

118TH CONGRESS
1ST SESSION

H. R. 2980

IN THE SENATE OF THE UNITED STATES

DECEMBER 5, 2023

Received; read twice and referred to the Committee on Commerce, Science,
and Transportation

AN ACT

To provide for Department of Energy and National Science
Foundation research and development coordination, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “DOE and NSF Inter-
3 agency Research Act”.

4 **SEC. 2. DEPARTMENT OF ENERGY AND NATIONAL SCIENCE**
5 **FOUNDATION RESEARCH AND DEVELOPMENT**
6 **COORDINATION.**

7 (a) IN GENERAL.—The Secretary of Energy (in this
8 section referred to as the “Secretary”) and the Director
9 of the National Science Foundation (in this section re-
10 ferred to as the “Director”) shall carry out cross-cutting
11 and collaborative research and development activities fo-
12 cused on the joint advancement of Department of Energy
13 and National Science Foundation mission requirements
14 and priorities.

15 (b) MEMORANDUM OF UNDERSTANDING.—The Sec-
16 retary and the Director shall coordinate the activities
17 under subsection (a) through the establishment of a
18 memorandum of understanding, or other appropriate
19 interagency agreement. Such memorandum or agreement,
20 as the case may be, shall require the use of a competitive,
21 merit-reviewed process, which considers applications from
22 Federal agencies, National Laboratories, institutions of
23 higher education, non-profit institutions, and other appro-
24 priate entities.

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

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

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

9 (B) fundamental biological and computa-
10 tional science and engineering, including com-
11 putational neuroscience and neuromorphic com-
12 puting, including in collaboration with the pro-
13 gram authorized under section 306 of the De-
14 partment of Energy Research and Innovation
15 Act (42 U.S.C. 18644);

16 (C) modeling and simulation, machine
17 learning, artificial intelligence, data assimila-
18 tion, large-scale data analytics, predictive anal-
19 ysis, and advanced computational, storage, and
20 networking capabilities in order to optimize al-
21 gorithms for purposes related to energy and cli-
22 mate;

23 (D) quantum information sciences, includ-
24 ing quantum computing and quantum network
25 infrastructure, including in collaboration with

1 the programs authorized under sections 403
2 and 404 of the National Quantum Initiative Act
3 (15 U.S.C. 8853 and 8854);

4 (E) energy and materials science and engi-
5 neering, including artificial photosynthesis,
6 plasma, solar fuels, and fusion, including in col-
7 laboration with the programs authorized under
8 sections 303 and 307 of the Department of En-
9 ergy Research and Innovation Act (42 U.S.C.
10 18641 and 18645), and section 973 of the En-
11 ergy Policy Act of 2005 (42 U.S.C. 16313);

12 (F) advanced manufacturing technologies,
13 including efficient storage systems and alter-
14 natives to high-temperature processing, for the
15 purposes of optimizing energy consumption, in-
16 cluding in collaboration with the program au-
17 thorized under section 975 of the Department
18 of Energy Research and Innovation Act (42
19 U.S.C. 16315);

20 (G) microelectronics, including novel chip
21 architectures, memory systems, and intercon-
22 nects; and

23 (H) advanced physics, including high en-
24 ergy and particle physics, accelerator research
25 and development, and high performance com-

1 putational tools, including in collaboration with
2 the programs authorized under section 303 of
3 the Department of Energy Research and Inno-
4 vation Act (42 U.S.C. 18641);

5 (2) promote collaboration, open community-
6 based development, and data and information shar-
7 ing between Federal agencies, National Labora-
8 tories, institutions of higher education, nonprofit in-
9 stitutions, and other appropriate entities by pro-
10 viding the necessary access and secure data and in-
11 formation transfer capabilities;

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

15 (4) organize education, training, and research
16 initiatives relating to STEM education and work-
17 force development, including—

18 (A) internships, fellowships, and other re-
19 search or work-based learning opportunities;

20 (B) educational programming for students
21 at all levels, especially experiential and project-
22 based learning opportunities; and

23 (C) professional development opportunities
24 for educators and researchers.

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

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

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

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

17 (1) Interagency coordination between each Fed-
18 eral agency involved in the research and development
19 activities carried out under this section.

20 (2) Potential opportunities to expand the tech-
21 nical capabilities of the Department of Energy and
22 the National Science Foundation.

23 (3) Collaborative research achievements.

24 (4) Areas of future mutually beneficial suc-
25 cesses.

Passed the House of Representatives December 4,
2023.

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