

## COMMITTEE PRINT

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(Providing for reconciliation pursuant to S. Con. Res. 14, the  
Concurrent Resolution on the Budget for Fiscal Year 2022)

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1 **TITLE IX—COMMITTEE ON**  
2 **SCIENCE, SPACE, AND TECH-**  
3 **NOLOGY**

4 **SEC. 90001. DEPARTMENT OF COMMERCE REGIONAL INNO-**  
5 **VATION.**

6 In addition to amounts otherwise available, there is  
7 appropriated to the Department of Commerce for fiscal  
8 year 2022, out of any money in the Treasury not otherwise  
9 appropriated, \$5,000,000,000, to remain available until  
10 September 30, 2026, for planning and establishment of  
11 regional innovation initiatives pursuant to the Stevenson-  
12 Wydler Act, and for related administrative expenses.

13 **SEC. 90002. FUNDING FOR DEPARTMENT OF ENERGY LAB-**  
14 **ORATORY INFRASTRUCTURE.**

15 (a) OFFICE OF SCIENCE APPROPRIATION.—In addi-  
16 tion to amounts otherwise available, there is appropriated  
17 to the Department of Energy Office of Science for fiscal  
18 year 2022, out of any money in the Treasury not otherwise

1 appropriated, \$10,391,804,000, to remain available until  
2 September 30, 2026, including—

3 (1) \$7,780,566,000 for Construction Projects,  
4 of which—

5 (A) \$220,000,000 shall be used for the  
6 Exascale Computing Project;

7 (B) \$493,600,000 shall be used for the  
8 Frontier Exascale Computing System;

9 (C) \$427,400,000 shall be used for the Au-  
10 rora Exascale Computing System;

11 (D) \$155,400,000 shall be used for up-  
12 grades to the National Energy Research Sci-  
13 entific Computing Center;

14 (E) \$38,616,000 shall be used for the En-  
15 ergy Sciences Network;

16 (F) \$157,000,000 shall be used for the Ad-  
17 vanced Photon Source Upgrade;

18 (G) \$729,800,000 shall be used for the  
19 Spallation Neutron Source Proton Power Up-  
20 grade and Second Target Station;

21 (H) \$337,600,000 shall be used for the  
22 Advanced Light Source Upgrade;

23 (I) \$472,850,000 shall be used for the  
24 Linac Coherent Light Source-II, including the  
25 High Energy Upgrade;

1           (J) \$86,000,000 shall be used for the  
2 Cryomodule Repair and Maintenance Facility;

3           (K) \$25,000,000 shall be used for the  
4 High Flux Isotope Reactor Pressure Vessel Re-  
5 placement;

6           (L) \$1,325,000,000 shall be used for  
7 United States contributions to the ITER  
8 project as authorized in section 972(c) of the  
9 Energy Policy Act of 2005 (42 U.S.C.  
10 16312(c));

11           (M) \$212,300,000 shall be used for the  
12 Matter in Extreme Conditions Upgrade;

13           (N) \$581,000,000 shall be used for the  
14 Proton Improvement Plan-II project;

15           (O) \$1,300,000,000 shall be used for the  
16 Long Baseline Neutrino Facility/Deep Under-  
17 ground Neutrino Experiment;

18           (P) \$13,000,000 shall be used for the  
19 Muon to Electron Conversion Experiment;

20           (Q) \$806,000,000 shall be used for the  
21 Electron Ion Collider;

22           (R) \$213,000,000 shall be used for the  
23 Oak Ridge National Laboratory Radioisotope  
24 Processing Facility; and

1 (S) \$187,000,000 shall be used for the  
2 United States Stable Isotope Production and  
3 Research Center;

4 (2) \$1,470,238,000 for Major Items of Equip-  
5 ment, of which—

6 (A) \$302,000,000 shall be used for the  
7 High Performance Data Facility;

8 (B) \$90,000,000 shall be used for the  
9 Nanoscale Science Research Center Recapital-  
10 ization project;

11 (C) \$83,500,000 shall be used for the Na-  
12 tional Synchrotron Light Source-II Experi-  
13 mental Tools II project;

14 (D) \$59,200,000 shall be used for the Ma-  
15 terial Plasma Exposure Experiment;

16 (E) \$567,875,000 shall be used for such  
17 projects for the High Energy Physics program,  
18 including—

19 (i) \$237,000,000 for the Cosmic  
20 Microwave Background-Stage 4 experi-  
21 ment; and

22 (ii) \$223,875,000 for upgrades to the  
23 Large Hadron Collider; and

24 (F) \$367,663,000 shall be used for such  
25 projects for the Nuclear Physics program, in-

1 including \$212,500,000 for the Ton-Scale  
2 Neutrinoless Double Beta Decay experiment;  
3 and

4 (3) \$1,141,000,000 for Science Laboratories  
5 Infrastructure, of which—

6 (A) \$111,500,000 shall be used for such  
7 projects at the Oak Ridge National Laboratory;

8 (B) \$115,000,000 shall be used for such  
9 projects at the Thomas Jefferson National Ac-  
10 celerator Facility;

11 (C) \$150,400,000 shall be used for such  
12 projects at the Princeton Plasma Physics Lab-  
13 oratory;

14 (D) \$29,850,000 shall be used for such  
15 projects at the Ames Laboratory;

16 (E) \$90,000,000 shall be used for such  
17 projects at the Brookhaven National Labora-  
18 tory;

19 (F) \$265,000,000 shall be used for such  
20 projects at the Lawrence Berkeley National  
21 Laboratory;

22 (G) \$152,000,000 shall be used for such  
23 projects at the SLAC National Accelerator Lab-  
24 oratory;

1 (H) \$100,000,000 shall be used for such  
2 projects at the Argonne National Laboratory;  
3 and

4 (I) \$127,250,000 shall be used for such  
5 projects at the Fermi National Accelerator Lab-  
6 oratory.

7 (b) ENERGY EFFICIENCY AND RENEWABLE ENERGY  
8 APPROPRIATION.—In addition to amounts otherwise avail-  
9 able, there is appropriated to the Department of Energy  
10 Office of Energy Efficiency and Renewable Energy for fis-  
11 cal year 2022, out of any money in the Treasury not other-  
12 wise appropriated, \$349,200,000, to remain available until  
13 September 30, 2026, of which—

14 (1) \$163,000,000 shall be used for the Energy  
15 Materials and Processing at Scale project;

16 (2) \$96,200,000 shall be used for the Advanced  
17 Research in Integrated Energy Systems initiative;  
18 and

19 (3) \$90,000,000 shall be used for high-perform-  
20 ance computing equipment and infrastructure.

21 (c) NUCLEAR ENERGY APPROPRIATION.—In addition  
22 to amounts otherwise available, there is appropriated to  
23 the Department of Energy Office of Nuclear Energy for  
24 fiscal year 2022, out of any money in the Treasury not

1 otherwise appropriated, \$408,000,000, to remain available  
2 until September 30, 2026, of which—

3 (1) \$66,000,000 shall be used for the Sample  
4 Preparation Laboratory;

5 (2) \$125,000,000 shall be used for the Ad-  
6 vanced Test Reactor and Materials and Fuel Com-  
7 plex Plant Health projects;

8 (3) \$122,000,000 shall be used for the Ad-  
9 vanced Test Reactor Recapitalization project; and

10 (4) \$95,000,000 shall be used for the Versatile  
11 Test Reactor as authorized in section 955 of the En-  
12 ergy Policy Act of 2005 (42 U.S.C. 16275).

13 (d) FOSSIL ENERGY AND CARBON MANAGEMENT AP-  
14 PROPRIATION.—In addition to amounts otherwise avail-  
15 able, there is appropriated to the Department of Energy  
16 Office of Fossil Energy and Carbon Management for fiscal  
17 year 2022, out of any money in the Treasury not otherwise  
18 appropriated, \$20,000,000, to remain available until Sep-  
19 tember 30, 2026, for high-performance computing equip-  
20 ment and infrastructure.

21 (e) GENERAL LABORATORY INFRASTRUCTURE.—In  
22 addition to amounts otherwise available, there is appro-  
23 priated for fiscal year 2022, out of any money in the  
24 Treasury not otherwise appropriated, \$1,090,996,000, to  
25 remain available until September 30, 2026, for infrastruc-

1 ture at Department of Energy National Laboratories for  
2 civilian research and development purposes, including  
3 General Plant Projects and General Plant Equipment, of  
4 which—

5 (1) not less than \$377,301,000 shall be avail-  
6 able to the Office of Science;

7 (2) not less than \$209,800,000 shall be avail-  
8 able to the Office of Energy Efficiency and Renew-  
9 able Energy;

10 (3) not less than \$40,000,000 shall be available  
11 to the Office of Nuclear Energy;

12 (4) not less than \$200,000,000 shall be avail-  
13 able to the Office of Fossil Energy and Carbon Man-  
14 agement; and

15 (5) not less than \$102,200,000 shall be avail-  
16 able to the Office of Environmental Management.

17 **SEC. 90003. DEPARTMENT OF ENERGY RESEARCH, DEVEL-**  
18 **OPMENT, AND DEMONSTRATION ACTIVITIES.**

19 (a) OFFICE OF SCIENCE APPROPRIATIONS.—In addi-  
20 tion to amounts otherwise available, there is appropriated  
21 to the Office of Science of the Department of Energy for  
22 fiscal year 2022, out of any money in the Treasury not  
23 otherwise appropriated, \$2,000,000,000, to remain avail-  
24 able until September 30, 2026, for research and develop-  
25 ment activities. Of the funds provided by this section:



1           (1) COMPUTATIONAL SCIENCE GRADUATE FEL-  
2           LOWSHIP.—\$116,000,000 shall be used to carry out  
3           the Department of Energy Computational Science  
4           Graduate Fellowship program.

5           (2) QUANTUM USER EXPANSION FOR SCIENCE  
6           AND TECHNOLOGY.—\$340,000,000 shall be used to  
7           carry out activities to facilitate access of researchers  
8           to United States quantum computing facilities for  
9           research purposes as part of the program authorized  
10          in title IV of the National Quantum Initiative Act  
11          (15 U.S.C. 8851 et seq.).

12          (3) LOW-DOSE RADIATION RESEARCH.—  
13          \$180,000,000 shall be used to carry out the activi-  
14          ties of the low-dose radiation research program au-  
15          thorized in section 306(c) of the Department of En-  
16          ergy Research and Innovation Act (42 U.S.C.  
17          18644(c)).

18          (4) FUSION MATERIALS RESEARCH AND DEVEL-  
19          OPMENT.—\$250,000,000 shall be used to carry out  
20          the activities of the fusion materials research and  
21          development program authorized in section 307(b) of  
22          the Department of Energy Research and Innovation  
23          Act (42 U.S.C. 18645(b)).

24          (5) INERTIAL FUSION RESEARCH AND DEVEL-  
25          OPMENT.—\$140,000,000 shall be used to carry out

1 the activities of the program of research and tech-  
2 nology development in inertial fusion for energy ap-  
3 plications authorized in section 307(d) of the De-  
4 partment of Energy Research and Innovation Act  
5 (42 U.S.C. 18645(d)).

6 (6) ALTERNATIVE AND ENABLING FUSION EN-  
7 ERGY CONCEPTS.—\$275,000,000 shall be used to  
8 carry out the activities of the alternative and ena-  
9 bling fusion energy concepts program authorized in  
10 section 307(e) of the Department of Energy Re-  
11 search and Innovation Act (42 U.S.C. 18645(e)).

12 (7) MILESTONE-BASED FUSION ENERGY DEVEL-  
13 OPMENT PROGRAM.—\$325,000,000 shall be used to  
14 carry out the activities of the milestone-based fusion  
15 energy development program authorized in section  
16 307(i) of the Department of Energy Research and  
17 Innovation Act (42 U.S.C. 18645(i)).

18 (8) FUSION REACTOR SYSTEM DESIGN.—  
19 \$250,000,000 shall be used to carry out the fusion  
20 reactor system design activities authorized in section  
21 307(j) of the Department of Energy Research and  
22 Innovation Act (42 U.S.C. 18645(j)).

23 (b) ENERGY EFFICIENCY AND RENEWABLE ENERGY  
24 APPROPRIATION.—

1           (1) DEMONSTRATION PROJECTS.—In addition  
2           to amounts otherwise available, there is appropriated  
3           to the Department of Energy Office of Energy Effi-  
4           ciency and Renewable Energy for fiscal year 2022,  
5           out of any money in the Treasury not otherwise ap-  
6           propriated, \$1,107,500,000, to remain available  
7           until September 30, 2026, to carry out demonstra-  
8           tion projects, including demonstration of advanced—

9                   (A) wind energy technologies as authorized  
10                  in section 3003 of the Energy Act of 2020 (42  
11                  U.S.C. 16237);

12                  (B) solar energy technologies as authorized  
13                  in section 3004 of the Energy Act of 2020 (42  
14                  U.S.C. 16238);

15                  (C) geothermal technologies as authorized  
16                  in section 615 of the Energy Independence and  
17                  Security Act of 2007 (42 U.S.C. 17194);

18                  (D) water power technologies as authorized  
19                  in sections 634 and 635 of the Energy Inde-  
20                  pendence and Security Act of 2007 (42 U.S.C.  
21                  17213 et al.);

22                  (E) vehicle technologies;

23                  (F) bioenergy technologies; and

24                  (G) building technologies.

1           (2) CLEAN ENERGY MANUFACTURING INNOVA-  
2           TION INSTITUTE.—In addition to amounts otherwise  
3           available, there is appropriated to the Office of En-  
4           ergy Efficiency and Renewable Energy for fiscal  
5           year 2022, out of any money in the Treasury not  
6           otherwise appropriated, \$70,000,000, to remain  
7           available until September 30, 2026, to carry out ac-  
8           tivities to support one new Clean Energy Manufac-  
9           turing Innovation Institute.

10          (c) NUCLEAR ENERGY APPROPRIATION.—In addition  
11         to amounts otherwise available, there is appropriated to  
12         the Department of Energy Office of Nuclear Energy for  
13         fiscal year 2022, out of any money in the Treasury not  
14         otherwise appropriated, \$52,500,000, to remain available  
15         until September 30, 2026, to carry out the activities of  
16         the research reactor infrastructure program as authorized  
17         in section 954(a) of the Energy Policy Act of 2005 (42  
18         U.S.C. 16274(a)).

19          (d) DIVERSITY SUPPORT.—In addition to amounts  
20         otherwise available, there is appropriated to the Depart-  
21         ment of Energy Office of Economic Impact and Diversity  
22         for fiscal year 2022, out of any money in the Treasury  
23         not otherwise appropriated, \$20,000,000, to remain avail-  
24         able until September 30, 2026, to support programs

1 across the Department's civilian research, development,  
2 demonstration, and commercial application activities.

3 (e) OVERSIGHT.—In addition to amounts otherwise  
4 available, there is appropriated to the Department of En-  
5 ergy for fiscal year 2022, out of any money in the Treas-  
6 ury not otherwise appropriated, \$50,000,000, to remain  
7 available until September 30, 2028, for oversight by the  
8 Department of Energy Office of Inspector General of the  
9 Department of Energy activities for which funding is ap-  
10 propriated in this title.

11 **SEC. 90004. ENVIRONMENTAL PROTECTION AGENCY CLI-**  
12 **MATE CHANGE RESEARCH AND DEVELOP-**  
13 **MENT.**

14 In addition to amounts otherwise made available,  
15 there is appropriated to the Environmental Protection  
16 Agency for fiscal year 2022, out of any money in the  
17 Treasury not otherwise appropriated, \$264,000,000 to re-  
18 main available until September 30, 2026, to conduct envi-  
19 ronmental research and development activities related to  
20 climate change, including related administrative expenses.  
21 The amounts made available in this section shall be used  
22 for the purposes of—

23 (1) conducting further research on mitigation of  
24 climate forcing emissions, adaptation to reduce the

1 impacts of climate change, and approaches to build  
2 resilience to climate change;

3 (2) providing increased support for evidence-  
4 based regional and community climate adaptation  
5 and resilience actions, including development of a  
6 grants-based regional climate science network;

7 (3) conducting further social science research to  
8 upgrade the utilization and efficacy of scientific tools  
9 to mitigate, adapt, and build resilience to the im-  
10 pacts of climate change;

11 (4) increasing engagement capacity with front-  
12 line communities with environmental justice con-  
13 cerns in translating, utilizing, and evaluating sci-  
14 entific research results;

15 (5) conducting further research to improve un-  
16 derstanding of impacts of decarbonized energy  
17 sources compared to existing energy sources, includ-  
18 ing cumulative impacts of pollution from existing  
19 sources;

20 (6) conducting further research to improve un-  
21 derstanding of the impacts of the transition to  
22 decarbonized energy, transportation, and building  
23 sectors on frontline communities;

24 (7) conducting further research to improve un-  
25 derstanding of impacts of climate change, including

1 cumulative impacts of pollution exposure, in commu-  
2 nities that face disproportionate impacts from en-  
3 ergy transitions; and

4 (8) providing increased support to conduct fur-  
5 ther environmental research and development activi-  
6 ties on climate change that the Administrator deems  
7 appropriate.

8 **SEC. 90005. FEDERAL EMERGENCY MANAGEMENT AGENCY**  
9 **ASSISTANCE TO FIREFIGHTERS CONSTRUC-**  
10 **TION GRANTS.**

11 In addition to amounts otherwise available, there is  
12 appropriated to the Federal Emergency Management  
13 Agency for Fiscal Year 2022, out of any money in the  
14 Treasury not otherwise appropriated, to remain available  
15 until September 30, 2026, \$798,000,000, for Assistance  
16 to Firefighters Grants pursuant to the Federal Fire Pre-  
17 vention and Control Act of 1974: *Provided*, That  
18 \$718,000,000 of such amount shall be available for Assist-  
19 ance to Firefighters Grants for fire and EMS department  
20 facility construction, upgrades, and modifications, and for  
21 related administrative expenses: *Provided further*, That  
22 \$80,000,000 of such amount shall be available for Assist-  
23 ance to Firefighters Grants for PFAS-free firefighting  
24 equipment and supplies, and for related administrative ex-  
25 penses.

1 **SEC. 90006. FIREFIGHTER GRANT OVERSIGHT.**

2 In addition to amounts otherwise available, there is  
3 appropriated to the Department of Homeland Security for  
4 fiscal year 2022, out of any money in the Treasury not  
5 otherwise appropriated, \$2,000,000, to remain available  
6 until September 30, 2028, for oversight by the Depart-  
7 ment of Homeland Security Office of Inspector General  
8 of the activities for which funding is appropriated in sec-  
9 tion 90005.

10 **SEC. 90007. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
11 **TRATION INFRASTRUCTURE.**

12 In addition to amounts otherwise made available,  
13 there are appropriated to the National Aeronautics and  
14 Space Administration for fiscal year 2022, out of any  
15 money in the Treasury not otherwise appropriated,  
16 \$4,000,000,000 to remain available until September 30,  
17 2026, for repair, recapitalization, and modernization of  
18 physical infrastructure and facilities, including related ad-  
19 ministrative expenses, consistent with the responsibilities  
20 authorized under section 31502 of title 51, United States  
21 Code, on maintenance of facilities and section 31503 of  
22 title 51, United States Code, on laboratory productivity.  
23 The Administrator shall prioritize environmental sustain-  
24 ability, energy-efficiency, and the reduction of greenhouse  
25 gas emissions and environmental impacts in all repair, re-



1 capitalization, and modernization efforts that use funding  
2 appropriated under this section.

3 **SEC. 90008. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
4 **TRATION CLIMATE CHANGE RESEARCH AND**  
5 **DEVELOPMENT.**

6 In addition to amounts otherwise made available,  
7 there are appropriated to the National Aeronautics and  
8 Space Administration for fiscal year 2022, out of any  
9 money in the Treasury not otherwise appropriated,  
10 \$388,000,000 to remain available until September 30,  
11 2026, of which \$85,000,000 shall be for research and de-  
12 velopment on subseasonal to seasonal models and observa-  
13 tions, climate resilience and sustainability, and airborne  
14 instruments, campaigns, and surface networks to under-  
15 stand, observe, and mitigate global climate change and its  
16 impacts, including related administrative expenses, au-  
17 thorized under section 60501 of title 51, United States  
18 Code, and research and development activities on upper  
19 atmospheric research authorized under sections 20161,  
20 20163, and 20164 of title 51, United States Code;  
21 \$28,000,000 shall be for investments in data manage-  
22 ment, infrastructure, and processing to support research,  
23 development, and applications to understand, observe, and  
24 mitigate the global climate change and its impacts con-  
25 sistent with the responsibilities authorized under section

1 60506 of title 51, United States Code; \$50,000,000 shall  
2 be for research and development to support the wildfire  
3 community and improve wildfire fighting operations; and  
4 \$225,000,000 shall be for advancing aeronautics research  
5 and development on sustainable aviation, including related  
6 administrative expenses, consistent with the responsibil-  
7 ities authorized under sections 40701 and 40702 of title  
8 51, United States Code. The Administrator shall prioritize  
9 environmental sustainability, energy-efficiency, and the re-  
10 duction of greenhouse gas emissions and environmental  
11 impacts in all efforts that use funding appropriated under  
12 this section.

13 **SEC. 90009. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
14 **TRATION OVERSIGHT AND CYBERSECURITY.**

15 In addition to amounts otherwise made available,  
16 there are appropriated to the National Aeronautics and  
17 Space Administration for fiscal year 2022, out of any  
18 money in the Treasury not otherwise appropriated,  
19 \$7,000,000, to remain available until September 30, 2026,  
20 for information technology security and cybersecurity ac-  
21 tivities for which funding is appropriated under sections  
22 90006 and 90007. In addition to amounts otherwise made  
23 available, there are appropriated to the National Aero-  
24 nautics and Space Administration for fiscal year 2022, out  
25 of any money in the Treasury not otherwise appropriated,

1 \$5,000,000 to remain available until September 30, 2028,  
2 for the Office of Inspector General to provide oversight  
3 over the management of funds appropriated under sec-  
4 tions 90006 and 90007.

5 **SEC. 90010. NATIONAL INSTITUTE OF STANDARDS AND**  
6 **TECHNOLOGY RESEARCH.**

7 In addition to amounts otherwise available, there is  
8 appropriated to the National Institute of Standards and  
9 Technology for fiscal year 2022, out of any money in the  
10 Treasury not otherwise appropriated, \$1,195,000,000, to  
11 remain available until September 30, 2028, for scientific  
12 and technical research pursuant to the National Institute  
13 of Standards and Technology Act, for artificial intel-  
14 ligence, cybersecurity, quantum information science and  
15 technology, biotechnology, communications technologies,  
16 advanced manufacturing, resilience to natural hazards in-  
17 cluding wildfires, greenhouse gas and other climate-related  
18 measurement, and for related administrative expenses.

19 **SEC. 90011. NATIONAL INSTITUTE OF STANDARDS AND**  
20 **TECHNOLOGY SUPPORTING AMERICAN MAN-**  
21 **UFACTURING.**

22 (a) IN GENERAL.—In addition to amounts otherwise  
23 available, there is appropriated to the National Institute  
24 of Standards and Technology for fiscal year 2022, out of  
25 any money in the Treasury not otherwise appropriated,

1 \$2,000,000,000, to remain available until September 30,  
2 2028, of which—

3 (1) \$1,000,000,000 shall be for the Hollings  
4 Manufacturing Extension Partnership as authorized  
5 by sections 25 and 26 of the National Institute of  
6 Standards and Technology Act (15 U.S.C. 278k;  
7 278l), including related administrative expenses; and

8 (2) \$1,000,000,000 shall be to provide funds,  
9 through existing programs, for advanced manufac-  
10 turing research, development, and testbeds, includ-  
11 ing related administrative expenses.

12 (b) LIMITATION.—Amounts provided under sub-  
13 section (a)(1) shall not be subject to cost share require-  
14 ments under section 25(e)(2) of the National Institute of  
15 Standards and Technology Act (15 U.S.C. 278k(e)(2)).  
16 The authority made available pursuant to this preceding  
17 sentence shall be elective for any Manufacturing Extension  
18 Partnership Center that also receives funding from a State  
19 that is conditioned upon the application of a Federal cost  
20 sharing requirement.

21 **SEC. 90012. NATIONAL INSTITUTE OF STANDARDS AND**  
22 **TECHNOLOGY RESEARCH FACILITIES.**

23 In addition to amounts otherwise available, there is  
24 appropriated to the National Institute of Standards and  
25 Technology for fiscal year 2022, out of any money in the

1 Treasury not otherwise appropriated, \$1,000,000,000, to  
2 remain available until September 30, 2026, for necessary  
3 expenses as authorized by sections 13 through 15 of the  
4 National Institute of Standards and Technology Act (15  
5 U.S.C. 278c-278e) for construction of new research facili-  
6 ties, including architectural and engineering design, and  
7 for renovation and maintenance of existing facilities.

8 **SEC. 90013. NATIONAL INSTITUTE OF STANDARDS AND**  
9 **TECHNOLOGY OVERSIGHT.**

10 In addition to amounts otherwise available, there is  
11 appropriated to the Department of Commerce for fiscal  
12 year 2022, out of any money in the Treasury not otherwise  
13 appropriated, \$5,000,000, to remain available until Sep-  
14 tember 30, 2028, for oversight by the Department of Com-  
15 merce Office of Inspector General of National Institute of  
16 Standards and Technology activities for which funding is  
17 appropriated in this title.

18 **SEC. 90014. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
19 **MINISTRATION WEATHER, OCEAN, AND CLI-**  
20 **MATE RESEARCH AND FORECASTING.**

21 In addition to amounts otherwise made available,  
22 there is appropriated to the National Oceanic and Atmos-  
23 pheric Administration for fiscal year 2022, out of any  
24 money in the Treasury not otherwise appropriated,  
25 \$1,240,000,000 to remain available until September 30,

1 2027, to carry out the provisions of the Weather Research  
2 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.),  
3 the National Integrated Drought Information System Act  
4 (15 U.S.C. 313d), the National Climate Program Act (15  
5 U.S.C. 2901–2908.), the Harmful Algal Bloom and Hy-  
6 poxia Research and Control Act (33 U.S.C. 4001–4010),  
7 the Federal Ocean Acidification Research and Monitoring  
8 Act (33 U.S.C. 3701–3708), title III of the America COM-  
9 PETES Act (33 U.S.C. 893, 893a, 893b, and 893c), and  
10 the Weather Service Organic Act (15 U.S.C. 313 et seq.).

11 The amounts in this section shall be used for the purposes  
12 of—

13 (1) increasing the understanding, and predictive  
14 and forecasting capabilities, of weather and climate  
15 phenomena including, but not limited to, hurricanes,  
16 tornadoes, drought, wildland fires and associated fire  
17 weather, extreme precipitation, extreme heat and ex-  
18 treme heat events, flooding, and other severe weath-  
19 er, and their impacts;

20 (2) increasing marine research capacity and the  
21 understanding of the impacts of climate change on  
22 ocean processes and phenomena including, but not  
23 limited to, ocean acidification, harmful algal blooms,  
24 hypoxia and deoxygenation, sea level change, and  
25 ocean warming;

1           (3) enhancing weather, ocean, climate, and  
2 other environmental observations, research, data,  
3 data assimilation, and modeling;

4           (4) facilitating successful transition of research  
5 into operations and operations to research, including  
6 social science for improved decision support services;

7           (5) acquiring related high-performance com-  
8 puting, data management, and storage assets; and

9           (6) developing, leveraging, and employing new  
10 capabilities, technologies and instruments, including  
11 dissemination and processing.

12 **SEC. 90015. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
13 **MINISTRATION CLIMATE ADAPTATION AND**  
14 **RESILIENCE ACTIVITIES.**

15       (a) IN GENERAL.—In addition to amounts otherwise  
16 available, there is appropriated to the National Oceanic  
17 and Atmospheric Administration for fiscal year 2022, out  
18 of any money in the Treasury not otherwise appropriated,  
19 \$765,000,000 to remain available until September 30,  
20 2027, to carry out the provisions of the National Climate  
21 Program Act (15 U.S.C. 2901–2908), the Weather Re-  
22 search and Forecasting Innovation Act (15 U.S.C. 8501  
23 et seq.), title III of the America COMPETES Act (33  
24 U.S.C. 893, 893a, 893b, and 893c), the National Inte-  
25 grated Drought Information System Act (15 U.S.C.

1 313d), the Weather Service Organic Act (15 U.S.C. 313  
2 et seq.), the Harmful Algal Bloom and Hypoxia Research  
3 and Control Act (33 U.S.C. 4001–4010), and the Federal  
4 Ocean Acidification Research and Monitoring Act (33  
5 U.S.C. 3701–3708) to develop and distribute actionable  
6 climate information for communities across all States, ter-  
7 ritories, and Tribal lands of the United States in an equi-  
8 table manner, to build climate resilience and develop a cli-  
9 mate-ready workforce.

10 (b) USE OF FUNDS.—The amounts made available  
11 in subsection (a) shall be used for the following activities:

12 (1) \$265,000,000 to better enable end users, as  
13 appropriate, to assess the relative risk of, determine  
14 possible adaptation and mitigation strategies for,  
15 and make executive and budgetary decisions in re-  
16 sponse to climate impacts by—

17 (A) increasing end user understanding of  
18 the impacts of climate change at the local and  
19 regional level;

20 (B) developing actionable climate informa-  
21 tion and accessible tools and products; and

22 (C) providing end users with technical as-  
23 sistance.

24 (2) \$500,000,000 to recruit, educate, and train  
25 a climate-ready workforce to—



1 (A) develop and support on-the-ground  
2 community-driven projects to enhance climate  
3 adaptation and resilience;

4 (B) support community engagement and  
5 participation in monitoring, tracking, and pre-  
6 paring for extreme events;

7 (C) support local resilience to climate im-  
8 pacts;

9 (D) conduct community-driven climate  
10 science; and

11 (E) enhance the National Oceanic and At-  
12 mospheric Administration’s delivery of climate  
13 information services, tools, and products, in-  
14 cluding but not limited to those developed in  
15 paragraph (1)(B).

16 (c) END USERS.—For the purposes of this section,  
17 the term “end users” shall include—

18 (1) States;

19 (2) territories;

20 (3) Tribes;

21 (4) local governments;

22 (5) businesses;

23 (6) not-for-profit or other organizations; and

24 (7) individuals.

1 (d) **EXTREME EVENT.**—For the purposes of this sec-  
2 tion, the term “extreme event” refers to a time and place  
3 in which weather, climate, or environmental conditions,  
4 such as temperature, precipitation, drought, or flooding,  
5 rank above a threshold value near the upper or lower ends  
6 of the range of historical measurements.

7 **SEC. 90016. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
8 **MINISTRATION HIGH PERFORMANCE COM-**  
9 **PUTING.**

10 In addition to amounts otherwise made available,  
11 there is appropriated to the National Oceanic and Atmos-  
12 pheric Administration for fiscal year 2022, out of any  
13 money in the Treasury not otherwise appropriated,  
14 \$70,000,000 to remain available until September 30,  
15 2027, to procure and enhance high performance com-  
16 puting, data management, and storage capabilities, and  
17 related facilities to enable the National Oceanic and At-  
18 mospheric Administration to meet its mission require-  
19 ments, including related administrative expenses.

20 **SEC. 90017. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
21 **MINISTRATION PHASED ARRAY RADAR.**

22 In addition to amounts otherwise made available,  
23 there is appropriated to the National Oceanic and Atmos-  
24 pheric Administration for fiscal year 2022, out of any  
25 money in the Treasury not otherwise appropriated,

1 \$224,000,000 to remain available until September 30,  
2 2027, to carry out the provisions of the Weather Research  
3 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.)  
4 for research and development activities to advance the un-  
5 derstanding of phased array radar as a potential future  
6 radar technology to improve weather forecasts.

7 **SEC. 90018. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
8 **MINISTRATION HURRICANE HUNTER AIR-**  
9 **CRAFT.**

10 In addition to amounts otherwise made available,  
11 there is appropriated to the National Oceanic and Atmos-  
12 pheric Administration for fiscal year 2022, out of any  
13 money in the Treasury not otherwise appropriated,  
14 \$1,024,000,000 to remain available until September 30,  
15 2027, to carry out the provisions of the Weather Research  
16 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.)  
17 for the procurement of hurricane hunters and related ex-  
18 penses, and the development and acquisition of airborne  
19 phased array radar, to prepare for fleet readiness by fiscal  
20 year 2030.

21 **SEC. 90019. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
22 **MINISTRATION UNCREWED SYSTEMS.**

23 In addition to amounts otherwise made available,  
24 there is appropriated to the National Oceanic and Atmos-  
25 pheric Administration for fiscal year 2022, out of any

1 money in the Treasury not otherwise appropriated,  
2 \$12,000,000 to remain available until September 30,  
3 2024, to support uncrewed systems development and ap-  
4 plication in support of National Oceanic and Atmospheric  
5 Administration mission priorities including oceanic and at-  
6 mospheric research and research to operations, including  
7 related administrative expenses.

8 **SEC. 90020. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
9 **MINISTRATION RESEARCH INFRASTRUC-**  
10 **TURE.**

11 In addition to amounts otherwise made available,  
12 there is appropriated to the National Oceanic and Atmos-  
13 pheric Administration for fiscal year 2022, out of any  
14 money in the Treasury not otherwise appropriated,  
15 \$743,000,000 to remain available until September 30,  
16 2027, to conduct deferred maintenance of meteorological,  
17 hydrological, climatological, and other oceanic and atmos-  
18 pheric research and development or operational facilities,  
19 and to make improvements to scientific equipment and in-  
20 struments, including related administrative expenses.

21 **SEC. 90021. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
22 **MINISTRATION SPACE WEATHER.**

23 In addition to amounts otherwise made available,  
24 there is appropriated to the National Oceanic and Atmos-  
25 pheric Administration for fiscal year 2022, out of any

1 money in the Treasury not otherwise appropriated,  
2 \$173,000,000, to remain available until September 30,  
3 2027, to carry out the provisions of the Promoting Re-  
4 search and Observations of Space Weather to Improve the  
5 Forecasting of Tomorrow (PROSWIFT) Act (51 U.S.C.  
6 60601 et seq.) by accelerating the development and deliv-  
7 ery of instruments and spacecraft, and prioritizing an  
8 independent launch for the Space Weather Next Lagrange  
9 point 1 mission, including related administrative expenses.

10 **SEC. 90022. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
11 **MINISTRATION OVERSIGHT.**

12 In addition to amounts otherwise available, there is  
13 appropriated to the Department of Commerce for fiscal  
14 year 2022, out of any money in the Treasury not otherwise  
15 appropriated, \$5,000,000, to remain available until Sep-  
16 tember 30, 2028, for oversight by the Department of Com-  
17 merce Office of Inspector General of National Oceanic and  
18 Atmospheric Administration activities for which funding  
19 is appropriated in this title.

20 **SEC. 90023. NATIONAL SCIENCE FOUNDATION INFRASTRUC-**  
21 **TURE.**

22 In addition to amounts otherwise available, there is  
23 appropriated to the National Science Foundation for fiscal  
24 year 2022, out of any money in the Treasury not otherwise  
25 appropriated, \$3,430,000,000, to remain available until

1 September 30, 2026, for research-enabling equipment, fa-  
2 cilities, and infrastructure, including mid-scale research  
3 infrastructure, Antarctic infrastructure modernization, re-  
4 lated Federal administrative expenses and additional  
5 major research equipment and facilities construction  
6 projects approved by the National Science Board as re-  
7 quired under section 14 of the National Science Founda-  
8 tion Authorization Act of 2002 (42 U.S.C. 1862n-4): *Pro-*  
9 *vided*, That \$1,000,000,000 shall be for activities author-  
10 ized by title II of Public Law 100–570 for academic re-  
11 search facilities modernization, of which \$300,000,000  
12 shall be for academic research facilities modernization at  
13 historically Black colleges and universities, Hispanic serv-  
14 ing institutions, Tribal colleges and universities, and other  
15 minority serving institutions.

16 **SEC. 90024. NATIONAL SCIENCE FOUNDATION RESEARCH**  
17 **AND DEVELOPMENT.**

18 In addition to amounts otherwise available, there is  
19 appropriated to the National Science Foundation for fiscal  
20 year 2022, out of any money in the Treasury not otherwise  
21 appropriated, \$7,550,000,000, to remain available until  
22 September 30, 2026, to fund or extend new and existing  
23 research awards, scholarships, and fellowships across all  
24 science, technology, engineering, and mathematics  
25 (STEM) and STEM education disciplines, to fund use-in-

1 spired and translational research and development awards,  
2 entrepreneurial education, and technology transfer activi-  
3 ties, to extend existing research awards and scholarships  
4 and fellowships to aid in the recovery from COVID-19 re-  
5 lated disruptions, and for related administrative expenses:  
6 *Provided*, That \$400,000,000 shall be available for climate  
7 change research, including relating to wildfires: *Provided*  
8 *further*, That \$700,000,000 shall be available for research  
9 and related activities at historically Black colleges and  
10 universities, Tribal colleges and universities, Hispanic  
11 serving institutions, and other minority serving institu-  
12 tions.

13 **SEC. 90025. NATIONAL SCIENCE FOUNDATION OVERSIGHT.**

14 In addition to amounts otherwise available, there is  
15 appropriated to the Office of Inspector General of the Na-  
16 tional Science Foundation for fiscal year 2022, out of any  
17 money in the Treasury not otherwise appropriated,  
18 \$50,000,000, to remain available until September 30,  
19 2028, for oversight, investigations, and audits of pro-  
20 grams, grants, and projects carried out by the National  
21 Science Foundation using funds under this title.

22 **SEC. 90026. WAGE RATE REQUIREMENTS.**

23 (a) IN GENERAL.—Notwithstanding any other provi-  
24 sion of law, all laborers and mechanics employed by con-  
25 tractors and subcontractors on any project funded directly

1 or assisted in whole or in part by the Federal Government  
2 pursuant to this title shall be paid wages at rates not less  
3 than those prevailing on projects of a similar character  
4 in the locality, as determined by the Secretary of Labor  
5 in accordance with subchapter IV of chapter 31 of title  
6 40, United States Code (commonly known as the “Davis-  
7 Bacon Act”).

8 (b) AUTHORITY.—With respect to the labor stand-  
9 ards specified in paragraph (1), the Secretary of Labor  
10 shall have the authority and functions set forth in Reorga-  
11 nization Plan Numbered 14 of 1950 (64 Stat. 1267; 5  
12 U.S.C. App.) and section 3145 of title 40, United States  
13 Code.