

TESTIMONY OF
JAMES P. GRIFFIN, Ph.D.
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

TO THE
HOUSE COMMITTEE ON
CONSUMER PROTECTION AND COMMERCE

February 12, 2019
2:00 p.m.

Chair Takumi and Members of the Committee:

MEASURE: H.B. No. 550 HD1

TITLE: RELATING TO RENEWABLE ENERGY.

DESCRIPTION: Requires the Public Utilities Commission to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies. Amends the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy. Appropriates funds. (HB550 HD1)

POSITION:

The Public Utilities Commission offers the following comments for consideration.

COMMENTS:

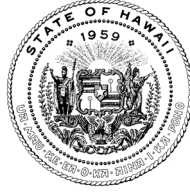
With respect to the electricity renewable portfolio standard (“RPS”), the Public Utilities Commission (“Commission”) recently completed a report to the Legislature on the Renewable Portfolio Standard, which was submitted on December 27, 2018, and is available on the Commission’s website (<https://puc.hawaii.gov/reports/legislature/>).

Overall, the State of Hawaii is on track to achieve the near-term RPS goals. However, there is greater uncertainty regarding longer-term goals, particularly regarding integration of future renewable energy projects and when and where such projects can be constructed and brought online. That said, should the Legislature increase interim RPS targets, the Commission will continue to work closely with the State’s electric utilities and other stakeholders in order to implement the RPS policy.

With respect to the proposed gas utility renewable portfolio standard, the Commission is supportive of renewable gas, and has approved Hawaii Gas' proposed Honouliuli Wastewater Treatment Plant ("HWTP") biogas project with the City and County of Honolulu (see Docket No. 2016-0340). The Commission has also approved rate relief for the costs of processing HWTP biogas (see Docket No. 2017-0105).

The Commission supports Section 2 of the bill, which would require a renewable gas portfolio standards study, provided that the accompanying appropriation will cover the cost of the study.

Thank you for the opportunity to testify on this measure.



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Consumer Protection and Commerce
Tuesday, February 12, 2019
2:00 p.m.
State Capitol, Conference Room 329**

**On the following measure:
H.B. 550, H.D. 1, RELATING TO RENEWABLE ENERGY**

Chair Takumi and Members of the Committee:

My name is Dean Nishina, and I am the Executive Director of the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy (Division). The Department appreciates the intent of and offers comments on this bill.

The purpose of this bill is to require the Public Utilities Commission (Commission) to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies and to amend the renewable portfolio standard goals for 2030 and 2040 to accelerate the adoption of renewable energy by electric utility companies.

The Division continues to support the State's goal of 100% renewable energy on its electric grids by 2045, and so the Division supports the intent of this bill but notes that H.D. 1 has eliminated certain aspects of H.B. 550, including language that would change the Renewable Portfolio Standards (RPS) calculation in Hawaii Revised Statutes (HRS) section 269-91 from "sales" to "generation." The originally proposed

modification would have eliminated the existing “loophole” that could allow the State to achieve a 100% RPS but still have a significant contribution from fossil-fueled generation sources, as well as possibly allow more than 100% of generation from renewable energy. Thus, the Division respectfully suggests that the Committee consider restoring language from H.B. 550 that would eliminate the loophole.

The Division appreciates H.D. 1’s measured approach to investigate the feasibility of creating an RPS for gas utilities, as well as the existing regulatory structure. The proposed study, as well as the provision for funding for the Commission to conduct the study, would analyze, among other things, the capability of gas utility companies to achieve any RPS in a cost-effective manner, as well as the potential impact on reliable service and the impact on consumers. The Consumer Advocate also appreciates the requirement that the study analyze unregulated gas sales and the requirements needed to transition those unregulated operations to a renewable energy source. This requirement is important to ensure that an RPS for regulated gas sales does not encourage a business model for a regulated gas utility to shift more gas sales to the unregulated market, as well as address market concerns that unregulated gas providers might seek to take advantage of an RPS for only regulated gas sales.

Thank you for the opportunity to testify on this bill.



DAVID Y. IGE
GOVERNOR

MIKE MCCARTNEY
DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

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Statement of
MIKE MCCARTNEY
Director

Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

Tuesday, February 12, 2019
2:00 PM
State Capitol, Conference Room #329

In consideration of
HB 550, HD 1
RELATING TO RENEWABLE ENERGY.

Chair Takumi, Vice Chair Ichiyama and members of the Committee. The Department of Business, Economic Development, and Tourism (DBEDT) offers **supports the intent** on HB 550, HD1, which amends the renewable portfolio standards (RPS) interim goals for 2030 and 2040 to accelerate the adoption of renewable energy and requires the Hawaii Public Utilities Commission (PUC) to study the feasibility of implementing RPS to encourage the use of renewable energy by gas utility companies.

DBEDT offers the following comments. DBEDT sees merit in the proposed acceleration of the RPS. We caution that there is greater uncertainty in the achievability of the 2040 and 2045 goals, due to concerns about the ability of utilities to accommodate increasing proportions of variable generation, development of new renewable sources and community acceptance. Should the Legislature increase interim RPS targets, DBEDT would stand ready to work with stakeholders to realize the targets.

DBEDT agrees with the provision on page 9, lines 7-13 requiring that all electric grid-connected energy systems shall be one hundred percent renewable energy systems by December 31, 2045.

Although not currently part of this bill, DBEDT supports the establishment of an RPS for gas utility companies of 100% by 2045 with appropriate interim goals. Should the Legislature move forward with a renewable gas portfolio standards study, DBEDT advises that the appropriate framework be established. For example, instead of requiring the PUC to “study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies” (page 4, lines 3-4) the study should evaluate the statewide renewable gas potential, how it compares to current and projected statewide gas requirements, and appropriate gas utility RPS targets. Moreover, in evaluating the technical feasibility of establishing RPS for gas utilities, the study should look towards feedstocks available in Hawaii in support of our energy security not the procurement and importation of biogas as suggested in page 7, lines 7-8.

Thank you for the opportunity to testify.

Council Chair
Kelly T. King

Vice-Chair
Keani N.W. Rawlins-Fernandez

Presiding Officer Pro Tempore
Tasha Kama

Councilmembers
Riki Hokama
Alice L. Lee
Michael J. Molina
Tamara Paltin
Shane M. Sinenci
Yuki Lei K. Sugimura



Director of Council Services
Maria E. Zielinski

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
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February 11, 2019

Kelly King

TO: The Honorable Nicole E. Lowen, Chair
House Committee on Energy and Environmental Protection
The Honorable Roy M. Takumi, Chair
House Committee on Consumer Protection and Commerce

FROM: Kelly T. King
Council Chair

SUBJECT: **HEARING OF FEBRUARY 12, 2019; TESTIMONY IN SUPPORT OF
HB 550, RELATING TO RENEWABLE ENERGY**

Thank you for the opportunity to testify in **support** of this important measure. The purpose of this bill is to require that the Public Utilities Commission study the feasibility of implementing renewable portfolio standards that encourage the use of renewable energy by gas utility companies; and to amend the renewable portfolio standard interim goals to accelerate the adoption of renewable energy.

The Maui County Council has not had the opportunity to take a formal position on this measure. Therefore, I am providing this testimony in my capacity as an individual member of the Maui County Council.

I support this measure for the following reasons:

1. The need to reduce carbon emissions locally and globally to avoid the worst impacts of climate change has become increasingly urgent, as seen, for example, in Hawai'i Sea Level Rise Vulnerability and Adaptation Report. Speeding up the deployment of renewable energy will create thousands of jobs and will position Hawai'i at the forefront of energy innovation and investment.
2. Hawai'i's energy sector transitioning to renewable energy strengthens the State's economy, environment, and security. To complete this transition successfully, it is important that all relevant entities, including gas utility companies, are aligned.

For the foregoing reasons, I **support** this measure.

ocs:proj:legis:19legis:19testimony:hb550_paf19-070a_kmat



Testimony to the Committee on
Consumer Protection and Commerce
Tuesday, February 12, 2019 at 2:00 p.m.
State Capitol Conference Room 415

RE: OPPOSITION TO HB 550 HD 1 – Relating to Renewable Energy

Dear Representative. Roy M. Takumi, Chair, Representative Linda Ichiyama, Vice Chair and Distinguished Members of the Committee:

The Kaua`i Chamber of Commerce respectfully opposes HB 500 HD 1. In our opinion, there are several real-world resource limitations and industry technical issues that make the goals of this legislation unfeasible. There is also significant potential impact to ratepayers that should be carefully considered before imposing these mandates.

The Kaua`i Chamber of Commerce appreciates the benefits of a more sustainable future; however, we see the potential for unintended consequences with the language contained in this legislation.

Please call (808) 245-7363 if you have any questions. Mahalo for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "MP", written over a light blue horizontal line.

Mark Perriello
President & CEO
Kaua`i Chamber of Commerce

HB-550-HD-1

Submitted on: 2/9/2019 4:32:18 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Edmondson	350 Hawaii	Oppose	No

Comments:

Aloha, Restore the original intent of HB550 and establish a RPS for the gas utility!

We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are past the time for “feasibility studying” that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children’s future. We must act boldly now for the sake of future generations!

Mahalo



To: The House Committee on Consumer Protection & Commerce
From: Sherry Pollack, Co-Founder, 350Hawaii.org
Date: Tuesday, 2/12/19

HB550 HD1

Aloha Chair Takumi, Vice Chair Ichiyama, and Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. On behalf of our 6,000 members and supporters, 350Hawaii.org urges you to **restore the original language and intent of HB550 and establish a RPS for the gas utility.**

We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Greta Thunberg, a 15-year-old climate activist, who called on world leaders at the UN Climate Change Conference to do more, stated “You say you love your children above all else and yet you are stealing their future in front of their very eyes. Until you start focusing on what needs to be done rather than what is politically possible, there is no hope.”

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children’s future. We must act boldly now for the sake of future generations!

Sherry Pollack
Co-Founder, 350Hawaii.org

Testimony before House Committee on Consumer Protection & Commerce

H.B. No. 550, HD1 Relating to Renewable Energy

Tuesday, February 12, 2019
2:00pm, Agenda Item #16
State Capitol, Conference Room 329

Chris Lau
Manager, Corporate Energy Planning
Hawaiian Electric Company, Inc.

Chair Takumi, Vice Chair Ichiyama, and Members of the Committee:

My name is Chris Lau and I am testifying on behalf of Hawaiian Electric Company, Inc. and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company (collectively, the "Companies") in **opposition** to H.B. No. 550, H.D. 1.

H.B. No. 550, HD1 requires the Public Utilities Commission ("PUC") to study the feasibility of a Renewable Portfolio Standard ("RPS") for the gas utilities. The RPS study will examine many issues including the ability of the gas utilities to achieve an RPS in a cost-effective manner, how unregulated gas sales can transition to renewable energy sources, and interim renewable targets before 100% in 2045. The Companies **support the intent** of this part of the bill and offer the following comments for consideration:

- If the purpose of the PUC study is to justify a 100% RPS in 2045 for the gas utilities, we suggest that this RPS goal be adopted today while the PUC study concurrently determines a cost effective pathway for achievement.

- Interim RPS targets for the gas utilities can be set once the PUC study is completed. Interim targets would mitigate concerns of non-compliance with the Companies own RPS requirements as customers who choose to invest in fossil fueled customer-owned generation would become renewable over time.

In addition to studying the feasibility of a gas RPS, H.B. No. 550, HD1 changes the definition of RPS for electric utilities and increases the interim RPS targets in 2030 and 2040. We **oppose** this portion of the bill. Our concerns lie with the RPS target increases in 2030 from 40% to 65% and in 2040 from 70% to 85%. Such large increases in RPS requirements may be uneconomical as RPS achievement is driven by the market through distributed Photovoltaic (“PV”) adoption and third-party project development. At higher levels of RPS, reliably operating an electric system that is primarily composed of renewable resources will also require additional integration resources. The Companies understand that the 100% RPS in 2045 remains the long term goal to be achieved and appreciate the flexibility that the current RPS law provides in achieving this goal.

Accordingly, the Hawaiian Electric Companies oppose H.B. No. 550, HD1 in its current form. Thank you for this opportunity to testify.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO HB 550 HD1, RELATING TO RELATING TO RENEWABLE
ENERGY
BEFORE THE
HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE
TUESDAY, FEBRUARY 12, 2019**

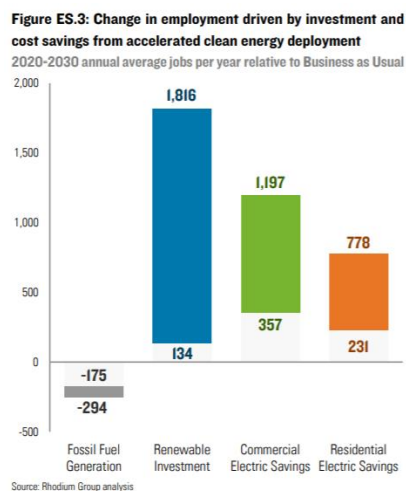
Chair Takumi, Vice-Chair Ichiyama, and members of the committee, my name is Will Giese and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA SUPPORTS HB 550 HD1. This measure requires the Public Utilities Commission to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies. Amends the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy. Appropriates funds. (HB550 HD1)

The HSEA was founded in 1977 to further solar energy and related arts, sciences and technologies with concern for the ecologic, social and economic fabric of the Hawaiian Islands. Our membership includes the vast majority of locally owned and operated solar installers, contractors, distributors, manufacturers, and inspectors across all islands.

There is no reason that the gas company, which primarily distributes, buys, sells, and/or manufacture a fossil fuel should be exempt from the state’s renewable energy portfolio. The people of Hawaii do not have time to wait around to see if the impacts of climate change are real: they most certainly are. We should be doing everything in our power to hold energy companies, including the electric utility, the gas utility, and the renewable industry, accountable for helping address the problem of climate changes.

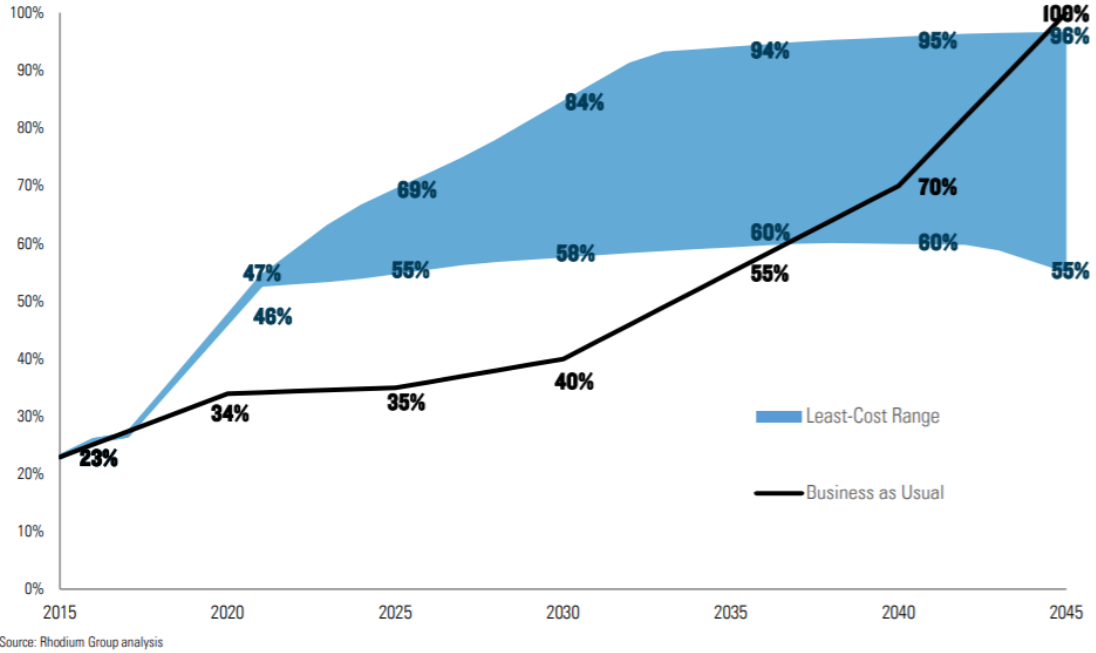
We also encourage the PUC and this bill to examine accelerating the transition to 100% RPS faster than 2045. A recent Hawaii-based study on transition to renewable energy concluded that a faster transition would be cheaper than the current RPS schema and creates more, better paying clean energy jobs, such as those created by HSEA member companies.





Hawaii Solar Energy Association
Serving Hawaii Since 1977

Figure ES.I: State-wide renewable share of total generation, 2015-2045



We **SUPPORT HB 551 HD1** and we urge this committee to pass this measure.

Thank you for the opportunity to testify.



HAWAII TEAMSTERS AND ALLIED WORKERS, LOCAL 996

Affiliated with the International Brotherhood of Teamsters

1817 Hart Street
Honolulu, Hawaii 96819-3205

Telephone: (808) 847-6633
Fax: (808) 842-4575

Testimony to the House Committee on Consumer Protection and Commerce

Tuesday, February 12, 2019 2 p.m.
Conference Room 329, State Capitol

RE: HB 550 HD1 – Relating to Renewable Energy

Chair Takumi, Vice Chair Ichiyama and Members of the House Committee on Consumer Protection and Commerce:

The Hawaii Teamsters and Allied Workers, Local 996 stands in **support** of HB 550 HD1 with these comments.

We support a study in respect to the complexities of the gas utility related to electric generation. However, the scope of the study into unregulated utility businesses brings concern. Studies have shown RPS standards on electric utilities have increased utility and non-utility costs for consumers, and could consequently have the same negative effect on gas consumers.

Gas based technologies have been an affordable, reliable, and resilient energy and play a very small but vital role in Hawai'i, providing only 2% of energy. Gas utility have shown efforts of procuring new sources of clean renewable energy with the use of methane from Honouliuli waste water treatment plant, and conversion of naphta (a waste product of petroleum) from the gas refinery, and converting these by-products into clean gas.

We ask the focus would be solely on its intended regulation gas utilities related to electric generation and not unregulated industry. The Utility should not be forced into any mandate which ignores the industry's complexity, and comes with hefty costs lacking benefits to consumers at a time where majority of Hawai'i households face financial uncertainty.

Thank you for the opportunity to testify on HB 550 HD1

Sincerely,

Cody Sula
Government Affairs Liaison
Hawaii Teamsters and Allied Workers, Local 996

HB-550-HD-1

Submitted on: 2/11/2019 1:45:56 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:



ELEMENTAL EXCELERATOR

Written Statement of Elemental Excelerator

before the House Committee on Energy and Environmental Protection
Committee Meeting Room
Tuesday, February 12, 2019

In consideration of [HB 550 HD1](#) RELATING TO RENEWABLE ENERGY

Aloha Chair Takumi, Vice Chair Ichiyama, and Members of the House Committee on Consumer Protection and Commerce:

Elemental Excelerator respectfully **submits our support with comments** on HB 550 HD1, which:

1. Amends the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy.
2. Appropriates funds.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawai'i. We have awarded over \$30 million to 82 companies resulting in 56 demonstration projects in Hawai'i & Asia Pacific. Each year, we evaluate over 500 companies and look for innovative entrepreneurs from around the world to come to Hawai'i and find transformative solutions to help us achieve our 100% clean energy goals and solve our most pressing environmental problems. We select 15-20 companies annually that best fit our mission and fund each company up to \$1 million.

In April 2018, Elemental Excelerator commissioned a study entitled *Transcending Oil: Hawai'i's Path to a Clean Energy Economy*. The study found that in Hawai'i, transitioning to renewable energy is cheaper than sticking with oil. The faster we go, the cheaper it will be. Our clean energy goals and accelerated targets necessitate leadership across state and local government, private institutions, and community organizations, and requires early and frequent community engagement.

We support HB 550 HD1 because of the following:

1. **It is more cost-effective:** Transcending Oil found that renewables are more cost effective and the most cost-effective path will lead us to up to 84% renewable energy by 2030 and up to 95% by 2040.¹ Updating interim targets for the RPS from 40% to 65% by 2030 and from 70% to 85% by 2040 tails the projected cost effective path and lies conservatively within Hawaiian Electric Companies' Power Supply Improvement Plan, which states that "*under multiple longer-term scenarios, our RPS can be at least*

¹ Larsen, J., Mohan, S., Herndon, W., Marsters, P., & Pitt, H. (2018, May 01). Transcending Oil: Hawai'i's Path to a Clean Energy Economy, p.22, Retrieved from <https://rhg.com/research/transcending-oil-hawaii-path-to-a-clean-energy-economy/>

72 percent by 2030 and reach at least 100 percent by 2040, ahead of the 2045 deadline.”²

- 2. It will enhance our economy:** Compared to meeting the current RPS of 40% renewable energy by 2030, Transcending Oil found that advancing targets to 84% by 2030 create up to 3,500 additional jobs per year that pay \$3-7 more per hour than Hawai'i's \$20 median wage and drive nearly \$2.8 billion in additional investment by accelerating its clean energy transformation.³

Mahalo for the opportunity to provide testimony on this legislation.

Sincerely,



Aki Marceau
Managing Director, Policy & Community - Hawai'i

² Hawaiian Electric Companies' 2016 Power Supply Improvement Plan (PSIP). (2016, December). Retrieved from https://www.hawaiianelectric.com/documents/clean_energy_hawaii/grid_modernization/psip_executive_summary_20161223.pdf

³ Transcending Oil, p.3.



Testimony to the House Committee on Consumer Protection & Commerce

Tuesday, February 12, 2019 2:00 p.m.

Conference Room 329, State Capitol

RE: House Bill 550 HD1 – Relating to Renewable Energy

Chair Takumi, Vice Chair Ichiyama and Members of the Consumer Protection & Commerce Committee

Hawaii Gas **respectfully opposes** this bill provides the following **comments** to HB 550 HD1:

HB550 HD1 has been amended to:

(1) Require the Public Utilities Commission to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies; and

(2) amend the electric renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoptions of renewable energy.

HG is thankful to the legislature for recognizing the complexity of establishing a renewable portfolio standard on gas utilities, as well as the consideration for the impact on customers, especially given that nearly half our state's population is barely making ends meet.

Before implementing an RPS for gas utilities, HG recommends that the legislature consider studying the following objectives, so that there is clarity on the specific goals for an RPS on gas utilities:

- Determine overall policy objectives and trade-offs – Is the state focused on reducing greenhouse gas emissions, affordable energy prices for customers, ensuring resiliency for the state, pursuit of renewable energy at any cost, or a more balanced approach?
- Determine impact on refineries and other entities as part of Hawaii's connected energy ecosystem, i.e. Unlike mainland gas utilities, HG currently produces the majority of its gas from a byproduct of the refinery process.
- Consider existing policies in place, such as Carbon Neutral by 2045, etc. and whether they need to be modified or enhanced.
- Determine mechanisms needed to drive policy objectives – Renewable portfolio standard is just one mechanism. Other examples are carbon tax, carbon sequestration, financial incentives or subsidies, favorable policies to develop new industry, etc.
- Determine best mechanism or combination of mechanisms to achieve the policy objectives and ensure no conflict.
- Conduct cost-benefit analysis on the entity or entities that will be subject to mechanism or mechanisms.
- Conduct economic analysis on impact to customers.
- Determine reasonable timeframe to implement the mechanism and the associated milestones.

HG supports a fair, unbiased, study to determine the feasibility of imposing a renewable gas portfolio standard on gas utility companies within the state; however, believes that establishing a clear understanding of the policy objectives first will lead to a better outcome for Hawaii and the community. In



addition, because many of the existing policies are coordinated through DBEDT; and, primarily the Hawaii State Energy Office (HSEO), HG believes that it would be more efficient for the HSEO to lead this preliminary work.

Furthermore, we have concerns that the scope of this study described in HB 550 HD1 is much broader than the original purpose of HB 550. The study described in HB 550 HD1 goes beyond uses of gas for grid-connected electrical energy. The study includes all gas end uses, including HG's propane business, which is not regulated by the Hawaii Public Utilities Commission, so it is unclear the extent to which resultant recommendations could be implemented on that business.

Because of these complexities, we support a well thought out process and study (as described above) to support HG's efforts to include more cost-effective renewable natural gas into its fuel mix.

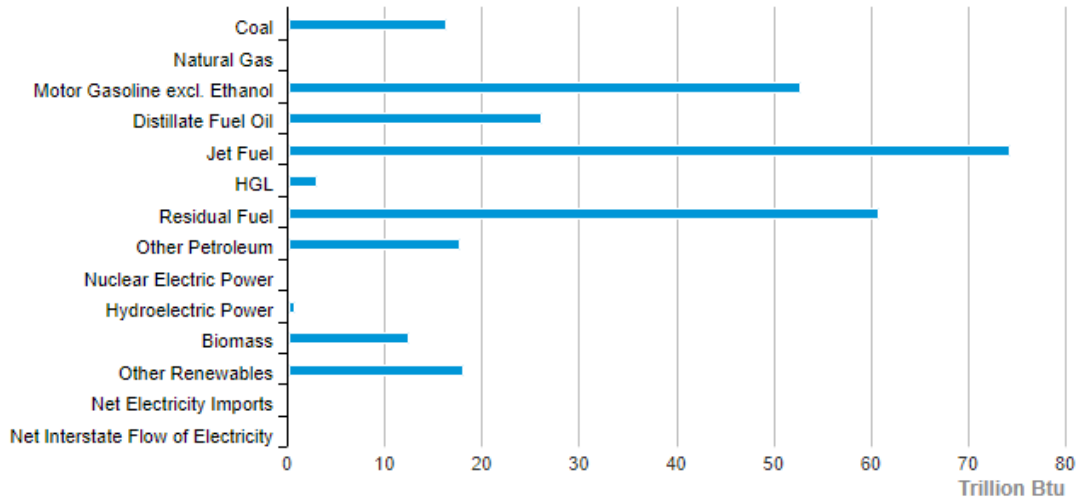
HG similarly believes that any study would benefit from a review of other existing frameworks and study what is working and what is not working and how they can be adapted for Hawaii. Unlike mainland gas utilities, which predominately use natural gas, HG makes its gas from a waste byproduct of Hawaii's refinery process, which is called synthetic natural gas (SNG). As HG displaces more of this product with renewable natural gas, the refinery will need to find an alternative use for this byproduct, which could include exporting off island or flaring. This is just one example of the complexities that need to be carefully studied.

Blindly putting in place mandates before this exercise is completed is irresponsible policy making. We need to do the hard work and HG is willing to collaboratively work with the state and other energy stakeholders on a system-wide energy plan to help manage this transition to renewable energy without creating economic inequities and unintended consequences.



Hawaii Gas has been serving customers throughout the state for 115 years. **HG represents less than 2% (two percent) of Hawaii’s energy demand and our facilities account for 1/3 of 1% of direct greenhouse gas emissions.** HG supports efforts to curb greenhouse gas emissions and has been doing just that. With committed projects to date, HG expects to have reduced the equivalent of over 100,000 barrels per year of imported oil to the state once fully implemented.

Hawaii Energy Consumption Estimates, 2016

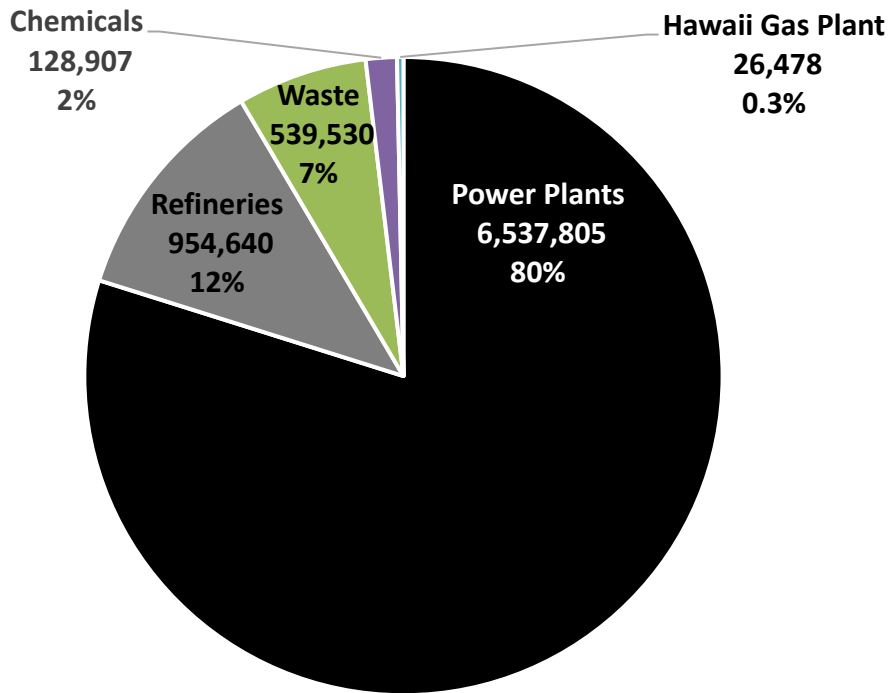


Source: Energy Information Administration, State Energy Data System

Data

Last Update: January 17, 2019 | Next Update: February 21, 2019

State of Hawaii - Direct Greenhouse Gas Emissions Reported by Sector in Metric Tons of CO₂e
Data Reported to EPA as of August 19, 2018



Hawaii Gas is forging ahead with its transition towards more renewable energy as evidenced by HG’s clean energy initiatives, including:

- Recent dedication of the state’s first renewable natural gas production facility at the City and County’s Honouliuli Wastewater Treatment Plant in Ewa Beach;
- Dedication of Waihonu Solar Farm in Central Oahu in 2016, producing 6.5 MW of electricity to provide power to approximately 1,000 homes; and
- Production of hydrogen through the manufacturing of synthetic natural gas from naphtha and recycled wastewater from Honouliuli wastewater treatment plant

While it took over five years from conception to operation, we are very pleased to develop the state’s first RNG production facility with the City and County of Honolulu and continue to explore future development of RNG from municipal waste facilities and landfills. Hawaii Gas is also pursuing the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that can produce the scale necessary to entirely service the energy needs of our entire state.

We welcome the opportunity for a study to consider the physical resource limitations, industry technical issues, lack of policy initiatives, competing state policy priorities and significant potential consequences to ratepayers that need to be considered before imposing mandates on a gas utility.

Physical Resources Limitations

- Lack of Local Supply – Very limited developable biogas resources currently exist in Hawaii (from wastewater treatment plants and landfills). The vast majority of this gas resource is unavailable to HG. Other sources of biogas deployed in renewable gas projects globally (e.g., animal waste, crop waste, food waste diversion) – are inadequate or scarce in Hawaii¹;
- Alternatively, producing local energy crops present issues with lack of land, water and farmers;
- **Any study needs to evaluate all of the potential waste sources that HG could use, and develop policies for HG to obtain access to these sources.**

Policy Limitations and competing state initiatives

- Unlike other renewable energy technologies, renewable natural gas has limited federal and state incentives that would help offset capital cost projects and provide savings to customers;
- We encourage policy makers to create a master plan to balance the use of resources such as land and water rights for state priorities such as renewable energy, affordable housing and local food production;
- While some support RPS on a gas utility, other states, such as California realize that imposing an RPS on a gas utility is not prudent and instead have focused on creating financial incentives for biogas producers which supply renewable fuels to gas utilities (\$40 million allocated in 2018) and rate recovery regulations for distribution companies;
- **Less than one percent of RNG developed in the U.S. Mainland is used by utility customers because there are few federal or state resources available to encourage RNG production. Over 99 percent of RNG projects exist for non-utility, transportation use according to the Coalition For Renewable Natural Gas;**
- Electric and gas utilities are different in fundamental ways. While the electric utilities have the flexibility to utilize different fuels for generation, gas utilities do not have the same flexibility to use existing infrastructure for gaseous fuels as easily;
- Existing Policy mandates are redundant to this proposed legislation:
 - Senate Resolution 143, SD1 requesting DBEDT to report to the Legislature on How to Incorporate Renewable Fuels into the Hawaii Clean Energy Initiative
 - Act 15 (2018)–Makes Hawaii carbon neutral by 2045 and establishes a Greenhouse Gas Sequestration Task Force – State Office of Planning - underway
 - Act 16 (2018) Creates a Framework for Carbon Offset Program that allows for carbon credits through global carbon sequestration protocols – State Office of Planning - underway
 - Businesses like HG mandated to develop pathways to meet deadline in most economical and sustainable way for our customers

¹ https://www.americanbiogascouncil.org/State%20Profiles/ABCBiogasStateProfile_HI.pdf



Significant potential consequences to ratepayers if an RPS is imposed on the gas utility with no clear pathway to achieving the RPS

- Nearly 48% of Hawaii households are struggling to make ends meet² or are living below the poverty level, an increase in utility costs will add financial burden for families;
- Renewable natural gas costs are high and we must balance end costs to customers to keep rates affordable;
- Lack of financial incentives at the Federal and State levels portend continued high costs;
- Highly portable, disaster-resistant fuels such as natural gas and propane also play critical roles in shoring up homeowner resiliency and redundancies in the event of natural disasters. In 2018, HG assisted residents on Kauai's North Shore recover from historic floods, as well as supported the displaced residents from Hawaii Island with natural gas and propane for cooking and water heating needs;
- We can learn from Puerto Rico's Hurricane Maria recovery as they chart a pathway to integrate 100% renewable energy and build more resiliency into the island's grid system. Power generation plans incorporate a percentage natural gas to be integrated with solar, wind power and battery storage in various scenarios that permit the retirement of Puerto Rico's coal-fired units.

Thank you for the opportunity to testify on HB 550 HD1.

Sincerely,

Jeannine A. Souki
Director, Government Affairs and Communication

² <https://www.auw.org/sites/default/files/pictures/AUW-ALICE%20Fact%20Sheet%20FINAL.PDF>



To: The House Committee on Consumer Protection & Commerce
From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action
Date: Tuesday, February 12, 2019, 2:00 pm

In strong support of HB 550

Dear Chair Takumi, Vice Chair Ichiyama and Committee Members—

Organizing for Action strongly supports HB 550, ***with its original language restored.***

OFA implores you to restore the original intent of HB 550 and establish an RPS for the gas utility. We must move away from dirty fossil fuels, especially climate destroying LNG, ***without delay.*** Hawaii Gas knows well that their current business model cannot meet the RPS Hawaii needs to reach zero-emission energy, and a study is a complete waste of time. Their model needs to change, and that is not the PUC's problem nor the legislature's problem. It's Hawaii Gas's problem, and they need to be pushed with an RPS, not a senseless study.

November's UN IPCC report says that governments ***at all levels*** around the world must take “rapid, far-reaching and unprecedented changes in all aspects of society” to avoid catastrophic levels of global warming. It says the planet will reach the crucial threshold of 1.5 degrees Celsius above pre-industrial levels as early as 2030, precipitating the risk of extreme drought, wildfires, floods and food shortages for hundreds of millions of people. We cannot wait 27 years to achieve our 100% renewable energy goal. We must act now with the urgency of war to fight climate change and accelerate our actions, setting a target of no later than 2030 for fully zero-emission energy.

So in addition to reinstating the language to establish an RPS for the gas utility, HB 550 should be amended to accelerate the target for utilities to achieve zero-emissions energy by 2030, as is already being proposed nationally in the Green New Deal. 2045 is far too late. We can and must do better.

Natural gas has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse. Using less (or none) of it would also send a message to suppliers that it's high time they get out of their destructive business and focus on clean energy instead.

We're depending on you to lead us quickly to a zero-emission future, where natural gas has no role. Who will do it if not you?

Thank you for the opportunity to testify.

Brodie Lockard
Hawaii State Climate Lead, Organizing for Action



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

COMMITTEE ON CONSUMER PROTECTION & COMMERCE

Rep. Roy M. Takumi, Chair
Rep. Linda Ichiyama, Vice Chair

DATE: Tuesday, February 12, 2019

TIME: 2:00 p.m.

PLACE: Conference Room 329

HB 550 HD1 RELATING TO RENEWABLE ENERGY

CAUTIOUSLY OPTIMIST

Aloha Chair Takumi, Vice Chair Ichiyama, 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 49 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 intent of the bill is to align the Gas Company with State Policies to increase renewable energy and decrease greenhouse gas emissions.

The Gas Company is part of a multi-national corporation which flatly denies that climate change is real.

The parent company does have token renewable energy subsidiaries.

Year	HRS §269-92	HB 550	HB 550	SB 571
	Electricity	Electricity	Regulated Gas	Regulated & Unregulated Gas
2020	30%	30%		
2025			X%	25%
2030	40%	65%	X%	40%
2040	70%	85%	X%	70%
2045	100%	100%	100%	100%

HB 550 HD1 requires that the public utilities commission study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies... This Act shall take effect on July 1, 2100

The passage of **HB 550** would require the Gas Company to align itself policies with state policy.

The passage of **HB 550 HD1** which would require the PUC to open up an investigative docket with intervenors to analyze for the first time ever, whether the Gas Company should be required at some future point in time to generate more than 5% of its gas from renewable sources, will both achieve alignment of policies in the future.

HB 550 HD1 is the only one of the three bills that requires the Gas Company to deal with greenhouse gases, and it does so very indirectly. Furthermore, there is no apparent deadline for completing the UH study.

“Use funds from the public utilities special fund to contract with the Hawaii natural energy institute of the University of Hawaii to conduct independent studies to ...include findings and recommendations regarding... Climate change policies.”

Life of the Land has intervened in recent Commission proceedings in which the gas utility refused to analyze their greenhouse gas footprint and refused to examine ways to rapidly increase the use of renewable energy. Our appeal is before the Hawai`i Supreme Court.

The Gas Co position is understandable because they are owned by climate deniers.

But that shouldn` t affect Hawaii requirements that everyone participate in saving the planet.

Mahalo

Henry Curtis
Executive Director

HB-550-HD-1

Submitted on: 2/10/2019 1:40:25 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	Comments	No

Comments:

Restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

(**HB550** got amended this week and as a result, drastically weaken. **One of the main purposes for this bill has been subverted.** The original bill called to establish renewable portfolio standards (RPS) for the gas utility ensuring the transition away from fossil fuels and toward renewable energy.

The amended version of the bill has eliminated this crucial component and instead is calling for the public utilities commission to study the *feasibility* of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies.

This is **UNACCEPTABLE**. We are at the brink of climate catastrophe and Hawaii Gas, a company on record as being a climate denier, does not have the right to steal our children's future, pushing for expanded use of climate-destroying fracked LNG.)

There is no rational reason to pollute our own environment or destroy ecosystems.

www.WeAreOne.cc

HB-550-HD-1

Submitted on: 2/9/2019 3:54:39 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jonathan Boyne	Individual	Comments	No

Comments:

Please restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

HB-550-HD-1

Submitted on: 2/9/2019 4:01:44 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Laura Gray	Individual	Support	No

Comments:

This bill has been weakened and needs to be restored to the original intent of transitioning off gas (or LNG fracked) dirty, climate chaos causing fossil fuel and onto renewable, green fuel that will not destroy our planet. We will not tolerate a company that has no thought for our wellbeing here in Hawaii where we are educated and believe in science!! Mahalo, Laura Gray R.N.

HB-550-HD-1

Submitted on: 2/9/2019 6:51:46 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
donald erway	Individual	Support	No

Comments:

HB550 got amended this week and as a result, drastically weakened. **One of the main purposes for this bill has been subverted.** The original bill called to establish renewable portfolio standards (RPS) for the gas utility ensuring the transition away from fossil fuels and toward renewable energy.

The amended version of the bill has eliminated this crucial component and instead is calling for the public utilities commission to study the *feasibility* of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies.

This is **UNACCEPTABLE**. We are at the brink of climate catastrophe and Hawaii Gas, a company on record as being a climate denier, does not have the right to steal our children's future, pushing for expanded use of climate-destroying fracked LNG.

What can we do?

The bill is scheduled to be heard by CPC on Tuesday, 2-12-19. **Please submit testimony by Monday** and ask the committee to:

Restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

HB-550-HD-1

Submitted on: 2/9/2019 7:30:13 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
anne zellinger	Individual	Comments	No

Comments:

restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

HB-550-HD-1

Submitted on: 2/9/2019 7:57:02 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cory Harden	Individual	Comments	No

Comments:

Aloha legislators,

Please restore the original intent of HB550 and establish a Renewable Porfolio Standard for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying liquefied natural gas, without delay.

mahalo,

Cory Harden, Hilo

HB-550-HD-1

Submitted on: 2/9/2019 8:02:23 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Carolynn Bell-Tuttle	Individual	Comments	No

Comments:

Restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

HB-550-HD-1

Submitted on: 2/9/2019 8:36:36 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jeremy Garrett	Individual	Support	No

Comments:

I support this legislation, but ask that its language be restored to the original measure that established renewable portolio standards for the gas utility. The crisis of climate change is such that demands clear language and action to transition the state away from fossil fuels as soon as possible (by 2030 according to the UN IPCC).

Thank you.

HB-550-HD-1

Submitted on: 2/10/2019 11:16:28 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Meredith Buck	Individual	Support	No

Comments:

I support HB550, BUT the main function of this bill has been gutted and so my support is contingent upon the establishment of RPS for the gas utility ensuring the transition away from fossil fuels and toward renewable energy.

Please restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are past that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

In a climate-insecure reality, there is no such thing as being "fashionably late". Please pass HB550, with these critical fixes, now. Hawaii Gas does not have the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

HB-550-HD-1

Submitted on: 2/10/2019 11:46:59 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Stacy K. Tang	Individual	Comments	No

Comments:

To The Responsible Committee:

Please restore the original intent of HB550 and establish a RPS for the gas utility. We Must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. Honestly, if Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. **We are way past just aiming for sustainability now. Our goal should be regeneration.**

The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. The actions we take NOW, will determine the life we leave behind for our children and grandchildren. They are the ones that will look back to this moment in time. They will look at lawmakers of this generation and ask why nothing was done. They will be the ones to suffer on a dessertified planet, trying to keep their children cool and fed.

I ask that in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy by 2030, or sooner. 2045 is WAY TOO LATE.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future.

HB-550-HD-1

Submitted on: 2/10/2019 11:57:00 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

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

Comments:

I appreciate the opportunity to offer my support for the original intention of this bill as originally proposed. The amendments made recently would destroy the original intent of the bill which allows developers to continue to subvert our zero omission goals for Honolulu.

Restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. We are passed that now. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

With Aloha, Janet

HB-550-HD-1

Submitted on: 2/10/2019 2:55:15 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Gannon	Individual	Support	No

Comments:

To: CPC Committee

From: Joan Gannon, voter, resident west Hawaii

Re: HB550, please restore the original intent: to establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. The UN IPCC report says we have 10 years to drastically reduce green house gas emissions to avoid climate hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB 550 should further be amended to accelerate the targets for the utilities to achieve 100% renewable energy by 2030.

Please pass HB550 with these critical fixes. Thank you. Please do your best

HB-550-HD-1

Submitted on: 2/10/2019 5:12:17 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Chang	Individual	Oppose	No

Comments:

Natural gas and propane are clean, affordable, low-emission fuels compared to other fossil fuels such as diesel, coal and gasoline.

Although environmentally beneficial, imposing a RPS for gas utilities could significantly increase the cost of this energy source to the already high price of living in paradise.

Mahalo

HB-550-HD-1

Submitted on: 2/10/2019 5:13:17 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jared Pasalo	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 5:16:31 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Lau	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 5:18:43 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Fancy Lau	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 5:21:08 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Antonio Prietto	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 5:32:15 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Leila Prevo	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 5:58:07 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John K. Kamei	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. Gas is a low-carbon, resilient and cost effective energy source.

I believe we need diverse energy sources to ensure economic sustainability for hawaii's future.

Thankyou

HB-550-HD-1

Submitted on: 2/10/2019 6:07:18 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo	Individual	Support	No

Comments:

To Whom It May Concern:

I am writing in to ask to please restore the original intent of HB550 and establish a RPS for the gas utility. We must transition away from dirty fossil fuels, especially climate destroying LNG, without delay. If Hawaii Gas was a good neighbor company, they would have done their own feasibility study long ago. The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, in addition to reinstating the language to establish a RPS for the gas utility, HB550 should be further amended to accelerate the targets for the utilities to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

Please pass HB550 with these critical fixes. Hawaii Gas does not deserve the right to pollute and steal our children's future. We must act boldly now for the sake of future generations!

Sincerely,

Nanea Lo

HB-550-HD-1

Submitted on: 2/10/2019 6:20:44 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
L.M. Holmes	Individual	Support	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 6:32:32 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard J. Silva	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 8:19:19 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
DARREN CHANG	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/10/2019 9:10:49 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

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

Comments:

Aloha,

Please restore the original intent of HB550 and establish a Renewable Portfolio Standard for the gas utility.

Please pass HB550 with these critical fixes.

Mahalo,

Caroline Kunitake

HB-550-HD-1

Submitted on: 2/10/2019 10:07:24 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Zachary Tokushima	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 1:20:36 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Criste	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 6:08:42 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Tsutsumi	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 6:36:00 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Chris Johnson	Individual	Oppose	No

Comments:

Oppose RPS for gas utilities

Gas is a low-carbon, resilient and cost effective energy source

We need diverse energy sources to ensure economic sustainability for Hawaii's future

HB-550-HD-1

Submitted on: 2/11/2019 6:42:18 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kevin Nishimura	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 7:15:59 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Linda	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 7:19:07 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lawrence	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. The State of Hawaii needs to make sure it is done cost-effectively and well thought out. Having a RPS could significantly increase our cost of gas to the end user both residential and commercial use.

Gas is low-carbon, resilient, reliable, and a cost effective energy source for our state. Hawaii needs diverse energy sources to ensure economic sustainability for Hawaii's future.

HB-550-HD-1

Submitted on: 2/11/2019 8:01:34 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Makii	Individual	Oppose	No

Comments:

Oppose RPS for gas utilities

Gas is a low-carbon, resilient and cost effective energy source

We need diverse energy sources to ensure economic sustainability for Hawaii's future

HB-550-HD-1

Submitted on: 2/11/2019 8:16:53 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mustafa Demirbag	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 8:47:12 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John M. Matsunaga	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 8:48:47 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Hall	Individual	Oppose	No

Comments:

I oppose this RPS for gas utilities because we need diverse energy sources to ensure resiliency and economic sustainability for Hawaii's future.

HB-550-HD-1

Submitted on: 2/11/2019 9:21:08 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kealii Lacson	Individual	Oppose	No

Comments:

I oppose this because gas is a cost-effective, resilient and low-carbon energy source. I oppose this in order to maintain the diversity of energy sources in Hawaii. RPS should be RP- Less.

HB-550-HD-1

Submitted on: 2/11/2019 9:31:05 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mel Andrade	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 9:49:32 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jenny Yahiro	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 10:51:04 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dean Russell	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. The generation of energy options for the electrical utilities are much different than the options for the gas utilities. The two utilities cannot be held to the same standard when the technology and economics do not exist for the gas utility.

We need diverse energy sources to ensure economic sustainability for Hawaii's future.

We need diverse energy sources to ensure economic sustainability for Hawaii's future.

HB-550-HD-1

Submitted on: 2/11/2019 10:18:05 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jessica	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 10:56:29 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Remigio Dela Cruz	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. The generation of energy options for the electrical utilities are much different than the options for the gas utilities. The two utilities cannot be held to the same standard when the technology and economics do not exist for the gas utility.

HB-550-HD-1

Submitted on: 2/11/2019 11:00:02 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Glenn Matsunaga	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. The generation of energy options for the electrical utilities are much different than the options for the gas utilities. The two utilities cannot be held to the same standard when the technology and economics do not exist for the gas utility.

We need diverse energy sources to ensure economic sustainability for Hawaii's future.

HB-550-HD-1

Submitted on: 2/11/2019 11:01:13 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Russell Winkelman	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities. The generation of energy options for the electrical utilities are much different than the options for the gas utilities. The two utilities cannot be held to the same standard when the technology and economics do not exist for the gas utility.

We need diverse energy sources to ensure economic sustainability for Hawaii's future.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Consumer Protection and Commerce
Tuesday, February 12, 2019 at 2:00 p.m.

By
Richard Rocheleau, Director
Hawai'i Natural Energy Institute
And
Michael Bruno, PhD
Vice Chancellor for Research
University of Hawai'i at Mānoa

HB 550 HD1 – RELATING TO REWEWABLE ENERGY

Chair Takumi, Vice Chair Ichiyama and members of the committee:

The Hawai'i Natural Energy Institute (HNEI) supports the intent of this bill and provides the following comments.

Section 2 of this bill would require the Public Utilities Commission to contract with HNEI to conduct studies to determine the feasibility and capability of Hawai'i's gas utility companies to achieve renewable portfolio standards in a cost-effective manner. HNEI has conducted similar RPS studies in the past and supports conducting a study to assess the feasibility of adding RPS requirements for Hawai'i's gas utilities, but suggests limiting the scope of the study to the issues directly relevant to achieving an RPS.

HNEI suggests that relevant analysis to inform the Legislature on how robustly Hawai'i's gas utility companies are able to achieve an RPS in a cost-effective manner might address: utility system reliability and stability; costs and availability of appropriate renewable energy resources and technologies with impacts on how an RPS might impact energy prices offered by renewable energy developers; permitting approvals; cost of fossil fuel volatility; and technical feasibility of establishing renewable portfolio standards for gas utility companies in Hawai'i. Other issues could be addressed pending information and resources to do so.

HNEI also agrees that the electric utility RPS definition should be changed to include all grid connected generation, not just sales, in the calculation to accurately reflect the relative amount of renewable energy to total electricity generation. We believe this change is necessary to eliminate confusion in regard to progress against the RPS goals and to maintain public confidence in the RPS.

Section 3 of the bill increases the electric utility renewable portfolio standard interim goals for 2030 and 2040 to 65% and 85%, respectively. The previous version of the bill also specifically amended the definition of "renewable portfolio standard", in HRS

section 269-91, to mean the percentage of renewable electrical energy generated compared to the total electrical energy generated. We recommend that this definition be added back to eliminate any potential confusion whether the RPS percentage requirements are based on sales, generation or some other undefined metric”.

HNEI supports accelerating Hawai‘i’s RPS targets to levels that are technically and economically feasible. However, HNEI notes that basing the percentage targets on all grid connected generation rather than sales, thus more accurately accounting for the contribution of distributed PV, would increase the amount of renewable generation necessary to meet the current 2030 target by approximately 10% over the current statutory RPS language. On O‘ahu for example, this definition would require more than a doubling of grid connected PV, relative to 2018, to meet the 2030 goals. Issues of land availability and use, reliability, and technical siting issues (e.g. transmission constraints) may be challenges at these levels. In light of these facts, we suggest that it may be prudent to further study the impacts of accelerating the targets before doing so.

Thank you for the opportunity to comment on HB 550 HD1.



February 11, 2019

Representative Roy M. Takumi, Chair
Representative Linda Ichiyama, Vice Chair
House Committee on Consumer Protection and Commerce

Support of HB 550, HD1, Relating to Renewable Energy (Requires the Public Utilities Commission to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies. Amends the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy. Appropriates funds.)

Tuesday, February 12, 2019, 2:00 p.m., in Conference Room 329

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and utility companies. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

HB 550, HD1. The purpose of this bill is to: (1) Require the public utilities commission to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies; and (2) Amend the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy.

This measure would require the Public Utilities Commission (PUC) to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies; amend the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy; and appropriates funds for the PUC study.

LURF **supports** HB 550, HD1, and respectfully urges your favorable consideration.

Thank you for the opportunity to provide comments in support of this matter.



Chamber of Commerce HAWAII
The Voice of Business

**Testimony to the House Committee on Consumer Protection and Commerce
Tuesday, February 12, 2019 at 2:00 P.M.
Conference Room 329, State Capitol**

RE: HB 550 HD 1 RELATING TO RENEWABLE ENERGY

Chair Takumi, Vice Chair Ichiyama, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **opposes** HB 550 HD1, which amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy use in the State. This bill also establishes renewable portfolio standards and targets for gas utility companies that are like those set for electric utility companies.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

The Chamber appreciates the benefits of a more sustainable future; however, we see the potential for unintended consequences with the language contained in this legislation. The bill introduces a strict regulation of private industry in order to comply with another burdensome government mandate to the existing renewable standard portfolio timeline. Additionally, the Chamber believes that the renewable gas portfolio standards study required in this bill should be completed before implementing the new renewable portfolio standards proposed in the bill.

Thank you for the opportunity to testify.



Testimony in support of HB550

HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE

Hearing Tuesday, February 12, 2019 2:00 p.m.

Aloha Chair Takumi and Committee Members,

I am writing in strong support of HB550.

HB550 is about closing loopholes that prevent us from reaching State goals to have 100% renewable energy for power and to become carbon neutral. Currently the way renewable portfolio standards (RPS) are calculated inflates the reported percentage of renewable energy. Under the current RPS definition, Hawaii could achieve 100% while still producing power from imported, dirty coal.

Another loophole is that the businesses selling gas are exempt from the RPS requirements. This is unfair to electric utilities and distorts economic decisions by clients. It also prevents the State from reaching its goals to have 100% renewable energy that will make our economy stronger, make us safer in the event of natural disasters, improve our air quality and slow the progress of climate change.

Please close these loopholes – 100% should be 100% and all fossil fuels should be treated equally.

Finally, accelerating the adoption of renewable energy will save us money, create local jobs, improve our air quality and health. With the costs of renewable energy falling more rapidly than foreseen, the targets should be adjusted accordingly.

Mahalo,

Dr. Lisa Marten
Executive Director
Healthy Climate Communities
healthyclimate@hawaii.rr.com



Email: communications@ulupono.com

HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Tuesday, February 12, 2019 — 2:00 p.m. — Room 329

Ulupono Initiative Supports HB 550 HD 1, Relating to Renewable Energy

Dear Chair Takumi, Vice Chair Ichiyama, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of the Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better manage waste and fresh water resources. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono supports HB 550 HD 1, which amends the definition of “renewable portfolio standard” to more accurately reflect the percentage of renewable energy use in the State, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

Under the current definition, the double counting of renewable distributed energy resources by using “sales” instead of “generation” in the denominator results in the RPS that overstates our actual progress. For the 2020 goal of 30 percent, the actual renewable generation as a percentage of total generation is approximately 25 percent. Similarly, for the 2030 RPS goal of 40 percent, the actual renewable generation is 28 percent.

In addition, by requiring all grid connected electric utility generation to be 100% renewable by 2045, the Legislature is addressing grid connected cogeneration, which closes that loophole. Furthermore, the electric utilities can use this language in the justification for approving or denying interconnections to new generation units that use fossil fuel energy.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate this committee's efforts to look at policies that support renewable energy production.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

Investing in a Sustainable Hawai'i

HB-550-HD-1

Submitted on: 2/11/2019 7:30:46 PM

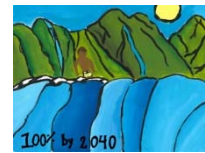
Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Debbie Schatz	Healthy Climate Communities	Support	No

Comments:

. We have a law mandating 100% renewable energy by 2045 to stop the flow of money out of our State to pay for fossil fuels, create jobs, clean the air and slow climate change. Right now solar rooftops are double-counted and the calculations are wrong. Also, gas has no requirements on it at all which is unfair and distorts economic decisions. Finally, given how much cheaper large solar farms have become than imported oil, our State will save money and reap more benefits if the benchmarks are updated to speed the transition.

The process takes time and needs to start now. Thank you for making this a priority.



HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

February 12, 2019, 2:00 P.M.

Room 329

(Testimony is 6 pages long)

TESTIMONY IN SUPPORT OF HB 550 HD1

Aloha Chair Takumi, Vice Chair Ichiyama, and Committee members:

Blue Planet Foundation **supports** HB 550 HD1, which directs the Public Utilities Commission to incentivize gas utilities to achieve 100% renewable sources by 2045 and increases the interim renewable portfolio standard (RPS) targets for electric utilities (for 2030 and 2040). **We prefer, however, the original version of HB 550, which ensures that Hawaii’s 100% goal actually means “100%” and extends the benefits of the RPS to include gas utilities.**

Passing the original version of HB 550 is essential for **accelerating progress** and ensuring **transparency, consistency, fairness, and consumer confidence** in Hawaii’s 100% renewable energy target.

THE SUCCESS AND IMPORTANCE OF THE RPS LAW

Hawaii’s RPS law has been a resounding success. In 2015, the legislature set a vision for Hawaii’s energy security, economic viability, and environmental protection by setting a target of 100% renewable energy by 2045. The 100% RPS law has since impacted the energy system exactly as intended, and is driving energy progress in the state. It has strengthened collaborations and fostered alignment on a variety of regulatory issues. With strong Public Utilities Commission guidance and oversight, Hawaii’s 100% RPS is resulting in utility long-range plans that will achieve the mandate ahead of schedule, while simultaneously saving consumers billions of dollars compared to the fossil fuel status quo.

The 100% RPS has set market expectations. Hawaii is now securing 100% renewable energy projects, able to provide energy at any time of day or night, for a stable cost that is substantially less than the cost of fossil fuel.

In fact, earlier this month, Hawaiian Electric announced contracts for seven large solar and battery projects at record low prices, proving it is possible to generate clean electricity far cheaper than from fossil fuels.¹ The power from these projects will be as low as 8 cents per

¹ See <https://www.hawaiianelectric.com/new-solar-plus-storage-projects-set-low-price-benchmark-for-renewable-energy-in-hawaii>

kilowatt-hour (kWh), with most coming in below 10 cents per kWh. Even the highest-priced project is substantially lower than the 15 cents per kWh average cost to produce electricity from fossil fuels.

By comparison, just a few years ago, Hawaii was considering importing liquefied natural gas (LNG)—another fossil fuel—to generate electricity for 15 to 20 cents per kWh.

100% RPS FOR GAS UTILITIES IS CRITICAL

The original draft of HB 550 wisely establishes a renewable portfolio standard requiring that 100% of gas sold by gas utility companies in the state be renewable by 2045. Expanding Hawaii's 100% RPS to apply to gas utility companies is a necessary next step if we hope to achieve our ambitious clean energy and climate targets—particularly meeting the commitment to the Paris Climate Agreement (Act 32 of 2017) and target of net carbon neutral by 2045 (Act 15 of 2018). **Simultaneously, the measure will fix the current unfairness in the energy market**, which requires electric utilities, but not gas utilities, to comply with a renewable portfolio standard. Without an RPS policy for gas, Hawaii could remain dependent on fossil fuels for decades and fail to achieve its critical climate goals.

Consumers sometimes confuse “natural gas” with renewable energy. As most commonly used, natural gas is “natural” in the same way that oil and coal are “natural.” **Natural gas is a fossil fuel.** It is not renewable, and it is inconsistent with a shift to 100% renewable energy.

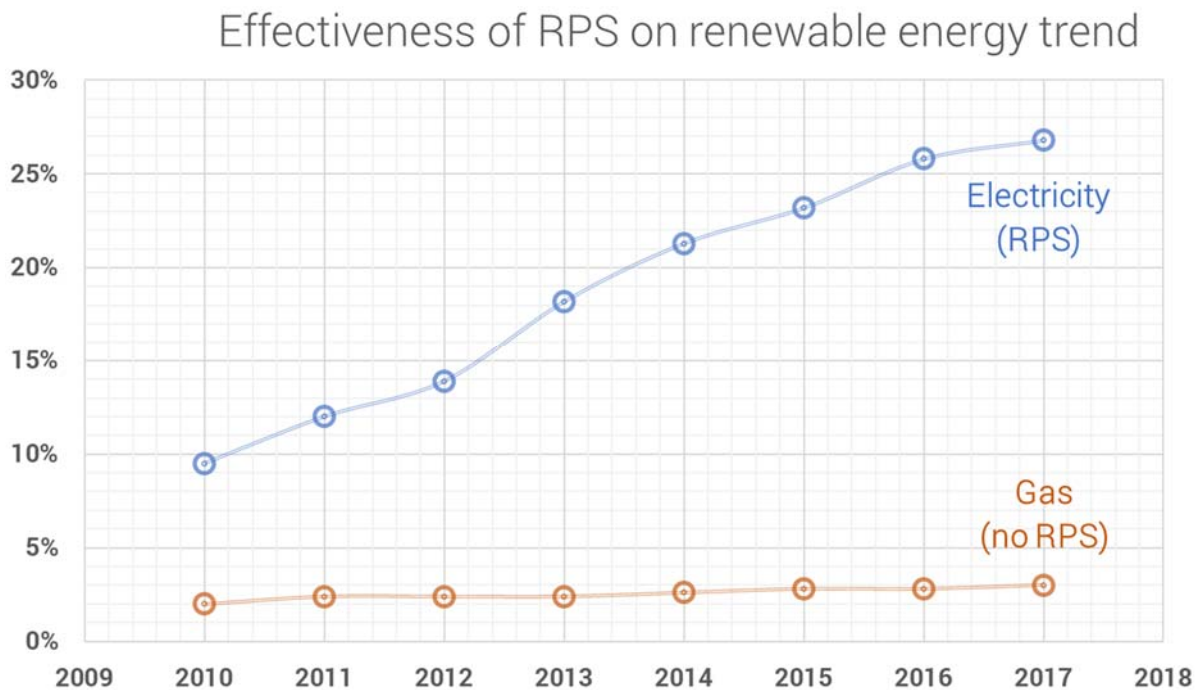
Blue Planet applauds Hawaii Gas for its recent efforts to integrate small amounts of renewable natural gas (RNG) into its supply. In December 2018, Hawaii Gas launched its operations at the first renewable natural gas facility in the islands, capturing and processing biogas created during the process of treating wastewater at the Honouliuli Wastewater Treatment Plant on Oahu.² The plant is expected to produce 800,000 therms energy per year, which is equivalent to about 15,000 barrels of oil. Previously, this gas was flared (i.e. burned) at the plant. With this project, the City and County of Honolulu will now derive revenue by selling the gas, rather than wasting it, and bring RNG on Oahu to roughly 5% of the total gas supply. This is a remarkable win-win solution. Blue Planet Foundation strongly supports these efforts to transition to renewable gas.

Scaling this will require the development of additional renewable natural gas sources—particularly identifying new win-win solutions for local private and public entities, such as that developed with Honouliuli. These might include: wastewater treatment facilities, landfills, other waste sources, local crops, or renewable hydrogen. Suppliers in other locations may also become an option. In the continental U.S., Clean Energy Fuels Corp. is currently marketing a renewable natural gas product called “Redeem.” This is collected from various waste sources,

² See <https://www.bizjournals.com/pacific/news/2018/12/20/hawaii-gas-completes-first-renewable-gas-facility.html>.

such as landfills and farms, and then distributed across the country via a natural gas pipeline system. It is presently used to fuel thousands of vehicles each day.

It is clear, however, that renewable standards are required to ensure that Hawaii Gas continue to increase the amount of renewable gas in their system. Despite promises over the past decade about increasing the use of renewable gas, the actual use of RNG has remained nearly flat. The chart below, using data from the statutorily required renewable energy annual reports,³ compares the renewable progress made by the electric utility versus the gas utility. The electric utility has steadily increasing renewable goals set for by the RPS.



Hawaii Gas previously stated that they plan to “diversify our feed stock to include gas from renewable resources such as landfill gas and bio-methane, and other renewable sources, including animal fat and plant oils that are locally produced.”⁴ A *Honolulu Advertiser* article from November 22, 2009 discussed the plans of the Gas Company (now dba Hawaii Gas) and its belief that integrating high amounts of local feedstock is a good business decision for the company and for customers. In 2009 testimony to the legislature on HB 1464, The Gas Company stated: “We are actively taking the necessary steps to increase the renewable content

³ Renewable Energy Annual Reports filed with the Hawaii Public Utilities Commission, available at <http://puc.hawaii.gov/reports/energy-reports/>

⁴ The Gas Company Testimony in Support of HB 1464 HD2, Relating to Energy Resources (Feb. 26, 2009), available at http://www.capitol.hawaii.gov/session2009/testimony/HB1464_HD2_TESTIMONY_FIN_02-27-09_4_.pdf

of our gas to 50 percent for the entire state within five years.”⁵ These statements likely gave some comfort to lawmakers at the time that binding renewable energy targets for natural gas weren’t necessary. Unfortunately, we are seeing the effect of those decisions ten years later.

A renewable portfolio standard for gas is necessary to ensure that Hawaii actually stays on track to achieve its critical clean energy and climate goals.

Beyond using waste gas from sewage treatment and landfills, the gas utility has raised concerns about the viability, cost, and available volume of locally produced feedstock for renewable gas. While this may present real challenges, renewable natural gas is not the only option for the incumbent gas utility. Renewably produced hydrogen presents a perfect opportunity as a sustainable fuel—one with tremendous growth potential. Hydrogen—the most common element in the universe—will likely play a key role in our clean energy future, particularly in the transportation sector. Hydrogen can be used as a storage fuel, where hydrogen is created from geothermal, wind, or solar energy and stored (in pure gas, compressed, some chemical state, or through another medium) and used later in combustion or fuel cell applications.

Progressive gas companies around the globe are exploring the use of renewable hydrogen as a replacement for their natural gas sales. In Australia, Evoenergy and Canberra Institute of Technology are testing the direct conversion of natural gas infrastructure and pipelines to hydrogen.⁶ In the United Kingdom, three natural gas distributors have detailed plans to convert the UK’s residential gas system to a hydrogen delivery system. UK firms Northern Gas Networks and Cadent, as well as Norwegian gas firm Equinor, suggested an initial roll-out of the program to 3.7 million homes and 400,000 businesses in Northern England could commence as soon as 2028.⁷

Establishing an RPS for gas in Hawaii will help foster the transition to low-carbon replacements for natural gas, and could help unlock a transformation to a hydrogen-based clean energy system for the state.

In the interest of achieving our state’s critical clean energy and climate goals, robust state energy policy, fairness, and unlocking innovation, Blue Planet Foundation strongly supports establishing a gas RPS via HB 550.

⁵ *Id.*

⁶ Canberra Institute of Technology, “Nation’s first hydrogen test station at CIT Fyshwick,” December 4, 2018 (https://cit.edu.au/news/hydrogen_test_station).

⁷ <https://arstechnica.com/science/2018/11/natural-gas-distributors-outline-proposal-to-convert-home-heating-to-hydrogen/>

100% MEANS 100%

The original version of HB 550 ensures “100%” means “100%” by making a needed correction to the RPS calculation. Currently, the state’s RPS calculation can provide utilities with “double credit” for some distributed energy sources, such as rooftop solar. This leads to the outcome that the calculated RPS can be greater than the actual percentage of renewable energy on Hawaii’s electric grids. The original version of HB 550 would revise the RPS accounting calculation to address this potential outcome.

To the credit of the Hawaiian Electric Companies, the most recent electric utility power supply plans appear to target a fully renewable system, even though a loophole in the RPS calculation improperly accounts for distributed energy generation. To illustrate, the forecasted Hawaiian Electric RPS for 2045 is as high as 183% (the maximum for a properly calculated renewable standard should be 100%). In short, this is because distributed energy resources, such as rooftop solar, impact the RPS calculation in a way that essentially provides a double credit.

While power supply planning to date has not been hampered by this faulty calculation, it nonetheless **creates uncertainty and lack of clarity for consumers**. This is a long-standing problematic feature of Hawaii’s energy targets. As an example, the circa-2008 clean energy initiative goal of 70% renewable energy was actually a 40% renewable energy goal, with a supporting energy efficiency goal of 30%. Consumers were endlessly confused by the reference to “70%.”

Fixing the RPS calculation is intended to avoid repeating that mistake. **100% renewable energy should mean 100% renewable energy.**

ACCELERATING THE TRANSITION

The state is already on track to achieve the vision set by the legislature for renewable electricity, including both the near-term and long-term RPS requirements. But at least one recent study shows that accelerating the interim targets could be more cost-effective for Hawaii ratepayers than maintaining the trajectory for renewables under the current RPS law.⁸

Accelerating the transition to 100% renewable energy—as proposed in House Bill 550—is not only beneficial to Hawaii’s economy, it could be crucial for our planet. As the most recent special report from the United Nations Intergovernmental Panel on Climate Change (IPCC) concluded, avoiding climatic catastrophe will require transformative action at a pace and scale never seen before. The special report found that “there is no documented historic precedent” for government action of the kind needed to achieve climate stability.⁹ As an island community, we

⁸ See Rhodium Group (commissioned by Elemental Excelsior), *Transcending Oil: Hawai‘i’s Pathway to a Clean Energy Economy* (2018), available at: <https://www.transcendingoil.com/>.

⁹ See IPCC, *Special Report on Global Warming on 1.5°C*, available at: <https://www.ipcc.ch/sr15/>

feel this threat firsthand. We must continue to do our part to avoid the most devastating impacts of climate change.

As a state, we've committed to doing just that. Beyond the 100% RPS, the Hawaii Legislature committed to achieving the objectives set out in the Paris Climate Agreement (Act 32 of 2017) and adopted the goal to be net carbon neutral by 2045 (Act 15 of 2018). Meeting these ambitious targets will require courageous leadership and smart policies—like House Bill 550—that quickly move us past the status quo.

CONCLUSION

Blue Planet Foundation strongly supports the original draft of HB 550 to help **accelerate Hawaii's clean energy progress, increase fairness across the energy sectors, and spur innovation and development in new, locally produced, renewable fuels**. This is an important measure for ensuring transparency, consistency, fairness, and consumer confidence in Hawaii's 100% renewable energy target.

We look forward to working with the legislature on this key policy.

Thank you for the opportunity to testify.

HB-550-HD-1

Submitted on: 2/11/2019 3:15:17 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Colin Hashiro	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/11/2019 3:36:14 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Debra Ota	Individual	Oppose	No

Comments:

Oppose this measure as revised.

HB-550-HD-1

Submitted on: 2/11/2019 4:02:22 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Loren Pabila	Individual	Oppose	No

Comments:

I oppose RPS for gas utilities because gas (SNG, LNG, RNG, LPG) is a low-carbon, resilient and cost-effective energy source, which cannot be said for oil. We need to maintain diverse energy sources to ensure economic sustainability for Hawaii's future. Imposing this would cut out a viable bridge energy source to the Governor's 2045 goal.

HB-550-HD-1

Submitted on: 2/11/2019 7:12:34 PM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Brijit Reis	Individual	Support	No

Comments:

Dear Chair Takumi and CPC Committee Members,

We have a law mandating 100% renewable energy by 2045 to stop the flow of money out of our State to pay for fossil fuels, create jobs, clean the air and slow climate change. Right now solar rooftops are double-counted and the calculations are wrong. Also, gas has no requirements on it at all which is unfair and distorts economic decisions. Finally, given how much cheaper large solar farms have become than imported oil, our State will save money and reap more benefits if the benchmarks are updated to speed the transition.

Sincerely,

Dr. Brit Reis

HB-550-HD-1

Submitted on: 2/12/2019 4:39:16 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Zoe Williams	Individual	Oppose	No

Comments:

Gas is a low-carbon, resilient and cost effective energy source

We need diverse energy sources to ensure economic sustainability for Hawaii's future

We need firm energy sources as a bridge to our renewable future.

Gas energy is significantly cleaner than the 80% petroleum made electricity in our state.

HB-550-HD-1

Submitted on: 2/12/2019 5:32:37 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Zachary Tokushima	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/12/2019 8:08:13 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Alinna Figueroa	Individual	Oppose	No

Comments:

HB-550-HD-1

Submitted on: 2/12/2019 8:12:29 AM

Testimony for CPC on 2/12/2019 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Derwin Chu	Individual	Oppose	No

Comments:

350 HAWAII IS IN SUPPORT OF HR 550

WE SUPPORT BECAUSE CLIMATE CHANGE IS HAPPENING MUCH MORE QUICKLY THAN SCIENTISTS PREDICTED.

DURING THE CLINTON ADMIN. WE WERE TOLD THAT CLIMATE CHANGE WOULD AFFECT US BY 2100

DURING THE BUSH ADMIN IT WAS SAID THE EFFECTS OF CLIMATE CHANGE WOULD HURT OUR GRAND CHILDREN

DURING THE OBAMA ADMIN IT WAS SAID CLIMATE CHANGE WOULD AFFECT OUR CHILDREN

HOWEVER CLIMATE CHANGE IS HAPPENING NOW.

THE WAR IN SYRIA WAS CAUSED BY A CLIMATE CHANGE DROUGHT

THE REFUGEE CRISIS ON OUR SOUTHERN BORDER IS DUE TO A CLIMATE CHANGE DROUGHT

THE MARSHALL ISLANDS ARE ALREADY PLANNING FOR THE PERMANENT EVACUATION OF THEIR TRADITIONAL ISLAND HOMES

THE PERMAFROST IS MELTING IN ALASKA AND TRADITIONAL VILLAGES ARE FALLING INTO THE OCEAN.

