

**Calendar No. 720**118<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION**S. 2645**

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.

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**IN THE SENATE OF THE UNITED STATES**

JULY 27, 2023

Mr. MARKEY (for himself, Mr. PADILLA, Ms. SINEMA, Mr. WYDEN, Mr. BLUMENTHAL, Mr. SANDERS, Mrs. FEINSTEIN, Mr. HEINRICH, Mr. WHITEHOUSE, Mr. KELLY, and Mr. MERKLEY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

DECEMBER 17 (legislative day, DECEMBER 16), 2024

Reported by Ms. CANTWELL, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

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**A BILL**

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.

1 *Be it enacted by the Senate and House of Representa-*  
 2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Preventing Health  
 5 Emergencies And Temperature-related Illness and Deaths  
 6 Act of 2023” or the “Preventing HEAT Illness and  
 7 Deaths Act of 2023”.

8 **SEC. 2. DEFINITIONS.**

9 In this Act:

10 (1) **COMMUNITY WITH ENVIRONMENTAL JUSTICE CONCERNS.**—The term “community with envi-  
 11 ronmental justice concerns” means a community  
 12 with significant representation of communities of  
 13 color, low-income communities, or Tribal and indige-  
 14 nous communities, that experiences, or is at risk of  
 15 experiencing, higher or more adverse human health  
 16 or environmental effects, as compared to other com-  
 17 munities.

18 (2) **EXTREME HEAT.**—The term “extreme  
 19 heat” means heat that substantially exceeds local eli-  
 20 matological norms in terms of any combination of  
 21 the following:

22 (A) Duration.

23 (B) Intensity.

1 (C) Season length.

2 (D) Frequency.

3 (3) HEAT.—The term “heat” means any com-  
4 bination of the atmospheric parameters associated  
5 with modulating human thermal regulation, such as  
6 air temperature, humidity, solar exposure, and wind  
7 speed.

8 (4) HEAT EVENT.—The term “heat event”  
9 means an occurrence of increased heat that may  
10 have heat-health implications.

11 (5) HEAT-HEALTH.—The term “heat-health”  
12 means health effects to humans from heat, during or  
13 outside of heat events, including from vulnerability  
14 and exposure, or the risk of such effects.

15 (6) PLANNING.—The term “planning” means  
16 activities performed across timescales (including  
17 days, weeks, months, years, and decades) with sce-  
18 nario-based, probabilistic or deterministic informa-  
19 tion to identify and take actions to proactively miti-  
20 gate heat-health risks from increased frequency, du-  
21 ration, and intensity of heat waves and increased  
22 ambient temperature.

23 (7) PREPAREDNESS.—The term “preparedness”  
24 means activities performed across timescales (includ-  
25 ing days, weeks, months, years, and decades) with

1 probabilistic or deterministic information to manage  
2 risk in advance of a heat event and increased ambi-  
3 ent temperature.

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

13 (9) URBAN HEAT ISLAND.—The term “urban  
14 heat island” means the phenomenon observed in ur-  
15 banized areas in which heat is more extreme than in  
16 the surrounding exurban areas and heat is hetero-  
17 geneously distributed within urbanized areas, due to  
18 factors including—

19 (A) low albedo and impervious surfaces;

20 (B) low vegetation coverage; and

21 (C) waste heat produced in urban areas.

22 **SEC. 3. FINDINGS.**

23 Congress makes the following findings:

24 (1) Extreme heat events have been the leading  
25 cause of weather-related death in the United States

1 over the last 30 years, according to the Centers for  
2 Disease Control and Prevention and the National  
3 Weather Service.

4 (2) The fourth National Climate Assessment,  
5 mandated by the Global Change Research Act of  
6 1990 (15 U.S.C. 2921 et seq.), finds that during the  
7 next few decades, annual average temperature over  
8 the contiguous United States is projected to increase  
9 by a further 2.2°F relative to current temperatures,  
10 regardless of future scenarios. The National Climate  
11 Assessment projects that the frequency and intensity  
12 of extreme heat events will increase in the future as  
13 global temperature increases.

14 (3) Exposure to extreme heat can cause acute  
15 heat-related illnesses, such as heat stroke, which al-  
16 ready result in more than 65,000 emergency room  
17 visits each year and exacerbate respiratory and ear-  
18 diovascular illnesses.

19 (4) Heat poses the greatest health risks for  
20 adults older than 65 years of age, pregnant people,  
21 young children, low-income communities, urban com-  
22 munities, communities with low air conditioning  
23 prevalence, socially isolated individuals, people with  
24 mental or physical disabilities, people with under-  
25 lying medical conditions, agricultural or other out-

1 door workers, workers without sufficient access to  
2 cooling, athletes, incarcerated individuals, people ex-  
3 periencing homelessness, and military personnel.

4 (5) Extreme heat is significantly associated  
5 with serious adverse pregnancy outcomes across the  
6 United States. Those adverse pregnancy outcomes  
7 disproportionately impact Black mothers.

8 (6) Heat exposure is an issue of environmental  
9 justice, as people living in low-income communities,  
10 communities of color, and Tribal nations face a  
11 number of interacting factors that render them more  
12 vulnerable to extreme heat.

13 (7) The impacts of heat on human health are  
14 more severe in urban areas where land surface prop-  
15 erties create an urban heat island, particularly in  
16 neighborhoods with limited availability of or access  
17 to green spaces, shade, and tree cover, due to higher  
18 density of building structures and more vehicular  
19 traffic.

20 (8) Limited availability of tree cover and higher  
21 temperatures are correlated with low-income neigh-  
22 borhoods in urban areas. In Richmond, Virginia,  
23 Baltimore, Maryland, and Washington, DC, re-  
24 searchers found that risk of exposure to extreme  
25 heat is disproportionately distributed to communities

1 of color in patterns associated with segregation and  
2 redlining.

3 (9) Researchers have found that few commu-  
4 nities in the United States have sufficient climate  
5 and health information, guidance, and resources for  
6 heat planning, preparedness, and response.

7 (10) The risks associated with extreme heat  
8 have complex interactions and impacts, and the  
9 management of those risks requires a  
10 transdisciplinary approach.

11 (11) Regions, communities, and populations  
12 that face the greatest health consequences of ex-  
13 treme heat often may experience the lowest heat risk  
14 perceptions, have limited incentives, or have access  
15 to the fewest resources for responding to extreme  
16 heat, and as such, may be less likely to take pre-  
17 cautions.

18 (12) Research on the impacts of extreme heat  
19 on human health and the effectiveness of solutions  
20 under varying climate, social, and other contexts is  
21 stymied by a lack of access to reliable, timely health  
22 observations and surveillance due to proprietary data  
23 rights, expense, privacy and security concerns, incon-  
24 sistent reporting of health outcomes and contribu-  
25 tory factors, poor data integration and interoper-

1 ability, few incentives and little systematic coordina-  
2 tion to address those problems, and a lack of ade-  
3 quate climate observation, modeling, and assessment  
4 in rural, urban, indoor, and occupational settings.

5 (13) Integrated climate and health research and  
6 information, when developed in a collaborative,  
7 transdisciplinary manner, can inform long- and me-  
8 dium-range scenario-based planning and decision  
9 making to protect vulnerable communities and popu-  
10 lations from extreme heat, reduce exposure to ex-  
11 treme heat, and address factors that increase vulner-  
12 ability.

13 (14) Increased heat can have cascading and  
14 compounding impacts across and among sectors in-  
15 cluding energy, food supply and quality, transpor-  
16 tation, housing, infrastructure, hospital and  
17 healthcare delivery, and education, all of which af-  
18 fect health and well-being.

19 (15) Heat action plans and early warning sys-  
20 tems can reduce heat-related morbidity and mor-  
21 tality by clearly identifying roles and responsibilities  
22 as well as evidence-based actions and thresholds to  
23 enhance preparedness, and by promoting behavior  
24 changes and actions taken by local governments,  
25 communities, and individuals through awareness and



1 increased risk perception among those most vulner-  
2 able to the health impacts of heat.

3 **SEC. 4. NATIONAL INTEGRATED HEAT HEALTH INFORMA-**  
4 **TION SYSTEM INTERAGENCY COMMITTEE.**

5 (a) **ESTABLISHMENT OF COMMITTEE.**—There is es-  
6 tablished within the Office of Science and Technology Pol-  
7 icy an interagency committee, to be known as the “Na-  
8 tional Integrated Heat Health Information System Inter-  
9 agency Committee” (in this section referred to as the  
10 “Committee”).

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

17 (c) **MEMBERSHIP.**—

18 (1) **IN GENERAL.**—In order to carry out and  
19 achieve the purpose described in subsection (b), the  
20 Committee shall include the following:

21 (A) The Director of the National Inte-  
22 grated Heat Health Information System.

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

1 (i) From the Department of Com-  
2 merce, the following:

3 (I) From the National Oceanic  
4 and Atmospheric Administration, the  
5 following:

6 (aa) The National Weather  
7 Service.

8 (bb) The Office of Oceanic  
9 and Atmospheric Research.

10 (cc) The National Environ-  
11 mental Satellite, Data, and Infor-  
12 mation Service.

13 (II) The National Institute of  
14 Standards and Technology.

15 (III) The Bureau of the Census.

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

18 (I) The Centers for Disease Con-  
19 trol and Prevention, including the Na-  
20 tional Institute for Occupational Safe-  
21 ty and Health.

22 (II) The Office of the Assistant  
23 Secretary of Health and Human Serv-  
24 ices for Preparedness and Response.

1 (III) The Substance Abuse and  
2 Mental Health Services Administra-  
3 tion.

4 (IV) The National Institutes of  
5 Health.

6 (V) The Indian Health Service.

7 (iii) From the Department of the In-  
8 terior, the following:

9 (I) The Bureau of Indian Affairs.

10 (II) The Bureau of Land Man-  
11 agement.

12 (III) The National Park Service.

13 (iv) From the Environmental Protec-  
14 tion Agency, the following:

15 (I) The Office of Environmental  
16 Justice.

17 (II) The Office of Air and Radi-  
18 ation, if the Administrator of the En-  
19 vironmental Protection Agency deter-  
20 mines appropriate.

21 (III) The Office of Research and  
22 Development, if the Administrator de-  
23 termines appropriate.

24 (IV) The Office of International  
25 and Tribal Affairs.

1                   (v) The Federal Emergency Manage-  
2                   ment Agency.

3                   (vi) The Department of Defense.

4                   (vii) The Department of Agriculture.

5                   (viii) The Department of Housing and  
6                   Urban Development.

7                   (ix) The Department of Transpor-  
8                   tation.

9                   (x) The Department of Energy.

10                  (xi) The Department of Labor, includ-  
11                  ing the Occupational Safety and Health  
12                  Administration.

13                  (xii) The Department of Veteran Af-  
14                  fairs.

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

18                  (2) SELECTION OF REPRESENTATIVES.—The  
19                  head of an agency specified in paragraph (1)(B)  
20                  shall, in appointing representatives of the agency to  
21                  the Committee, select representatives who have ex-  
22                  pertise in areas relevant to the responsibilities of the  
23                  Committee, such as weather and climate prediction,  
24                  health impacts, environmental justice, behavioral

1 science, public health hazard preparedness and re-  
2 sponse, or mental health services.

3 ~~(3) CO-CHAIRS.—~~

4 ~~(A) IN GENERAL.—~~The members of the  
5 Committee shall select 2 individuals from  
6 among such members to serve as co-chairs of  
7 the Committee, subject to the approval of the  
8 Director of the Office of Science and Tech-  
9 nology Policy.

10 ~~(B) SELECTION.—~~

11 ~~(i) INITIAL SELECTION.—~~Of the co-  
12 chairs first selected, one co-chair shall be  
13 from the National Oceanic and Atmos-  
14 pheric Administration and one co-chair  
15 shall be from the Centers for Disease Con-  
16 trol and Prevention.

17 ~~(ii) SUBSEQUENT SELECTION.—~~Sub-  
18 sequent co-chairs shall be selected from  
19 among the members of the Committee.

20 ~~(C) TERMS.—~~Each co-chair shall serve for  
21 a term of not more than 5 years.

22 ~~(D) RESPONSIBILITIES OF CO-CHAIRS.—~~  
23 The co-chairs of the Committee shall work with  
24 the Director of the National Integrated Heat  
25 Health Information System—

1 (i) to determine the agenda of the  
2 Committee, in consultation with other  
3 members of the Committee;

4 (ii) to direct the work of the Com-  
5 mittee; and

6 (iii) to convene meetings of the Com-  
7 mittee not less frequently than once each  
8 fiscal quarter.

9 (d) RESPONSIBILITIES OF COMMITTEE.—The Com-  
10 mittee shall promote an integrated, Federal Government-  
11 wide approach to reducing health risks and impacts of  
12 heat, including by—

13 (1) developing the strategic plan required by  
14 subsection (e);

15 (2) coordinating across Federal agencies on  
16 heat-health communication, research, service deliv-  
17 ery, and workforce development; and

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

20 (e) STRATEGIC PLAN.—

21 (1) IN GENERAL.—Not later than 2 years after  
22 the date of the enactment of this Act, the Committee  
23 shall submit to Congress and make available on a  
24 public website a 5-year integrated strategic plan that  
25 outlines the goals and projects of the Committee, in-

1 eluding how the Committee will improve coordination  
2 and integration of interagency Federal actions to ad-  
3 dress health risks of heat, including—

4 (A) a strategy for improving and coordi-  
5 nating existing Federal data collection and data  
6 management to include sharing of data and sta-  
7 tistics on heat-related illnesses and mortalities  
8 and other impacts to inform heat-related activi-  
9 ties;

10 (B) a strategy for improving and coordi-  
11 nating Federal activities to understand user  
12 gaps and needs, conduct research, foster inno-  
13 vative solutions, and provide actionable infor-  
14 mation and services; and

15 (C) mechanisms for financing heat pre-  
16 paredness within such agencies as the Com-  
17 mittee considers appropriate.

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

24 (3) UPDATES.—Not later than 5 years after the  
25 submission of the strategic plan required by para-

1 graph (1), and every 5 years thereafter, the Com-  
2 mittee shall submit to Congress an update of the  
3 plan, which shall include progress made toward goals  
4 outlined in the plan and new priorities that emerge.

5 (f) ADMINISTRATIVE SUPPORT.—The Administrator  
6 of the National Oceanic and Atmospheric Administration  
7 shall provide technical and administrative support to the  
8 Committee, using amounts authorized to be appropriated  
9 to the Administration.

10 (g) CONSULTATION.—In carrying out the responsibil-  
11 ities of the Committee, the Committee shall consult with  
12 relevant regional, State, Tribal, and local governments,  
13 international organizations and partners, research institu-  
14 tions, nongovernmental organizations and associations,  
15 and medical experts with expertise in emergency response,  
16 environmental health, economic or business development,  
17 or community engagement.

18 **SEC. 5. NATIONAL INTEGRATED HEAT HEALTH INFORMA-**  
19 **TION SYSTEM.**

20 (a) ESTABLISHMENT.—The Under Secretary of Com-  
21 merce for Oceans and Atmosphere shall establish within  
22 the National Oceanic and Atmospheric Administration a  
23 system, to be known as the “National Integrated Heat  
24 Health Information System” (NIHHIS) (in this section  
25 referred to as the “System”).



1       (b) ~~PURPOSE.~~—The purpose of the System is to im-  
2 prove the capacity of weather, subseasonal, and seasonal  
3 forecasts for the United States to allow the Federal Gov-  
4 ernment and stakeholders to plan, prepare for, adapt to,  
5 and mitigate health risks of extreme heat across multiple  
6 timescales.

7       (c) ~~DIRECTOR.~~—The System shall be headed by a Di-  
8 rector.

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

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

14               (A) ~~to respond to the demand for action-~~  
15 ~~able weather- and climate-related information~~  
16 ~~that reduces health risks on multiple timescales;~~

17               (B) ~~to conduct research and scientific in-~~  
18 ~~novation; and~~

19               (C) ~~to develop and deliver timely and ac-~~  
20 ~~cessible decision support services, solutions,~~  
21 ~~tools, and information to inform planning, pre-~~  
22 ~~paredness, and risk-reducing actions across~~  
23 ~~timescales;~~

24           (2) ~~coordinate and collaborate with the inter-~~  
25 ~~national community and global partners to conduct~~

1 research and learn from; leverage, and contribute to  
2 global knowledge as it pertains to predicting and  
3 preventing the impacts of increased heat;

4 (3) enhance observations, surveillance, moni-  
5 toring, and analysis necessary for the activities de-  
6 scribed in paragraphs (1) and (2); and

7 (4) communicate, educate, and build awareness  
8 regarding the risks and impacts of increased heat  
9 and extreme heat events to communities, educational  
10 and economic sectors, Tribal governments, and other  
11 relevant stakeholders.

12 (c) DATA MANAGEMENT.—

13 (1) AVAILABILITY.—The Director shall coordi-  
14 nate with interagency partners to ensure that data  
15 and metadata associated with the System is fully  
16 and openly available, within the legal right to redis-  
17 tribute, in accordance with chapter 31 of title 44,  
18 United States Code (commonly known as the “Fed-  
19 eral Records Act of 1950”), and the Federal Evi-  
20 dence-Based Policymaking Act of 2018 (Public Law  
21 115–435; 132 Stat. 5529) and the amendments made  
22 by that Act, to maximize use of such data to support  
23 the goals of the System.

24 (2) NATIONAL CENTERS FOR ENVIRONMENTAL  
25 INFORMATION.—The Under Secretary of Commerce

1 for Oceans and Atmosphere shall manage, maintain,  
2 and steward archival data and metadata associated  
3 with the System within the National Centers for En-  
4 vironmental Information.

5 (f) RESEARCH PROGRAM.—The Director shall de-  
6 velop and implement a climate and health research grant  
7 program, in coordination with the financial assistance pro-  
8 gram under section 7 and other Federal programs—

9 (1) to improve understanding of—

10 (A) the climate epidemiology and social,  
11 behavioral, and economic drivers of heat-health  
12 vulnerability and risk;

13 (B) the drivers of climate variability, pre-  
14 dictability, and changes in extreme heat; and

15 (C) the impacts of extreme heat, compound  
16 hazards, and cascading impacts across  
17 timescales;

18 (2) to investigate and evaluate the effectiveness  
19 of risk management actions, interventions, policies,  
20 standards, codes, and guidelines; and

21 (3) to address other topics as appropriate, in-  
22 cluding topics outlined in the strategic plan required  
23 by section 4(e)(1) and the financial assistance pro-  
24 gram under section 7.

1 (g) **ADDITIONAL ACTIVITIES.**—The Director shall  
2 carry out such other activities as the Committee considers  
3 appropriate.

4 **SEC. 6. STUDY ON EXTREME HEAT INFORMATION AND RE-**  
5 **SPONSE.**

6 (a) **STUDY.**—

7 (1) **IN GENERAL.**—Not later than 120 days  
8 after the date of the enactment of this Act, the  
9 Under Secretary of Commerce for Oceans and At-  
10 mosphere, in consultation with the National Inte-  
11 grated Heat Health Information System Interagency  
12 Committee and the individuals and entities described  
13 in section 4(g), shall seek to enter into an agreement  
14 with the National Academies of Sciences, Engineer-  
15 ing, and Medicine to conduct a study on extreme  
16 heat information and response, to be completed not  
17 later than 3 years after such date of enactment.

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

20 (A) identify policy and research gaps,  
21 which may include—

22 (i) regions of the United States with  
23 the largest gaps between awareness, pre-  
24 paredness, and capacity to address extreme  
25 heat; and

1 (ii) heat-related gaps in data, such  
2 as—

3 (I) the number of schools, pris-  
4 ons, and other public facilities that  
5 lack air conditioning;

6 (II) the demographic breakdown  
7 of people affected by heat events, in-  
8 cluding by race, age, gender, occupa-  
9 tion, and income;

10 (III) medical coding in health  
11 care facilities (such as hospitals,  
12 emergency rooms, and health centers)  
13 that indicate heat-related illnesses  
14 (such as kidney failure, dehydration,  
15 and fainting spells); and

16 (IV) with respect to public policy  
17 at the State and community level that  
18 enhance vulnerabilities to extreme  
19 heat (such as outdoor working condi-  
20 tions and thresholds to protect work-  
21 ers, animals, and others susceptible to  
22 heat-related illness);

23 (B) provide recommendations for address-  
24 ing gaps with respect to policy, research, oper-  
25 ations, communications, and data, including the

1 gaps identified under subparagraph (A), affect-  
2 ing heat-health planning, preparedness, re-  
3 sponse, resilience, adaptation, and environ-  
4 mental justice and equity;

5 (C) provide such other recommendations as  
6 the Director considers appropriate, which may  
7 include strategies for—

8 (i) communicating warnings to and  
9 providing impact-based decision support to  
10 promote preparedness actions and resil-  
11 ience of populations vulnerable to extreme  
12 heat;

13 (ii) understanding compound and eas-  
14 eading risks, and implementing alternative  
15 heat-health risk reduction interventions to  
16 manage those risks collectively, such as re-  
17 ducing risk of the transmission of infec-  
18 tious diseases during heat waves by cre-  
19 ating outdoor cooling locations or increas-  
20 ing ventilation and filtration in indoor cool-  
21 ing centers;

22 (iii) promoting community resilience  
23 to heat events and incorporating principles  
24 of environmental justice in community re-  
25 sponse to heat waves;

1 (iv) addressing the impacts of extreme  
2 heat on energy cost, affordability, and reli-  
3 ability for residential and commercial in-  
4 frastructure (such as weatherization, en-  
5 ergy costs, electric power systems, and  
6 water supply and treatment systems); and

7 (v) establishing labor and other stand-  
8 ards for workers and heat; and

9 (D) consider such other subjects as the  
10 Committee considers appropriate, which may in-  
11 clude—

12 (i) the feasibility of enhancing and  
13 standardizing existing nationwide data col-  
14 lection on heat-related illnesses and mor-  
15 talities to improve and ensure consistent  
16 collection of national-level heat illness data  
17 across all 50 States, territories, and local  
18 jurisdictions of the United States;

19 (ii) mechanisms for financing heat  
20 preparedness; and

21 (iii) the effectiveness of county- or  
22 local-level heat awareness and communica-  
23 tion approaches, heat action, and tools,  
24 preparedness plans, or mitigation.

1           (3) DEVELOPMENT OF DEFINITIONS.—Fol-  
2           lowing the study described in paragraph (1), the  
3           Committee shall work with heat experts across dis-  
4           ciplines to comprehensively identify impacts of in-  
5           creased heat to inform consistent and agreed upon  
6           definitions for heat events, heat waves, and other  
7           relevant terms.

8           (b) REPORT.—Not later than 90 days after com-  
9           pleting the study described in subsection (a)(1), the Com-  
10          mittee shall—

11           (1) make available to the public on a Federal  
12           internet website of the National Oceanic and Atmos-  
13           pheric Administration a report on the findings and  
14           conclusions of the study; and

15           (2) submit the report to—

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

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

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

22           (D) the Committee on Energy and Com-  
23           merce of the House of Representatives; and

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



1 **SEC. 7. FINANCIAL ASSISTANCE FOR RESILIENCE IN AD-**  
2 **DRESSING EXTREME HEAT AND HEALTH**  
3 **RISKS.**

4 (a) IN GENERAL.—

5 (1) ESTABLISHMENT.—Not later than 1 year  
6 after the date of the enactment of this Act, the Di-  
7 rector of the National Integrated Heat Health Infor-  
8 mation System may, in coordination with the Na-  
9 tional Integrated Heat Health Information System  
10 Interagency Committee, establish and administer a  
11 community heat resilience program to provide finan-  
12 cial assistance to eligible entities to carry out  
13 projects described in subsection (c) to ameliorate  
14 human health impacts of extreme heat events.

15 (2) REVISION.—Upon completion of the stra-  
16 tegic plan required by section 4(e)(1), the Com-  
17 mittee may revise the community heat resilience pro-  
18 gram to ensure the program aligns with the strategic  
19 plan and is administered in accordance with the  
20 plan.

21 (b) PURPOSE.—The purpose of the financial assist-  
22 ance provided under this section is to improve community  
23 resilience to heat and heat-health impacts and further sci-  
24 entific research to address adaptation gaps and priorities.

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

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

- 7           (1) nonprofit entities;
- 8           (2) States;
- 9           (3) Tribal governments;
- 10          (4) local governments;
- 11          (5) local workforce development boards; and
- 12          (6) academic institutions.

13       (e) ELIGIBLE PROJECTS.—Projects described in this  
14 subsection include the following:

- 15           (1) Projects to reduce heat-health risks, includ-  
16 ing sustainable heat reduction and mitigation solu-  
17 tions such as for cool roofs, cool pavements, urban  
18 forestry or tree plantings and maintenance, the pro-  
19 vision of shade, cooling and resilience centers, retro-  
20 fitting buildings for cooling, improving the resilience  
21 of the power grid to ensure reliable air conditioning,  
22 energy efficiency, acquisitions or upgrades of filtra-  
23 tion systems or high-efficiency air conditioning sys-  
24 tems, and strategies to improve community level re-  
25 sponse before and during a heat event.

1           (2) Training programs to support the develop-  
2           ment and integration of education and training pro-  
3           grams for identifying and addressing risks associ-  
4           ated with climate change for vulnerable individuals.

5           (3) Projects focusing on being responsive to  
6           heat-related needs from communities heard from en-  
7           gagements at different geographic scales (national to  
8           regional to local) including—

9                   (A) to expand public awareness of heat  
10                  risks;

11                  (B) to conduct community-based climate  
12                  and health observational campaigns;

13                  (C) to conduct scientific research to assess  
14                  gaps and priorities regarding the risks of ex-  
15                  treme heat in communities;

16                  (D) to communicate risks and warnings to  
17                  isolated communities;

18                  (E) to support the establishment of work-  
19                  place policies and practices to reduce the risk of  
20                  extreme heat illness among workers;

21                  (F) to educate such communities about  
22                  how to respond to extreme heat events; and

23                  (G) to establish local, city, and county heat  
24                  planning and heat-related emergency action  
25                  plans.

1           (4) Other projects that the Director determines  
2           will achieve a significant reduction in heat exposure  
3           or increased resilience to increased heat or extreme  
4           heat events.

5           (f) PRIORITIES.—In selecting eligible entities to re-  
6           ceive financial assistance under this section, the Director  
7           shall prioritize entities that will carry out projects that  
8           provide benefits for historically disadvantaged commu-  
9           nities and communities with significant heat disparities  
10          associated with race, ethnicity, or income.

11          (g) DISTRIBUTION OF ASSISTANCE.—

12           (1) COMMUNITIES WITH ENVIRONMENTAL JUSTICE CONCERNS AND LOW INCOME COMMUNITIES.—  
13           Not less than 40 percent of the amount of financial  
14           assistance provided under this section in any fiscal  
15           year shall be provided to eligible entities to imple-  
16           ment projects described in subsection (e) in commu-  
17           nities with environmental justice concerns or low-in-  
18           come communities.  
19

20           (2) EQUITABLE DISTRIBUTION.—The Director  
21           shall seek to equitably distribute financial assistance  
22           provided under this section based on geographic lo-  
23           cation or such other factors as the Director deter-  
24           mines appropriate.

1 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) NATIONAL INTEGRATED HEAT HEALTH INFOR-  
 3 MATION SYSTEM INTERAGENCY COMMITTEE; NATIONAL  
 4 INTEGRATED HEAT HEALTH INFORMATION SYSTEM.—  
 5 There is authorized to be appropriated to the National  
 6 Oceanic and Atmospheric Administration to carry out sec-  
 7 tions 4 and 5, including for any administrative costs for  
 8 the National Integrated Heat Health Information System  
 9 Interagency Committee and the National Integrated Heat  
 10 Health Information System, the following:

- 11 (1) For fiscal year 2024, \$20,000,000.  
 12 (2) For fiscal year 2025, \$20,000,000.  
 13 (3) For fiscal year 2026, \$20,000,000.  
 14 (4) For fiscal year 2027, \$20,000,000.  
 15 (5) For fiscal year 2028, \$20,000,000.

16 (b) STUDY ON EXTREME HEAT INFORMATION AND  
 17 RESPONSE.—There is authorized to be appropriated to  
 18 the National Oceanic and Atmospheric Administration to  
 19 contract with the National Academies of Sciences, Engi-  
 20 neering, and Medicine to carry out section 6 \$500,000 for  
 21 each of fiscal years 2024 through 2026.

22 (c) FINANCIAL ASSISTANCE FOR RESILIENCE IN AD-  
 23 DRESSING EXTREME HEAT AND HEALTH RISKS.—There  
 24 is authorized to be appropriated to the National Oceanic  
 25 and Atmospheric Administration to carry out section 7 the  
 26 following:

1           (1) For fiscal year 2024, \$10,000,000.

2           (2) For fiscal year 2025, \$10,000,000.

3           (3) For fiscal year 2026, \$20,000,000.

4           (4) For fiscal year 2027, \$30,000,000.

5           (5) For fiscal year 2028, \$30,000,000.

6   **SECTION 1. SHORT TITLE.**

7           *This Act may be cited as the “Preventing Health*  
8 *Emergencies And Temperature-related Illness and Deaths*  
9 *Act of 2024” or the “Preventing HEAT Illness and Deaths*  
10 *Act of 2024”.*

11   **SEC. 2. DEFINITIONS.**

12           *In this Act:*

13           (1) *EXTREME HEAT.*—*The term “extreme heat”*  
14 *means heat that substantially exceeds local tempera-*  
15 *ture norms in terms of any combination of the fol-*  
16 *lowing:*

17                   (A) *Duration.*

18                   (B) *Intensity.*

19                   (C) *Season length.*

20                   (D) *Frequency.*

21           (2) *HEAT.*—*The term “heat” means any com-*  
22 *bination of the atmospheric parameters associated*  
23 *with modulating human thermoregulation, such as*  
24 *air temperature, humidity, solar exposure, and wind*  
25 *speed.*

1           (3) *HEAT EVENT.*—*The term “heat event” means*  
2 *an occurrence of extreme heat of 2 days or more that*  
3 *may have heat-health implications.*

4           (4) *HEAT-HEALTH.*—*The term “heat-health”*  
5 *means health effects to humans from heat, during or*  
6 *outside of heat events, including from vulnerability*  
7 *and exposure, or the risk of such effects.*

8           (5) *PLANNING.*—*The term “planning” means ac-*  
9 *tivities performed across timescales (including days,*  
10 *weeks, months, years, and decades) with scenario-*  
11 *based, probabilistic or deterministic information to*  
12 *identify and take actions to proactively mitigate heat-*  
13 *health risks.*

14           (6) *PREPAREDNESS.*—*The term “preparedness”*  
15 *means activities performed across timescales with de-*  
16 *cision support tools to manage risk in advance of a*  
17 *heat event and increased ambient temperature.*

18           (7) *TRIBAL GOVERNMENT.*—*The term “Tribal*  
19 *government” means the recognized governing body of*  
20 *any Indian or Alaska Native tribe, band, nation,*  
21 *pueblo, village, community, component band, or com-*  
22 *ponent reservation, individually identified (including*  
23 *parenthetically) in the list published most recently as*  
24 *of the date of enactment of this Act pursuant to sec-*

1        *tion 104 of the Federally Recognized Indian Tribe*  
2        *List Act of 1994 (25 U.S.C. 5131).*

3        **SEC. 3. NATIONAL INTEGRATED HEAT HEALTH INFORMA-**  
4        **TION SYSTEM INTERAGENCY COMMITTEE.**

5        *(a) ESTABLISHMENT OF COMMITTEE.—There is estab-*  
6        *lished within the National Oceanic and Atmospheric Ad-*  
7        *ministration an interagency committee, to be known as the*  
8        *“National Integrated Heat Health Information System*  
9        *Interagency Committee” (in this section referred to as the*  
10       *“Committee”).*

11       *(b) PURPOSE.—The Committee shall coordinate agen-*  
12       *cies represented on the Committee to execute, as appro-*  
13       *priate, activities across such agencies to ensure a united*  
14       *Federal approach to reducing health risks from heat.*

15       *(c) MEMBERSHIP.—*

16                *(1) IN GENERAL.—In order to carry out and*  
17        *achieve the purpose described in subsection (b), the*  
18        *Committee shall include the following:*

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

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

23                                *(i) From the Department of Commerce,*  
24        *the following:*



1                   (I) *From the National Oceanic*  
2                   *and Atmospheric Administration, the*  
3                   *following:*

4                           (aa) *The National Weather*  
5                           *Service.*

6                           (bb) *The Office of Oceanic*  
7                           *and Atmospheric Research.*

8                           (cc) *The National Environ-*  
9                           *mental Satellite, Data, and Infor-*  
10                           *mation Service.*

11                   (II) *The National Institute of*  
12                   *Standards and Technology.*

13                           (III) *The Bureau of the Census.*

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

16                           (I) *The Centers for Disease Con-*  
17                           *trol and Prevention, including the Na-*  
18                           *tional Institute for Occupational Safe-*  
19                           *ty and Health.*

20                           (II) *The Office of the Assistant*  
21                           *Secretary of Health and Human Serv-*  
22                           *ices for Preparedness and Response.*

23                           (III) *The Substance Abuse and*  
24                           *Mental Health Services Administra-*  
25                           *tion.*

1 (IV) *The National Institutes of*  
2 *Health.*

3 (V) *The Indian Health Service.*

4 (iii) *From the Department of the Inte-*  
5 *rior, the following:*

6 (I) *The Bureau of Indian Affairs.*

7 (II) *The Bureau of Land Manage-*  
8 *ment.*

9 (III) *The National Park Service.*

10 (IV) *The Office of Hawaiian Re-*  
11 *lations.*

12 (iv) *From the Environmental Protec-*  
13 *tion Agency, the following:*

14 (I) *The Office of Air and Radi-*  
15 *ation, if the Administrator of the En-*  
16 *vironmental Protection Agency deter-*  
17 *mines appropriate.*

18 (II) *The Office of Research and*  
19 *Development, if the Administrator de-*  
20 *termines appropriate.*

21 (III) *The Office of International*  
22 *and Tribal Affairs.*

23 (v) *The Federal Emergency Manage-*  
24 *ment Agency.*

25 (vi) *The Department of Defense.*

- 1                   (vii) *The Department of Agriculture.*
- 2                   (viii) *The Department of Housing and*  
3 *Urban Development.*
- 4                   (ix) *The Department of Transpor-*  
5 *tation.*
- 6                   (x) *The Department of Energy.*
- 7                   (xi) *The Department of Labor, includ-*  
8 *ing the Occupational Safety and Health*  
9 *Administration.*
- 10                  (xii) *The Department of Veteran Af-*  
11 *fairs.*
- 12                  (xiii) *The Department of Education.*
- 13                  (xiv) *The Department of State.*
- 14                  (xv) *The United States Agency for*  
15 *International Development.*
- 16                  (xvi) *Such other Federal agencies as*  
17 *the Under Secretary of Commerce for*  
18 *Oceans and Atmosphere considers appro-*  
19 *priate.*

20                  (2) *SELECTION OF REPRESENTATIVES.—The*  
21 *head of an agency specified in paragraph (1)(B)*  
22 *shall, in appointing representatives of the agency to*  
23 *the Committee, select representatives who have exper-*  
24 *tise in areas relevant to the responsibilities of the*  
25 *Committee, such as weather prediction, health im-*

1        *pacts, behavioral science, public health hazard pre-*  
2        *paredness and response, or mental health services.*

3            (3) *CO-CHAIRS.—*

4            (A) *IN GENERAL.—The members of the*  
5        *Committee shall select 3 individuals from among*  
6        *such members to serve as co-chairs of the Com-*  
7        *mittee, subject to the approval of the Under Sec-*  
8        *retary of Commerce for Oceans and Atmosphere.*

9            (B) *SELECTION.—*

10          (i) *INITIAL SELECTION.—Of the co-*  
11        *chairs first selected, one shall be from the*  
12        *National Oceanic and Atmospheric Admin-*  
13        *istration, one shall be from the Department*  
14        *of Health and Human Services, and one*  
15        *shall be from the Federal Emergency Man-*  
16        *agement Agency.*

17          (ii) *SUBSEQUENT SELECTION.—Subse-*  
18        *quent co-chairs shall be selected from among*  
19        *the members of the Committee, except the*  
20        *National Oceanic and Atmospheric Admin-*  
21        *istration shall have the opportunity to*  
22        *maintain a co-chair position.*

23          (C) *TERMS.—Each co-chair shall serve for a*  
24        *term of not more than 5 years.*

1                   (D) *RESPONSIBILITIES OF CO-CHAIRS.*—The  
2                   *co-chairs of the Committee shall, in consultation*  
3                   *with the Director of the National Integrated*  
4                   *Heat Health Information System—*

5                   (i) *determine the agenda of the Com-*  
6                   *mittee, in consultation with other members*  
7                   *of the Committee;*

8                   (ii) *direct the work of the Committee;*  
9                   *and*

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

13                  (d) *RESPONSIBILITIES OF COMMITTEE.*—The *Com-*  
14                  *mittee shall coordinate an integrated, Federal Government-*  
15                  *wide approach to reducing health risks and impacts of heat,*  
16                  *including by—*

17                  (1) *developing the strategic plan required by sub-*  
18                  *section (e);*

19                  (2) *coordinating across Federal agencies on heat-*  
20                  *health communication, engagement, research, service*  
21                  *delivery, and workforce development; and*

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

24                  (e) *STRATEGIC PLAN.*—

1           (1) *IN GENERAL.*—Not later than 2 years after  
2           the date of the enactment of this Act, the Committee  
3           shall submit to Congress and make available on a  
4           public website a 5-year strategic plan that outlines  
5           the goals and projects of the Committee, including  
6           how the Committee will improve coordination and in-  
7           tegration of interagency Federal capacity and capa-  
8           bilities to address health risks of heat, including—

9                   (A) a strategy for improving and coordi-  
10                  nating existing Federal data collection and data  
11                  management to include sharing of data and sta-  
12                  tistics on heat-related illnesses and mortalities  
13                  and other impacts to inform heat-related activi-  
14                  ties;

15                  (B) a strategy for improving and coordi-  
16                  nating Federal activities to understand user  
17                  gaps and needs, conduct research, foster innova-  
18                  tive solutions, and provide actionable informa-  
19                  tion and services; and

20                  (C) mechanisms for financing heat plan-  
21                  ning and preparedness within such agencies as  
22                  the Committee considers appropriate.

23           (2) *IMPLEMENTATION.*—The head of an agency  
24           represented on the Committee may implement the

1       portions of the strategic plan required by paragraph  
2       (1) that are relevant to that agency.

3               (3) *UPDATES.*—Not later than 5 years after the  
4       submission of the strategic plan required by para-  
5       graph (1), and every 5 years thereafter, the Com-  
6       mittee shall brief Congress on an update of the plan,  
7       which shall include progress made toward goals out-  
8       lined in the previous plan and new priorities that  
9       emerge.

10              (f) *CONSULTATION.*—In carrying out the responsibil-  
11      ities of the Committee, the Committee shall consult with rel-  
12      evant—

13              (1) regional, State, Tribal, and local govern-  
14      ments;

15              (2) international organizations and partners;

16              (3) research institutions;

17              (4) nongovernmental organizations and associa-  
18      tions;

19              (5) medical experts with expertise in emergency  
20      response; and

21              (6) environmental health, economic or business  
22      development, or other stakeholders.

1 **SEC. 4. NATIONAL INTEGRATED HEAT HEALTH INFORMA-**  
2 **TION SYSTEM.**

3 (a) *ESTABLISHMENT.*—*The Under Secretary of Com-*  
4 *merce for Oceans and Atmosphere shall establish within the*  
5 *National Oceanic and Atmospheric Administration a sys-*  
6 *tem, to be known as the “National Integrated Heat Health*  
7 *Information System” (NIHHIS) (in this section referred*  
8 *to as the “System”).*

9 (b) *PURPOSE.*—*The purpose of the System is to reduce*  
10 *heat-related impacts by—*

11 (1) *improving the delivery of data, information,*  
12 *forecasts, warnings, predictions, and projections re-*  
13 *lated to temperature and extreme heat and related*  
14 *impacts;*

15 (2) *through the Office of Oceanic and Atmos-*  
16 *pheric Research, developing science-based solutions*  
17 *and tools to improve impact-based decision support*  
18 *services for heat impacts to human life, property, and*  
19 *the United States economy; and*

20 (3) *supporting a research program on heat*  
21 *health, in coordination with the agencies represented*  
22 *on the National Integrated Heat Health Information*  
23 *System Interagency Committee.*

24 (c) *DATA MANAGEMENT.*—

25 (1) *AVAILABILITY.*—*The data and metadata as-*  
26 *sociated with the System shall be fully and openly*



1 *available, within the legal right to redistribute, in ac-*  
2 *cordance with chapter 31 of title 44, United States*  
3 *Code (commonly known as the “Federal Records Act*  
4 *of 1950”), and the Federal Evidence-Based Policy-*  
5 *making Act of 2018 (Public Law 115–435;132 Stat.*  
6 *5529) and the amendments made by that Act, to*  
7 *maximize use of such data to support the goals of the*  
8 *System.*

9 (2) *NATIONAL CENTERS FOR ENVIRONMENTAL IN-*  
10 *FORMATION.—*

11 (A) *IN GENERAL.—The Under Secretary of*  
12 *Commerce for Oceans and Atmosphere shall*  
13 *manage, maintain, and steward archival data*  
14 *and metadata associated with the System within*  
15 *the National Centers for Environmental Infor-*  
16 *mation.*

17 (B) *WARNING COORDINATION METEOROLO-*  
18 *GIST.—The Under Secretary of Commerce for*  
19 *Oceans and Atmosphere shall designate at least*  
20 *one warning coordination meteorologist, as de-*  
21 *scribed in section 405 of the Weather Research*  
22 *and Forecasting Innovation Act of 2017 (15*  
23 *U.S.C. 8545), at the National Centers for Envi-*  
24 *ronmental Information.*

1 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

2       *There is authorized to be appropriated to the National*  
3 *Oceanic and Atmospheric Administration to carry out sec-*  
4 *tions 3 and 4, including for any administrative costs for*  
5 *the National Integrated Heat Health Information System*  
6 *Interagency Committee and the National Integrated Heat*  
7 *Health Information System, \$5,000,000 for each of fiscal*  
8 *years 2025 through 2029.*



**Calendar No. 720**

118<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION  
**S. 2645**

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**A BILL**

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.

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DECEMBER 17 (legislative day, DECEMBER 16), 2024

Reported with an amendment