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Testimony of the Department of Commerce and Consumer Affairs

Before the
Senate Committee on Ways and Means
Thursday, April 4, 2024
10:15 a.m.
Conference Room 211

On the following measure:
H.B. 1997, H.D. 1, S.D. 1, RELATING TO THE INTERISLAND TRANSPORT OF
HYDROGEN

WRITTEN TESTIMONY ONLY

Chair Dela Cruz and Members of the Committee:

My name is Michael Angelo, and I am the Executive Director of the Department of Commerce and Consumer Affairs (Department) Division of Consumer Advocacy. The Department offers comments on this bill.

The purpose of this bill is to authorize the Public Utilities Commission (Commission) to establish a discounted rate by tariff for water carriers that engage in the interisland transport of renewable hydrogen.

The Department supports the cost-effective production and delivery of renewable fuels that align with the State's clean energy and climate policies. The Department recognizes the intent of this bill, which the Department believes is seeking to enable a greater diversity in the type of renewable fuels available for use within the State.

Hydrogen is a renewable fuel if it is produced from renewable resource types that are defined under Hawaii Revised Statutes § 269-91.

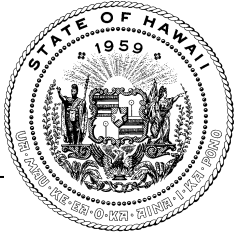
The Department is concerned; however, that the customers of water carriers transporting renewable hydrogen between the islands will bear additional financial burden by enacting the discount because water carriers will likely attempt to recover their decreased revenues by raising rates for other cargo types. Hawaii residents and businesses are already paying high interisland cargo rates since Young Brothers LLC (Young Brothers), the State's regulated water carrier providing interisland shipping, was granted an average (interim) rate increase of about 46% in a pandemic emergency order a few years ago. (See Order No. 37280 issued on August 17, 2020 in Docket No. 2019-0117). The Department also notes there is no financial benefit identified to water carriers' ratepayers from providing the discounted rate for shipping hydrogen. As such, enacting this discount would result in an inequitable burden to Young Brothers' customers bearing the additional costs of providing the discount.

The Department also notes its concerns as to whether there is currently a need to ship renewable hydrogen between the islands and, if such a need did arise in the future, water carrier customers on islands other than Oahu would inequitably bear the cost of providing hydrogen to Oahu at a discounted shipping rate. The Hawaii Natural Energy Institute (HNEI) of the University of Hawaii concludes on pages 7 and 8 of its December 2023 report to the Hawaii State Legislature on the "[Potential Production and Use of Renewable Hydrogen in Hawaii](#)" that:

- Oahu has sufficient land and resources to meet potential near-term [hydrogen] uses but if developed at a larger scale than considered in this report, Oahu would be required to import hydrogen to meet its needs.
- [A]ll the islands other than Oahu have ample land to meet any reasonable on-island uses.
- [I]nterisland shipping was found to be complex and expensive limiting the large-scale applications of hydrogen to the neighbor islands for the foreseeable future.

- While the use of hydrogen for long-term storage (aka firm power) is an often mentioned application, the use of hydrogen to provide energy during periods of extended low solar or wind resource [availability] was found to require very large amounts of on-island storage. Although included as a potential end-use throughout the report, the amount and cost of this storage is considered prohibitive based on currently available technology.

Thank you for the opportunity to testify on this bill.



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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
SENATE COMMITTEE ON WAYS AND MEANS

Thursday, April 4, 2024
10:15 AM
State Capitol, Conference Room 211 and Videoconference

Providing Comments on
HB 1997, HD1, SD1

RELATING TO THE INTERISLAND TRANSPORT OF HYDROGEN.

Chair Dela Cruz, Vice Chair Moriwaki, and members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on HB 1997, HD1, SD1, that authorizes the Public Utilities Commission to establish a discounted rate by tariff for water carriers that engage in the interisland transport of hydrogen.

As a part of Hawai'i's energy strategy, energy generated from hydrogen has potential as a locally-produced energy resource that can meaningfully contribute to the State's target to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as possible, but no later than 2045. To pursue this potential, HSEO supports incentives at the state and federal level to foster development of hydrogen and critical feedstock, such as geothermal energy. Local clean hydrogen production at scale was identified as a decarbonization opportunity in HSEO's [Act 238 HSEO Decarbonization Report](#).

HSEO defers to the appropriate agencies for comments on fiscal, administrative, and regulatory impacts of this bill.

Thank you for the opportunity to testify.

TESTIMONY OF
LEODOLOFF R. ASUNCION, JR.
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

TO THE
SENATE COMMITTEE ON
WAYS AND MEANS

April 4, 2024
10:15 a.m.

Chair Dela Cruz, Vice Chair Moriwaki, and Members of the Committee:

MEASURE: H.B. No. 1997, H.D.1, S.D.1

TITLE: RELATING TO THE INTERISLAND TRANSPORT OF HYDROGEN.

DESCRIPTION: Authorizes the Public Utilities Commission to establish a discounted rate by tariff for water carriers that engage in the interisland transport of renewable hydrogen. Takes effect 7/1/2040. (SD1)

POSITION:

The Public Utilities Commission (“Commission”) offers the following comments for consideration.

COMMENTS:

The Commission appreciates the intent of this measure to enable discounted rates for transport of renewable hydrogen in support of a clean energy economy.

The Commission observes that in accordance with HRS § 269-16.5, 269-26.5, 269-26.6, 269-27.3, and 269-27.7, there are currently different types of discount programs that could offer models for implementing such a program. The program most similar to that contemplated in this measure was developed under HRS § 269-26.6, which authorized the Commission to establish preferential water carrier service rates for agricultural activities. On November 3, 1995, the Commission approved an amendment to Young Brother’s tariff, Tariff No. 5-A, by Order No. 14356. This amendment defines the “Island Agricultural Product Discount,” which was later modified in 2009. The current iteration of

the agricultural discount provides a 35 percent reduction in container rate and 30 percent reduction in all other intrastate shipment types for agricultural products.¹

The Commission appreciates the flexibility offered by the measure in establishing said discounted rate for the advancement of clean energy opportunities for Hawaii. Should this measure pass, the Commission would likely incorporate discussion of and decision on discounted rates for transportation of hydrogen within an ongoing or future rate case.

The Commission could also consider an application by a regulated utility for such a discounted commodity rate. In its examination of the issue, consistent with the Commission's past testimony on related measures, the Commission would consider potential cross-subsidization from all other customers and determine any appropriate remediations. The Commission also appreciates the Committees' clarification of this measure to apply only to renewable hydrogen.

The Commission observes that there may be issues to work out to ensure safe transport of hydrogen. Given the nature of this measure, the Commission respectfully defers to Department of Transportation, Harbors Division, and other maritime regulatory entities as to the feasibility of transportation of hydrogen, along with any applicable and necessary safety standards.

Thank you for the opportunity to testify on this measure.

¹ Following Commission Orders on the Island Agricultural Product Discount, the Legislature passed HB2644 HD2, SD1, CD1 in the 2012 Legislative session, which the governor signed into law as Act 232 (SLH 2012), formally including this type of discount within the Commission's statutes.

HB-1997-SD-1

Submitted on: 4/3/2024 10:02:35 AM

Testimony for WAM on 4/4/2024 10:15:00 AM

Submitted By	Organization	Testifier Position	Testify
Douglass S. Adams	Testifying for Dept of Research & Development, County of Hawai'i	Support	Written Testimony Only

Comments:

Chair Dela Cruz, Vice Chair Moriwaki, and Members of the Committee on Ways and Means:

Thank you for the opportunity to testify in SUPPORT of HB1997 HD1 SD1, which authorizes the Public Utilities Commission to establish a discounted rate by tariff for water carriers that engage in the interisland transport of hydrogen. This bill enables the creation of a forward-looking approach to the development of local renewably-generated energy and its availability across the state.

The Department strongly encourages the Committee to send HB1997 HD1 SD1 to the Senate with a favorable recommendation.

very respectfully

Douglass Adams, Director

Department of Research and Development

County of Hawai'i



To: The Senate Committee on Ways and Means (WAM)
From: Sherry Pollack, 350Hawaii.org
Date: Thursday, April 4, 2024, 10:15am

In opposition to HB1997 HD1SD1

Aloha Chair Dela Cruz, Vice Chair Moriwaki, and WAM 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 HB1997 HD1SD1** that would authorize the Public Utilities Commission to establish a discounted rate by tariff for water carriers that engage in the interisland transport of hydrogen.

Investing in hydrogen at this time is a poor use of our limited resources. It is important to note that hydrogen is an inefficient use of clean electricity. It is always more efficient to use renewable power directly than to convert renewable energy to hydrogen for use as an energy source.

In addition, hydrogen fuel cells cost much more and are far less efficient than battery-electric cars. To protect our climate and future, we need to focus ambitious efforts to electrify our transportation sector wherever we can, as quickly as we can, and avoid harmful diversions.

Moreover, it was noted in testimony by Young Brothers for several of the previous hearings on this measure that implementing this bill would result in **safety challenges and likely mean increased rates for other ratepayers**. It is alarming that the testimony from a key stakeholder has been ignored, particularly when safety concerns have been raised.

Regarding safety, hydrogen has **major safety issues**. Hydrogen is a leaky gas that has a warming potential around 37.3 times greater than emitted CO₂ over a 20-year time period.¹ It is highly flammable. It can be ignited by cell phones or by electrical storms located miles away. Leaks pose a significant fire hazard, particularly because they are hard to detect. Furthermore, hydrogen burns nearly invisibly, and people have unwittingly stepped into hydrogen flames. Moreover, hydrogen can cause many metals, including the carbon steel widely used in gas pipelines, to become brittle. In addition, any high-

¹ <https://www.nature.com/articles/s43247-023-00857-8>

pressure storage tank presents a risk of rupture.² These are just some of the documented safety risks.

We urge you to **HOLD HB1997 HD1SD1**.

Mahalo for the opportunity to testify.

Sherry Pollack
Co-Founder, 350Hawaii.org

² <https://issues.org/romm-hydrogen-clean-energy/>

HB-1997-SD-1

Submitted on: 4/3/2024 9:53:25 AM

Testimony for WAM on 4/4/2024 10:15:00 AM

Submitted By	Organization	Testifier Position	Testify
jerry Leslie Chang	Testifying for Sustainable Energy Hawaii	Support	Written Testimony Only

Comments:

Chair Dela Cruz, Vice Chair Moriwaki and members of the Ways and Means Committee.

My name is Jerry Chang, a former State Representative of Hawaii Island and advocate for geothermal development.

I am a Board Member of Sustainable Energy Hawaii, a 501C non profit organization to enable an economic, social and environmental revival in Hawaii through transition to sustainable, 100% locally sourced renewable energy and the creation of a thriving clean hydrogen economy.

Sustainable Energy Hawaii stand in support of HB 1997 to authorize the PUC to establish a discounted rate by tariff for water carriers that transports renewable hydrogen interisland.

There is much interest in hydrogen production in Hawaii and particularly on Hawaii Island where geothermal development is already proven to be a reliable source of energy and may be used to produce hydrogen.

Hawaii County already have a hydrogen bus and will add more to their fleet to reduce our dependence on fossil fuels.

Farmers and ranchers are especially aware that return trips from the outer-island to Oahu is rarely full and additional hydrogen cargo would add potential revenue to inter-island carriers.

This bill will open the doors to assure renewable energy producers that they can produce as much energy as possible because excess energy could be converted to hydrogen, stored and shipped to off-takers throughout the islands to allow energy independence, create jobs and new economic opportunities and contribute to meaningful climate action.

Mahalo,

Jerry Chang

Director

Sustainable Energy Hawaii

808 286-0461

HB-1997-SD-1

Submitted on: 4/2/2024 1:08:19 PM

Testimony for WAM on 4/4/2024 10:15:00 AM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

HB1997 may prove to be beneficial both to Hawaii's economy and to our achievement of our climate sustainability goals. Please pass HB1997.

LATE

HB-1997-SD-1

Submitted on: 4/3/2024 12:37:10 PM

Testimony for WAM on 4/4/2024 10:15:00 AM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Testifying for Kauai Climate Action CoalitionP	Oppose	Written Testimony Only

Comments:

Please see the educational forum we did last month with the Center for Biological Diversity and Pipeline Public Trust and get a better understanding of the false and dangerous promises of hydrogen power at this time. Available on Kauai Climate Action Coalition website (<https://www.kauaiclimateactioncoalition.com/>). It is bad economically and environmentally under present conditions in our state and most other places as well. Strong opposition to HB1997