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OFFICE OF THE PUBLIC DEFENDER

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
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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 ENERGY & ENVIRONMENTAL PROTECTION
ON
HOUSE BILL NO. 1937

February 15, 2022
9:45 a.m.
Room 325 and Videoconference

RELATING TO THE HAWAII HYDROGEN STRATEGIC PLAN

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

House Bill No. 1937 requires the Hawai'i Natural Energy Institute to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy sources and develop the Hawai'i Hydrogen Strategic Plan (HHSP); requires a report to the Legislature; and appropriates an unspecified amount of general funds for FY 23 for the development of the HHSP.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are 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 these ESSER MOE requirements.

Thank you for your consideration of our comments.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Energy & Environmental Protection
Tuesday, February 15, 2022 at 9:45 a.m.

By
Richard Rocheleau, Director
Hawai'i Natural Energy Institute
and
Michael Bruno, PhD
Provost
University of Hawai'i at Mānoa

HB 1937– RELATING TO THE HAWAII HYDROGEN STRATEGIC PLAN

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

HB 1937 requires the Hawai'i Natural Energy Institute (HNEI) to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy resources and develop the Hawaii Hydrogen Strategic Plan utilizing the results of its study, which shall be reviewed and updated every four years. HB 1937 also requires a report to the Legislature and appropriates funds.

HNEI supports the need to more fully evaluate the potential for hydrogen to contribute to Hawaii's energy system or other economic sectors but has concerns that developing a hydrogen plan that is not fully integrated into the overall energy planning that is taking place would not allow costs, benefits, and impacts to be adequately assessed; nor would it lead to actionable items.

To resolve this HNEI respectfully suggests the following changes:

SECTION 1. Move the following elements of Section 1 to Section 2a (1).

(3) Cost, benefits, and impacts;

(6) Use of hydrogen as a transportation fuel and grid-level resource;

(7) Technical and economic feasibility and environmental benefits of using hydrogen in key areas to resolve resiliency issue; and

(11) Economic impact as an export commodity or other revenue generating opportunity.

SECTION 2. Change 2a(1) to read:

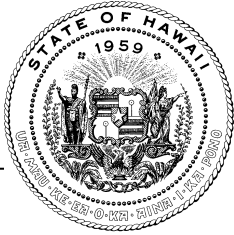
“Develop a long-term hydrogen plan for 2024 through 2050 that is clearly integrated with other long term energy planning in the state. This plan shall include:

- (a) Costs, benefits, and impacts;
- (b) An evaluation of the use of hydrogen as both a transportation fuel and grid-level resource;
- (c) Technical and economic feasibility and environmental benefits of using hydrogen in key areas to resolve resilience issues; and
- (d) Economic impact as an export commodity or other revenue generating opportunity.”

SECTION 4. HNEI is also concerned that a report of this magnitude cannot be completed in time to meet the 2023 legislature deadline and requests the schedule be extended to the 2024 legislature with an Interim Progress Report be submitted to the 2023 legislature.

SECTION 5. HNEI has sufficient funds from its Barrel Tax allocation to conduct this study and does not need a separate appropriation.

Thank you for the opportunity to provide this testimony on HB 1937.



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 ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 15, 2022
9:45 AM

State Capitol, Conference Room 325 & Videoconference

COMMENTS
HB 1937
RELATING TO THE HAWAII HYDROGEN STRATEGIC PLAN.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on HB 1937, which requires the Hawai'i Natural Energy Institute (HNEI) to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy resources and develop the Hawai'i Hydrogen Strategic Plan utilizing the results of its study, which shall be reviewed and updated every four years, and to report to the Legislature.

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 agrees that hydrogen has the potential to be an increasingly important component of Hawai'i's energy system, including: energy storage for the electrical grid; flexible, dispatchable demand to support the electrical grid during hydrogen use and production; stored energy for use in the transportation sector, including for light-and heavy-duty vehicles; and in the production of electrofuels, or other liquid and gaseous fuels, for use by all parts of Hawai'i's energy system (including aviation energy), in the immediate, mid, and long-term.

While it is appropriate for HNEI "to conduct a study to evaluate the technical feasibility to produce and use hydrogen locally," HSEO, in cooperation with HNEI, is the

appropriate agency to develop the Hawai'i Hydrogen Strategic Plan as part of HSEO's overall energy planning mandate to decarbonize the economy. In 2019, Act 122 established the Hawai'i State Energy Office "with a clear mission... to assist both the public and private sectors in achieving the State's energy goals" and "achieving a clean energy economy," and mandated Hawai'i's Chief Energy Officer to "Identify market gaps and innovation opportunities, collaborate with stakeholders, and facilitate public-private partnerships [...] that will support the State's energy and decarbonization goals."

The Hydrogen Study and the Hydrogen Strategic Plan may be most effective if conducted within the overall framework of Hawai'i's energy planning. HSEO looks forward to collaborating with HNEI on the study of hydrogen production in Hawai'i and to collaboratively incorporating the results of the study with the creation of a Hydrogen Strategic Plan as part of planning for the decarbonization of Hawai'i's economy.¹

HSEO supports the intent of this bill with these changes, provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget.

Thank you for the opportunity to testify.

¹ Another measure, HB1800 HD1, requires HSEO to conduct a study to determine Hawai'i's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals, and appropriates funds.

Hawaii Bioeconomy Trade Organization

THE SENATE
THE THIRTY-FIRST LEGISLATURE
REGULAR SESSION OF 2022

Energy & Environmental Protection

And

Finance

TESTIMONY ON HOUSE BILL NO. 1937

Position: **Support**

To the Honorable Chair Luke, Chair Lowen. Vice-Chair Marten and Members of the Committees:

Our trade organization was a co-sponsor for the first-ever Hawaii Aviation and Climate Action Summit, which was held December 3rd 2019. At this Summit, which was free and open to the public, nearly 100 representatives from major airlines, local fuel and transportation industry leaders, environmental advocates, and officials from the State of Hawaii met to discuss actions to be taken to reduce the greenhouse gas (GHG) emissions from international airlines serving Hawaii. Attendees reviewed the mandate established by the International Civil Aviation Organization (ICAO)'s Carbon Offset and Reduction Scheme for International Aviation (CORSIA). CORSIA, the aviation equivalent of the Paris Climate Accord, applies to all international flights including those to and from Hawaii, and requires commercial airlines to reduce the GHG intensity of their operations by 50% below 2005 levels by 2050. Commercial airlines began benchmark reporting in 2019 and the program becomes mandatory for developed countries' airlines in 2022.

Hydrogen has established itself on the forefront of promising zero-emissions fuel sources. In the gas industry specifically, global research and development is yielding significant progress in understanding hydrogen's compatibility with gas grids and establishing it as a clean and reliable fuel source for typical household and commercial uses.

As we move towards our 2045 decarbonization goals, HBETO believes that our collective focus on innovation to accelerate multiple paths forward to achieve our state's goals is essential to meet our deadlines. The national infrastructure bill reflects this approach, allocating billions of dollars in funding for clean energy demonstrations and research focused on next generation technologies needed to achieve the nation's goal of net-zero by 2050 including funding for national hydrogen hubs and allocating resources for a national hydrogen plan.

We ask the committee to consider amending the language slightly to include gas utilities in the stakeholders named in SECTION 3 as follows:

SECTION 3. In conducting the study and developing the Hawaii hydrogen strategic plan required by sections 1 and 2 of this Act, respectively, and any updates thereto, the Hawaii natural energy institute shall, as appropriate, consult with the department of business, economic development, and tourism; the state energy office; public utilities commission; or any other applicable state or county agency, which shall cooperate and provide necessary resources as requested by the Hawaii natural energy institute. The

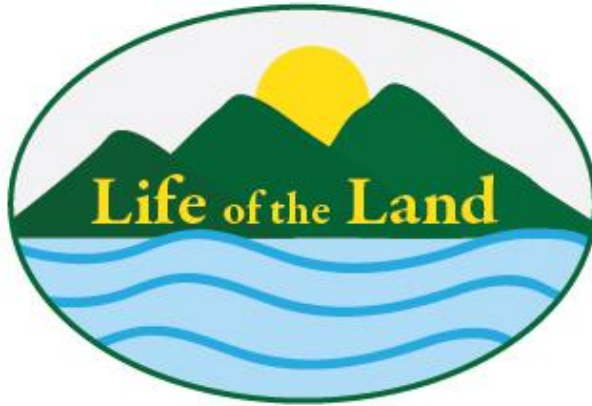
Hawaii Bioeconomy Trade Organization

Hawaii natural energy institute shall further consult with other electric and gas utilities and industry stakeholders, who are encouraged to cooperate and provide information or input.

[Thank you for your consideration of this testimony.](#)

Regards,

Carl Campagna
Executive Director
carl@hawaii.bioeconomy.org



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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Rep. Nicole E. Lowen, Chair
Rep. Lisa Marten, Vice Chair

DATE: Tuesday, February 15, 2022
TIME: 9:45 AM

HB 1937 Hawaii Hydrogen Strategic Plan **PROPOSE AMENDMENT**

Aloha Chair Lowen, Vice Chair Marten, 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.

The bill includes the word "hydrogen" 24 times and only once is a modifier used: "green hydrogen". The term "green hydrogen" is not found in state law or the bill.

PROPOSE AMENDMENT: Replace "hydrogen" with "green hydrogen" through the bill.
Add a definition: "Green hydrogen" means hydrogen generated from solar and wind energy.

Mahalo

Henry Curtis
Executive Director



SERVCO PACIFIC INC.
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SERVCO.COM

Representative Nicole Lowen, Chair
Representative Lisa Marten, Vice Chair
Committee on Energy & Environmental Protection

**RE: HB 1937 - Relating to the Hawaii Hydrogen Strategic Plan – In Support
February 15, 2022; 9:45 A.M.**

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

Servco is in support of HB 1937, which requires the Hawaii Natural Energy Institute to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy resources and develop the Hawaii Hydrogen Strategic Plan utilizing the results of its study, which shall be reviewed and updated every four years.

The demand for energy is growing and the benefits of producing hydrogen locally can play a key role in realizing a sustainable energy economy. Hydrogen is part of the portfolio of clean energy technologies to reduce Hawaii's dependency on imported fossil fuels. Servco has invested millions of dollars into hydrogen production facilities and will continue to invest as we believe in its future. We are pleased that the study includes an economic impact as an export commodity. The long-term export potential of hydrogen across the globe is not only a revenue generating opportunity but also yields environmental benefits.

Thank you for the opportunity to provide comments in support.

Peter Dames
Executive Vice President



Written Statement of
David H. Molinaro
Acting Director
Hawaii Center for Advanced Transportation Technologies
before the
House Committee on Energy & Environmental Protection
Tuesday, February 15, 2022
9:45am
State Capitol, Conference Room 325
In consideration of

HB1937
RELATING TO THE HAWAII HYDROGEN STRATEGIC PLAN

Chair Lowen, Vice Chair Marten, and Members of the Committee.

HCATT strongly **supports** HB1937 requiring Hawaii Natural Energy Institute to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy resources and develop the Hawaii Hydrogen Strategic Plan utilizing the results of its study, which shall be reviewed and updated every four years.

This Bill provisions 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.

Widespread deployment of hydrogen fuel cell technologies requires hydrogen fueling stations, changes to infrastructure, permitting and regulation modifications, access to water, cost benefit analysis, and significant community involvement and support. This study will address those issue and will serve as a renewed effort in adopting hydrogen technologies in support of Hawaii's 2045 RPS mandate and foster a new renewable energy industry in this State.

Thank you for the opportunity to present these comments.





Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, February 15, 2022 — 9:45 a.m.

Ulupono Initiative supports HB 1937, Relating to the Hawai'i Hydrogen Strategic Plan

Dear Chair Lowen and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

Ulupono supports HB 1937, which requires the Hawai'i Natural Energy Institute to conduct a study to examine the State's ability to advance hydrogen production from local renewable energy resources and develop the Hawai'i Hydrogen Strategic Plan utilizing the results of its study, which shall be reviewed and updated every four years.

Ulupono supports the approach of this bill to perform a study and develop a strategic plan on the technical and economic feasibility of hydrogen production from renewable energy resources. The study will help to guide the development of the Hawai'i Hydrogen Strategic Plan to provide a road map of how hydrogen can play a role in our state meeting its renewable energy goals. Establishing the study and strategic plan are important first steps in determining hydrogen's role in meeting the State's 2045 100% renewable portfolio standard goal.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate this committee's efforts to look at policies that support the continued implementation of renewable energy resources throughout the islands.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

Investing in a Sustainable Hawai'i



SanHi

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 14, 2022

TO: Representative Nicole Lowen
Chair, Committee on Energy and Environmental Protection

FROM: Tiffany Yajima

RE: **H.B. 1937 – Relating to the Hawaii Hydrogen Strategic Plan**
Hearing Date: Tuesday, February 15, 2022 at 9:45 a.m.
Conference Room: 325

Dear Chair Lowen, Vice Chair Marten and Members of Committee on Energy and Environmental Protection:

On behalf of the Alliance for Automotive Innovation (“Auto Innovators”) we submit this testimony in **support** of H.B. 1937. This measure requires the Hawaii Natural Energy Institute to examine the State's ability to produce hydrogen from local renewable energy resources and to develop a strategic plan to advance this fuel for Hawaii.

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 hydrogen as a feasible alternative fuel for Hawaii and are interested in the development of a strategic plan to implement hydrogen as a transportation fuel. 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 infrastructure projects like hydrogen fueling stations.

Thank you for the opportunity to submit testimony in support of this measure.



**Testimony to
The Committee on Energy & Environmental Protection**

Tuesday, February 15, 2022

9:45 AM

VIA Video Conference

Conference Room 325, Hawaii State Capitol

HB 1937

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

Hawaii Gas **supports** **HB 1937**, relating to the Hawaii Hydrogen Strategic Plan.

Hydrogen has established itself on the forefront of promising zero-emissions fuel sources. In the gas industry specifically, global research and development is yielding significant progress in understanding hydrogen's compatibility with gas grids and establishing it as a clean and reliable fuel source for typical household and commercial uses.

As we move towards our 2045 decarbonization goals, Hawaii Gas believes that our collective focus on innovation to accelerate multiple paths forward to achieve our state's goals is essential to meet our deadlines. The national infrastructure bill reflects this approach, allocating billions of dollars in funding **for clean energy demonstrations and research** focused on next generation technologies needed to achieve the nation's goal of net-zero by 2050, including funding for national hydrogen hubs and allocating resources for a national hydrogen plan.

We ask the committee to consider amending the language slightly to include gas utilities in the stakeholders named in SECTION 3 as follows:

SECTION 3. In conducting the study and developing the Hawaii hydrogen strategic plan required by sections 1 and 2 of this Act, respectively, and any updates thereto, the Hawaii natural energy institute shall, as appropriate, consult with the department of business, economic development, and tourism; the state energy office; public utilities commission; or any other applicable state or county agency, which shall cooperate and provide necessary resources as requested by the Hawaii natural energy institute. The Hawaii natural energy institute shall further consult with other electric and gas utilities and industry stakeholders, who are encouraged to cooperate and provide information or input.

Thank you for the opportunity to testify.

HB-1937

Submitted on: 2/11/2022 5:53:01 AM

Testimony for EEP on 2/15/2022 9:45:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Noel Morin	Individual	Support	No

Comments:

Dear Chair Lowen, Vice-Chair Marten, and members of the Committee,

I support HB1937 which requires the Hawaii Natural Energy Institute to determine how to enable green hydrogen production in Hawaii. HB1937 will help Hawaii figure out a strategy to generate cheap green hydrogen at scale and to contribute to the development of solutions that cannot be effectively electrified. Please include language to ensure that we are focused on hydrogen that is not produced from fossil fuel.

Green hydrogen (hydrogen that is not produced from fossil fuels) is one of the solutions for the decarbonization of our economy. However, close to 100% of the globe’s hydrogen is produced from gas and coal and the demand is growing. This represents another unfortunate drag in our efforts to fight climate change.

Hydrogen can be used for ground, marine, and air transport, grid storage, fertilizer production, fuel for high-heat industrial processes that cannot be electrified.

The challenge is that green hydrogen requires a significant amount of electricity to produce. For this to be viable, we need to enable enough low-cost renewable electricity production to supply our electricity and transportation needs **and** the energy demand to generate green hydrogen at scale.

It is well documented that the current process used to generate, store, transport, and utilize hydrogen is very inefficient - a significant amount of energy is lost in the lifecycle. Green hydrogen is, therefore, ideally used in processes that are difficult to electrify.

It behooves us to invest in research and development to maximize our ability to source cheap zero-emission energy (**hint: geothermal**) and to contribute to the development and support of solutions that make sense but are not yet adequately supported or used today.

Given the points above, I suggest that we explicitly call out the focus on green hydrogen and the avoidance of any fossil-fuel-based feedstock in the language of this measure.

Thank you for the opportunity to testify.

Noel Morin

Relevant Info:

- Big Coal support of H2 - www.coalage.com/features/hydrogen-from-coal
- EIA on H2 production basics - www.eia.gov/energyexplained/hydrogen/production-of-hydrogen.php
- EarthJustice on risks associated with H2 hype - earthjustice.org/news/press/2021/hydrogen-report-climate-crisis-focus-on-electrification
- HawaiiEV on H2 cars - hawaiiev.org/blog/fuel-cell-electric-vehicles

HB-1937

Submitted on: 2/13/2022 7:45:19 PM

Testimony for EEP on 2/15/2022 9:45:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Tawn Keeney	Individual	Comments	No

Comments:

Testimony: HB1937 Relating to the Hawaii Hydrogen Strategic Plan

Representatives,

This testimony concludes with proposal for amendment to this bill HB1937 which adds one further 'consideration' to the twelve elements of the proposed study in the Hawaii Hydrogen Strategic Plan.

Section 1 (is amended to add #13 as follows)

(13

) A Greenhouse Gas Life Cycle Analysis shall be performed for the production of Hydrogen utilizing each renewable energy resource being considered.

Though we must admire the author’s intent to promote the use of Hydrogen as fuel source for Transportation or as grid level resource, we must place this proposal in context. The use of the phrase ‘renewable energy resources’ brings up a range of issues which should be considered.

Let’s recall recent developments in the Saga of Hu Honua, the ill fated proposed wood burning power facility on the Big Island. In 2015 the definition of Renewable Energy fuels in HRS 269-91 was amended to add biomass (wood burning) as a renewable fuel and as carbon neutral. Therefore Hu Honua proposed its bioenergy produced to be ‘carbon neutral’ and ‘renewable energy’. This was the case even though the Greenhouse Gas Analysis submitted by Hu Honua in 2019 to the Public Utilities Commission specified that per Kilowatt Hour of Electricity it produced, the Greenhouse Gas emissions were over twice those of the power generating facilities which it would replace. https://drive.google.com/file/d/1tLYoCgzly5y7e_TrYpxqtC6cAnrJ8Y80/view?usp=sharing

It is well known that burning wood (chipped green trees from Hu Honua’s clear cut harvest plan) releases 1.5x more GHG emissions than coal and 2.2x more GHG than oil per unit of electricity produced. The DCCA Consumer Advocate at the PUC has submitted testimony that 58% of the electricity generation which Hu Honua would replace would be other renewable sources (zero emitting wind, solar or geothermal) whereas 42% would be fossil fuels. The re-sequestration of CO2 by regrowth of the forest is a process known to take multiple decades to well over a century.

The Hawaii Supreme Court in 2020 decided that Hu Honua had failed to consider its Greenhouse Gas emissions as required by Hawaii statute in its presentation before the PUC in spite of its contention of GHG neutrality as above. The case was remanded to the PUC for presentation of Greenhouse Gas life cycle analysis of its process of bioenergy generation.

Blue Planet Research on the Big Island has signed a letter of intent (or interest) to purchase electricity from Hu Honua for Hydrogen production should the Hu Honua facility 'come online'. This commercial Hydrogen production will come under the same purview of the PUC and GHG analysis will be required.

It is the reasoning behind the use of Hydrogen that it will lower the GHG emissions from transportation and energy production. So if Life Cycle Analysis shows that it will in fact increase emissions beyond simply using fossil fuels for transportation and energy production then the Hydrogen proposal should be abandoned. We know in the case of burning wood to supply electricity to create hydrogen as fuel, the life cycle emissions will be far worse than simply using the fossil fuels (gasoline, oil or coal) as is currently done. We know that the same is true for the burning of industrial and municipal waste.

It is therefore important that the study which is being proposed in section 1 of this Bill have added to its 12 'considerations' a 13th consideration which would constitute a Green House Gas Life Cycle Analysis for the production of quantities of Hydrogen from each each of the renewable energy resources considered. The Supreme Court has clarified that qualifying for the State definition of Renewable Energy and greenhouse gas neutrality does not satisfy the statutory need for Greenhouse Gas Analysis in the form of GHG Life Cycle Analysis.

Thus, the amendment to Section 1 of Bill SB2283 is proposed as follows:

Section 1.

(13) A Greenhouse Gas Life Cycle Analysis shall be performed for the production of Hydrogen utilizing each renewable energy resource being considered.

Mahalo for your
consideration,

Tawn Keeney MD

HB-1937

Submitted on: 2/15/2022 8:08:05 AM

Testimony for EEP on 2/15/2022 9:45:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Bronsten Kossow	Individual	Support	No

Comments:

Please support!