
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 (IPCC) 2018 report concludes that Hawaii
6 has less than fifteen years to address permanent climate change
7 and sea level rise and their associated high level of disruption
8 to 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 (Act 15, Session Laws of Hawaii, 2018);
- 14 (2) Consider greenhouse gas impacts in government
15 decisions and orders (e.g., environmental assessments,
16 environmental impact statements, and decisions from
17 the public utilities commission);



- 1 (3) Establish the Hawaii climate change mitigation and
- 2 adaptation commission;
- 3 (4) Achieve a net-zero greenhouse gas emissions economy by
- 4 the year 2050;
- 5 (5) Establish a one hundred per cent renewable electricity
- 6 portfolio standard by 2045; and
- 7 (6) Resolve to integrate food, fuel, and waste reduction
- 8 and re-use activities toward greater economic
- 9 viability and environmental sustainability highlighted
- 10 in S.C.R. No. 121, Regular Session of 2017.

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

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

- 19 (1) Nearly a third of the energy consumed in the State is
- 20 for jet fuel, a higher proportion of energy
- 21 consumption than for any other energy sector;



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



1 wastes as well as purpose-grown crops and forest
2 materials;

3 (7) The ICAO CORSIA mandate is a significant requirement
4 on airlines serving Hawaii, for which the State should
5 establish a task force and "flight plan" to map out
6 public and private actions to cost-effectively reduce
7 greenhouse gas emissions;

8 (8) The ICAO CORSIA, United States' federal Renewable Fuel
9 Standard (RFS), State of California's Low-Carbon Fuel
10 Standard (LCFS), and State of Oregon's Clean Fuels
11 Program (CFP) are all market-based measures to
12 quantify, incentivize, and monetize industry action to
13 reduce greenhouse gas emissions by the transportation
14 sector. These measures are also flexible and
15 effective ways to quantify and monetize the benefits
16 of renewable fuels, carbon offsets, hydrogen and fuel
17 cells, and transportation electrification based upon
18 lifecycle greenhouse gas emissions performance; and

19 (9) Market-based policy measures more directly stimulate
20 innovation, economic growth, and meaningful behavioral
21 change than the state-level policies Hawaii has in



1 place today (barrel tax, carbon tax, environmental
2 permitting/impact statements, and incentives which
3 require annual appropriation). The federal RFS which
4 Hawaii opted in to has directly led to a reduction of
5 greenhouse gas in the ground transportation sector by
6 thousands of barrels per day. California's LCFS has
7 reduced greenhouse gases emissions in California by
8 over fifty million metric tons through just the second
9 quarter of 2019. Seventy-five per cent of venture
10 capital investment in clean transportation in the
11 United States has been directed to California. LCFS
12 has helped investors to justify \$100,000,000 and
13 \$300,000,000 investments to build new renewable fuel
14 production plants. LCFS-stimulated economic
15 development already includes over three hundred
16 companies and twenty thousand workers and has
17 decreased greenhouse gas emissions per GDP by forty
18 per cent.

19 Therefore, the legislature concludes that the development
20 of sustainable aviation fuel capability in Hawaii demonstrates
21 the State's continued leadership in global greenhouse gas



1 emission reduction actions, and the potential to reduce
2 dependence on foreign sources of fossil fuels, promote economic
3 development, and overall improvement of environmental
4 sustainability in Hawaii.

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

8 SECTION 2. (a) There is established a sustainable
9 aviation fuel task force within the Hawaii natural energy
10 institute for administrative purposes. The purpose of the
11 sustainable aviation fuel task force is to:

12 (1) Prepare a work plan and regulatory scheme for
13 implementing the maximum practically and technically
14 feasible and cost-effective reductions in greenhouse
15 gas emissions from transportation sources or
16 categories of sources of greenhouse gases to help
17 commercial airlines serving Hawaii meet the mandate
18 set for international commercial aviation by the
19 International Civil Aviation Organization (ICAO),
20 specifically the Carbon Offset and Reduction Scheme
21 for International Aviation (CORSA), to reduce



- 1 aviation greenhouse gas emission to fifty per cent
2 below 2005 levels by 2050;
- 3 (2) Further the development of sustainable aviation fuel
4 as a productive industry in Hawaii, using as a
5 foundation the results from the Hawaii Aviation and
6 Climate Action Summit held in December 2019 and the
7 best practices shared by the federal Aviation
8 Administration's Aviation Sustainability Center and
9 Commercial Aviation Alternative Fuel Initiative;
- 10 (3) Facilitate communication and coordination among
11 sustainable aviation fuel stakeholders;
- 12 (4) Provide a forum for discussion and problem-solving
13 regarding potential and current barriers related to
14 technology development, production, distribution,
15 supply chain development, and commercialization of
16 sustainable aviation fuel;
- 17 (5) Provide recommendations to the legislature on
18 potential legislation that will facilitate the
19 technology development, production, distribution, and
20 commercialization of sustainable aviation fuel;
21 facilitate and streamline the permitting process for



1 new facilities and the expansion of existing
2 facilities; and provide access to low-cost financing
3 through the issuance of revenue bonds and matching
4 funds through the Hawaii technology development
5 corporation; and

6 (6) Evaluate the prospect of Hawaii joining the Pacific
7 Coast Collaborative of the states of California,
8 Oregon, and Washington, and British Columbia to
9 harmonize local carbon fuel and greenhouse gas
10 reduction policy and market-based measures and share
11 best practices.

12 (c) The Hawaii natural energy institute shall designate
13 task force members that represent sectors involved in
14 sustainable aviation fuel research, development, production, and
15 utilization.

16 (d) The task force shall include but not be limited to
17 representatives of the following, or their designees:

- 18 (1) The senate;
19 (2) The house of representatives;
20 (3) The department of agriculture;
21 (4) The department of health;



- 1 (5) The department of land and natural resources;
- 2 (6) The department of transportation;
- 3 (7) The Hawaii tourism authority;
- 4 (8) The Hawaii state energy office;
- 5 (9) The University of Hawaii;
- 6 (10) The Hawaii natural energy institute;
- 7 (11) A bioeconomy advocacy organization;
- 8 (12) International airline operator;
- 9 (13) A fuel refiner;
- 10 (14) Biofuels feedstock producers;
- 11 (15) Sustainable transportation fuel producers;
- 12 (16) A sustainable energy advocacy organization; and
- 13 (17) A carbon offset project practitioner.

14 The task force shall choose a chair from among its
15 membership.

16 (e) The task force shall invite but not require the
17 following, or their designees to participate in the task force:

- 18 (1) The Federal Aviation Administration;
- 19 (2) The United States Department of Agriculture; and
- 20 (3) The Hawaii focal of the United States Commercial
21 Aviation Alternative Fuel Initiative.



1 The task force may invite any other individual, agency, or
2 organization that it deems necessary or prudent.

3 (f) The task force shall hold at least two public meetings
4 a year.

5 (g) The work plan of the task force shall include:

6 (1) Consultation with state and county agencies;

7 (2) Consultation and best practice sharing with
8 international and national organizations, and other
9 states to identify cost-effective policies and
10 methods;

11 (3) Harmonization of market-based measures and their
12 supporting technical and quantification methods with
13 ICAO CORSIA, national, and other state peer-reviewed
14 methods, and avoidance of a unique Hawaii method or
15 standard wherever practicable;

16 (4) Development of measures of effectiveness of varying
17 techniques for greenhouse gas emissions reduction for
18 commercial aviation; and

19 (5) Framework to evaluate the relative contribution of
20 each method or project, relative to its cost,
21 projected technical maturity between the years 2020



1 and 2050, and contributions toward other
2 sustainability objectives such as skilled job
3 creation, economic development, waste re-use, invasive
4 species removal, and landscape restoration.

5 (h) The task force shall submit an interim report of its
6 findings and recommendations to the legislature no later than
7 forty days prior to the convening of the regular session of
8 2022, and a final report of its findings and recommendations to
9 the legislature no later than forty days prior to the convening
10 of the regular session of 2023.

11 (i) The task force shall cease to exist on June 30, 2023;
12 provided that the Hawaii natural energy institute may continue
13 the work of the task force without the effect of this Act should
14 the Hawaii natural energy institute deem necessary.

15 (j) The Hawaii natural energy institute shall submit a
16 report of its findings and recommendations, and data on clean
17 transportation related to aviation transportation including:

18 (1) Jet fuel consumption, imports, and local refining and
19 the greenhouse gas benchmark for jet fuel and other
20 transportation fuels; and



1 (2) Sustainable aviation fuel and carbon offset projects
2 and investments, infrastructure and financing needs,
3 supply chain development, and other opportunities and
4 challenges to reducing the greenhouse gas impacts from
5 commercial aviation,
6 to the legislature no later than twenty days prior to the
7 convening of each regular session.

8 SECTION 3. This Act shall take effect upon its approval.



S.B. NO. 987
S.D. 1

Report Title:

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. (SD1)

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