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# A BILL FOR AN ACT

RELATING TO GREENHOUSE GAS EMISSIONS.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1       SECTION 1. The legislature finds that there is a need for  
2 a holistic plan of action for Hawaii regarding policy,  
3 technology, funding, and facilitation of public and private  
4 actions on climate change mitigation. The Intergovernmental  
5 Panel on Climate Change's 2018 report concludes that Hawaii has  
6 less than fifteen years to address permanent climate change and  
7 sea level rise and the associated high level of disruption to  
8 the islands of Hawaii.

9       The legislature has established requirements to:

- 10       (1) Establish the greenhouse gas sequestration task force  
11           and require a plan to evaluate the feasibility and  
12           implications of establishing a carbon offset program  
13           for Hawaii pursuant to Act 15, Session Laws of Hawaii  
14           2018;
- 15       (2) Consider greenhouse gas impacts in government  
16           decisions and orders, e.g., environmental assessments,



1 environmental impact statements, and decisions from  
2 the public utilities commission;

3 (3) Establish the Hawaii climate change mitigation and  
4 adaptation commission;

5 (4) Achieve a net-zero greenhouse gas emissions economy by  
6 the year 2050;

7 (5) Establish a one hundred per cent renewable electricity  
8 portfolio standard by 2045; and

9 (6) Resolve to integrate food, fuel, and waste reduction  
10 and re-use activities toward greater economic  
11 viability and environmental sustainability highlighted  
12 in S.C.R. No. 121, Regular Session of 2017.

13 However, up to this point, these requirements and goals  
14 have been focused on the electricity and ground transportation  
15 sectors and on group and point sources of greenhouse emissions.  
16 These requirements do not regard the emissions from other forms  
17 of transportation or other major economic drivers.

18 The legislature further finds that the Hawaii Aviation and  
19 Climate Action Summit held in December 2019 issued the following  
20 findings:



- 1           (1) Nearly one-third of the energy consumed in the State  
2           is for jet fuel, a higher proportion of energy  
3           consumption than for any other energy sector;
- 4           (2) More than one-third of the flights are to and from  
5           international destinations;
- 6           (3) International flights to and from Hawaii will start to  
7           come under the mandate established by the  
8           International Civil Aviation Organization's Carbon  
9           Offset and Reduction Scheme for International Aviation  
10          to reduce their aviation greenhouse gas emission to  
11          fifty per cent below 2005 levels by 2050;
- 12          (4) Transportation is the single largest producer of  
13          greenhouse gas emissions in Hawaii;
- 14          (5) Renewable fuels must be part of a balanced portfolio  
15          and state action plan to effect certified greenhouse  
16          gas reduction in the near term, in addition to carbon  
17          offsets;
- 18          (6) Sustainable aviation fuels have been demonstrated at  
19          commercial scale in the continental United States and  
20          can be manufactured in six different American Society  
21          for Testing Manuals approved, and Federal Aviation



1 Administration certified, ways from agricultural,  
2 animal, municipal, and construction wastes as well as  
3 purpose-grown crops and forest materials;

4 (7) The International Civil Aviation Organization's Carbon  
5 Offset and Reduction Scheme for International Aviation  
6 mandate is a significant requirement on airlines  
7 serving Hawaii, for which the State should establish a  
8 task force and "flight plan" to map out public and  
9 private actions to cost-effectively reduce greenhouse  
10 gas emissions;

11 (8) The International Civil Aviation Organization's Carbon  
12 Offset and Reduction Scheme for International  
13 Aviation, United States' federal Renewable Fuel  
14 Standard, State of California's Low-Carbon Fuel  
15 Standard, and State of Oregon's Clean Fuels Program  
16 are all market-based measures to quantify,  
17 incentivize, and monetize industry action to reduce  
18 greenhouse gas emissions by the transportation sector.  
19 These measures are also flexible and effective ways to  
20 quantify and monetize the benefits of renewable fuels,  
21 carbon offsets, hydrogen and fuel cells, and



1           transportation electrification based upon lifecycle  
2           greenhouse gas emissions performance; and

- 3       (9) Market-based policy measures more directly stimulate  
4           innovation, economic growth, and meaningful behavioral  
5           change than the state-level policies Hawaii has in  
6           place today, e.g., barrel tax, carbon tax,  
7           environmental permitting statements, environmental  
8           impact statements, and incentives which require annual  
9           appropriation. The federal Renewable Fuel Standard,  
10          which Hawaii opted in to, has directly led to a  
11          reduction of greenhouse gas in the ground  
12          transportation sector by thousands of barrels per day.  
13          California's Low-Carbon Fuel Standard has reduced  
14          greenhouse gas emissions in California by over fifty  
15          million metric tons through just the second quarter of  
16          2019. Seventy-five per cent of venture capital  
17          investment in clean transportation in the United  
18          States has been directed to California. The Low-  
19          Carbon Fuel Standard has helped investors to justify  
20          \$100,000,000 and \$300,000,000 investments to build new  
21          renewable fuel production plants. Low-Carbon Fuel



1 Standard-stimulated economic development already  
2 includes over three hundred companies and twenty  
3 thousand workers and has decreased greenhouse gas  
4 emissions per gross domestic product by forty per  
5 cent.

6 Therefore, the legislature concludes that the development  
7 of sustainable aviation fuel capability in Hawaii demonstrates  
8 the State's continued leadership in global greenhouse gas  
9 emission reduction actions, and the potential to reduce  
10 dependence on foreign sources of fossil fuels, promote economic  
11 development, and overall improvement of environmental  
12 sustainability in Hawaii.

13 The purpose of this Act is to establish a task force to  
14 develop a state action plan to reduce the greenhouse gas  
15 emissions generated by air transportation in and from Hawaii.

16 SECTION 2. (a) There is established a sustainable  
17 aviation fuel task force within the Hawaii natural energy  
18 institute for administrative purposes. The purpose of the  
19 sustainable aviation fuel task force shall be to:

- 20 (1) Prepare a work plan and regulatory scheme for  
21 implementing the maximum practically and technically



1 feasible and cost-effective reductions in greenhouse  
2 gas emissions from transportation sources or  
3 categories of sources of greenhouse gases to help  
4 commercial airlines serving Hawaii meet the mandate  
5 set for international commercial aviation by the  
6 International Civil Aviation Organization,  
7 specifically the Carbon Offset and Reduction Scheme  
8 for International Aviation, to reduce aviation  
9 greenhouse gas emission to fifty per cent below 2005  
10 levels by 2050;

11 (2) Further the development of sustainable aviation fuel  
12 as a productive industry in Hawaii, using as a  
13 foundation the results from the Hawaii Aviation and  
14 Climate Action Summit held in December 2019 and the  
15 best practices shared by the federal Aviation  
16 Administration's Aviation Sustainability Center and  
17 Commercial Aviation Alternative Fuel Initiative;

18 (3) Facilitate communication and coordination among  
19 sustainable aviation fuel stakeholders;

20 (4) Provide a forum for discussion and problem-solving  
21 regarding potential and current barriers related to



1 technology development, production, distribution,  
2 supply chain development, and commercialization of  
3 sustainable aviation fuel;

4 (5) Provide recommendations to the legislature on  
5 potential legislation that will facilitate the  
6 technology development, production, distribution, and  
7 commercialization of sustainable aviation fuel;  
8 facilitate and streamline the permitting process for  
9 new facilities and the expansion of existing  
10 facilities; and provide access to low-cost financing  
11 through the issuance of revenue bonds and matching  
12 funds through the Hawaii technology development  
13 corporation; and

14 (6) Evaluate the prospect of Hawaii joining the Pacific  
15 Coast Collaborative, comprising the states of  
16 California, Oregon, and Washington, and British  
17 Columbia, to harmonize local carbon fuel and  
18 greenhouse gas reduction policy and market-based  
19 measures and share best practices.

20 (b) The task force shall include but not be limited to  
21 representatives of the following, or their designees:





- 1           (1) The senate, to be appointed by the president of the  
2           senate;
- 3           (2) The house of representatives, to be appointed by the  
4           speaker of the house of representatives;
- 5           (3) The department of agriculture, to be appointed by the  
6           chairperson of the board of agriculture;
- 7           (4) The department of health, to be appointed by the  
8           director of health;
- 9           (5) The department of land and natural resources, to be  
10          appointed by the chairperson of the board of land and  
11          natural resources;
- 12          (6) The department of transportation, to be appointed by  
13          the director of transportation;
- 14          (7) The Hawaii tourism authority, to be appointed by the  
15          director of the Hawaii tourism authority;
- 16          (8) The Hawaii state energy office, to be appointed by the  
17          energy administrator of the Hawaii state energy  
18          office;
- 19          (9) The university of Hawaii, to be appointed by the  
20          president of the university of Hawaii; and



1       (10) The Hawaii natural energy institute, to be appointed  
2           by the director of the Hawaii natural energy  
3           institute.

4       The task force shall select a chair from among the task  
5 force's membership.

6       (c) The task force shall invite but not require  
7 representatives of the following, or their designees, to  
8 participate in the task force:

9       (1) The Federal Aviation Administration;

10      (2) The United States Department of Agriculture;

11      (3) The Hawaii focal of the United States Commercial  
12 Aviation Alternative Fuels Initiative;

13      (4) A bioeconomy advocacy organization;

14      (5) An international airline operator;

15      (6) A fuel refiner;

16      (7) Biofuels feedstock producers;

17      (8) Sustainable transportation fuel producers;

18      (9) A sustainable energy advocacy organization; and

19      (10) A carbon offset project practitioner.

20      The task force may invite any other individual, agency, or  
21 organization that the task force deems necessary or prudent.



1 (d) The Hawaii natural energy institute shall invite  
2 individuals that represent sectors involved in sustainable  
3 aviation fuel research, development, production, and utilization  
4 to serve as additional task force members.

5 (e) The task force shall hold at least two public meetings  
6 a year.

7 (f) The work plan of the task force shall include:

8 (1) Consultation with applicable state and county  
9 agencies;

10 (2) Consultation and best practice sharing with  
11 international and national organizations and other  
12 states to identify cost-effective policies and  
13 methods;

14 (3) Harmonization of market-based measures and the  
15 measures' supporting technical and quantification  
16 methods with the International Civil Aviation  
17 Organization's Carbon Offset and Reduction Scheme for  
18 International Aviation, national, and other state  
19 peer-reviewed methods, and avoidance of a unique  
20 Hawaii method or standard wherever practicable;



1 (4) Development of measures of effectiveness of varying  
2 techniques for greenhouse gas emissions reduction for  
3 commercial aviation; and

4 (5) Development of a framework to evaluate the relative  
5 contribution of each method or project, relative to  
6 the method or project's cost, projected technical  
7 maturity between the years 2020 and 2050, and  
8 contributions toward other sustainability objectives,  
9 including skilled job creation, economic development,  
10 waste re-use, invasive species removal, and landscape  
11 restoration.

12 (g) The task force shall submit an interim report of its  
13 findings and recommendations to the legislature no later than  
14 forty days prior to the convening of the regular session of  
15 2022, and a final report of its findings and recommendations to  
16 the legislature no later than forty days prior to the convening  
17 of the regular session of 2023.

18 (h) The task force shall cease to exist on June 30, 2023;  
19 provided that the Hawaii natural energy institute may continue  
20 the work of the task force without the effect of this Act should  
21 the Hawaii natural energy institute deem necessary.



1       SECTION 3. Section 304A-1891, Hawaii Revised Statutes, is  
2 amended by amending subsection (c) to read as follows:

3       "(c) The institute shall:

- 4       (1) Develop renewable sources of energy for power  
5       generation and transportation fuels by working in  
6       coordination with state agencies, federal agencies,  
7       and private entities;
- 8       (2) Conduct research and development of renewable sources  
9       of energy;
- 10      (3) Demonstrate and deploy efficient energy end-use  
11      technologies, including those that address peak  
12      electric demand issues;
- 13      (4) Aggressively seek matching funding from federal  
14      agencies and private entities for its research and  
15      development and demonstration activities; and
- 16      (5) Report annually to the legislature, no later than  
17      twenty days prior to the convening of each regular  
18      session, on ~~[its activities,]~~ the institute's:
- 19      (A) Activities, expenditures, contracts developed,  
20      advances in technology~~[, its work]~~;



1           (B) Work in coordination with state agencies and  
2           programs~~[, and recommendations]~~;

3           (C) Findings and recommendations regarding the  
4           sustainable aviation fuel task force convened  
5           pursuant to Act       , Session Laws of Hawaii 2021,  
6           if any;

7           (D) Data on clean transportation related to aviation  
8           transportation including:

9           (i) Jet fuel consumption, importation, and local  
10           refining;

11           (ii) Greenhouse gas benchmarks for jet fuel and  
12           other transportation fuels; and

13           (iii) Sustainable aviation fuel and carbon offset  
14           projects and investments; infrastructure and  
15           financing needs; supply chain development;  
16           and other opportunities for, and challenges  
17           to, reducing the greenhouse gas impacts from  
18           commercial aviation; and

19           (E) Recommendations for proposed legislation."



1           SECTION 4. Statutory material to be repealed is bracketed  
2 and stricken. New statutory material is underscored.

3           SECTION 5. This Act shall take effect on July 1, 2050.



**Report Title:**

Hawaii Natural Energy Institute; Greenhouse Gas Emissions;  
Sustainable Aviation Fuel Task Force

**Description:**

Convenes a Sustainable Aviation Fuel Task Force within the  
Hawaii natural energy institute to develop a state action plan  
to reduce the greenhouse gas intensity of international air  
transportation from Hawaii. Effective 7/1/2050. (SD2)

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not legislation or evidence of legislative intent.*

