To require the Secretary of Defense to enhance the readiness of the Department of Defense to challenges relating to climate change and to improve the energy and resource efficiency of the Department, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JULY 20, 2021

Ms. ESCOBAR (for herself and Mr. KAHELE) introduced the following bill; which was referred to the Committee on Armed Services

A BILL

To require the Secretary of Defense to enhance the readiness of the Department of Defense to challenges relating to climate change and to improve the energy and resource efficiency of the Department, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Department of Defense Climate Resiliency and Readiness Act”.

SEC. 2. DEFINITIONS.

In this Act:
(1) CLIMATE CHANGE.—The term “climate change” means a change of climate that is—

(A) attributed directly or indirectly to human activity that alters the composition of the global atmosphere; and

(B) in addition to natural climate variability observed over comparable time periods.

(2) CONGRESSIONAL DEFENSE COMMITTEES.—The term “congressional defense committees” has the meaning given that term in section 101(a)(16) of title 10, United States Code.

(3) GREEN MANUFACTURING TECHNOLOGY.—The term “green manufacturing technology” means manufacturing processes that—

(A) use low carbon materials;

(B) reduce carbon emissions or have low global warming potential during the production of the material or product; and

(C) use renewable resources to create the material or product; and

(4) NET ZERO ENERGY.—The term “net zero energy” means a reduction by an entity in overall energy use, maximization of energy efficiency, and implementation and use of energy recovery and co-generation capabilities, and an offset of the remain-
ing demand for energy with production of energy from onsite renewable energy sources, such that as much energy is produced by the entity as the entity uses over the course of a year.

(5) **Resiliency.**—The term “resiliency” means, with respect to each installation of the Department of Defense, an anticipation, preparation for, and adaptation of each installation to utility disruptions and changing environmental conditions, and the achievement and maintenance by such installation of the capability to withstand, respond to, and recover rapidly from utility disruptions while ensuring the sustainment of mission-critical operations.

(6) **Non-operational sources.**—The term “non-operational sources”—

(A) means fixed installations, enduring locations, and non-tactical vehicles of the Department of Defense; and

(B) does not include sources in connection with the training, moving, and sustaining of the Armed Forces and weapons platforms for military operations and training, including tactical power systems and generators at non-enduring locations of the Department of Defense.
(7) Renewable energy source.—The term “renewable energy source” has the meaning given that term in section 2924(6) of title 10, United States Code.

(8) United States.—The term “United States” means the several States, the District of Columbia, and any territory or possession of the United States.

SEC. 3. NET ZERO ENERGY BY NON-OPERATIONAL SOURCES OF THE DEPARTMENT OF DEFENSE.

(a) In general.—The Department of Defense shall achieve aggregate net zero energy in use of energy by non-operational sources by not later than December 31, 2031.

(b) Strategy.—

(1) In general.—Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to Congress a report setting forth the strategy of the Department of Defense to achieve the requirement under subsection (a).

(2) Elements.—The report required by paragraph (1) shall set forth the following:

(A) The strategy of the Department of Defense to achieve the requirement under sub-
section (a) for all installations under the jurisdiction of the Department (other than the military departments).

(B) The strategy of each military department to achieve the requirement under subsection (a) for all installations under the jurisdiction of such department.

(C) An assessment of the manner in which the achievement by the Department of Defense of the requirement under subsection (a) will enhance the readiness of the Armed Forces to address threats posed by Russia, China, Iran, North Korea, and violent extremism.

(3) BIENNIAL UPDATE.—Not later than two years after the submittal of the report required by paragraph (1), and every two years thereafter through December 31, 2031, the Secretary shall submit to Congress a report setting forth the following:

(A) A current assessment of the progress of the Department of Defense in implementing the strategy described in paragraph (1), set forth by military department, Defense Agency, and other component or element of the Department.
(B) Any updates to the strategy.

(4) CONSULTATION.—The Secretary shall con-
sult with the National Academy of Sciences and a
federally funded research and development center in
developing the report required by paragraph (1) and
any update to that report under paragraph (3).

(c) WAIVER.—

(1) IN GENERAL.—The Secretary of Defense
may waive the requirement in subsection (a) if the
Secretary—

(A) determines that achievement of such
requirement would adversely affect operational
safety, force protection, or the national security
interests of the United States; and

(B) submits to the congressional defense
committees a written notification of the waiver,
together with a justification for the waiver.

(2) PERIOD.—The period of any waiver under
paragraph (1) may not exceed 30 days.

(3) RENEWAL.—Any waiver under this sub-
section may be renewed one or more times, in the
manner provided for the initial such waiver under
paragraph (1) and for the period provided for in
paragraph (2).
SEC. 4. INCLUSION IN ANNUAL ENERGY MANAGEMENT AND RESILIENCE REPORT OF DEPARTMENT OF
DEFENSE OF LIST OF MILITARY INSTALLATIONS THAT EMIT THE MOST CARBON AND
ESTIMATE OF ENERGY CONSUMPTION BY DEPARTMENT.

(a) In general.—For every fiscal year beginning after the date of the enactment of this Act, the Secretary of Defense shall include in the Annual Energy Management and Resilience Report for that fiscal year—

(1) a list of the ten installations within each military department that emit the most carbon;

(2) an estimate of all energy consumption by the Department of Defense, including greenhouse gas emissions; and

(3) an assessment of greenhouse gas emissions at all installations of the Department, disaggregated by operational and non-operational sources.

(b) Metrics.—In determining energy consumption and greenhouse gas emissions under paragraphs (2) and (3) of subsection (a), the Secretary shall use metrics established by the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the National Academy of Sciences and a federally funded research and development center.
SEC. 5. CLIMATE-CONSCIOUS CONTRACTING OF DEPARTMENT OF DEFENSE.

(a) In General.—Chapter 137 of title 10, United States Code, is amended by adding at the end the following new section:

“§ 2339d. Requirements relating to energy consumption and climate change

“(a) Projected Energy Consumption.—Each Department of Defense contract for the procurement of property or services entered into on or after October 1, 2021, shall include a written estimate by the Department of the total projected energy consumption of all work to be performed under the contract, and a statement of whether the contract will include investments by the contractor or the Department in renewable energy or energy-efficient sources.

“(b) Policy on Consideration of Certain Factors in Determinations To Award Contracts.—In making any determination to enter into a contract described in subsection (a), the Secretary of Defense shall take into account—

“(1) whether the contractor verifiably produces as much renewable energy as the total energy it consumes; and

“(2) whether there is any order against the contractor by the Environmental Protection Agency, the
Department of Justice, or a State attorney general to pay a fine or take remedial action for a violation of an environmental law or regulation of the United States.

“(c) DISCLOSURE OF CLIMATE-RELATED RISKS.— Each prospective contractor with the Department of Defense shall, as a prerequisite of bidding for a contract with the Department, submit a detailed statement to the Department that includes information regarding—

“(1) the identification of, the evaluation of potential financial impacts of, and any risk-management strategies relating to—

“(A) physical risks posed to the contractor by climate change; and

“(B) transition risks posed to the contractor by climate change; and

“(2) a description of any established corporate governance processes and structures to identify, assess, and manage climate-related risks.

“(d) ASSESSMENT OF FEES TO COMBAT CLIMATE CHANGE.—(1) Each Department of Defense contract for the procurement of property or services entered into on or after October 1, 2021, shall include a requirement that the contractor pay to the Department of Defense a fee equal to one percent of the value of the contract in the
case of a contractor that is not, at the time of the Department’s solicitation of the contract, verifiably producing as much renewable energy as the total energy it consumes.

“(2) Any contractor required to pay a fee under paragraph (1) with respect to a contract may not offset the cost of such fee by increasing the amount of the proposal for such contract.

“(e) WAIVER.—(1) The Secretary of Defense may waive the requirements in subsections (a) and (b) if the Secretary—

“(A)(i) determines that such requirements would adversely affect operational safety, force protection, or the national security interests of the United States; or

“(ii) with respect to particular property or services, determines that—

“(I) market conditions for the property or services have adversely affected (or will in the near future adversely affect) the acquisition of the property or services by the Department of Defense; and

“(II) the waiver will expedite or facilitate the acquisition of the property or services; and
“(B) submits to the congressional defense committees a written notification of the waiver, together with a justification for the waiver.

“(2) The period of any waiver under paragraph (1) may not exceed 30 days.

“(3) Any waiver under this subsection may be renewed one or more times, in the manner provided for the initial such waiver under paragraph (1) and for the period provided for in paragraph (2).”.

(b) Clerical Amendment.—The table of sections at the beginning of chapter 137 of title 10, United States Code, is amended by inserting after the item relating to section 2339c the following new item:

“2339d. Requirements relating to energy consumption and climate change.”.

(c) Energy and Climate Resiliency Fund.—

(1) In General.—There is established in the Treasury of the United States a fund, to be known as the “Energy and Climate Resiliency Fund” (in this subsection referred to as the “Fund”), to be administered by the Secretary of Defense.

(2) Use of Amounts.—Amounts deposited in the Fund shall be used only for climate-related improvements that contribute to the continued operational viability and the resiliency of the networks, systems, installations, facilities, and other assets and capabilities of the Department of Defense.
(3) Deposit and Availability of Amounts.—Notwithstanding section 3302 of title 31, United States Code, fees collected under section 2339d(d) of title 10, United States Code, as added by subsection (a)—

(A) shall be deposited into the Fund to carry out the activities described in paragraph (2);

(B) to the extent and in the amounts provided in advance in appropriations Acts, shall be available to the Secretary of Defense; and

(C) shall remain available until expended.

(4) Climate-Related Improvements Defined.—In this subsection, the term “climate-related improvements” means efforts by the Department of Defense to prepare for, or mitigate the effects of, the following:

(A) Extreme weather.

(B) Rising sea tides.

(C) Increased flooding.

(D) Drought.

(E) Desertification.

(F) Wildfires.

(G) Thawing permafrost.
(H) Such other conditions as the Secretary determines necessary.

(d) Contracting Preference for Green Manufacturing Technology.—

(1) Contracts for Green Manufacturing Technology.—With respect to contracts awarded by the Department of Defense, the Department shall give a preference to qualified contractors.

(2) Policy on Consideration of Certain Factors in Determinations to Award Contracts.—In making any determination to enter into a contract described in paragraph (1), the Secretary of Defense shall take into account—

(A) whether the qualified contractor verifiably produces as much renewable energy as the total energy it consumes;

(B) whether the qualified contractor verifiably uses green manufacturing technology; and

(C) whether there is any order against the qualified contractor by the Environmental Protection Agency, the Department of Justice, or a State attorney general to pay a fine or take remedial action for a violation of an environmental law or regulation of the United States.
(3) Verification and reporting of qualified contractors.—The Secretary of Defense shall prescribe such procedures as may be necessary for—

(A) contractors to verify that they are qualified contractors;

(B) qualified contractors meeting the requirements of paragraph (2) to certify that not more than 25 percent of the amount paid under the contract will be expended on a subcontract to a contractor that is not verifiably meeting those requirements, subject to such necessary and reasonable waivers as the Secretary may prescribe; and

(C) recording information on each use of the authority under paragraph (1), including details relevant to the nature of the contract and the qualified contractor, and providing that information to the Comptroller General of the United States.

(4) Comptroller General of the United States report.—

(A) In general.—Not later than five years after the date of the enactment of this Act, the Comptroller General of the United States
States shall submit to the congressional defense committees a report on the individual and aggregate uses of the authority under paragraph (1), using such data as may be available up to that time.

(B) ELEMENTS.—The report under subparagraph (A) shall include—

(i) an assessment of the frequency and nature of the use of the authority under paragraph (1); and

(ii) the tendency of contractors to become qualified contractors in order to qualify for the authority under paragraph (1).

(5) QUALIFIED CONTRACTOR DEFINED.—In this subsection, the term “qualified contractor” means a contractor that uses green manufacturing technology.

(e) SET ASIDE CONTRACTS FOR SMALL BUSINESSES THAT USE GREEN MANUFACTURING TECHNOLOGY.—

(1) CONTRACTS FOR GREEN MANUFACTURING TECHNOLOGY.—With respect to contracts awarded by the Department of Defense, the Department shall award—
(A) in fiscal year 2022, not fewer than five percent of contracts to qualified small businesses;

(B) by fiscal year 2027, not fewer than 20 percent of contracts to qualified small businesses; and

(C) by fiscal year 2030, not fewer than 50 percent of contracts to qualified small businesses.

(2) Policy on Consideration of Certain Factors in Determinations to Award Contracts.—In making any determination to enter into a contract described in paragraph (1), the Secretary of Defense shall take into account—

(A) whether the qualified small business verifiably produces as much renewable energy as the total energy it consumes;

(B) whether the qualified small business verifiably uses green manufacturing technology or operates with net zero energy; and

(C) whether there is any order against the qualified small business by the Environmental Protection Agency, the Department of Justice, or a State attorney general to pay a fine or take remedial action for a violation of an envi-
(3) VERIFICATION AND REPORTING OF QUALIFIED SMALL BUSINESSES.—The Secretary of Defense shall prescribe such procedures as may be necessary for—

(A) contractors to verify that they are qualified small businesses;

(B) qualified small businesses meeting the requirements of paragraph (2) to certify that not more than 25 percent of the amount paid under the contract will be expended on a subcontract to a contractor that is not verifiably meeting those requirements, subject to such necessary and reasonable waivers as the Secretary may prescribe; and

(C) recording information on awards under paragraph (1), including details relevant to the nature of the contract and the qualified small business, and providing that information to the Comptroller General of the United States.

(4) COMPTROLLER GENERAL OF THE UNITED STATES REPORT.—

(A) IN GENERAL.—Not later than five years after the date of the enactment of this
Act, the Comptroller General of the United States shall submit to the congressional defense committees a report on the individual and aggregate awards under paragraph (2), using such data as may be available up to that time.

(B) ELEMENTS.—The report under subparagraph (A) shall include—

(i) an assessment of the frequency and nature of awards under paragraph (1); and

(ii) the tendency of small business concerns to become qualified small businesses in order to qualify for awards under paragraph (1).

(5) DEFINITIONS.—In this subsection:

(A) QUALIFIED SMALL BUSINESS.—The term “qualified small business” means a small business concern that verifiably uses green manufacturing technology or operates with net zero energy.

(B) SMALL BUSINESS CONCERN.—The term “small business concern” has the meaning given that term in section 3 of the Small Business Act (15 U.S.C. 632).
SEC. 6. ANNUAL REPORT ON EFFECTS OF CLIMATE CHANGE ON DEPARTMENT OF DEFENSE.

(a) In General.—Not later than 180 days after the date of the enactment of this Act, and annually thereafter, the Secretary of Defense shall submit to the congressional defense committees a report on vulnerabilities to military installations and combatant commander requirements resulting from climate change that builds upon the report submitted under section 335(c) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1358).

(b) Elements.—The report required by subsection (a) shall include the following:

(1) An explanation of the underlying methodology behind the climate vulnerability analysis conducted in preparing the report under section 335(c) of the National Defense Authorization Act for Fiscal Year 2018.

(2) An assessment of how climate change affects low-lying military installations, military installations of the Navy and the Marine Corps, and military installations outside the United States.

(3) An assessment of how climate change affects access of members of the Armed Forces to training ranges.
(4) With respect to a military installation in a country outside the United States, an assessment of the collaboration between the Department of Defense and the military or civilian agencies of the government of that country or nongovernmental organizations operating in that country to adapt to risks from climate change.

(5) An assessment of how climate change affects housing safety and food security on military installations.

(6) An assessment of the strategic benefits derived from isolating infrastructure of the Department of Defense in the United States from the national electric grid and the use of energy-efficient, distributed, and smart power grids by the Armed Forces in the United States and overseas to ensure affordable access to electricity.

(7) A list of the ten military installations within each military department that are most vulnerable to climate change based on the effects of the following:

(A) Geographic location.

(B) Extreme weather.

(C) Rising sea tides.

(D) Increased flooding.

(E) Drought.
(F) Desertification.

(G) Wildfires.

(H) Thawing permafrost.

(I) Such other categories as the Secretary determines necessary.

(8) A climate vulnerability score, determined by the Secretary, for each military installation of the Department.

(9) An overview of mitigations, in addition to current efforts undertaken by the Department, that may be necessary to ensure the continued operational viability and to increase the resiliency of the vulnerable military installations identified under paragraph (7), and the estimated costs of those mitigations.

(10) An assessment of how adapting to climate change impacts the readiness of the Armed Forces to address the threats posed by Russia, China, Iran, North Korea, and violent extremism.

(c) Consultation.—In developing each report under subsection (a), the Secretary of Defense shall consult with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Federal Emergency Management
Agency, the Commander of the Army Corps of Engineers, the Administrator of the National Aeronautics and Space Administration, a federally funded research and development center, and the heads of such other relevant Federal agencies as the Secretary of Defense determines appropriate.

(d) FORM OF REPORT.—The report required by subsection (a) shall be submitted in unclassified form but may contain a classified annex if necessary.

(e) PUBLICATION.—Upon submittal of the report required by subsection (a), the Secretary of Defense shall publish the unclassified portion of the report on an Internet website of the Department of Defense that is available to the public.

SEC. 7. INCORPORATION OF CLIMATE RESILIENCY INTO EXISTING STRATEGIES OF THE DEPARTMENT OF DEFENSE.

(a) CONSIDERATION OF RISKS OF CLIMATE CHANGE IN MAKING STRATEGIC DECISIONS RELATING TO MILITARY INSTALLATIONS.—The Secretary of each military department, with respect to any installation under the jurisdiction of that Secretary, and the Secretary of Defense, with respect to any installation of the Department of Defense that is not under the jurisdiction of the Secretary of a military department, shall consider the risks associ-
ated with climate change when making any strategic decision relating to such installation, including where to locate such installation and where to position equipment, infrastructure, and other military assets.

(b) CODIFICATION OF DIRECTIVE ON CLIMATE CHANGE.—


(2) REPORTS ON IMPLEMENTATION OF DIRECTIVE.—Each posture statement submitted to Congress by the Secretary of a military department, the Chairman of the Joint Chiefs of Staff, or the commander of a combatant command shall include a description of the implementation and discharge by such official of the Directive referred to in paragraph (1), including the personnel assigned to implement and discharge the Directive and the progress achieved in such implementation and discharge.

(c) INCORPORATION OF CLIMATE CHANGE INTO CERTAIN DEFENSE STRATEGIES.—

(1) IN GENERAL.—The Secretary of Defense, in coordination with the heads of other elements of the intelligence community, the Administrator of the
Environmental Protection Agency, the Secretary of Energy, the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the Federal Emergency Management Agency, the Commander of the Army Corps of Engineers, the Administrator of the National Aeronautics and Space Administration, and the heads of such other relevant Federal agencies as the Secretary of Defense determines appropriate, shall incorporate climate change into the National Defense Strategy, the National Military Strategy, and operational plans of the Department of Defense.

(2) Intelligence Community Defined.—In this subsection, the term “intelligence community” has the meaning given that term in section 3 of the National Security Act of 1947 (50 U.S.C. 3003).

(d) Implementation and Discharge of Requirements.—

(1) Cross-Functional Team on Incorporation of Climate Resiliency Into Defense Strategies.—Among the cross-functional teams established by the Secretary of Defense pursuant to subsection (c) of section 911 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328; 130 Stat. 2345; 10 U.S.C. 111
note) in support of the organizational strategy for
the Department of Defense required by subsection
(a) of that section, the Secretary shall establish a
cross-functional team on the implementation and
discharge of the requirements under this section.

(2) ESTABLISHMENT AND ACTIVITIES.—The
cross-functional team required by paragraph (1)
shall be established in accordance with subsection (c)
of section 911 of the National Defense Authorization
Act for Fiscal Year 2017, and shall be governed in
its activities in accordance with the provisions of
such subsection (c).

(3) DEADLINE FOR ESTABLISHMENT.—The
cross-functional team required by paragraph (1)
shall be established by not later than 90 days after
the date of the enactment of this Act.

SEC. 8. RESEARCH, DEVELOPMENT, AND DEMONSTRATION
PROGRAM ON ENERGY STORAGE, HYBRID
MICROGRID, AND ENERGY RESILIENCY.

(a) PROGRAM REQUIRED.—The Secretary of De-
fense, in consultation with the Secretary of Energy, shall
conduct a program of research, development, and dem-
onstration of hybrid microgrid systems and electric grid
energy storage.

(b) MULTIDISCIPLINARY TEAMS.—
(1) IN GENERAL.—In carrying out the program under subsection (a), the Secretary of Defense shall organize activities among multidisciplinary teams to leverage, to the maximum extent practicable, expertise from the Department of Energy, the National Laboratories, institutions of higher education, and the private sector.

(2) GOALS.—The multidisciplinary teams organized under paragraph (1) shall pursue aggressive, milestone-driven, and basic research, development, and demonstration goals to carry out the program under subsection (a).

(3) RESOURCES.—The Secretary of Defense shall provide sufficient resources to the multidisciplinary teams organized under paragraph (1) to achieve the goals described in paragraph (2) over a ten-year period.

(c) AREAS OF FOCUS.—The program under subsection (a) shall focus on—

(1) addressing electrical power intermittency;

(2) integrating renewable energy sources into microgrid systems, hybrid microgrid systems, energy storage, grid security, and local generation of zero-carbon fuels;
(3) the inspection and structural health monitoring of critical energy infrastructure;

(4) materials, electric thermal, electromechanical, and electrochemical systems research;

(5) power conversion technologies research;

(6) developing and using fuel-efficient engines;

(7) additive manufacturing;

(8) developing—

(A) empirical and science-based industry standards to compare the storage capacity, cycle length and capabilities, and reliability of different types of electricity storage; and

(B) validation and testing techniques;

(9) other fundamental and applied research critical to widespread deployment of electricity storage;

(10) device development that builds on results from research described in paragraphs (4), (5), and (9), including combinations of power electronics, advanced optimizing controls, and energy storage as a general purpose element of the electric grid;

(11) micro-scale testing and analysis of storage devices, including test-beds and field trials;
(12) microgrid systems and hybrid microgrid systems to increase the resilience of critical infrastructure of the Department of Defense;

(13) the potential for energy storage and renewable resources, including wind, solar, and hydropower, to be integrated into microgrid systems or hybrid microgrid systems of installations of the Department of Defense;

(14) the capacity of the workforce of the Department of Defense to operate, maintain, and repair a microgrid system or hybrid microgrid system;

(15) opportunities to develop the capacity to operate, maintain, and repair a hybrid microgrid system;

(16) leveraging existing capacity within local or regional research organizations, such as organizations based at institutions of higher education, to support development of hybrid microgrid systems, including by testing novel components and systems prior to field deployment;

(17) electricity storage device safety and reliability, including potential failure modes, mitigation measures, and operational guidelines;
(18) standards for performance, control interface, grid interconnection, and interoperability of electricity storage devices;

(19) maintaining a public database of energy storage projects, policies, codes, standards, and regulations; and

(20) such other criteria as the Secretary of Defense, in consultation with the Secretary of Energy, determines appropriate.

(d) COLLABORATION.—The program under subsection (a) shall be carried out in collaboration with relevant stakeholders, including, as appropriate—

(1) States;

(2) Indian tribes;

(3) regional entities and regulators;

(4) units of local government;

(5) institutions of higher education, including historically Black colleges or universities and other minority-serving institutions; and

(6) private sector entities.

(e) REPORT.—

(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, and annually thereafter until 2031, the Secretary of Defense shall submit to the congressional defense com-
mittees a report on the efforts to implement the pro-
gram under subsection (a), including any strategy
developed to implement such program.

(2) Classified Annex.—The report under
paragraph (1) shall be submitted in unclassified
form but may contain a classified annex if necessary.

(3) Publication.—Upon submittal of the re-
port under paragraph (1), the Secretary shall pub-
lish the unclassified portion of the report on an
Internet website of the Department that is available
to the public.

(f) Assistance to States.—The Secretary of De-
fense may provide technical and financial assistance to
States, Indian tribes, units of local government, institu-
tions of higher education, or private sector entities to par-
ticipate in or use research, development, or demonstration
of technology developed under this section.

(g) Authorization of Appropriations.—There is
authorized to be appropriated to the Secretary of Defense
to carry out this section the following:

(1) For fiscal year 2022, $10,000,000.
(2) For fiscal year 2023, $25,000,000.
(3) For fiscal year 2024, $50,000,000.
(4) For fiscal year 2025, $75,000,000.
(5) For fiscal year 2026, $125,000,000.
(6) For fiscal year 2027, $200,000,000.

(7) For each of fiscal years 2028 through 2030, $250,000,000.

(h) **No Effect on Other Provisions of Law.**—Nothing in this section authorizes regulatory actions that would duplicate or conflict with regulatory requirements, mandatory standards, or related processes under section 215 of the Federal Power Act (16 U.S.C. 824o).

(i) **Use of Funds.**—To the maximum extent practicable, in carrying out this section, the Secretary of Defense shall ensure that the use of funds to carry out this section is coordinated with the Secretary of Energy and among different offices within the Grid Modernization Initiative of the Department of Energy and other programs conducting energy storage research.

(j) **Definitions.**—In this section:

1. **Historically Black College or University.**—The term “historically Black college or university” has the meaning given the term “part B institution” in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2)).

2. **Hybrid Microgrid System.**—The term “hybrid microgrid system” means a stand-alone electrical system that—
(A) is comprised of conventional generation and at least one alternative energy resource; and

(B) may use grid-scale energy storage.

(3) MICROGRID SYSTEM.—The term “microgrid system” means a standalone electrical system that uses grid-scale energy storage.

(4) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given that term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

SEC. 9. CONDITIONS ON BASE REALIGNMENT AND CLOSURE ACTIVITIES FUNDED THROUGH BASE CLOSURE ACCOUNT OF DEPARTMENT OF DEFENSE.

(a) CONSIDERATION OF FACTORS REQUIRED.—With respect to any Base Realignment and Closure round begun by the Department of Defense after the date of the enactment of this Act, the Department shall consider current and potential vulnerabilities to installations and operations of the Department of Defense resulting from climate change and the resiliency of installations of the Department.

(b) BASE REALIGNMENT AND CLOSURE ROUND DEFINED.—In this section, the term “Base Realignment and
Closure round” means base realignment and closure activities, including real property acquisition and military construction projects, as authorized by the Defense Base Closure and Realignment Act of 1990 (part A of title XXIX of Public Law 101–510; 10 U.S.C. 2687 note) and funded through the Department of Defense Base Closure Account established by section 2906 of such Act (as amended by section 2711 of the Military Construction Authorization Act for Fiscal Year 2013 (division B of Public Law 112–239; 126 Stat. 2140)).