To provide for Department of Energy and National Aeronautics and Space Administration research and development coordination, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

M. __________ introduced the following bill; which was referred to the Committee on __________

A BILL

To provide for Department of Energy and National Aeronautics and Space Administration 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 “[To Be Supplied] Act”.

SEC. 2. DEPARTMENT OF ENERGY AND NATIONAL AERONAUTICS AND SPACE ADMINISTRATION RESEARCH AND DEVELOPMENT COORDINATION.

(a) IN GENERAL.—The Secretary of Energy (in this section referred to as the “Secretary”) and the Administrator of the National Aeronautics and Space Administration (in this section referred to as the “Administrator”) shall carry out cross-cutting and collaborative research and development activities focused on the joint advancement of Department of Energy and National Aeronautics and Space Administration mission requirements and priorities.

(b) MEMORANDUM OF UNDERSTANDING.—The Secretary and the Administrator 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 Administrator may—
(1) conduct collaborative research in a variety of focus areas, such as—

   (A) propulsion systems and components, including nuclear thermal and nuclear electric, for the Moon and Mars, including radioisotope power systems, thermoelectric generators, advanced nuclear fuels, and heater units;

   (B) modeling and simulation, machine learning, data assimilation, large scale data analytics, and predictive analysis in order to optimize algorithms for mission-related purposes;

   (C) fundamental high energy physics, including regarding dark energy and dark matter, in collaboration with the program authorized under section 305 of the Department of Energy Research and Innovation Act (42 U.S.C. 18643);

   (D) fundamental earth and environmental sciences, including in collaboration with the program authorized under section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644);

   (E) radiation health effects, including in collaboration with the program authorized under section 306 of the Department of Energy
Research and Innovation Act (42 U.S.C. 18644);

(F) 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);

(G) nanotechnology;

(H) scientific observations of the early universe from the Moon;

(I) planetary defense from potentially hazardous asteroids and near-Earth objects;

(J) sensor and satellite development;

(K) space situational awareness; and

(L) fundamental heliophysics;

(2) develop methods to accommodate large voluntary data sets on space and aeronautical information on high-performance computing systems with variable quality and scale;

(3) 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-
providing the necessary access and secure data and information transfer capabilities; and

(4) support research infrastructure as the Secretary and Administrator determine necessary.

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

(1) carry out reimbursable agreements between the Department of Energy, the National Aeronautics and Space Administration, 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 Administrator 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 Aeronautics and Space Administration.

(3) Collaborative research achievements.

(4) Areas of future mutually beneficial successes.

(5) Continuation of coordination activities between the Department of Energy and the National Aeronautics and Space Administration.

(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.)).