



OFFICE OF PLANNING STATE OF HAWAII

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Statement of
MARY ALICE EVANS
Director, Office of Planning
before the
HOUSE COMMITTEE ON FINANCE
Tuesday, March 2, 2021
11:00 AM

in consideration of
HB 327, HD 2
RELATING TO GREENHOUSE GAS EMISSIONS.

Chair Luke, Vice Chair Cullen, and Members of the House Committee on Finance:

The Office of Planning (OP) respectfully offers the following **comments and proposed amendments** on HB 327, HD2. The purpose of HB 327, HD 2 is to convene a Sustainable Aviation Fuel Task Force within the Hawai'i State Energy Office to develop a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawai'i.

The Office of Planning recently published in December 2019 the [*Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai'i*](#). The publication was provided to the Hawai'i State Legislature and is also available online at the Office of Planning's website.

As explained on page 51 of the feasibility analysis, it is unlikely that the State of Hawai'i would generate significant revenue through the production of offsets, and any trading of offset credits produced within Hawai'i would be limited by the state's Zero Emissions Clean Economy target. Through this publication, the Office of Planning recommended the adoption of alternative fuels in transportation, such as sustainable aviation fuels, to reduce Hawai'i's greenhouse gas emissions to meet Hawai'i's Zero Emissions Clean Economy target by 2045.

Additionally, the Greenhouse Gas Sequestration Task Force, which is administratively attached to the Office of Planning has a reporting requirement due by December 2022 to include a significant analysis on greenhouse gas reduction and sequestration opportunities.

The Office of Planning recommends the proposed "Sustainable Aviation Fuel Task Force" coordinate with the Office of Planning's Statewide Sustainability Branch and the State's Greenhouse Gas Sequestration Task Force.

The Office of Planning notes that the U.N. has declared this 2020-2030 decade as the "Decade of Action" to achieve the 2030 Sustainable Development Goals in alignment with the goals of the U.N. Paris Agreement. These international initiatives have significantly impacted markets and corporations to reduce greenhouse gas emissions, including [Boeing's recent commitment to transition its commercial aircraft to be ready to fly on 100% sustainable aviation fuels by 2030.](#)

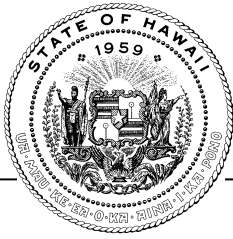
The Office of Planning recommends the following amendments for the committee's consideration:

- p.3, Line 3-4: Revise to: "Achieve a Zero Emissions Clean Economy by the year 2045"
- p.3, Lines 14-15: Delete "in addition to carbon offsets"
- p.4, Line 16: Delete "carbon offsets"
- p. 8-9: Add "Statewide Sustainability Branch" as a member to serve on the Sustainable Aviation Fuel Task Force
- p.11, Line 17: Delete "and carbon offset projects"

The Office of Planning *thanks* the Legislature for recently passing [Act 45, SLH 2020](#) to formally establish the State's Sustainability Program, and expand the Office of Planning's role to include statewide climate adaptation, sustainability, and sea level rise adaptation planning and coordination.

The Office of Planning is actively working on the sustainable development and climate adaptation of the state to meet the needs of the present without compromising the ability of future generations of Hawai'i to meet their own needs.

Mahalo for this opportunity to testify on HB 327, HD 2.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
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SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON FINANCE

Tuesday, March 2, 2021
11:00 AM
State Capitol, Conference Room 308

Comments in consideration of
HB 327, HD2
RELATING TO GREENHOUSE GAS EMISSIONS.

Chair Luke, Vice Chair Cullen, and Members of the Committee, the Hawaii State Energy Office (HSEO) provides comments on HB 327, HD2, which would establish a sustainable aviation fuel task force in the Hawai'i State Energy Office and require an interim report, final report, and possibly continuing annual reports to the Legislature on findings, recommendations, and data prior to each regular session. HSEO appreciates the intent of the bill and the extension of the deadlines provided in HD2 of the bill.

Aviation fuel is a very important area for innovation, and Hawai'i is uniquely positioned to develop solutions and to continue to be a leader in this area. Also, greenhouse gas emissions from air travel are a particularly significant area to address, since jet fuel has historically been one of the largest sources of Hawai'i's greenhouse gas emissions.

While HSEO fully appreciates the intent of the bill, the envisioned twenty-member task force would take on an ambitious, wide-ranging, and complex array of tasks, with at least two public meetings per year, an interim report to the Legislature at the end of 2022, and a final report to the Legislature at the end of 2023, ceasing to exist in mid-2024. However, the subject matter of this task force overlaps with other proposals the Legislature is considering, such as for Hawai'i Natural Energy Institute (HNEI), HSEO,

and others named in this task force to undertake and participate in a statewide strategic energy plan, which would require the examination of aviation fuel. HSEO believes the interests of all would be best served by focusing on a statewide energy plan and the work of such a task force building on the outcome of the plan.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

Thank you for the opportunity to testify.

LATE

HB-327-HD-2

Submitted on: 3/2/2021 9:08:54 AM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Gail Suzuki-Jones	Hawaii State Energy Office	Comments	No

Comments:

Testimony as submitted by HSEO

HB-327-HD-2

Submitted on: 2/28/2021 3:10:21 PM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ted Bohlen	Climate Protectors Hawaii	Support	No

Comments:

To: The Honorable Sylvia Luke, Chair,

The Honorable Ty Cullen, Vice Chair, and Members of the

House Committee on Finance

From: Climate Protectors Hawaii (by Ted Bohlen)

Re: Hearing **HB327 HD2– RELATING TO GREENHOUSE GAS EMISSIONS**

Tuesday March 2, 2021, 11:00 a.m., CR 308 and by videoconference

Position: STRONGLY SUPPORT INTENT OF HB327 HD2 RELATING TO GREENHOUSE GAS EMISSIONS, BUT AMEND BY STRIKING LANGUAGE ON CARBON OFFSETS.

Aloha Chair Luke, Vice Chair Cullen, and members of the Finance Committee:

The Climate Protectors Coalition is a group focused on reversing the climate crisis. As a tropical island State, Hawaii will be among the first places harmed by the global climate crisis, with more intense storms, loss of protective coral reefs, food insecurity, and rising sea levels destroying our shorelines. The planet faces an existential climate crisis and we must act now! Scientists have made clear that we are part of the last generation that can stop or at least mitigate the devastating impacts of climate change. Hawaii can and should be a leader in showing the world the way forward towards a safe and sustainable climate and future. We must do all we can to reduce our carbon footprint and become carbon negative as soon as possible. The sooner we inspire others to take action and lead by example, the better off the future will be for our children.

Aviation is the largest source of greenhouse gas emissions for Hawaii, larger than either ground transportation or electric power generation. One of the areas where Hawaii can make the most progress in reducing greenhouse gas emissions is in decarbonizing aviation jet fuel and making more sustainable fuel.

HB327 HD2 would convene a Sustainable Aviation Fuel Task Force within the Hawaii State Energy Office to develop a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawaii; and require the Task Force and Hawaii State Energy Office to submit reports to the Legislature.

This measure positions the State to continue to be a leader in the promotion of sustainable aviation fuels by providing opportunities for greenhouse gas reduction and the development of sustainable aviation fuels.

One part should be amended. The bill in Section 2(a)(1) states a purpose is to:

Prepare a work plan and regulatory scheme for implementing the maximum practically and technically feasible and cost-effective reductions in greenhouse gas emissions from transportation sources or categories of sources of greenhouse gases to help commercial airlines serving Hawaii meet the mandate set for international commercial aviation by the International Civil Aviation Organization, specifically the Carbon Offset and Reduction Scheme for International Aviation to reduce aviation greenhouse gas emission to fifty per cent below 2005 levels by 2050;

The first part of this is fine, but **the Committee should amend the bill by striking the second half containing the words:**

"to help commercial airlines serving Hawaii meet the mandate set for international commercial aviation by the International Civil Aviation Organization, specifically the Carbon Offset and Reduction Scheme for International Aviation to reduce aviation greenhouse gas emission to fifty per cent below 2005 levels by 2050;"

The efficacy of offsets is questionable, it should not be a State purpose to help airlines meet mandates, and it would not be prudent to bind Hawaii to this particular scheme for reductions at this time.

With this one amendment, HB327 HD2 is a good bill that will assist our efforts to reduce Hawaii's greenhouse gas emissions, helping us to lead on mitigating the climate crisis, and saving costs for the State. Please pass this bill!

Mahalo for the opportunity to testify in **strong support** of the intent of this very important legislation.

Climate Protectors Coalition (by Ted Bohlen)



HB 327, HD 2, RELATING TO GREENHOUSE GAS EMISSIONS

MARCH 2, 2021 · HOUSE FINANCE COMMITTEE ·
CHAIR REP. SYLVIA LUKE

POSITION: Support.

RATIONALE: Imua Alliance supports HB 327, HD 2, relating to greenhouse gas emissions, which convenes a sustainable aviation fuel task force within the Hawai'i State Energy Office to develop a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawai'i.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding.

Additionally, an estimated \$19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring, like seawalls.

Furthermore, according to research conducted by Michael B. Gerrard from Columbia Law School, modern-day slavery tends to increase after natural disasters or conflicts where large numbers of people are displaced from their homes. In the decades to come, says Gerrard, **climate change will very likely lead to a significant increase in the number of people who are displaced**

and, thus vulnerable, to human trafficking. While the Paris Climate Agreement of 2015 established objectives to limit global temperature increases and several international agreements are aimed at combating modern-day slavery, it is highly uncertain whether they will be adequate to cope with the scale of the problem that is likely to occur as a result of climate change.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800-acre statewide sea level rise exposure area—one-third of which is designated for urban use—without risking massive structural damage and, potentially, great loss of life.

Therefore, we should take steps to accelerate Hawai'i's efforts to address climate change and develop a clean economy, including by working to reduce greenhouse gas emissions from air transportation related to our tourist industry. **In 2019, Civil Beat reported that flights to and from Hawai'i from all over the world produced approximately 6.3 million tons of carbon, which is the equivalent of the CO2 produced by generating electricity for almost 1.1 million homes in a year.** For the sake of our keiki, we cannot afford to wait to solidify strategies to preserve our island home for generations to come.

Kris Coffield · Executive Director, Imua Alliance · (808) 679-7454 · kris@imuaalliance.org



To: The House Committee on Finance
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, March 2, 2021, 11am

In support of HB327 HD2

Aloha Chair Luke, Vice Chair Cullen, and members of the Finance committee,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. On behalf of our 6,000 members and supporters, 350Hawaii.org **supports HB327 HD2, and respectfully offers amendments.**

This important bill would convene a Sustainable Aviation Fuel Task Force within the Hawaii State Energy Office to develop a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawaii. Aviation is the largest source of greenhouse gas emissions for Hawaii, with nearly a third of the energy consumed in the State from jet fuel. Therefore, one of the areas where Hawaii can make the most progress in reducing greenhouse gas emissions is in decarbonizing aviation jet fuel and making more sustainable fuel. Addressing this critical issue cannot be overstated.

350Hawaii respectfully requests amendments to this measure. First, we strongly encourage that the make-up of the task force includes more community representation. Second, we urge deleting references in this bill regarding carbon offsets. Carbon offset schemes claim to compensate for emissions with no cost to the climate – however they don't actually do that. Studies show they are simply an accounting trick. Offsetting does not cancel out our emissions, trees planted today can't grow fast enough to do that. Scientists are warning that major and unprecedented reductions in emissions are needed **now** for us to have a chance to avoid untold suffering from climate breakdown. Let's not waste precious time and effort with false solutions. Our children's future depends on it.

Mahalo for this opportunity to testify on this very important bill.

Sherry Pollack
Co-Founder, 350Hawaii.org



Environmental Caucus of The Democratic Party of Hawai'i

February 28, 2021

To: House Committee on Finance
Representative Sylvia Luke, Chair
Representative Ty. J. K. Cullen, Vice Chair, and
Members of the Committee on Finance

Re: HB 327, HD2 – RELATING TO GREENHOUSE GAS EMISSIONS

Hearing: Tuesday, March 2, 2021, 11:00 p.m. Room 308, via videoconference

Position: **STRONG SUPPORT**

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance:

The Environmental Caucus of the Democratic Party of Hawai'i and its Human Environmental Impacts Committee are in **strong support** of HB 327, HD2 as it convenes a sustainable aviation fuel task force within the Hawaii state energy office to develop and report to the Legislature on a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawaii.

The Democratic Party of Hawai'i (Party) has adopted at its State Convention in 2018, clear safeguards for our community against the climate crisis found in page 19 of the Party Platform:

We believe that Hawai'i must lead in forging a robust global solution to the climate crisis. We are committed to a national mobilization, and to leading a global effort to mobilize nations to address this threat. Our generation must lead the fight against climate change and we applaud Hawai'i's leadership in joining the historic Paris Climate Accord. We will not only meet the goals set in Paris, we will seek to exceed them and push other countries to do the same by slashing carbon pollution and rapidly driving down emissions of potent greenhouse gases like hydrofluorocarbons. We will support other States and developing countries in their efforts to mitigate carbon pollution and other greenhouse gases, deploy more clean energy, and invest in climate resilience and adaptation.

Per the Hawaii Aviation and Climate Action Summit held in December 2019, it found that (1) nearly a third of the energy consumed in the State is for jet fuel which is a higher proportion of energy consumption than for any other energy sector; and that (2) over one-third of the flights are to and from international destinations. International air travel is substantial and an Aviation fuel Task Force to develop a state action plan to reduce greenhouse gas intensity of international air transportation to and from Hawaii is a necessary step toward averting further environmental risk of damage due to the climate crisis.

Chair Sylvia Luke
Vice Chair Ty J.K. Cullen
Committee on Finance
HB 327, HD2 – RELATING TO GREENHOUSE GAS EMISSIONS
March 2, 2021
Page 2

Please pass this important and overdue legislation. Thank you very much for the opportunity to testify on this key issue.

Respectfully yours,

Alan Burdick and
Melodie Aduja
Co-Chairs, Environmental Caucus
Co-Chairs, Human Environmental Impacts Committee
Democratic Party of Hawai`i
Email: burdick808@gmail.com and
legislativepriorities@gmail.com



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Finance
Tuesday, March 2, 2021 at 11:00 a.m.

By
Richard Rocheleau, Director
Hawai'i Natural Energy Institute
University of Hawai'i at Mānoa

HB 327 HD2 – RELATING TO GREENHOUSE GAS EMISSIONS

Chair Luke, Vice Chair Cullen, and member of the Committee:

HB 327 HD2 proposes to convene a Sustainable Aviation Fuel Task Force within the Hawai'i State Energy Office (HSEO) to develop a state action plan to reduce the greenhouse gas (GHG) intensity of international air transportation from Hawai'i.

While Hawai'i Natural Energy Institute (HNEI) agrees that emissions associated with aviation fuel must be included in efforts to reduce GHG emissions, and that there is urgency to GHGs from all sources, we are concerned that this bill, in its current form, would not achieve the desired goals.

Specifically, while aviation fuel comprises a significant fraction of our fossil fuel usage; and contributes a significant fraction of Hawai'i's GHG emissions; and is, arguably, the area for which the fewest market-ready solutions are available; the potential innovations to reduce GHG from aviation are intrinsically linked to all other energy sectors.

HNEI also comments that the subject matter to be requested from the task force overlaps with other proposals the Legislature is considering, such as for HSEO, HNEI, and others named in this task force to undertake and participate in a statewide strategic energy plan. HNEI believes that the development of alternatives for sustainable aviation fuel, is more likely to result in actionable recommendations if included as part of an overall statewide energy plan. If further work is required upon completion of the statewide plan, such a task force focused on aviation fuel could be convened to build on the outcome of the plan.

HNEI stands ready to assist in the development of the overall statewide plan that addresses all the state's energy sectors to achieve a resilient, clean energy, decarbonized economy.

Thank you for the opportunity to testify.



Airlines for America®

We Connect the World

Testimony

**Written Testimony of Airlines for America
in Support of House Bill 327 H.D. 2 Relating to Greenhouse Gas Emissions**

**Submitted by Nancy N. Young
Vice President, Environmental Affairs**

Airlines for America® (A4A) appreciates the opportunity to provide written testimony in support of House Bill (HB) 327, as amended by the Committees on Energy & Environmental Protection and Consumer Protection & Commerce (HB 327 HD 2),¹ which would establish the Sustainable Aviation Fuel Task Force within the Hawaii State Energy Office (HSEO).² This bill would complement the aviation industry's efforts to reduce its greenhouse gas (GHG) emissions while supporting the development of a sustainable aviation fuel (SAF) industry in Hawaii. We endorse the measure and encourage the legislature to adopt it.

By way of background, the U.S. airlines are a very small contributor of man-made GHG emissions. Before COVID-19 struck, we were transporting a record 2.5 million passengers and 58,000 tons of cargo per day,³ while contributing just 2 percent of our nation's GHG emissions.⁴ Indeed, our members have been and remain keenly focused on fuel efficiency and GHG emissions savings. For the past several decades, the U.S. airlines have dramatically improved fuel efficiency and reduced GHG emissions by investing billions in fuel-saving aircraft and engines, innovative technologies like winglets (which improve aerodynamics), and cutting-edge route-optimization software. As a result, the U.S. airlines have improved their fuel efficiency over 135 percent since 1978, saving over 5 billion metric tons of carbon dioxide (CO₂), which is equivalent to taking more than 27 million cars off the road on average in *each* of those years. Looking at a more recent snapshot, data from the Bureau of Transportation Statistics confirm that the U.S. airlines improved their fuel- and CO₂-emissions efficiency by 40 percent between 2000 and 2019.

But the U.S. airlines are not stopping there. Since 2009, we have been active participants in a global aviation coalition that committed to 1.5 percent annual average fuel efficiency improvements through 2020, with goals to achieve carbon-neutral growth beginning in 2020 and

¹ Available at https://www.capitol.hawaii.gov/session2021/bills/HB327_HD2_.PDF.

² A4A is the principal trade and service organization of the U.S. airline industry. A4A's members are: Alaska Airlines, Inc.; American Airlines Group; Atlas Air, Inc.; Delta Air Lines, Inc.; Federal Express Corporation; Hawaiian Airlines; JetBlue Airways Corp.; Southwest Airlines Co.; United Continental Holdings, Inc.; and United Parcel Service Co. Air Canada is an associate member.

³ See <https://www.airlines.org/dataset/a4a-presentation-industry-review-and-outlook/#>.

⁴ See U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018* (April 2020) at Table ES-6: U.S. Greenhouse Gas Emissions Allocated to Economic Sectors (p. ES-25); Table 2-13: Transportation-Related Greenhouse Gas Emissions (p. 2-33). Available at: <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>.

a 50 percent net reduction in CO₂ emissions in 2050, relative to 2005 levels.⁵ The initiatives the U.S. airlines are undertaking to further reduce GHG emissions are designed to limit responsibly and effectively their fuel consumption, GHG contribution, and potential climate change impacts while allowing commercial aviation to continue to serve as a key contributor to the U.S., state, and local economies as our nation works to recover from the devastating COVID-19 crisis.

The availability of sustainable aviation fuel (SAF) in significant quantities is a key pillar to the achievement of the aviation industry's goals, and A4A and its members have been working hard to lay the groundwork for the establishment of a viable SAF industry. SAF is particularly critical to the industry's GHG reduction strategy as aviation, unlike ground transportation, cannot electrify in the near-term and is therefore reliant on liquid fuels.

The aviation industry has created the foundation for airline deployment of SAF, which results in an up to 80 percent reduction in GHG emissions relative to petroleum-based jet fuel, through our Commercial Aviation Alternative Fuels Initiative® (CAAFI), a public-private partnership with the Federal Aviation Administration and other stakeholders that is working to ensure the development and deployment of SAF,⁶ as well as other programs. However, as SAF currently tends to be considerably more expensive than traditional jet fuel and there is very little supply, we need complementary government policies to make SAF commercially viable and to scale up supply. This is where SB 987 could prove helpful. By establishing a task force whose purposes would include, *inter alia*, preparing a work plan to assist commercial aviation in meeting its 2050 CO₂ reduction goal, furthering the development of a productive SAF industry in the State, providing SAF-related recommendations to the legislature, and evaluating the prospects of Hawaii joining with other jurisdictions that have established low carbon fuels policies, the State would send a very positive signal that it is serious about promoting a new, green industry and supporting the aviation sector's efforts to meet its rigorous climate goals.

While A4A supports HB 327 HD 2 and the creation of a Sustainable Aviation Fuel Task Force, we would like to take this opportunity to offer a number of suggestions pertaining to particular provisions of the bill. First, although we did not participate in the Hawaii Aviation and Climate Action Summit that took place in late 2019, we note with respect to the third finding on page 3 of the bill that the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation, better known by its acronym, CORSIA, does not require international flights "to reduce their aviation [GHG] emission[s] to fifty per cent below 2005 levels by 2050." That 50% reduction target is the global aviation industry's own climate commitment. The ICAO CORSIA agreement supports GHG emissions savings now and through 2035 by imposing an obligation for aircraft operators to offset any increases in carbon emissions from international flights. This offsetting obligation, which initially applies to aircraft operators from the U.S. and 87 other countries beginning this year, will become applicable to virtually all international flights in 2027.⁷ Designed to help aviation achieve carbon-neutral growth beginning

⁵ See A4A, "A4A's Climate Change Commitment," available at <https://www.airlines.org/a4as-climate-change-commitment/>; A4A, "Airlines Fly Green," available at <https://www.airlines.org/airlines-fly-green/>; see also Air Transport Action Group, "Climate Change," available at <https://www.atag.org/our-activities/climate-change.html>.

⁶ For more on CAAFI, see <http://caafi.org/>.

⁷ Under the agreement made by the 193 countries party to ICAO, CORSIA's offsetting obligation is being implemented in stages. Starting in 2021, offsetting is required for international flights to/from those countries (of which there are 88, including the U.S.) that agreed to participate in the three-year pilot phase

in 2020, CORSIA enables aircraft operators to reduce their annual offsetting obligation by using SAF. Given that the 50% GHG reduction in 2050 is actually an industry-wide target, we respectfully request that the language in subsection (3) be revised to read as follows (with proposed additions shown in underline and proposed deletions shown in strikethrough) and a new subsection (4) be added directly after it:

- (3) On January 1, 2021, a number of these ~~international~~ flights to and from Hawai'i will start to come under the mandate became subject to the offsetting requirements established by the International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation, with virtually all international flights to and from Hawai'i becoming subject to CORSIA offsetting in 2027 to reduce their aviation greenhouse gas emission to fifty per cent below 2005 levels by 2050;
- (4) Commercial airlines have committed to reducing their greenhouse gas emissions by fifty per cent below 2005 levels in 2050;

With respect to subsection (6) on page 4, there are now seven SAF production processes (or "pathways") that have been approved by ASTM International. In addition, as discussed above, A4A maintains that SAF has not yet reached "commercial scale," either in the continental United States or elsewhere. Hence, we suggest that the finding in subsection (6) (which would be renumbered as subsection (7) due to the addition of new subsection (4)) be revised to read as follows:

- (7) Sustainable aviation fuels has been demonstrated at commercial scale on commercial flights in the ~~continental~~ United States and can be manufactured in six ~~seven~~ different ~~American Society for Testing Manuals (ASTM)~~ International approved and Federal Aviation Administration certified ways from agricultural, animal, municipal, and construction wastes as well as purpose-grown crops and forest materials;

Lastly, in the second line of subsections (7) and (8) (and also in line 6 on page 11), the term "Offset" should be replaced with "Offsetting", and in subsection (9) (which under our proposal would be renumbered as subsection (10)) on page 5, we recommend that the term "emissions" be inserted directly after gas in line 14, the word "by" in line 15 be replaced with "due to the displacement of", and the words "of oil" be inserted directly after barrels in line 15.

We observe that the penultimate paragraph in section 1 of the bill is phrased awkwardly. Perhaps the words "would allow the State to continue" should be inserted in place of the word continues in line 10.

Turning now to the legislative text in section 2 of the bill, largely consistent with what we have stated above regarding CORSIA and the aviation industry's self-imposed 2050 GHG reduction goal, we respectfully request that subsection (a)(1) be revised to read as follows:

- (1) Prepare a work plan and regulatory scheme for implementing the maximum practically and technically feasible and cost-effective reductions in greenhouse gas

(2021-2023) and three-year first phase (2024-2026) of CORSIA. The offsetting obligation becomes mandatory for flights to/from all countries except the least developed countries beginning in 2027. Importantly, CORSIA does not apply to domestic (non-international) flights.

emissions from ~~aviation transportation sources or categories of sources of greenhouse gases~~ to help commercial airlines serving Hawaii meet the mandate set for international commercial aviation by the International Civil Aviation Organization, specifically the Carbon Offsetting and Reduction Scheme for International Aviation, via the use of sustainable aviation fuel to the maximum extent practicable, as well as the airlines' goal to reduce aviation their greenhouse gas emissions by ~~to~~ fifty per cent below 2005 levels by in 2050;

We note, too, that any such “regulatory scheme” may encompass positive incentives for the development and deployment of SAF, but due to federal preemption, may not regulate aircraft GHG emissions or the content of and emissions related to jet fuel.⁸

In subsection (c), which specifies the composition of the task force, we question the need for including “[a] fuel refiner” and “[a] carbon offset project practitioner,” and recommend that subsection (c)(18) be revised to read “Sustainable aviation fuel producers.”

With these proposed revisions, we express our support for the creation of the Sustainable Aviation Fuel Task Force. Thank you for your consideration.

⁸ Federal preemption is established both under the federal Clean Air Act (CAA) and federal aviation law. For example, section 233 of the CAA explicitly preempts states and their political subdivisions from “adopt[ing] or attempt[ing] to enforce any standard respecting emissions of any air pollutant from any aircraft or engine thereof unless such standard is identical to a standard” established by the U.S. Environmental Protection Agency. 42 U.S.C. § 7573. Further, courts have long held that the Federal Aviation Act of 1958 creates a “uniform and exclusive system of federal regulation” of aircraft that preempts state and local regulation. *Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 639 (1973); see also *American Airlines v. Department of Transp.*, 202 F.3d 788, 801 (5th Cir. 2000) (aviation regulation is an area where “[f]ederal control is intensive and exclusive”) (quoting *Northwest Airlines, Inc. v. Minnesota*, 322 U.S. 292, 303 (1944)). This pervasive federal regulatory scheme extends not only to aircraft in flight, but also to aircraft-related operations on the ground. In addition, the Airline Deregulation Act precludes states from “enact[ing] or enforc[ing] a law, regulation, or other provision having the force and effect of law related to a price, route or service.” 49 U.S.C. § 41713(b)(1).

LATE

HB-327-HD-2

Submitted on: 3/1/2021 3:44:37 PM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Emmanuel Zibakalam	Hawaii Crop Improvement Association	Support	No

Comments:

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committee:

The Hawaii Crop Improvement Association would like to offer brief testimony in support of HB327 which convenes a sustainable aviation fuel task force within the Hawaii state energy office to develop a state action plan to reduce the greenhouse gas intensity of international air transportation from Hawaii.

Mahalo for your time and consideration.

Sincerely,

Emmanuel Zibakalam
Executive Director, Hawaii Crop Improvement Association



LATE

Testimony from Gene Harrington, Biotechnology Innovation Organization

In support of HB 327 HD 2 – Relating to Greenhouse Gas Emissions

House Committee on Finance

Tuesday, March 2, 11 am

Aloha Chair Luke and members of the committee,

The Biotechnology Innovation Organization (BIO) is in strong support of HB 327 HD 2.

The nation's transportation sector leads all others in greenhouse gas emissions. As we look to decarbonize travel—including both road transport and aviation—sustainable fuels are increasingly important because we can't rely on electrification alone. Through biotechnology, our companies are going beyond ethanol and developing low carbon fuels from sustainable sources to keep us moving, including those made from novel feedstocks like industrial waste gases and algae. BIO is in strong support of this initiative and looks forward to working with the lawmakers on innovative solutions to our climate change challenges.

HB-327-HD-2

Submitted on: 2/26/2021 9:16:51 PM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ruta Jordans	Individual	Support	No

Comments:

One more piece in our arsenal to deal with the climate crisis. Please support!

HB-327-HD-2

Submitted on: 3/1/2021 4:46:51 AM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Pappas	Individual	Support	No

Comments:

Dear Chair Luke, Vice Chair Cullen and FIN Committee members,

Nearly a third of the energy consumed in Hawaii is for jet fuel. Because we, the people of Hawaii, are the beneficiaries of all the tourists who come and go by plane from our islands, we must take responsibility to mitigate/reduce/remove this planet-harming fossil fuel as soon as it becomes possible.

HB327 HD2 will establish a task force to develop a state plan for dealing with the serious issue of aviation fuel.

I strongly support this effort to study, share and innovate in an attempt to resolve this problem that many countries will be grappling with. We need to start immediately.

Thank you for the opportunity to testify.

Sincerely,

Jan Pappas – Aiea, Hawaii

LATE

HB-327-HD-2

Submitted on: 3/1/2021 4:16:08 PM

Testimony for FIN on 3/2/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members,

Please support HB327.

Thank you,

Andrea Quinn