

Union Calendar No. 169

118TH CONGRESS
1ST SESSION

H. R. 2980

[Report No. 118-209]

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

SEPTEMBER 21, 2023

Additional sponsor: Mr. FITZPATRICK

SEPTEMBER 21, 2023

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italics]

[For text of introduced bill, see copy of bill as introduced on April 27, 2023]

A BILL

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,*

3 **SECTION 1. SHORT TITLE.**

4 *This Act may be cited as the “DOE and NSF Inter-*
5 *agency Research Act”.*

6 **SEC. 2. DEPARTMENT OF ENERGY AND NATIONAL SCIENCE**

7 **FOUNDATION RESEARCH AND DEVELOPMENT**

8 **COORDINATION.**

9 *(a) IN GENERAL.—The Secretary of Energy (in this*
10 *section referred to as the “Secretary”) and the Director of*
11 *the National Science Foundation (in this section referred*
12 *to as the “Director”) shall carry out cross-cutting and col-*
13 *laborative research and development activities focused on*
14 *the joint advancement of Department of Energy and Na-*
15 *tional Science Foundation mission requirements and prior-*
16 *ities.*

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

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

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

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

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

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

22 (D) *quantum information sciences, includ-*
23 *ing quantum computing and quantum network*
24 *infrastructure, including in collaboration with*
25 *the programs authorized under sections 403 and*

1 *404 of the National Quantum Initiative Act (15*
2 *U.S.C. 8853 and 8854);*

3 *(E) energy and materials science and engi-*
4 *neering, including artificial photosynthesis, plas-*
5 *ma, solar fuels, and fusion, including in collabo-*
6 *ration with the programs authorized under sec-*
7 *tions 303 and 307 of the Department of Energy*
8 *Research and Innovation Act (42 U.S.C. 18641*
9 *and 18645), and section 973 of the Energy Pol-*
10 *icy Act of 2005 (42 U.S.C. 16313);*

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

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

22 *(H) advanced physics, including high en-*
23 *ergy and particle physics, accelerator research*
24 *and development, and high performance com-*
25 *putational tools, including in collaboration with*

1 *the programs authorized under section 303 of the*
2 *Department of Energy Research and Innovation*
3 *Act (42 U.S.C. 18641);*

4 (2) *promote collaboration, open community-*
5 *based development, and data and information sharing*
6 *between Federal agencies, National Laboratories, in-*
7 *stitutions of higher education, nonprofit institutions,*
8 *and other appropriate entities by providing the nec-*
9 *essary access and secure data and information trans-*
10 *fer capabilities;*

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

14 (4) *organize education, training, and research*
15 *initiatives relating to STEM education and workforce*
16 *development, including—*

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

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

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

1 (d) *AGREEMENTS.*—*In carrying out the activities*
2 *under subsection (a), the Secretary and the Director are au-*
3 *thorized 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 Direc-*
12 *tor shall submit to the Committee on Science, Space, and*
13 *Technology of the House of Representatives and the Com-*
14 *mittee on Energy and Natural Resources and the Com-*
15 *mittee on Commerce, Science, and Transportation of the*
16 *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 successes.*

1 (5) *Continuation of coordination activities be-*
2 *tween the Department of Energy and the National*
3 *Science Foundation.*

4 (f) *RESEARCH SECURITY.—The activities authorized*
5 *under this section shall be applied in a manner consistent*
6 *with subtitle D of title VI of the Research and Development,*
7 *Competition, and Innovation Act (enacted as division B of*
8 *the CHIPS Act of 2022 (Public Law 117–167; 42 U.S.C.*
9 *19231 et seq.)).*

Union Calendar No. 169

118TH CONGRESS
1ST Session

H. R. 2980

[Report No. 118-209]

A BILL

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

SEPTEMBER 21, 2023

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed