Markey Substitute

AMENDMENT NO.__________ Calendar No.______

Purpose: In the nature of a substitute.


S.2510

To reduce the health risks of heat by establishing the National Integrated Heat Health Information System within the National Oceanic and Atmospheric Administration and the National Integrated Heat Health Information System Interagency Committee to improve extreme heat preparedness, planning, and response, requiring a study, and establishing financial assistance programs to address heat effects, and for other purposes.

Referred to the Committee on ________________ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by Mr. Markey (for himself, Ms. Sinema, and Ms. Rosen)

Viz:

1 Strike all after the enacting clause and insert the following:
2
3 SECTION 1. SHORT TITLE.
4 This Act may be cited as the “Preventing Health Emergencies And Temperature-related Illness and Deaths Act of 2021” or the “Preventing HEAT Illness and Deaths Act of 2021”.
SEC. 2. DEFINITIONS.

In this Act:

(1) EXTREME HEAT.—The term “extreme heat” means heat that substantially exceeds local climatological norms in terms of any combination of the following:

(A) Duration of an individual heat event.
(B) Intensity.
(C) Season length.
(D) Frequency.

(2) HEAT.—The term “heat” means any combination of the atmospheric parameters associated with modulating human thermal regulation, such as air temperature, humidity, solar exposure, and wind speed.

(3) HEAT EVENT.—The term “heat event” means an occurrence of extreme heat that may have heat-health implications.

(4) HEAT-HEALTH.—The term “heat-health” means health effects to humans from heat or the risk of such effects.

(5) PLANNING.—The term “planning” means activities performed across timescales (including days, weeks, months, years, and decades) with scenario-based, probabilistic or deterministic information to identify and take actions to proactively miti-
gate heat-health risks from increased frequency, duration, and intensity of heat waves and increased ambient temperature.

(6) PREPAREDNESS.—The term “preparedness” means activities performed across timescales (including days, weeks, months, years, and decades) with probabilistic or deterministic information to manage risk in advance of a heat event and increased ambient temperature.

(7) TRIBAL GOVERNMENT.—The term “Tribal government” means the recognized governing body of any Indian or Alaska Native tribe, band, nation, pueblo, village, community, component band, or component reservation, individually identified (including parenthetically) in the list published most recently as of the date of enactment of this Act pursuant to section 104 of the Federally Recognized Indian Tribe List Act of 1994 (25 U.S.C. 5131).

(8) VULNERABLE POPULATIONS.—The term “vulnerable populations” means populations that face health, financial, educational, or housing disparities that would render them more susceptible to the negative impacts of extreme heat.
SEC. 3. NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM INTERAGENCY COMMITTEE.

(a) Establishment of Committee.—There is established within the Office of Science and Technology Policy an interagency committee, to be known as the “National Integrated Heat Health Information System Interagency Committee” (in this section referred to as the “Committee”).

(b) Purpose.—The Committee shall coordinate, plan, and direct agencies represented on the Committee to execute, as appropriate, activities across such agencies to ensure a united Federal approach to reducing health risks from heat across timescales (including days, weeks, months, years, and decades).

(c) Membership.—

(1) In general.—In order to carry out and achieve the purpose described in subsection (b), the Committee shall include the following:

(A) The Director of the National Integrated Heat Health Information System.

(B) Not fewer than 1 representative from each of the following:

(i) From the Department of Commerce,
(I) From the National Oceanic and Atmospheric Administration, the following:


(II) The National Institute of Standards and Technology.

(III) The Bureau of the Census.

(ii) From the Department of Health and Human Services, the following:

(I) The National Institute for Occupational Safety and Health of the Centers for Disease Control and Prevention.

(II) The Office of the Assistant Secretary of Health and Human Services for Preparedness and Response.

(III) The Substance Abuse and Mental Health Services Administration.

(IV) The National Institutes of Health.
(V) The Indian Health Service.

(iii) From the Department of the Interior, the following:

(I) The Bureau of Indian Affairs.

(II) The Bureau of Land Management.

(iv) From the Environmental Protection Agency, the following:

(I) The Office of Environmental Justice.

(II) The Office of Air and Radiation, if the Administrator of the Environmental Protection Agency determines appropriate.

(III) The Office of Research and Development, if the Administrator determines appropriate.


(vi) The Department of Defense.

(vii) The Occupational Safety and Health Administration.

(viii) The Department of Agriculture.

(ix) The Department of Housing and Urban Development.
(x) The Department of Transportation.

(xi) The Department of Energy.

(xii) The National Aeronautics and Space Administration.

(xiii) Such other Federal agencies as the Director of the Office of Science and Technology Policy considers appropriate.

(2) SELECTION OF REPRESENTATIVES.—The head of an agency specified in paragraph (1)(B) shall, in appointing representatives of the agency to the Committee, select representatives who have expertise in areas relevant to the responsibilities of the Committee.

(3) CO-CHAIRS.—

(A) IN GENERAL.—The members of the Committee shall select 2 individuals from among such members to serve as co-chairs of the Committee, subject to the approval of the Director of the Office of Science and Technology Policy.

(B) SELECTION.—

(i) INITIAL SELECTION.—Of the co-chairs first selected, one co-chair shall be from the National Oceanic and Atmos-
pheric Administration and one co-chair shall be from the Centers for Disease Control and Prevention.

(ii) **Subsequent selection.**—Subsequent co-chairs shall be selected from among the members of the Committee.

(C) **Terms.**—Each co-chair shall serve for a term of not more than 3 years.

(D) **Responsibilities of co-chairs.**—The co-chairs of the Committee shall—

(i) determine the agenda of the Committee, in consultation with other members of the Committee;

(ii) direct the work of the Committee;

and

(iii) convene meetings of the Committee not less frequently than once each fiscal quarter.

(d) **Responsibilities of Committee.**—The Committee shall promote an integrated, Federal Government-wide approach to reducing health risks and impacts of heat, including by—

(1) developing the strategic plan required by subsection (e);
(2) coordinating across Federal agencies on
heat-health communication, research, service deliv-
ery, and workforce development; and

(3) building capacity and partnerships with
Federal and non-Federal entities.

(e) STRATEGIC PLAN.—

(1) IN GENERAL.—Not later than 2 years after
the date of the enactment of this Act, the Committee
shall submit to Congress and make available on a
public website a 5-year integrated strategic plan that
outlines the goals and projects of the Committee, in-
cluding how the Committee will improve coordination
and integration of interagency Federal actions to ad-
dress health risks of heat, including—

(A) a strategy for improving and coordi-
ating existing Federal data collection and
sharing on heat-related illnesses and mortalities
to inform Federal heat-related activities; and

(B) mechanisms for financing heat pre-
paredness within such agencies as the Com-
mittee considers appropriate.

(2) IMPLEMENTATION PLANS.—The head of an
agency represented on the Committee may imple-
ment the portions of the strategic plan required by
paragraph (1) that are relevant to that agency by
developing and implementing a multi-year implementation plan.

(3) Updates.—Not later than 5 years after the submission of the strategic plan required by paragraph (1), and every 5 years thereafter until 2042, the Committee shall submit to Congress an update of the plan, which shall include progress made toward goals outlined in the plan and new priorities that emerge.

(f) Consultation.—In carrying out the responsibilities of the Committee, the Committee shall consult with relevant regional, State, Tribal, and local governments, international organizations and partners, research institutions, nongovernmental organizations and associations, and medical experts with expertise in emergency response, environmental health, economic or business development, or community engagement.

SEC. 4. NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM.

(a) Establishment.—The Under Secretary of Commerce for Oceans and Atmosphere shall establish within the National Oceanic and Atmospheric Administration a system, to be known as the “National Integrated Heat Health Information System” (NIHHIS) (in this section referred to as the “System”).
(b) PURPOSE.—The purpose of the System is—

(1) to improve the capacity of weather, subseasonal, and seasonal forecasts for the United States to allow the Federal Government and stakeholders to plan, prepare for, adapt to, and mitigate risks of extreme heat across multiple timescales; and

(2) to facilitate the work of the National Integrated Heat Health Information System Interagency Committee.

(c) DIRECTOR.—The System shall be headed by a Director.

(d) RESPONSIBILITIES.—In carrying out the purpose described in subsection (b), the Director shall—

(1) develop and sustain robust relationships with Federal and non-Federal partners and decision-makers—

(A) to respond to the demand for actionable weather- and climate-related information that reduces health risks on multiple timescales; and

(B) to develop and deliver timely and accessible weather- and climate-related decision support services, tools, and information to inform planning, preparedness, and risk-reducing actions across timescales;
(2) coordinate and collaborate with the international community and global partners to conduct research and learn from, leverage, and contribute to global weather and climate knowledge as it pertains to extreme heat;

(3) enhance observations and monitoring necessary for the activities described in paragraph (1) and (2); and

(4) communicate, educate, and build awareness regarding extreme heat events to communities, educational and economic sectors, Tribal governments, and other relevant stakeholders.

SEC. 5. STUDY ON EXTREME HEAT INFORMATION AND RESPONSE.

(a) Study.—

(1) IN GENERAL.—Not later than 120 days after the date of the enactment of this Act, the Under Secretary of Commerce for Oceans and Atmosphere, in consultation with the National Integrated Heat Health Information System Interagency Committee and the entities described in section 3(f), shall seek to enter into an agreement with the National Academies of Science, Engineering, and Medicine to conduct a study on extreme heat information
and response, to be completed not later than 2 years
after the date of the enactment of this Act.

(2) **ELEMENTS.**—The study described in para-
graph (1) shall—

(A) identify the policy, research, oper-
ations, communications, and data gaps affecting
heat-health planning, preparedness, response,
resilience, and adaptation, and impacts to vul-
nerable populations;

(B) provide recommendations for address-
ing gaps identified under subparagraph (A);

(C) provide recommendations, in addition
to the recommendations provided under sub-
paragraph (B), which may include strategies
for—

(i) communicating warnings to and
promoting resilience of populations vulner-
able to extreme heat;

(ii) distributing extreme heat warn-
ings, including to individuals with limited
English proficiency and individuals who
may have other established barriers to
such information;

(iii) designing warnings described in
clause (ii) to convey the urgency and sever-
ity of heat events and achieve behavior
changes that reduce the mortality and
morbidity of extreme heat effects;
(iv) understanding compound and cas-
cading risks to inform development and
implementation of heat-health risk reduc-
tion interventions; and
(v) promoting community resilience
and addressing specific decision support
service needs of vulnerable populations;
and
(D) consider the effectiveness of country-
or local-level heat awareness and commuника-
tion tools, preparedness plans, or mitigation.
(3) Development of Definitions.—In con-
ducting the study described in paragraph (1), the
National Academies of Sciences, Engineering, and
Medicine shall work with heat and health experts to
identify consistent and agreed upon definitions for
heat events, heat waves, and other relevant terms.
(b) Report.—Not later than 90 days after comple-
tion of the study described in subsection (a)(1), the Com-
mittee shall—
(1) make available to the public on an internet
website of the National Oceanic and Atmospheric
Administration a report on the findings and conclusions of the study; and

(2) submit the report to—

(A) the Committee on Commerce, Science, and Transportation of the Senate;

(B) the Committee on Health, Education, Labor, and Pensions of the Senate;

(C) the Committee on Science, Space, and Technology of the House of Representatives;

(D) the Committee on Energy and Commerce of the House of Representatives; and

(E) the Committee on Education and Labor of the House of Representatives.

SEC. 6. FINANCIAL ASSISTANCE FOR RESEARCH AND RESILIENCE IN ADDRESSING EXTREME HEAT RISKS.

(a) ESTABLISHMENT OF PROGRAM.—Subject to the availability of appropriations, not later than 1 year after the date of the enactment of this Act, the Under Secretary of Commerce for Oceans and Atmosphere shall establish and administer a community heat resilience program to provide financial assistance to eligible entities to carry out projects described in subsection (e) to ameliorate human health impacts of extreme heat events.
(b) PURPOSE.—The purpose of the financial assistance provided under this section is to further scientific research regarding extreme heat and fund efforts to educate communities about extreme heat.

(c) FORMS OF ASSISTANCE.—Financial assistance provided under this section may be in the form of contracts, grants, or cooperative agreements.

(d) ELIGIBLE ENTITIES.—Entities eligible to receive financial assistance under this section to carry out projects described in subsection (e) include—

(1) nonprofit entities;
(2) States;
(3) Tribal governments;
(4) local governments; and
(5) academic institutions.

(e) ELIGIBLE PROJECTS.—Projects described in this subsection include projects—

(1) to expand public awareness of heat risks;
(2) to conduct heat mapping campaigns;
(3) to conduct scientific research to assess gaps and priorities regarding the risks of extreme heat in communities;
(4) to communicate risks to isolated communities; and
(5) to educate such communities about how to respond to extreme heat events.

(f) PRIORITIES.—In selecting eligible entities to receive financial assistance under this section, the Under Secretary of Commerce for Oceans and Atmosphere shall prioritize entities that will carry out projects that provide benefits for historically disadvantaged communities.

SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

(a) NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM INTERAGENCY COMMITTEE; NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM.—There is authorized to be appropriated to the National Oceanic and Atmospheric Administration to carry out sections 3 and 4, including for any administrative costs for the National Integrated Heat Health Information System Interagency Committee and the National Integrated Heat Health Information System, $5,000,000 for each of fiscal years 2023 through 2027.

(b) STUDY ON EXTREME HEAT INFORMATION AND RESPONSE.—There is authorized to be appropriated to the National Oceanic and Atmospheric Administration to contract with the National Academies of Science, Engineering, and Medicine to carry out section 5 $500,000 for each of fiscal years 2023 through 2025.
(e) **Financial Assistance to Address Extreme Heat.**—There is authorized to be appropriated to the National Oceanic and Atmospheric Administration to carry out section 6 $1,500,000 for each of fiscal years 2023 through 2027.