

DAVID Y. IGE  
GOVERNOR

JOSH GREEN M.D.  
LT. GOVERNOR



ISAAC W. CHOY  
DIRECTOR OF TAXATION

STATE OF HAWAII  
**DEPARTMENT OF TAXATION**  
P.O. BOX 259  
HONOLULU, HAWAII 96809  
PHONE NO: (808) 587-1540  
FAX NO: (808) 587-1560

To: The Honorable Glenn Wakai, Chair;  
The Honorable Bennette E. Misalucha, Vice Chair;  
and Members of the Senate Committee on Energy, Economic Development, and  
Tourism

From: Isaac W. Choy, Director  
Department of Taxation

Date: Monday, January 31, 2022  
Time: 3:00 P.M.  
Place: Via Video Conference, State Capitol

**Re: S.B. 2478, Relating to Taxation**

The Department of Taxation (Department) appreciates the intent of S.B. 2478 and offers the following comments for the committee's consideration.

S.B. 2478 reinstates the Renewable Fuels Production Tax Credit (RFPTC), which was previously codified at section 235-110.31, Hawaii Revised Statutes (HRS), before its duly scheduled repeal on December 31, 2021. The credit is equal to 20 cents per seventy-six thousand British thermal units of renewable fuels sold for distribution in Hawaii; provided that the taxpayer's production of renewable fuels is not less than two billion five hundred million British thermal units of renewable fuels per calendar year. The Department of Business, Economic Development, and Tourism (DBEDT) is responsible for certifying the credit and for administering the \$3,000,000 annual aggregate cap for all eligible taxpayers. Taxpayers must also provide written notice to the Department and to DBEDT of their intention to begin production of renewable fuels prior to production of any renewable fuels in a calendar year. The measure applies to taxable years beginning after December 31, 2021.

The Department also notes that Section 2 describes the credit as having a "five-year credit period," much like the previous version of the credit did. This limitation applies per taxpayer, thus, a taxpayer could form a new entity and qualify for a new five-year credit period. One way to address this would be to include a provision as follows:

Each taxpayer, together with all of its related entities  
(as determined under Internal Revenue Code section 267(b))  
and all business entities under common control (as  
determined under Internal Revenue Code sections 414(b),

414(c), and 1563(a)), shall not be eligible for more than a single five-year credit period.

Thank you for the opportunity to provide comments.

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
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 SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT,  
AND TOURISM  
ON  
SENATE BILL NO. 2478

**January 31, 2022**  
**3:00 p.m.**  
**Room 224 & Videoconference**

RELATING TO TAXATION

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2478 adds a new section to Chapter 235, HRS, that reinstates the Renewable Fuels Production Tax Credit (RFPTC) which was originally repealed on December 31, 2021. For each taxpayer that produces renewable fuels, the RFPTC would be equal to 20 cents per 76,000 British thermal units (BTUs) per calendar year up to a maximum of \$3,000,000 annually over a five-year period, provided that the taxpayer's production of renewable fuels is not less than 2,500,000,000 BTUs per calendar year.

B&F notes that the federal American Rescue Plan (ARP) Act restricts states from using ARP Coronavirus State Fiscal Recovery Funds (CSFRF) to directly or indirectly offset a reduction in net tax revenue resulting from a change in law, regulation, or administrative interpretation beginning on March 3, 2021, through the last day of the fiscal year in which the CSFRF have been spent. If a state cuts taxes during this

period, it must demonstrate how it paid for the tax cuts from sources other than the CSFRF, such as:

- By enacting policies to raise other sources of revenue;
- By cutting spending; or
- Through higher revenue due to economic growth.

If the CSFRF provided have been used to offset tax cuts, the amount used for this purpose must be repaid to the U.S. Treasury.

The U.S. Department of Treasury has issued rules governing how this restriction is to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with this ARP restriction.

Thank you for your consideration of our comments.



Written Statement of  
**David H. Molinaro**  
Acting Director  
Hawaii Center for Advanced Transportation Technologies  
before the  
**Senate Committee on Energy, Economic Development, and Tourism**  
Monday, January 31, 2022  
3:00pm  
State Capitol, Conference Room 224  
In consideration of  
**SB2478**  
**RELATING TO TAXATION**

Chair Wakai, Vice Chair Misalucha and Members of the Committee.

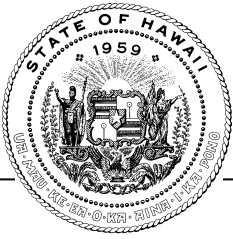
HCATT strongly **supports** SB2478, reinstating the renewable fuels production tax credit which was repealed 31 Dec 2021.

Production tax credits will provide needed stimulus to develop and integrate renewable energy systems, diversify energy technologies, enhance energy security, and furthers the intent of Hawaii Revised Statute §196-10, Hawaii renewable hydrogen program legislative guidance to design, implement, and administer hydrogen demonstration projects, including infrastructure for the production, storage and refueling of hydrogen vehicles.

Further, this production tax credit serves as an additional mechanism in adopting renewable energy technologies in support of Hawaii's 2045 RPS mandate and foster a renewable energy industry in this State.

HCATT defers to the Department on the fiscal and administrative impacts of this bill

Thank you for the opportunity to present these comments



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-3807  
Web: energy.hawaii.gov

Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT AND TOURISM

Monday, January 31, 2022  
3:00 PM  
State Capitol, Conference Room 224 & Videoconference

in SUPPORT of  
**SB 2478**  
**RELATING TO TAXATION.**

Chair Wakai, Vice Chair Misalucha, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports with comments SB 2478, which reinstates the renewable fuels production tax credit.

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.

Renewable Fuels provide local jobs and economic benefits in both the energy and agricultural sectors and can also provide value added products including food and cosmetics, among others that support economic diversification for Hawaii. HSEO managed the certification of the previous renewable fuels production tax credit ([Act 202, session Laws of Hawai'i 2016](#), amended by [Act 142, Session Laws of Hawaii 2017](#) and further amended by [Act 143, Session Laws of Hawai'i 2018](#)), which recently expired at the end of December 2021.

SB 2478 establishes the same provisions as the previous legislation.

HSEO defers to the appropriate agencies on matters relating to tax credit administration and budget concerns.

Thank you for the opportunity to testify.



P.O. Box 37158, Honolulu, Hawai'i 96837-0158  
Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM  
Senator Glenn Wakai, Chair  
Senator Bennette E. Misalucha, Vice Chair

DATE: Monday, January 31, 2022  
TIME: 3:00 pm  
PLACE: Conference Room 224 & Videoconference

**SB 2478 RELATING TO TAXATION**

**OPPOSE**

Aloha Chair Wakai, Vice Chair Misalucha, and Members of the Committee

Life of the Land is Hawai'i's own energy, environmental and community action group advocating for the people and `aina for 52 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.



Trees are the lungs of the planet. They are nature's way of fighting climate change.

Globally, we plant 5 billion trees per year, chop down 15 billion trees per year, for a net loss of 10 billion trees per year (1.1 million trees per hour).<sup>1</sup>

This bill explicitly includes logs, wood chips, and wood pellets as renewable biofuel. This bill rewards those who believe private economic success trumps planetary survival.

Mahalo, Henry Curtis, Executive Director

<sup>1</sup> <https://www.reuters.com/article/us-science-trees/earth-has-3-trillion-trees-but-theyre-falling-at-alarming-rate-idUSKCN0R21Z620150902>

**SB-2478**

Submitted on: 1/28/2022 1:25:31 PM

Testimony for EET on 1/31/2022 3:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ted Bohlen	Testifying for Climate Protectors Hawai'i	Oppose	Yes

Comments:

To: The Honorable Glenn Wakai, Chair, the Honorable Bennette Misalucha, Vice Chair, and Energy, Economic Development and Tourism Committee members

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing SB2478– **RELATING TO TAXATION.**

Monday January 31, 2022, 3:00 p.m., by videoconference

Aloha Chair Wakai, Vice Chair Misalucha, and Energy, Economic Development and Tourism Committee members:

The Climate Protectors Hawai'i is a group focused on responding to the climate emergency. **The Climate Protectors Hawai'i appreciates the bill's intent to incentivize renewable energy sources, but OPPOSES SB2478 unless it is amended to exclude tax credits for renewables that exacerbate the climate emergency!**

The State and the world face a climate emergency. It is critical that we not incentivize renewable sources that exacerbate this climate emergency. Some renewable energy sources, specifically burning wood, are very harmful to the climate. If Hawai'i is to reach its goal "to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045," we must stop, not incentivize, the burning of wood.

This bill would allow a tax credit for renewable energy sources, including wood burning (page 9, lines 1-3). Mature trees benefit the climate by sequestering carbon. Harvesting them and burning them to generate electricity is a "double whammy" on the climate because it both stops trees from sequestering and emits greenhouse gases in combustion.

Please amend this bill to eliminate tax credits for wood-burning generators.

Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)







**Testimony to  
The Committee on Energy, Economic Development, & Tourism**

**Monday, January 31, 2022  
3:00 PM  
VIA Video Conference  
Conference Room 224, Hawaii State Capitol**

**SB 2478**

Chair Wakai, Vice Chair Misalucha, and members of the committee,

Hawaii Gas **supports SB 2478**, which reinstates the renewable fuels production tax credit.

Hawaii Gas is a national leader in the production and distribution of renewable gas in a gas utility system and has committed to support the state's march towards carbon neutrality by 2045. Despite representing less than 1% of the greenhouse gases emitted into Hawaii's atmosphere, we agree that it's everyone's responsibility to do everything we can to make sure Hawaii meets that milestone.

Renewable feedstocks are key components to creating renewable natural gas, hydrogen, and other renewable biofuels, all of which are important fuel replacements for fossil fuels.

Tax incentives have proven to be an effective tool in encouraging the development of innovative new technologies, just as seen in the burgeoning solar and wind industry decades ago. These incentives also provide a method for ratepayers to be provided lowered costs for new technologies that have not had time to mature and scale. Hawaii recognized the impact of this concept when it created a production tax credit six years ago, which unfortunately sunset on December 31, 2021. It was during this time that Hawaii Gas developed a unique project in partnership with the City and County of Honolulu to take gas emissions from the wastewater treatment process, which were previously being released into the atmosphere, and capture it to create renewable natural gas. This project was equivalent to taking up to 400 cars off the road every year. This project was one of the first in the country to inject that gas into the pipeline.

Reinstating this credit will be pivotal to generate more of these innovative clean energy alternatives.

We ask the committee to consider the following amendments to the bill

- Add "wastewater" in the definition of a renewable source;



- Include a "refundable tax credit" amendment similar to the section in the renewable energy investment tax credit (HRS § 235-12.5) because new developers may not have a state tax appetite for many years;
- Increase the minimum production to 15 Billion BTU from 2.5 Billion BTU to help minimize the impact to the state and taxpayers;

We appreciate the benefits this legislation will bring to allow Hawaii Gas to provide reliable and affordable energy to the people and businesses of Hawaii while sustaining our reliability and resiliency, so critical to Hawaii's infrastructure especially in times of natural disasters.

We urge the committee to include these amendments and pass SB 2478.

Thank you for the opportunity to testify.



**Testimony to the Committee on Energy, Economic Development, and Tourism**

**Monday, January 31, 2022**

**8:30 AM**

**VIA Video Conference**

**Conference Room 325, Hawaii State Capitol**

**SB 2478**

Chair Lowen, Vice Chair Marten, and members of the committee,

Hawaii Clean Power Alliance (HCPA) **supports** SB 2478, regarding a renewable fuels production tax credit.

Hawaii Clean Power Alliance is a nonprofit alliance organized to advance and sustain the development of clean energy in Hawaii. Our goal is to support the state's policy goal of 100 percent renewable energy by 2045. We advocate for utility-scale renewable energy, which is critical to meeting the state's clean energy and carbon reduction goals.

Tax credits have proven essential in building momentum and scale in the development and distribution of diverse renewable fuel sources. Grid stability is essential to resiliency, and it's clear that Hawaii's grid depends on a variety of sources - including solar, wind, and other fuels - to deliver that stability to ratepayers. These production tax credits provide incentives for the production of a diverse renewable fuel supply, which in turn brings more renewable energy and fuel options to our grid.

These types of renewable fuels, such as hydrogen, can be used to transform the electric grid into zero emissions grid and power zero emissions vehicles. This type of fuel is innovative but also costly to produce. The recently passed Federal Infrastructure Legislation recognizes the importance of grid resiliency as well as hydrogen. Hawaii is known for its clean energy initiatives and this bill can attract many developers to the islands to showcase industry leadership. Renewable fuels can spur innovation, economic development and many well paying-jobs. We therefore request consideration of the committee to increase the cap for individual taxpayers, increase the state cap for the credit, and consider a discounted refund clause in order to incent more development in Hawaii.

We ask the committee to pass this bill.



Thank you for the opportunity to testify.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Redell", written over a light gray rectangular background.

Frederick Redell, PE

*Executive Director*

(949) 701-8249

[www.hawaiicleanpoweralliance.org](http://www.hawaiicleanpoweralliance.org)



**SanHi**

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: January 30, 2022

TO: Senator Glenn Wakai  
Chair, Committee on Energy, Economic Development, and Tourism

FROM: Tiffany Yajima

RE: **S.B. 2478 – Relating to Taxation**  
**Hearing Date: Monday, January 31, 2022 at 3:00 p.m.**  
**Conference Room: 224**

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Dear Chair Wakai, Vice Chair Misalucha, and Members of Committee on Energy, Economic Development, and Tourism:

On behalf of the Alliance for Automotive Innovation (“Auto Innovators”) we submit this testimony in **support** of S.B. 2478, which reinstates the renewable fuels tax credit that was repealed on December 31, 2021.

The Alliance for Automotive Innovation is the singular, authoritative and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the Alliance for Automotive Innovation represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. Members include motor vehicle manufacturers, original equipment suppliers, technology, and other automotive-related companies and trade associations.

Auto Innovators are supportive of the state’s pursuit of alternative fuels for transportation. The automotive industry has made and continues to make a significant investment in hydrogen as a feasible fuel for motor vehicles, and recognizes the importance of government support for projects that support renewable fuel production.

Thank you for the opportunity to submit this testimony.

# TAX FOUNDATION OF HAWAII

126 Queen Street, Suite 305

Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: INCOME, Renewable Fuels Production Tax Credit

BILL NUMBER: SB 2478

INTRODUCED BY: DELA CRUZ

EXECUTIVE SUMMARY: Reinstates the renewable fuels production tax credit. Our view is that a direct appropriation to buy or subsidize energy production would be far superior because (1) we know how much we are spending and (2) we know what we are buying.

SYNOPSIS: Adds a new section to HRS chapter 235 to establish a nonrefundable renewable fuels production tax credit. The credit shall be allowed to taxpayers producing qualifying renewable fuels provided the credit shall not be claimed for more than five years beginning from the first taxable year in which a taxpayer begins renewable fuels production at a level of at least 2.5 billion British thermal units (BTU) of renewable fuels per calendar year.

The annual dollar amount of the credit shall be 20 cents per 76,000 BTUs of renewable fuels using the lower heating value sold for distribution in Hawaii; provided that the taxpayer's production of renewable fuels is not less than 2.5 billion BTUs of renewable fuels per year. Limits the amount of tax credit that may be claimed by a taxpayer to \$3 million per taxable year.

Defines "renewable fuels" as fuels produced from renewable feedstocks provided that the fuels shall be sold as a fuel in Hawaii, and meet the relevant ASTM International specifications for the particular fuel or other industry specifications, including but not limited to: (1) methanol, ethanol, or other alcohols; (2) hydrogen; (3) biodiesel or renewable diesel; (4) biogas; (5) other biofuels; (6) renewable jet fuel or renewable gasoline; or (7) logs, wood chips, wood pellets, or wood bark.

Defines "renewable feedstocks" as (1) biomass crops and other renewable organic material, including but not limited to logs, wood chips, wood pellets, and wood bark; (2) agricultural residues; (3) oil crops, including but not limited to algae, canola, jatropha, palm, soybean, and sunflower; (4) sugar and starch crops, including but not limited to sugar cane and cassava; (5) other agricultural crops; (6) grease and waste cooking oil; (7) food wastes; (8) municipal solid wastes and industrial wastes; (9) water; and (10) animal residues and wastes, to the extent that they can be used to generate energy.

Requires the department of business, economic development and tourism (DBEDT) to verify and certify each claim for the credit including the total amount of credit for each taxable year and the cumulative amount of tax credit during the credit period. The department shall issue a certificate to qualifying taxpayers who shall file the certificate with the department of taxation (DOTAX).

If in any year the annual amount of certified credits reaches \$3 million in the aggregate, DBEDT shall discontinue certifying credits and notify the department of taxation.

If the amount of credits exceeds the taxpayer's income tax liability, the excess of credit over liability may be used as a credit against the taxpayer's income tax liability in subsequent years until exhausted. All claims for a credit under this section shall be properly filed on or before the end of the twelfth month following the close of the taxable year for which the credit may be claimed. Failure to comply with the foregoing provision shall constitute a waiver of the right to claim the credit.

Prior to production of any qualifying renewable fuels for the year, the taxpayer is to provide written notice of the taxpayer's intention to begin production of qualifying renewable fuels to DOTAX and DBEDT with information on the taxpayer, facility location, facility production capacity, anticipated production start date, and the taxpayer's contact information. The taxpayer shall also provide written notice to the director of taxation and the director of DBEDT within 30 days following the start of production and include the production start date and expected renewable fuel production for the next year.

In each calendar year during the credit period, the taxpayer shall provide information to the director of DBEDT on the number of BTU of renewable fuels produced and sold during the previous calendar year, the type of fuels, feedstocks used for renewable fuels production, the number of employees of the facility and each employee's state of residency, and the projected number of BTU of renewable fuels production for the succeeding year.

In the case of a partnership, S corporation, estate, or trust, distribution and share of the tax credit for renewable fuels production shall be determined pursuant to section 704(b) (with respect to partner's distributive share) of the Internal Revenue Code.

Directs the director of DBEDT, following each year in which a credit under this section has been claimed, to submit a written report to the governor and legislature regarding the production and sale of renewable fuels. The report shall include the number, location, and production of renewable fuels production facilities in the State and outside the State that have claimed a credit under this section; the total number of British thermal units of renewable fuels, broken down by type of fuel, produced and sold during the previous year; and the projected number of BTU of renewable fuels production for the succeeding year.

Requires DOTAX to prepare the necessary forms to claim the credit, and DOTAX may require the taxpayer to furnish information to validate a claim for the credit, and may adopt rules necessary to effectuate the purpose of the law pursuant to chapter 91.

**EFFECTIVE DATE:** Applies to taxable years beginning after December 31, 2021.

**STAFF COMMENTS:** Act 202, SLH 2016, enacted a renewable energy credit with a five-year life. The credit sunset on December 31, 2021. This bill revives the credit with some modifications. First, the bill requires an annual production of 2.5 billion BTU of renewable energy per year, while Act 202 required an annual production of 15 billion BTU. Next, the bill explicitly allows logs, wood chips, wood pellets, or wood bark to qualify as renewable fuels.

While the idea of providing a tax credit to encourage such activities may have been acceptable a few years ago when the economy was on a roll and advocates could point to credits like those to



encourage construction and renovation activities, what lawmakers and administrators have learned in these past few years is that unbridled tax incentives, where there is no accountability or limits on how much in credits can be claimed, are irresponsible as the cost of these credits goes far beyond what was ever intended. Instead, lawmakers should encourage alternative energy production through the appropriation of a specific number of taxpayer dollars. The State could directly purchase energy or it could give a subsidy to developers. Then, lawmakers would have a better idea of what is being funded and hold the developers of these alternate forms of energy to a deliberate timetable or else lose the funds altogether. A direct appropriation would be preferable to the tax credit as it would: (1) provide some accountability for the taxpayers' funds being utilized to support this effort; and (2) not be a blank check.

Digested: 1/28/2022



To: The Senate Committee on Energy, Economic Development and Tourism  
From: Sherry Pollack, Co-Founder, 350Hawaii.org  
Date: Monday, January 31, 2022, 3pm

### **In strong opposition to SB2478**

Aloha Chair Wakai, Vice Chair Misalucha, and Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **opposes SB2478** that would reinstate the renewable fuels production tax credit, while defining “Renewable feedstocks” to explicitly include biomass crops that include logs, wood chips, and wood pellets.

350Hawaii supports and encourages the efforts of the legislature to incentivize our transition to truly clean, non-climate harming renewable energy. However, renewable fuels as currently defined would result in unintended negative consequences to our environment and climate.

Burning trees for energy is disastrous for the climate. It destroys forests, and puts out more carbon dioxide into the air than coal. The period for regrowth and making up that carbon debt can take many decades or more, time which we no longer have the luxury of wasting. We are in a climate crisis and must make scientifically sound choices that will reduce greenhouse gas emissions as soon as possible if we are to stay below 1.5 degrees Celsius rise. Now is not the time to promote technologies that increase greenhouse gases simply because they are not derived from fossil fuels.

Reinstating the renewable fuels production tax credit and thereby incentivizing burning wood products as an energy source will worsen the stability of the climate. SB2478 as written would undermine our progress towards 100% truly clean, renewable energy and take us in the wrong direction.

Unless logs, wood chips, and wood pellets are excluded from the definition of allowable biofuel, we urge you to **oppose** this ill-advised bill.

Mahalo for the opportunity to testify.

Sherry Pollack  
Co-Founder, 350Hawaii.org

**SB-2478**

Submitted on: 1/30/2022 12:37:36 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Gene Harrington	Testifying for Biotechnology Innovation Organization (BIO)	Support	No

Comments:

BIO is the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 other nations. Our key areas of focus are health, energy, industrial and environmental biotechnology, and food and agriculture biotechnology. We are in strong support of SB 2478 to reinstate the renewable fuels production tax credit. Mahalo.



40 Hobron Avenue  
Kahului, Hawaii 96732  
(808) 877-3144  
[www.biodiesel.com](http://www.biodiesel.com)

Hearing at 3:00pm January 31, 2022

COMMENTS IN SUPPORT OF SB2478

Committee on Energy, Economic Development, and Tourism

Chair Wakai and Committee:

Pacific Biodiesel is in support of SB2478. This production tax credit gives a small but very important incentive to invest further in renewable fuel production in Hawaii.

Speaking for the liquid biofuels industry, it is well known that the cost to move from 70% to 100% renewables will be extremely expensive using any other technology. Biodiesel can cost effectively optimize battery sizing by providing firm renewable power, quickly dispatched at any time. Fast-start clean diesel engines – when fueled with clean, locally made biodiesel - are enabling higher penetration of intermittent PV and wind assets while maintaining grid stability. Biodiesel is a 100% renewable advanced biofuel and is a crucially important “firm power” source to back up other renewables on the grid. The further we move towards our goal of 100% renewable, the more critical these liquid biofuel sources will be. Yet building up the supply is a long process. We must accelerate implementation now to meet the needs later.

The first five years of this production tax credit was successful. The cost to the State was minimal relative to the benefit. Continuing this credit sends the correct signal for new investments in this area.

Mahalo,

A handwritten signature in black ink that reads "Robert O. King". The signature is written in a cursive, flowing style.

Robert King, President  
Pacific Biodiesel Technologies, LLC

**SB-2478**

Submitted on: 1/28/2022 9:09:28 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Keith Neal	Individual	Support	No

Comments:

To ensure all counties in Hawaii have greater energy security by becoming more self-sufficient and resilient I support waste biomass conversion to liquid fuel(s). Furthermore these waste biomass conversion facilities must be located away from tsunami/storm inundation zones.

**SB-2478**

Submitted on: 1/28/2022 9:17:00 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Gary Miller	Individual	Oppose	No

Comments:

I oppose this bill due to its inclusion of burning wood as a source of clean, renewable, energy.

Please amend to exclude burning of wood and I would support this bill.

Gary Miller

Resident of the Hamakua Coast

**SB-2478**

Submitted on: 1/28/2022 10:11:31 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
R A Culbertson	Individual	Oppose	No

Comments:

Aloha Senators!

This bill in its current form is off the mark and unacceptable! Its emphasis on firm renewable power must be amended to exclude wood-burning, which is worse for the climate than burning fossil fuels!

Thank You,

R A Culbertson

Honokaa

**SB-2478**

Submitted on: 1/28/2022 10:40:55 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Roberta Baker	Individual	Oppose	Yes

Comments:

re: SB2478

needs to be amended to exclude dirty hydrogen produced by using fossils fuels



**SB-2478**

Submitted on: 1/28/2022 11:14:36 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Ron Reilly	Individual	Oppose	Yes

Comments:

Dear Senator Wakai and Members of the Energy, Economic Development, and Tourism,

I am strongly opposed to SB 2478.

The bill must be ammended to exclude wood-burning.

The Hu Honua wood-burning project will “crowd out” other renewable projects already proposed for Hawaii Island that offer decades of far less expensive energy.

The time for burning living trees and fossil fuels is behind us. I note that the Mauna Loa Atmospheric Observatory recorded an atmospheric CO2 concentration on Jan 25, 2022 of 420.23ppm. The highest ever recorded at MLO since measurements began there in 1958. See <https://keelingcurve.ucsd.edu/>

As numerous studies have shown, this burning of wood will increase warming for decades to centuries. That is true even when the wood replaces coal, oil or natural gas.

Overall, for each kilowatt hour of heat or electricity produced, using wood initially is likely to add two to three times as much carbon to the air as using fossil fuels.

Please do all you can to prevent further Hawaii emissions of green house gases by voting to amend this bad wood-burning bill.

Thank you, Ron Reilly  
Volcano Village, Hawaii

**SB-2478**

Submitted on: 1/28/2022 11:47:24 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
janice palma-glennie	Individual	Oppose	No

Comments:

**Aloha,**

**the Wakai-Dela Cruz puts undo emphasis on firm renewable power. This must be amended to exclude wood-burning, which is as bad for the climate as burning fossil fuels.**

mahalo and sincerely,

janice palma-glennie

**SB-2478**

Submitted on: 1/28/2022 1:01:30 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Andrea Nandoskar	Individual	Oppose	No

Comments:

Oppose.

**SB-2478**

Submitted on: 1/28/2022 1:32:10 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Elizabeth Laliberte	Individual	Comments	No

Comments:

Aloha Senators,

I oppose this bill in its current form because burning trees for electricity is a terrible idea that belongs in the history books. It is a net carbon emitter, especially in the case of Honua Ola because it's a known fact that the trees burned will NOT be replanted.

According to a study done at the University of the West Indies, tropical tree plantations of pine and eucalyptus can sequester an average of 10 tons of carbon per hectare per year.

We are all better off protecting live trees so they can clean up our atmosphere, than we are cutting and burning them.

If this bill were amended to remove wood-burning, or "biomass" facilities it would be acceptable.

Thank you for your consideration.

Liz Laiberte,

Hilo, HI

**SB-2478**

Submitted on: 1/28/2022 1:38:04 PM

Testimony for EET on 1/31/2022 3:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Paul Bernstein	Individual	Oppose	No

Comments:

Aloha Chair Wakai and Vice Chair Misalucha:

I'm writing in opposition to SB2478 as it stands. At a minimum the burning of trees needs to be excluded from the list of renewable resources. As a Letter signed by 500 Expert Scientists in Feb. 2021 to leaders of the US, EU, Japan and Korea regarding Bioenergy states:

“Forest preservation and restoration should be key tools for achieving this goal and simultaneously helping to address our global biodiversity crisis. We urge you not to undermine both climate goals and the world’s biodiversity by shifting from burning fossil fuels to burning trees to generate energy.”

“Trees are more valuable alive than dead both for climate and biodiversity. To meet future net-zero emission goals, your governments should work to preserve and restore forests, not burn them.”

Source: (<https://www.documentcloud.org/documents/20482842-scientist-leter-to-biden-van-der-leyden-michel-suga-moon-february-11-2021>):

In light of what the experts and the science say, I urge you to either not pass this bill or at a minimum amend it as follows to exclude trees (which means logs, wood chips, wood pellets, and bark), non-green hydrogen, and palm oil as renewable:

1. Biomass crops and other renewable organic material that has a growing cycle of one year or less;
2. Agricultural residues;
3. Oil crops, limited to supplies with a growing cycle of one year of less.
4. Sugar and starch crops, limited to supplies with a growing cycle of one year of less ~~including but not limited to sugar cane and cassava;~~
5. Other agricultural crops;
6. Grease and waste cooking oil;
7. Food wastes;
8. Municipal solid wastes and industrial wastes only to the extent that they would go into the landfill in Hawaii
9. Water; and
10. Animal residues and wastes,

that can be used to generate energy.

Renewable fuels“ means fuels produced from renewable feedstocks, provided that the fuel:

(1) Is sold as a fuel in Hawaii; and  
(2) Meets the relevant ASTM International specifications or other industry specifications for the particular fuel, including but not limited to:

- (A) Methanol, ethanol, or other alcohols;
- (B) ~~Hydrogen~~; Green hydrogen sourced from renewable fuels
- (C) Biodiesel or renewable diesel;
- (D) Biogas;
- (E) Other biofuels;
- (F) Renewable jet fuel or renewable gasoline; or
- (G) ~~Logs, wood chips, wood pellets, or wood bark.”~~

And excludes the following fuels:

- (A) Hydrogen produced from fossil fuels
- (B) Logs, wood chips, wood pellets, or wood bark.”

Kind regards,

Paul Bernstein

**SB-2478**

Submitted on: 1/28/2022 1:52:57 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Noel Morin	Individual	Oppose	No

Comments:

Aloha,

Thank you for the opportunity to testify. I'm **opposed** to this measure as it paves a path for changes that could be detrimental to our people. The following is especially concerning:

"For any power purchase agreement previously approved by the public utilities commission, any subsequent amendments thereto shall not require approval of the public utilities commission; provided that the amended power purchase agreement reduces the unit price of the energy or energy potential from the previously approved power purchase agreement."

What if the amendment introduces a substantial change to the due process that is currently a meaningful part of the protocol. We need the PUC to be empowered to make the right decisions.

This will have undesirable and egregious consequences for Hawaii.

Sincerely,

Noel Morin

**SB-2478**

Submitted on: 1/28/2022 2:13:50 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Emily Garland	Individual	Oppose	No

Comments:

**I strongly oppose SB2478. Wood burning needs to be removed from the term renewable power. Burning wood emits far more carbon than burning fossil fuels. Our own local wannabee wood burning plant, Honua Ola, would emit 2.2 times more greenhouse gas per KWh electricity produced than the Big Island's largest power plant, which burns kerosene. Please Mālama Honua and do not pass SB2478.**



**SB-2478**

Submitted on: 1/28/2022 2:41:50 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Matthew Geyer	Individual	Comments	Yes

Comments:

Please amend this bill to exclude wood burning as a renewable fuel source. Burning trees is worse than burning coal for the environment and for rate payers.

## SB 2478 TESTIMONY

To: Committee on Energy, Economic Development, and Tourism  
Hearing on Jan. 31, 2022 at 3:00 pm

From: John Kawamoto

Position: Oppose

The Legislature set worthy targets of 100% renewable energy by 2045 and zero emissions, also by 2045. However, renewable energy and zero emissions energy are not equivalent. Certain types of renewable energy, such as the burning of trees, generate emissions. Certain types of zero emissions energy, such as nuclear, are not renewable. The overall target should be renewable, zero emissions energy.

Unfortunately, SB 2478 encourages renewable energy, but excludes zero emissions energy. As such, it does not strive to achieve the high standards that Hawaii should aspire to.

High standards are needed, especially since the Legislature declared a climate emergency last year by adopting SCR 44. We need to do the utmost to mitigate climate change. Insufficient effort will result in deadly disasters leading to the collapse of civilization. Anyway, that's what the scientists tell us. We owe it to our children to adopt the highest standards to mitigate climate change.

For the foregoing reasons, I oppose SB 2478.

**SB-2478**

Submitted on: 1/28/2022 11:13:14 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Dylan Ramos	Individual	Oppose	No

Comments:

Aloha Chair Wakai, Vice Chair Misalucha, and EET Committee members,

I oppose SB2478 so long as it incentivizes projects billed as "renewable energy" that actually contribute to the very issues of carbon emissions and climate change that they propose to combat. In particular, renewable energy cannot be based on wood-burning. Not only do these depend on deforestation -- even replanted forests take time to grow and sequester carbon -- but per equal amount of energy generated, wood-burning is worse for the climate than fossil fuels! Thank you for considering this testimony.

Mahalo,  
Dylan Ramos

**SB-2478**

Submitted on: 1/29/2022 9:45:49 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Koohan Paik	Individual	Oppose	No

Comments:

OPPOSE

**SB-2478**

Submitted on: 1/30/2022 10:35:11 AM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
jeanne wheeler	Individual	Oppose	No

Comments:

This bill must be amended to exclude wood-burning as a fuel.... Mahalo, JW

**SB-2478**

Submitted on: 1/30/2022 2:56:53 PM

Testimony for EET on 1/31/2022 3:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Sherri Thal	Individual	Oppose	No

Comments:

Aloha, Legislators,

I am opposing SB2478 as it is written because wood products that would be used in Biomass burning plants are definitely not clean nor sustainable energy sources. I am unsure that Hydrogen and renewable jet fuels qualify as clean energy because I do not know whether there will be fossil fuels used to produce these forms of energy. Therefore, this bill needs to be re-written to account for these facts and questions and is not acceptable to pass as is.

Mahalo,

Sherri Thal, Kea'au, HI 96749