

**AMENDMENT TO H.R. 7273**  
**OFFERED BY MR. BEGICH OF ALASKA**

Add at the end of title IV the following:

1 **SEC. 404. DEPARTMENT OF ENERGY AND NASA RESEARCH**  
2 **AND DEVELOPMENT COORDINATION.**

3 (a) IN GENERAL.—The Secretary of Energy (in this  
4 section referred to as the “Secretary”) and the Adminis-  
5 trator may carry out, as practicable, cross-cutting and col-  
6 laborative research and development activities to support  
7 the advancement of Department of Energy and NASA  
8 mission requirements and priorities. The Secretary and  
9 Administrator, in accordance with subsection (e), may  
10 make competitive awards to carry out such activities.

11 (b) MEMORANDA OF UNDERSTANDING.—The Sec-  
12 retary and the Administrator shall coordinate the activi-  
13 ties under subsection (a) through memoranda of under-  
14 standing, or other appropriate interagency agreements.

15 (c) COORDINATION.—In carrying out the activities  
16 under subsection (a), the Secretary and the Administrator  
17 may carry out the following:

18 (1) Conduct collaborative research and develop-  
19 ment activities in a variety of focus areas that may  
20 include the following:

1 (A) Propulsion systems and components,  
2 including nuclear thermal and nuclear electric  
3 propulsion, radioisotope power systems, thermo-  
4 electric generators, advanced nuclear fuels, and  
5 heater units.

6 (B) Modeling and simulation, machine  
7 learning, data assimilation, large scale data  
8 analytics, and predictive analysis, in order to  
9 optimize algorithms for mission-related pur-  
10 poses.

11 (C) Fundamental high energy physics, as-  
12 trophysics, and cosmology, including the nature  
13 of dark energy and dark matter, in accordance  
14 with section 305 of the Department of Energy  
15 Research and Innovation Act (42 U.S.C.  
16 18643).

17 (D) Fundamental earth and environmental  
18 sciences, in accordance with section 306 of the  
19 Department of Energy Research and Innovation  
20 Act (42 U.S.C. 18644) and section 60501 of  
21 title 51, United States Code.

22 (E) Quantum information sciences, includ-  
23 ing quantum computing and quantum network  
24 infrastructure, in accordance with sections 403

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

3 (F) Radiation health effects, in accordance  
4 with section 306 of the Department of Energy  
5 Research and Innovation Act (42 U.S.C.  
6 18644).

7 (G) Ground- and space-based technology  
8 necessary for the transmission to the Earth's  
9 surface of solar energy collected in space.

10 (H) Other areas of potential research and  
11 development collaboration the Secretary and the  
12 Administrator determine important to achieving  
13 agency missions and objectives.

14 (2) Develop methods to accommodate large vol-  
15 untary data sets on space and aeronautical informa-  
16 tion on high-performance computing systems with  
17 variable quality and scale.

18 (3) Promote collaboration and data and infor-  
19 mation sharing between the Department of Energy,  
20 NASA, the National Laboratories, and other appro-  
21 priate entities by providing the necessary access and  
22 secure data and information transfer capabilities.

23 (4) Support the Administration's access to the  
24 Department's research infrastructure and capabili-  
25 ties, as practicable.

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

4 (1) carry out reimbursable and non-reimburs-  
5 able agreements between the Department of Energy  
6 and NASA; and

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

9 (e) MERIT REVIEW PROCESS.—The Secretary and  
10 the Administrator shall ensure any competitive awards  
11 made to carry out the activities under section (a) shall  
12 follow all appropriate laws and agency policies, including  
13 the following:

14 (1) Selection by merit-review-based processes.

15 (2) Consideration of applications from Federal  
16 agencies, National Laboratories, institutions of high-  
17 er education, non-profit institutions, and other ap-  
18 propriate entities.

19 (f) REPORT.—Not later than two years after the date  
20 of the enactment of this section, the Secretary and the  
21 Administrator shall submit to the appropriate committees  
22 of Congress and the Committee on Energy and Natural  
23 Resources of the Senate a report detailing the following:

1           (1) Interagency research and development co-  
2           ordination activities between the Department of En-  
3           ergy and the NASA carried out under this section.

4           (2) How such coordination activities expand the  
5           technical capabilities of the Department and the Ad-  
6           ministration.

7           (3) Collaborative research and development  
8           achievements.

9           (4) Areas of future mutually beneficial activi-  
10          ties, including potential applications of clean energy  
11          technologies, such as marine energy.

12          (5) Continuation of coordination activities be-  
13          tween the Department of Energy and NASA.

14          (g) RESEARCH SECURITY.—The activities authorized  
15          under this section shall be applied in a manner consistent  
16          with subtitle D of title VI of the Research and Develop-  
17          ment, Competition, and Innovation Act (enacted as divi-  
18          sion B Public Law 117–167; 42 U.S.C. 19231 et seq.).

