

**AMENDMENT IN THE NATURE OF A SUBSTITUTE  
TO COMMITTEE PRINT  
OFFERED BY M. \_\_\_\_\_**

Strike the text of the committee print and insert the following:

1 **TITLE I—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, 2031, except that no amounts may be ex-  
11 pended after September 30, 2031, for planning and estab-  
12 lishment of regional innovation initiatives pursuant to the  
13 Stevenson-Wydler Act, and for related administrative ex-  
14 penses.

15 **SEC. 90002. FUNDING FOR DEPARTMENT OF ENERGY LAB-**  
16 **ORATORY INFRASTRUCTURE.**

17 (a) OFFICE OF SCIENCE APPROPRIATION.—In addi-  
18 tion to amounts otherwise available, there is appropriated

1 to the Department of Energy Office of Science for fiscal  
2 year 2022, out of any money in the Treasury not otherwise  
3 appropriated, \$10,391,804,000, to remain available until  
4 September 30, 2026, to carry out laboratory infrastruc-  
5 ture projects, including—

6 (1) \$7,780,566,000 for Construction Projects,  
7 of which—

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

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

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

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

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

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

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

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

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

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

6 (K) \$25,000,000 shall be used for the  
7 High Flux Isotope Reactor Pressure Vessel Re-  
8 placement;

9 (L) \$1,325,000,000 shall be used for  
10 United States contributions to the ITER  
11 project as authorized in section 972(c) of the  
12 Energy Policy Act of 2005 (42 U.S.C.  
13 16312(c));

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

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

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

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

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

1 (R) \$213,000,000 shall be used for the  
2 Oak Ridge National Laboratory Radioisotope  
3 Processing Facility; and

4 (S) \$187,000,000 shall be used for the  
5 United States Stable Isotope Production and  
6 Research Center;

7 (2) \$1,470,238,000 for Major Items of Equip-  
8 ment, of which—

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

11 (B) \$90,000,000 shall be used for the  
12 Nanoscale Science Research Center Recapital-  
13 ization project;

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

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

19 (E) \$567,875,000 shall be used for such  
20 projects for the High Energy Physics program,  
21 including—

22 (i) \$237,000,000 for the Cosmic  
23 Microwave Background-Stage 4 experi-  
24 ment; and

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

3 (F) \$367,663,000 shall be used for such  
4 projects for the Nuclear Physics program, in-  
5 cluding \$212,500,000 for the Ton-Scale  
6 Neutrinoless Double Beta Decay experiment;  
7 and

8 (3) \$1,141,000,000 for Science Laboratories  
9 Infrastructure, of which—

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

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

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

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

20 (E) \$90,000,000 shall be used for such  
21 projects at the Brookhaven National Labora-  
22 tory;

23 (F) \$265,000,000 shall be used for such  
24 projects at the Lawrence Berkeley National  
25 Laboratory;

1           (G) \$152,000,000 shall be used for such  
2           projects at the SLAC National Accelerator Lab-  
3           oratory;

4           (H) \$100,000,000 shall be used for such  
5           projects at the Argonne National Laboratory;  
6           and

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

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

18           (1) \$163,000,000 shall be used for the Energy  
19           Materials and Processing at Scale project;

20           (2) \$96,200,000 shall be used for the Advanced  
21           Research in Integrated Energy Systems initiative;  
22           and

23           (3) \$90,000,000 shall be used for high-perform-  
24           ance computing equipment and infrastructure.

1 (c) NUCLEAR ENERGY APPROPRIATION.—In addition  
2 to amounts otherwise available, there is appropriated to  
3 the Department of Energy Office of Nuclear Energy for  
4 fiscal year 2022, out of any money in the Treasury not  
5 otherwise appropriated, \$408,000,000, to remain available  
6 until September 30, 2026, to carry out laboratory infra-  
7 structure projects, of which—

8 (1) \$66,000,000 shall be used for the Sample  
9 Preparation Laboratory;

10 (2) \$125,000,000 shall be used for the Ad-  
11 vanced Test Reactor and Materials and Fuel Com-  
12 plex Plant Health projects;

13 (3) \$122,000,000 shall be used for the Ad-  
14 vanced Test Reactor Recapitalization project; and

15 (4) \$95,000,000 shall be used for the Versatile  
16 Test Reactor as authorized in section 955 of the En-  
17 ergy Policy Act of 2005 (42 U.S.C. 16275).

18 (d) FOSSIL ENERGY AND CARBON MANAGEMENT AP-  
19 PROPRIATION.—In addition to amounts otherwise avail-  
20 able, there is appropriated to the Department of Energy  
21 Office of Fossil Energy and Carbon Management for fiscal  
22 year 2022, out of any money in the Treasury not otherwise  
23 appropriated, \$20,000,000, to remain available until Sep-  
24 tember 30, 2026, to carry out activities to support high-  
25 performance computing equipment and infrastructure.

1 (e) GENERAL LABORATORY INFRASTRUCTURE.—In  
2 addition to amounts otherwise available, there is appro-  
3 priated for fiscal year 2022, out of any money in the  
4 Treasury not otherwise appropriated, \$1,080,996,000, to  
5 remain available until September 30, 2026, to carry out  
6 activities to support infrastructure at Department of En-  
7 ergy National Laboratories for civilian research and devel-  
8 opment purposes, including General Plant Projects and  
9 General Plant Equipment, of which—

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

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

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

17 (4) not less than \$190,000,000 shall be avail-  
18 able to the Office of Fossil Energy and Carbon Man-  
19 agement; and

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

22 **SEC. 90003. DEPARTMENT OF ENERGY RESEARCH, DEVEL-**  
23 **OPMENT, AND DEMONSTRATION ACTIVITIES.**

24 (a) OFFICE OF SCIENCE APPROPRIATIONS.—In addi-  
25 tion to amounts otherwise available, there is appropriated



1 to the Office of Science of the Department of Energy for  
2 fiscal year 2022, out of any money in the Treasury not  
3 otherwise appropriated, \$2,000,000,000, to remain avail-  
4 able until September 30, 2026, to carry out research and  
5 development activities. Of the funds provided by this sec-  
6 tion:

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

11 (2) QUANTUM USER EXPANSION FOR SCIENCE  
12 AND TECHNOLOGY.—\$340,000,000 shall be used to  
13 carry out activities to facilitate access of researchers  
14 to United States quantum computing facilities for  
15 research purposes as part of the program authorized  
16 in title IV of the National Quantum Initiative Act  
17 (15 U.S.C. 8851 et seq.).

18 (3) LOW-DOSE RADIATION RESEARCH.—  
19 \$180,000,000 shall be used to carry out the activi-  
20 ties of the low-dose radiation research program au-  
21 thorized in section 306(c) of the Department of En-  
22 ergy Research and Innovation Act (42 U.S.C.  
23 18644(c)).

24 (4) FUSION MATERIALS RESEARCH AND DEVEL-  
25 OPMENT.—\$250,000,000 shall be used to carry out

1 the activities of the fusion materials research and  
2 development program authorized in section 307(b) of  
3 the Department of Energy Research and Innovation  
4 Act (42 U.S.C. 18645(b)).

5 (5) INERTIAL FUSION RESEARCH AND DEVEL-  
6 OPMENT.—\$140,000,000 shall be used to carry out  
7 the activities of the program of research and tech-  
8 nology development in inertial fusion for energy ap-  
9 plications authorized in section 307(d) of the De-  
10 partment of Energy Research and Innovation Act  
11 (42 U.S.C. 18645(d)).

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

18 (7) MILESTONE-BASED FUSION ENERGY DEVEL-  
19 OPMENT PROGRAM.—\$325,000,000 shall be used to  
20 carry out the activities of the milestone-based fusion  
21 energy development program authorized in section  
22 307(i) of the Department of Energy Research and  
23 Innovation Act (42 U.S.C. 18645(i)).

24 (8) FUSION REACTOR SYSTEM DESIGN.—  
25 \$250,000,000 shall be used to carry out the fusion

1 reactor system design activities authorized in section  
2 307(j) of the Department of Energy Research and  
3 Innovation Act (42 U.S.C. 18645(j)).

4 (b) ENERGY EFFICIENCY AND RENEWABLE ENERGY  
5 APPROPRIATION.—

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

14 (A) wind energy technologies as authorized  
15 in section 3003 of the Energy Act of 2020 (42  
16 U.S.C. 16237);

17 (B) solar energy technologies as authorized  
18 in section 3004 of the Energy Act of 2020 (42  
19 U.S.C. 16238);

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

23 (D) water power technologies as authorized  
24 in sections 634 and 635 of the Energy Inde-

1           pendence and Security Act of 2007 (42 U.S.C.  
2           17213 et al.);

3           (E) vehicle technologies;

4           (F) bioenergy technologies; and

5           (G) building technologies.

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

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

24          (d) FOSSIL ENERGY AND CARBON MANAGEMENT AP-  
25          PROPRIATION.—In addition to amounts otherwise avail-

1 able, there is appropriated to the Department of Energy  
2 Office of Fossil Energy and Carbon Management for fiscal  
3 year 2022, out of any money in the Treasury not otherwise  
4 appropriated, \$10,000,000, to remain available until Sep-  
5 tember 30, 2026, to carry out on-site demonstration  
6 projects on the reduction of environmental impacts of pro-  
7 duced water.

8 (e) DIVERSITY SUPPORT.—In addition to amounts  
9 otherwise available, there is appropriated to the Depart-  
10 ment of Energy Office of Economic Impact and Diversity  
11 for fiscal year 2022, out of any money in the Treasury  
12 not otherwise appropriated, \$20,000,000, to remain avail-  
13 able until September 30, 2031, except that no amounts  
14 may be expended after September 30, 2031, to support  
15 programs across the Department’s civilian research, devel-  
16 opment, demonstration, and commercial application activi-  
17 ties.

18 (f) OVERSIGHT.—In addition to amounts otherwise  
19 available, there is appropriated to the Department of En-  
20 ergy for fiscal year 2022, out of any money in the Treas-  
21 ury not otherwise appropriated, \$50,000,000, to remain  
22 available until September 30, 2031, except that no  
23 amounts may be expended after September 30, 2031, for  
24 oversight by the Department of Energy Office of Inspector

1 General of the Department of Energy activities for which  
2 funding is appropriated in this title.

3 **SEC. 90004. ENVIRONMENTAL PROTECTION AGENCY CLI-**  
4 **MATE CHANGE RESEARCH AND DEVELOP-**  
5 **MENT.**

6 In addition to amounts otherwise made available,  
7 there is appropriated to the Environmental Protection  
8 Agency for fiscal year 2022, out of any money in the  
9 Treasury not otherwise appropriated, \$264,000,000 to re-  
10 main available until September 30, 2026, to conduct envi-  
11 ronmental research and development activities related to  
12 climate change, including related administrative expenses.  
13 The amounts made available in this section shall be used  
14 for the purposes of—

15 (1) conducting further research on mitigation of  
16 climate forcing emissions, adaptation to reduce the  
17 impacts of climate change, and approaches to build  
18 resilience to climate change;

19 (2) providing increased support for evidence-  
20 based regional and community climate adaptation  
21 and resilience actions, including development of a  
22 grants-based regional climate science network;

23 (3) conducting further social science research to  
24 upgrade the utilization and efficacy of scientific tools

1 to mitigate, adapt, and build resilience to the im-  
2 pacts of climate change;

3 (4) increasing engagement capacity with front-  
4 line communities with environmental justice con-  
5 cerns in translating, utilizing, and evaluating sci-  
6 entific research results;

7 (5) conducting further research to improve un-  
8 derstanding of impacts of decarbonized energy  
9 sources compared to existing energy sources, includ-  
10 ing cumulative impacts of pollution from existing  
11 sources;

12 (6) conducting further research to improve un-  
13 derstanding of the impacts of the transition to  
14 decarbonized energy, transportation, and building  
15 sectors on frontline communities;

16 (7) conducting further research to improve un-  
17 derstanding of impacts of climate change, including  
18 cumulative impacts of pollution exposure, in commu-  
19 nities that face disproportionate impacts from en-  
20 ergy transitions; and

21 (8) providing increased support to conduct fur-  
22 ther environmental research and development activi-  
23 ties on climate change that the Administrator deems  
24 appropriate.

1 **SEC. 90005. FEDERAL EMERGENCY MANAGEMENT AGENCY**  
2 **ASSISTANCE TO FIREFIGHTERS GRANTS.**

3 In addition to amounts otherwise available, there is  
4 appropriated to the Federal Emergency Management  
5 Agency for Fiscal Year 2022, out of any money in the  
6 Treasury not otherwise appropriated, to remain available  
7 until September 30, 2026, \$798,000,000, for Assistance  
8 to Firefighters Grants pursuant to the Federal Fire Pre-  
9 vention and Control Act of 1974: *Provided*, That  
10 \$718,000,000 of such amount shall be available for Assist-  
11 ance to Firefighters Grants for fire and EMS department  
12 facility construction, upgrades, and modifications, and for  
13 related administrative expenses: *Provided further*, That  
14 \$80,000,000 of such amount shall be available for Assist-  
15 ance to Firefighters Grants for PFAS-free personal pro-  
16 tective equipment and PFAS-free firefighting foam, and  
17 for related administrative expenses.

18 **SEC. 90006. FIREFIGHTER GRANT OVERSIGHT.**

19 In addition to amounts otherwise available, there is  
20 appropriated to the Department of Homeland Security for  
21 fiscal year 2022, out of any money in the Treasury not  
22 otherwise appropriated, \$2,000,000, to remain available  
23 until September 30, 2031, except that no amounts may  
24 be expended after September 30, 2031, for oversight by  
25 the Department of Homeland Security Office of Inspector



1 General of the activities for which funding is appropriated  
2 in section 90005.

3 **SEC. 90007. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
4 **TRATION INFRASTRUCTURE.**

5 In addition to amounts otherwise made available,  
6 there are appropriated to the National Aeronautics and  
7 Space Administration for fiscal year 2022, out of any  
8 money in the Treasury not otherwise appropriated,  
9 \$4,000,000,000 to remain available until September 30,  
10 2026, for repair, recapitalization, and modernization of  
11 physical infrastructure and facilities, including related ad-  
12 ministrative expenses, consistent with the responsibilities  
13 authorized under section 31502 of title 51, United States  
14 Code, on maintenance of facilities and section 31503 of  
15 title 51, United States Code, on laboratory productivity.

16 **SEC. 90008. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
17 **TRATION CLIMATE CHANGE RESEARCH AND**  
18 **DEVELOPMENT.**

19 In addition to amounts otherwise made available,  
20 there are appropriated to the National Aeronautics and  
21 Space Administration for fiscal year 2022, out of any  
22 money in the Treasury not otherwise appropriated,  
23 \$388,000,000 to remain available until September 30,  
24 2026, of which \$85,000,000 shall be for research and de-  
25 velopment on subseasonal to seasonal models and observa-

1 tions, climate resilience and sustainability, and airborne  
2 instruments, campaigns, and surface networks to under-  
3 stand, observe, and mitigate global climate change and its  
4 impacts, including related administrative expenses, au-  
5 thorized under section 60501 of title 51, United States  
6 Code, and research and development activities on upper  
7 atmospheric research authorized under sections 20161,  
8 20163, and 20164 of title 51, United States Code;  
9 \$28,000,000 shall be for investments in data management  
10 and processing to support research, development, and ap-  
11 plications to understand, observe, and mitigate the global  
12 climate change and its impacts consistent with the respon-  
13 sibilities authorized under section 60506 of title 51,  
14 United States Code; \$50,000,000 shall be for research and  
15 development to support the wildfire community and im-  
16 prove wildfire fighting operations, including the Scalable  
17 Traffic Management for Emergency Response Operations  
18 project; and \$225,000,000 shall be for advancing aero-  
19 nautics research and development on sustainable aviation,  
20 including related administrative expenses, consistent with  
21 the responsibilities authorized under sections 40701 and  
22 40702 of title 51, United States Code.

1 **SEC. 90009. NATIONAL AERONAUTICS AND SPACE ADMINIS-**  
2 **TRATION OVERSIGHT AND CYBERSECURITY.**

3 In addition to amounts otherwise made available,  
4 there are appropriated to the National Aeronautics and  
5 Space Administration for fiscal year 2022, out of any  
6 money in the Treasury not otherwise appropriated,  
7 \$7,000,000, to remain available until September 30, 2031,  
8 except that no amounts may be expended after September  
9 30, 2031, for information technology security and cyberse-  
10 curity activities for which funding is appropriated under  
11 sections 90007 and 90008. In addition to amounts other-  
12 wise made available, there are appropriated to the Na-  
13 tional Aeronautics and Space Administration 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, 2031, except that no amounts may be ex-  
17 pended after September 30, 2031, for the Office of Inspec-  
18 tor General to provide oversight over the management of  
19 funds appropriated under sections 90007 and 90008.

20 **SEC. 90010. NATIONAL INSTITUTE OF STANDARDS AND**  
21 **TECHNOLOGY RESEARCH.**

22 In addition to amounts otherwise available, there is  
23 appropriated to the National Institute of Standards and  
24 Technology for fiscal year 2022, out of any money in the  
25 Treasury not otherwise appropriated, \$1,195,000,000, to  
26 remain available until September 30, 2031, except that no

1 amounts may be expended after September 30, 2031, for  
2 scientific and technical research pursuant to the National  
3 Institute of Standards and Technology Act, for artificial  
4 intelligence, cybersecurity, quantum information science  
5 and technology, biotechnology, communications tech-  
6 nologies, advanced manufacturing, resilience to natural  
7 hazards including wildfires, greenhouse gas and other cli-  
8 mate-related measurement, and for related administrative  
9 expenses.

10 **SEC. 90011. NATIONAL INSTITUTE OF STANDARDS AND**  
11 **TECHNOLOGY SUPPORTING AMERICAN MAN-**  
12 **UFACTURING.**

13 (a) IN GENERAL.—In addition to amounts otherwise  
14 available, there is appropriated to the National Institute  
15 of Standards and Technology for fiscal year 2022, out of  
16 any money in the Treasury not otherwise appropriated,  
17 \$2,000,000,000, to remain available until September 30,  
18 2031, except that no amounts may be expended after Sep-  
19 tember 30, 2031, of which—

20 (1) \$1,000,000,000 shall be for the Hollings  
21 Manufacturing Extension Partnership as authorized  
22 by sections 25 and 26 of the National Institute of  
23 Standards and Technology Act (15 U.S.C. 278k;  
24 278l), including related administrative expenses; and

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

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

14       **SEC. 90012. NATIONAL INSTITUTE OF STANDARDS AND**  
15                               **TECHNOLOGY RESEARCH FACILITIES.**

16          In addition to amounts otherwise available, there is  
17          appropriated to the National Institute of Standards and  
18          Technology for fiscal year 2022, out of any money in the  
19          Treasury not otherwise appropriated, \$1,000,000,000, to  
20          remain available until September 30, 2031, except that no  
21          amounts may be expended after September 30, 2031, for  
22          necessary expenses as authorized by sections 13 through  
23          15 of the National Institute of Standards and Technology  
24          Act (15 U.S.C. 278c-278e) for construction of new re-  
25          search facilities, including architectural and engineering

1 design, and for renovation and maintenance of existing fa-  
2 cilities.

3 **SEC. 90013. NATIONAL INSTITUTE OF STANDARDS AND**  
4 **TECHNOLOGY OVERSIGHT.**

5 In addition to amounts otherwise available, there is  
6 appropriated to the Department of Commerce for fiscal  
7 year 2022, out of any money in the Treasury not otherwise  
8 appropriated, \$5,000,000, to remain available until Sep-  
9 tember 30, 2031, except that no amounts may be ex-  
10 pended after September 30, 2031, for oversight by the De-  
11 partment of Commerce Office of Inspector General of Na-  
12 tional Institute of Standards and Technology activities for  
13 which funding is appropriated in this title.

14 **SEC. 90014. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
15 **MINISTRATION WEATHER, OCEAN, AND CLI-**  
16 **MATE RESEARCH AND FORECASTING.**

17 In addition to amounts otherwise made available,  
18 there is appropriated to the National Oceanic and Atmos-  
19 pheric Administration for fiscal year 2022, out of any  
20 money in the Treasury not otherwise appropriated,  
21 \$1,240,000,000, to remain available until September 30,  
22 2026, to carry out the provisions of the Weather Research  
23 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.),  
24 the National Integrated Drought Information System Act  
25 (15 U.S.C. 313d), the National Climate Program Act (15

1 U.S.C. 2901–2908.), the Harmful Algal Bloom and Hy-  
2 poxia Research and Control Act (33 U.S.C. 4001–4010),  
3 the Federal Ocean Acidification Research and Monitoring  
4 Act (33 U.S.C. 3701–3708), title III of the America COM-  
5 PETES Act (33 U.S.C. 893, 893a, 893b, and 893c), and  
6 the Weather Service Organic Act (15 U.S.C. 313 et seq.).  
7 The amounts in this section shall be used for the purposes  
8 of—

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

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

22           (3) enhancing weather, ocean, climate, and  
23          other environmental observations, research, data,  
24          data assimilation, and modeling;

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

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

6 (6) developing, leveraging, and employing new  
7 capabilities, technologies and instruments, including  
8 dissemination and processing.

9 **SEC. 90015. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
10 **MINISTRATION CLIMATE ADAPTATION AND**  
11 **RESILIENCE ACTIVITIES.**

12 (a) IN GENERAL.—In addition to amounts otherwise  
13 available, there is appropriated to the National Oceanic  
14 and Atmospheric Administration for fiscal year 2022, out  
15 of any money in the Treasury not otherwise appropriated,  
16 \$765,000,000 to remain available until September 30,  
17 2026, to carry out the provisions of the National Climate  
18 Program Act (15 U.S.C. 2901–2908), the Weather Re-  
19 search and Forecasting Innovation Act (15 U.S.C. 8501  
20 et seq.), title III of the America COMPETES Act (33  
21 U.S.C. 893, 893a, 893b, and 893c), the National Inte-  
22 grated Drought Information System Act (15 U.S.C.  
23 313d), the Weather Service Organic Act (15 U.S.C. 313  
24 et seq.), the Harmful Algal Bloom and Hypoxia Research  
25 and Control Act (33 U.S.C. 4001–4010), and the Federal



1 Ocean Acidification Research and Monitoring Act (33  
2 U.S.C. 3701–3708) to develop and distribute actionable  
3 climate information for communities across all States, ter-  
4 ritories, and Tribal lands of the United States in an equi-  
5 table manner, to build climate resilience and develop a cli-  
6 mate-ready workforce.

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

9 (1) \$265,000,000 to better enable end users, as  
10 appropriate, to assess the relative risk of, determine  
11 possible adaptation and mitigation strategies for,  
12 and make executive and budgetary decisions in re-  
13 sponse to climate impacts by—

14 (A) increasing end user understanding of  
15 the impacts of climate change at the local and  
16 regional level;

17 (B) developing actionable climate informa-  
18 tion and accessible tools and products; and

19 (C) providing end users with technical as-  
20 sistance.

21 (2) \$500,000,000 to recruit, educate, and train  
22 a climate-ready workforce to—

23 (A) develop and support on-the-ground  
24 community-driven projects to enhance climate  
25 adaptation and resilience;

1 (B) support community engagement and  
2 participation in monitoring, tracking, and pre-  
3 paring for extreme events;

4 (C) support local resilience to climate im-  
5 pacts;

6 (D) conduct community-driven climate  
7 science; and

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

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

15 (1) States;

16 (2) territories;

17 (3) Tribes;

18 (4) local governments;

19 (5) businesses;

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

21 (7) individuals.

22 (d) EXTREME EVENT.—For the purposes of this sec-  
23 tion, the term “extreme event” refers to a time and place  
24 in which weather, climate, or environmental conditions,  
25 such as temperature, precipitation, drought, or flooding,

1 rank above a threshold value near the upper or lower ends  
2 of the range of historical measurements.

3 **SEC. 90016. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
4 **MINISTRATION HIGH PERFORMANCE COM-**  
5 **PUTING.**

6 In addition to amounts otherwise made available,  
7 there is appropriated to the National Oceanic and Atmos-  
8 pheric Administration for fiscal year 2022, out of any  
9 money in the Treasury not otherwise appropriated,  
10 \$70,000,000 to remain available until September 30,  
11 2026, to procure and enhance high performance com-  
12 puting, data management, and storage capabilities, and  
13 related facilities to enable the National Oceanic and At-  
14 mospheric Administration to meet its mission require-  
15 ments, including related administrative expenses.

16 **SEC. 90017. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
17 **MINISTRATION PHASED ARRAY RADAR.**

18 In addition to amounts otherwise made available,  
19 there is appropriated to the National Oceanic and Atmos-  
20 pheric Administration for fiscal year 2022, out of any  
21 money in the Treasury not otherwise appropriated,  
22 \$224,000,000 to remain available until September 30,  
23 2026, to carry out the provisions of the Weather Research  
24 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.)  
25 for research and development activities to advance the un-

1 derstanding of phased array radar as a potential future  
2 radar technology to improve weather forecasts.

3 **SEC. 90018. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
4 **MINISTRATION HURRICANE HUNTER AIR-**  
5 **CRAFT.**

6 In addition to amounts otherwise made available,  
7 there is appropriated to the National Oceanic and Atmos-  
8 pheric Administration for fiscal year 2022, out of any  
9 money in the Treasury not otherwise appropriated,  
10 \$1,024,000,000 to remain available until September 30,  
11 2026, to carry out the provisions of the Weather Research  
12 and Forecasting Innovation Act (15 U.S.C. 8501 et seq.)  
13 for the procurement of hurricane hunters and related ex-  
14 penses, and the development and acquisition of airborne  
15 phased array radar, to prepare for fleet readiness by fiscal  
16 year 2030.

17 **SEC. 90019. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
18 **MINISTRATION UNCREWED SYSTEMS.**

19 In addition to amounts otherwise made available,  
20 there is appropriated to the National Oceanic and Atmos-  
21 pheric Administration for fiscal year 2022, out of any  
22 money in the Treasury not otherwise appropriated,  
23 \$12,000,000 to remain available until September 30,  
24 2026, to support uncrewed systems development and ap-  
25 plication in support of National Oceanic and Atmospheric

1 Administration mission priorities including oceanic and at-  
2 mospheric research and research to operations, including  
3 related administrative expenses.

4 **SEC. 90020. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
5 **MINISTRATION RESEARCH INFRASTRUC-**  
6 **TURE.**

7 In addition to amounts otherwise made available,  
8 there is appropriated to the National Oceanic and Atmos-  
9 pheric Administration for fiscal year 2022, out of any  
10 money in the Treasury not otherwise appropriated,  
11 \$743,000,000 to remain available until September 30,  
12 2026, to conduct deferred maintenance of meteorological,  
13 hydrological, climatological, and other oceanic and atmos-  
14 pheric research and development or operational facilities,  
15 and to make improvements to scientific equipment and in-  
16 struments, including related administrative expenses.

17 **SEC. 90021. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
18 **MINISTRATION SPACE WEATHER.**

19 In addition to amounts otherwise made available,  
20 there is appropriated to the National Oceanic and Atmos-  
21 pheric Administration for fiscal year 2022, out of any  
22 money in the Treasury not otherwise appropriated,  
23 \$173,000,000, to remain available until September 30,  
24 2026, to carry out the provisions of the Promoting Re-  
25 search and Observations of Space Weather to Improve the

1 Forecasting of Tomorrow (PROSWIFT) Act (51 U.S.C.  
2 60601 et seq.) by accelerating the development and deliv-  
3 ery of instruments and spacecraft, and prioritizing an  
4 independent launch for the Space Weather Next Lagrange  
5 point 1 mission, including related administrative expenses.

6 **SEC. 90022. NATIONAL OCEANIC AND ATMOSPHERIC AD-**  
7 **MINISTRATION OVERSIGHT.**

8 In addition to amounts otherwise available, there is  
9 appropriated to the Department of Commerce for fiscal  
10 year 2022, out of any money in the Treasury not otherwise  
11 appropriated, \$5,000,000, to remain available until Sep-  
12 tember 30, 2026, for oversight by the Department of Com-  
13 merce Office of Inspector General of National Oceanic and  
14 Atmospheric Administration activities for which funding  
15 is appropriated in this title.

16 **SEC. 90023. NATIONAL SCIENCE FOUNDATION INFRASTRUC-**  
17 **TURE.**

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, \$3,430,000,000, to remain available until  
22 September 30, 2031, except that no amounts may be ex-  
23 pended after September 30, 2031, for research-enabling  
24 equipment, facilities, and infrastructure, including mid-  
25 scale research infrastructure, Antarctic infrastructure

1 modernization, related Federal administrative expenses  
2 and additional major research equipment and facilities  
3 construction projects approved by the National Science  
4 Board as required under section 14 of the National  
5 Science Foundation Authorization Act of 2002 (42 U.S.C.  
6 1862n-4): *Provided*, That \$1,000,000,000 shall be for ac-  
7 tivities authorized by title II of Public Law 100–570 for  
8 academic research facilities modernization, which may in-  
9 clude shore-side facilities for academic research vessels, of  
10 which \$300,000,000 shall be for academic research facili-  
11 ties modernization at historically Black colleges and uni-  
12 versities, Hispanic serving institutions, Tribal colleges and  
13 universities, and other minority serving institutions.

14 **SEC. 90024. NATIONAL SCIENCE FOUNDATION RESEARCH**  
15 **AND DEVELOPMENT.**

16 In addition to amounts otherwise available, there is  
17 appropriated to the National Science Foundation for fiscal  
18 year 2022, out of any money in the Treasury not otherwise  
19 appropriated, \$7,550,000,000, to remain available until  
20 September 30, 2031, except that no amounts may be ex-  
21 pended after September 30, 2031, to fund or extend new  
22 and existing research awards, scholarships, and fellow-  
23 ships across all science, technology, engineering, and  
24 mathematics (STEM) and STEM education disciplines, to  
25 fund use-inspired and translational research and develop-

1 ment awards, entrepreneurial education, and technology  
2 transfer activities, to extend existing research awards and  
3 scholarships and fellowships to aid in the recovery from  
4 COVID-19 related disruptions, and for related administra-  
5 tive expenses: *Provided*, That \$400,000,000 shall be avail-  
6 able for climate change research, including relating to  
7 wildfires: *Provided further*, That \$700,000,000 shall be  
8 available for research and related activities at historically  
9 Black colleges and universities, Tribal colleges and univer-  
10 sities, Hispanic serving institutions, and other minority  
11 serving institutions.

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

13 In addition to amounts otherwise available, there is  
14 appropriated to the Office of Inspector General of the Na-  
15 tional Science Foundation for fiscal year 2022, out of any  
16 money in the Treasury not otherwise appropriated,  
17 \$50,000,000, to remain available until September 30,  
18 2031, except that no amounts may be expended after Sep-  
19 tember 30, 2031, for oversight, investigations, and audits  
20 of programs, grants, and projects carried out by the Na-  
21 tional 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.

