



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
Friday, February 26, 2021
11:00 AM
State Capitol, Conference Room 308

in consideration of
HB 683, HD1
RELATING TO SUSTAINABLE AVIATION FUEL.

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

The Office of Planning offers the following **comments** on HB 683, HD 1. The purpose of HB 683, HD1 is to establish the sustainable aviation fuel program to provide matching grants to any small business in Hawai'i that is developing products related to sustainable aviation fuel or commercial aviation operations greenhouse gas reduction. The measure specifies moneys for the program are from legislative appropriations out of the environmental response, energy, and food security tax.

The Office of Planning and its newly established Statewide Sustainability Program 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.

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.

Through this publication, the Office of Planning recommended the adoption of alternative fuels in transportation to reduce Hawai'i's greenhouse gas emissions to meet Hawaii's laudable Zero Emissions Clean Economy Target by 2045.

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 100% on sustainable aviation fuels by 2030.](#)

HB 683, HD1 supports these greenhouse gas reduction efforts through the exploration and investment of a sustainable aviation fuel program in Hawai'i. The Office of Planning looks forward to supporting the Hawai'i Technology Development Corporation in these sustainable and climate adaptive endeavors.

Mahalo for the opportunity to submit testimony in support of HB 683, HD1.

TAX FOUNDATION OF HAWAII

126 Queen Street, Suite 304

Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: FUEL, Divert Barrel Tax Collections

BILL NUMBER: HB 683, HD1

INTRODUCED BY: House Committee on Economic Development

EXECUTIVE SUMMARY: establishes the sustainable aviation fuel program to provide matching grants to any small business in Hawaii that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations. Specifies that moneys for the program are from legislative appropriations out of the environmental response, energy, and food security tax.

SYNOPSIS: Adds a new section to chapter 206M, HRS, to establish the sustainable aviation fuel program. Subsection (b) provides that all moneys necessary to carry out the purposes of this section may be appropriated by the legislature from the environmental response, energy, and food security tax revenues under section 243-3.5.

EFFECTIVE DATE: 7/1/2050.

STAFF COMMENTS: The proposed measure would perpetuate the earmarking of barrel tax revenues. Sustainable aviation fuel may provide some benefit to the State. But does that justify grabbing a pot of barrel tax money without going through the normal budgeting process that also considers sweltering primary schools, underfunded state pensions, or disaster relief for rain-flooded or lava-burnt counties as well as the economic decimation wrought by COVID-19?

Rather than the continual earmarking of revenues, a direct appropriation of general funds would be preferable. Earmarking revenues from any tax type for a particular purpose decreases transparency and accountability.

Digested 2/23/2021

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

ROBERT YU
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON FINANCE
ON
HOUSE BILL NO. 683, H.D. 1

February 26, 2021
11:00 a.m.
Via Videoconference

RELATING TO SUSTAINABLE AVIATION FUEL

The Department of Budget and Finance (B&F) offers comments on House Bill (H.B.) No. 683, H.D. 1.

H.B. No. 683, H.D. 1, establishes the Sustainable Aviation Fuel Program (SAFP) within the Hawai'i Technology Development Corporation (HTDC); provides that HTDC may provide matching grants to any small business in Hawai'i that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations; and specifies that moneys for the program are from legislative appropriations out of the Environmental Response, Energy, and Food Security Tax (Barrel Tax).

B&F notes that Section 243-3.5, HRS, allocates proceeds of the Barrel Tax to specific special or revolving funds with the remaining balance being deposited to the credit of the general fund. The Barrel Tax is currently set at \$1.05 per barrel and is allocated as follows:

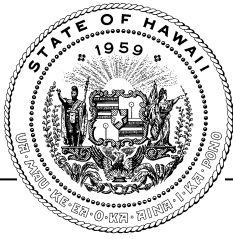
1. 5 cents of the tax on each barrel shall be deposited into the Environmental Response Revolving Fund established under Section 128D-2.

2. 5 cents of the tax on each barrel shall be deposited into the Energy Security Special Fund established under Section 201-12.8.
3. 10 cents of the tax on each barrel shall be deposited into the Energy Systems Development Special Fund established under Section 304A-2169.1.
4. 15 cents of the tax on each barrel shall be deposited into the Agricultural Development and Food Security Special Fund established under Section 141-10.

Although Section 2 of the bill states that moneys to fund the SAFF may be appropriated by the Legislature from Barrel Tax revenues, any appropriation of Barrel Tax revenues would need to be made from one of the existing funds noted above or the general fund.

B&F defers to HTDC on the potential implementation and administration of the SAFF.

Thank you for your consideration of our comments.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON FINANCE

Friday, February 26, 2021
11:00 AM
State Capitol, Conference Room 308

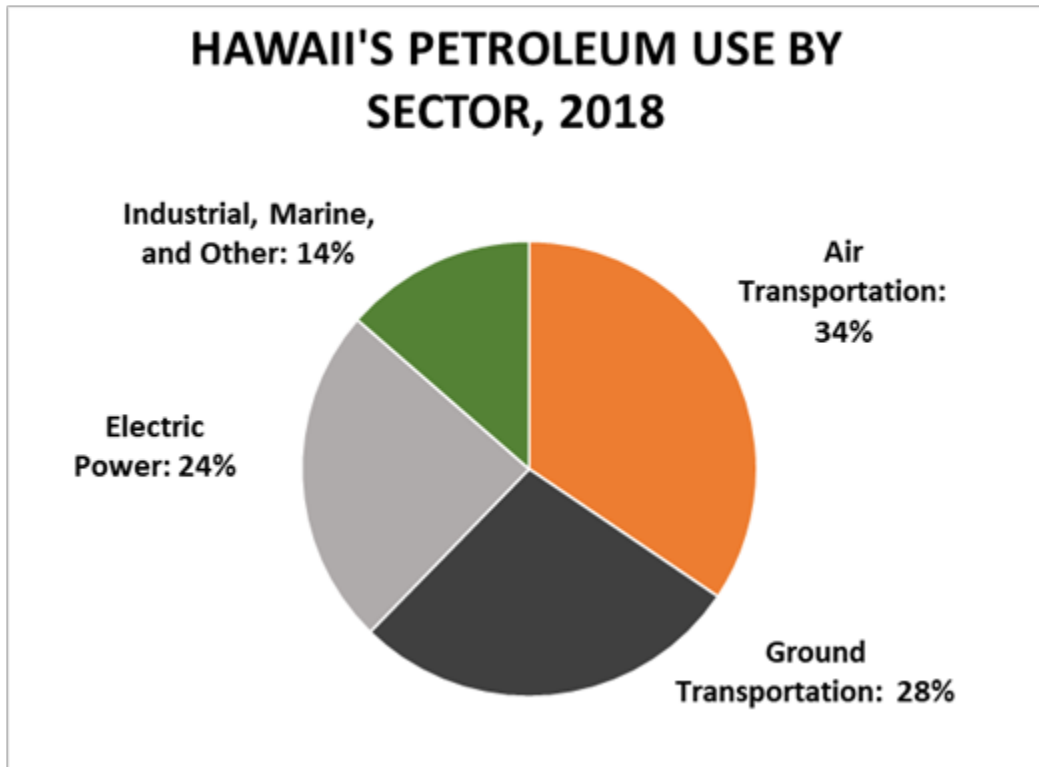
In support of
HB 683 HD1
RELATING TO SUSTAINABLE AVIATION FUEL.

Chair Luke, Vice Chair Cullen, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports HB 683, HD1, which authorizes the State's High Technology Development Corporation (HTDC) to provide matching grants for any small business in the State that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations, provided it does not supplant the priorities in the Administration's budget. HSEO defers to HTDC regarding administration of the program.

Hawaii is dependent upon aviation for its economy and way of life. The impacts of COVID-19 on tourism and subsequently on the production of jet fuel and other fossil fuels produced in Hawaii underscores the importance of aviation and aviation fuel to a thriving Hawaii.

Furthermore, greenhouse gas emissions from air travel need to be addressed since jet fuel is one of the largest sources of Hawaii's greenhouse gas emissions.

As shown in the figure, the air transportation sector uses more petroleum than either ground transportation or electric power generation.



Greenhouse gas reduction in aviation operations and the development of sustainable aviation fuels provide many opportunities for innovation. Hawaii is well positioned to develop solutions and to continue to be a leader in the promotion of sustainable aviation fuels, building upon the success of the Federal Green Initiative For Fuels Transition - Pacific (GIFTPAC), which was based in Hawai'i from 2009-2019, followed by the Hawaii Aviation and Climate Action Summit in 2019.

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.

HSEO looks forward to successful developments in this important area.

Thank you for the opportunity to testify.



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the
House Committee On Finance
Friday, February 26, 2021
11:00 a.m.
Videoconference

In consideration of
HB683, HD1
RELATING TO SUSTAINABLE AVIATION FUEL.

Chair Luke, Vice Chair Cullen, and Members of the Committee.

The Hawaii Technology Development Corporation (HTDC) offers **comments** on HB683 HD1 that establishes the sustainable aviation fuel program to provide matching grants to any small business in Hawaii that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations. Specifies that moneys for the program are from legislative appropriations out of the environmental response, energy and food security tax..

HTDC supports initiatives aimed at growing tech and innovation jobs. HTDC's Hawaii Center for Advanced Transportation Technologies has previously piloted various hydrogen fuel technology demonstrations. HTDC supports the intent of this initiative to reduce emissions through local innovation provided it does not supplant the priorities in the Administration's budget.

Thank you for the opportunity to offer these comments.

HB-683-HD-1

Submitted on: 2/24/2021 7:38:23 PM

Testimony for FIN on 2/26/2021 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 **HB683 HD1– RELATING TO SUSTAINABLE AVIATION FUEL**

Friday February 26, 2021, 11:00 a.m., CR 308 and by videoconference

Position: STRONG SUPPORT of HB683 HD1 RELATING TO SUSTAINABLE AVIATION FUEL!

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. We must do all we can to reduce our carbon footprint and become carbon negative as soon as possible. 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. If we are to solve the climate crisis, it will require **all of us** working together. Hawaii can and should be a leader in showing the world the way forward towards a safe and sustainable climate and future. The sooner we inspire others to take action and lead by example, the better off the future will be for our children.

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. Air travel has historically been one of the largest sources of Hawaii's greenhouse gas emissions. Air transportation emissions are a greater share of Hawaii's greenhouse gas emissions than either ground transportation or electric power generation.

HB683 HD1 would:

- (1) Establish the Sustainable Aviation Fuel Program to provide matching grants to any small business in Hawaii that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations; and
- (2) Specify that monies for the program may be from legislative appropriations out of the Environmental Response, Energy, and Food Security Tax.

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 in aviation operations and the development of sustainable aviation fuels.

HB683 HD1 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 this very important legislation.

Climate Protectors Coalition (by Ted Bohlen)



Airlines for America®

We Connect the World

LATE

Testimony

**Written Testimony of Airlines for America
in Support of House Bill 683 H.D. 1 Relating to Sustainable Aviation Fuel**

**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) 683, as amended by the Committee on Economic Development (HB 683 HD 1),¹ which would establish the Sustainable Aviation Fuel program.² This bill would complement the aviation industry's efforts to reduce its greenhouse gas (GHG) emissions while supporting Hawaiian businesses and energy security within the State. We urge the Hawaii State Legislature to adopt this legislation and enable the Hawaii Technology Development Corporation to proceed to implementation expeditiously.

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. Taking 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/HB683_HD1_.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 the program proposed in HB 683 HD 1 could help. By establishing a grant program for small businesses in Hawaii developing products related to SAF or commercial aviation GHG reduction, the State would help those local businesses participate in the development of a new, green industry while supporting the aviation sector's efforts to meet its rigorous climate goals. Further, the bill's requirement that projects supported through such grants be economically viable and beneficial to the State while reducing GHG emissions will ensure that any State funding is well spent.

The aviation industry and alternative fuels suppliers and supporting businesses are on the cusp of creating a viable SAF industry. But steady government partnership – such as that contemplated in HB 683 HD 1 – is needed in the near term to provide policy support to help get SAF over the cusp. With sustained support, SAF will literally get off the ground.

While we support the bill and urge the legislature to adopt it and forward it to the Governor for his signature, we would like to take this opportunity to provide a suggested revision to the legislative finding in section 1(6) of the bill. This legislative finding pertains to the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation, better known by its acronym, CORSIA. In addition, we offer technical suggestions with respect to the provisions in section 2 on the "Hawaii jet fuel baseline carbon intensity" and the proposed definition of the term "sustainable aviation fuel."

The finding in section 1(6) states that CORSIA "requires commercial airlines to reduce [GHG] emissions by fifty per cent below 2005 levels by 2050." This is not quite accurate. As indicated above, the 50% GHG reduction by 2050 is an industry-wide target; it is not a requirement of

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/>.

CORSIA, which is slated to run through 2035 and is designed to help aviation achieve its carbon-neutral goal beginning in 2020. Consistent with this, we respectfully request that section 1(6) be revised to read as follows:

(6) Commercial airlines have committed to reducing their greenhouse gas emissions by fifty per cent below 2005 levels in 2050;

Turning to the legislative text in section 2 of the bill, having linked the legislative findings in part to CORSIA, we appreciate the proposal to also link the “Hawaii jet fuel baseline carbon intensity” to the baseline established by ICAO. While that is a well-supported technical baseline, we note that a higher baseline could be considered for purposes of the Sustainable Aviation Fuel program, both as a technical matter and should the State wish to establish a baseline that would not put SAF at a policy disadvantage to other alternative/renewable fuels (e.g., renewable diesel). Thus, to the extent the State of Hawaii locks that in – the carbon intensity of conventional jet fuel -- for purposes of the SAF program, we would note that it would be appropriate for the State to consider setting a higher conventional jet fuel carbon intensity baseline to further incentivize SAF under other State programs.

Although we generally support the definition of “sustainable aviation fuel” set forth in section 2, we recommend that the term “renewable” be stricken from the second line in the definition. Additionally, we seek confirmation that the list of materials from which such fuel can be derived, as set out in the cross-referenced section 269-91, is broad enough to include waste gases and captured gaseous carbon oxides, which are promising feedstocks for certain SAF production processes. Section 269-91 notes that both “municipal solid waste” and other “solid waste” are eligible materials. Even though not “solid” per se, the U.S. Environmental Protection Agency long ago confirmed that so-called “solid wastes” can be gases. Accordingly, to the extent the State of Hawaii plans to use the list of materials in section 269-91 to define what may meet the sustainable aviation fuel definition, we would urge the State to ensure that waste gases are included.

With these minor revisions and additional considerations, we express our strong support for the creation of the Sustainable Aviation Fuel program and urge you to approve HB 683 HD 1. Thank you for your consideration.

HB-683-HD-1

Submitted on: 2/26/2021 10:23:59 AM

Testimony for FIN on 2/26/2021 11:00:00 AM



Submitted By	Organization	Testifier Position	Present at Hearing
Carl Campagna	Hawaii Bioeconomy Trade Organization	Support	No

Comments:

Aloha and good morning Committee Chairs and members.

Thank you for your time and consideration.

The Hawaii Bioeconomy Trade Organization is in Strong Support of this measure.

The Hawaii Bioeconomy Trade Organization is devoted to the advancement of the related industries, including Agriculture, Green Fuels and infrastructure.

Our founding members have included: Pacific Biodeisel, Hawaii Gas, PAR Hawaii, Kalaeloa Partners, IES and Simonpietri Enterprizes.

We believe that this measure is not only positive for the futrure of our local environment, but also for our local economy. With these funds comes the increasae if aviation fuels projects and jobs in the State of Hawaii.

Many thanks

Carl Campagna

Executive Director

HB-683-HD-1

Submitted on: 2/23/2021 10:42:33 PM

Testimony for FIN on 2/26/2021 11:00:00 AM

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

Comments:

Dear Honorable Committee Members,

Please support HB683.

Thank you,

Andrea Quinn

HB-683-HD-1

Submitted on: 2/24/2021 9:45:23 AM

Testimony for FIN on 2/26/2021 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Caroline Kunitake	Individual	Support	No

Comments:

Dear Chair Luke, Vice Chair Cullen and Committee on Finance,

Please support HB683 HD1.

Hawaii is highly dependent on aviation and the airlines industry. It is in the state's interest to create a grant program that will fund a sustainable aviation fuel program that reduces pollution and green house gases. This grant program promotes innovation and more sustainable industrial practices within aviation.

Thank you for taking the time to review this issue. I appreciate the opportunity to provide testimony in support of this bill.

Mahalo,

Caroline Kunitake

HB-683-HD-1

Submitted on: 2/24/2021 5:20:29 PM

Testimony for FIN on 2/26/2021 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 Finance Committee members,

Our planet and humanity's existence are now in grave danger due to ongoing climate change. Scientists tell us we must take immediate steps to stop global warming. Hawaii is a huge consumer of fossil fuels, to the tune of \$5 billion of imported fuel yearly, and nearly two thirds of that is from the transportation sector. Transitioning from carbon-based fuels is critical if we are to reverse global warming.

I support HB683 HD1 which "establishes the sustainable aviation fuel program to provide matching grants to any small business in Hawaii that is developing products related to sustainable aviation fuel or greenhouse gas reduction from commercial aviation operations."

This type of research is absolutely critical to the world's success in de-carbonizing the planet. Hawaii must do its part, seeing as how our bread is buttered.

Thank you for the opportunity to testify.

Jan Pappas, Aiea, Hawaii