

(H) advanced physics, including high energy and particle physics, accelerator research and development, and high performance computational tools, including in collaboration with the programs authorized under section 303 of the Department of Energy Research and Innovation Act (42 U.S.C. 18641);

(2) promote collaboration, open community-based development, and data and information sharing between Federal agencies, National Laboratories, institutions of higher education, nonprofit institutions, and other appropriate entities by pro-

viding the necessary access and secure data and information transfer capabilities;

(3) support research infrastructure, including new facilities and equipment, as the Secretary and Director determine necessary; and

(4) organize education, training, and research initiatives relating to STEM education and workforce development.

(d) AGREEMENTS.—In carrying out the activities under subsection (a), the Secretary and the Director are authorized to—

(1) carry out reimbursable agreements between the Department of Energy, the National Science Foundation, and other entities in order to maximize the effectiveness of research and development; and

(2) collaborate with other Federal agencies, as appropriate.

(e) REPORT.—Not later than two years after the date of the enactment of this section, the Secretary and the Director shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources and the Committee on Commerce, Science, and Transportation of the Senate a report detailing the following:

(1) Interagency coordination between each Federal agency involved in the research and development activities carried out under this section.

(2) Potential opportunities to expand the technical capabilities of the Department of Energy and the National Science Foundation.

(3) Collaborative research achievements.

(4) Areas of future mutually beneficial successes.

(5) Continuation of coordination activities between the Department of Energy and the National Science Foundation.

(f) RESEARCH SECURITY.—The activities authorized under this section shall be applied in a manner consistent with subtitle D of title VI of the Research and Development, Competition, and Innovation Act (enacted as division B of the CHIPS Act of 2022 (Public Law 117–167; 42 U.S.C. 19231 et seq.)).

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