



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

Telephone: Fax:

(808) 586-2355 (808) 586-2377

Statement of

MIKE MCCARTNEY

Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Monday, March 11, 2019 2:45 PM State Capitol, Conference Room #414

In consideration of HB 550, HD1 RELATING TO RENEWABLE ENERGY.

Chair Wakai, Vice Chair Taniguchi, 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.



TESTIMONY BY:

JADE T. BUTAY

Deputy Directors LYNN A.S. ARAKI-REGAN DEREK J. CHOW ROSS M. HIGASHI EDWIN H. SNIFFEN

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

869 PUNCHBOWL STREET HONOLULU, HAWAII 96813-5097

March 11, 2019 2:45 p.m. State Capitol, Room 414

H.B. 550, H.D. 1 RELATING TO RENEWABLE ENERGY.

Senate Committee on Energy, Economic Development and Technology

The Department of Transportation (DOT) offers **comments** to the portion which seeks to amend the renewable portfolio standard interim goals for 2030 and 2040 to accelerate the adoption of renewable energy.

The Administration does not support the importation of natural gas for electrical generation but supports consideration of natural gas for fueling Hawaii's transportation needs.

The DOT supports cleaner alternative fuels and is concerned that imposing renewable portfolio standards on the gas utility may inadvertently harm clean energy efforts that seek the use of large scale biomass production to produce additional biogas, and public / private partnership in developing new pathways for clean, reliable and cost-effective hydrogen fuel supplies.

The DOT's airport bus pilot program weigh factors such as cost to buy or lease buses, operation cost, maintenance cost, environmental impacts, and long-term feasibility to make a selection between electric buses and buses powered by compressed natural gas.

This project demonstrates DOT's examinations of clean and ultra-low carbon fuels to replace our current fleet of diesel and gasoline powered vehicles as a means towards meeting Hawaii's energy goals.

Thank you for the opportunity to provide testimony.



DAVID Y. IGE GOVERNOR

JOSH GREEN

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

335 MERCHANT STREET, ROOM 310 P.O. BOX 541 HONOLULU, HAWAII 96809

Phone Number: 586-2850 Fax Number: 586-2856 cca.hawaii.gov CATHERINE P. AWAKUNI COLÓN DIRECTOR

JO ANN M. UCHIDA TAKEUCHI

Testimony of the Department of Commerce and Consumer Affairs

Before the
Senate Committee on Energy, Economic Development, and Tourism
Monday, March, 11, 2019
2:45 p.m.
State Capitol, Conference Room 414

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

Chair Wakai 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. The 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 Department continues to support the State's goal of 100% renewable energy on its electric grids by 2045, and so the Department supports the proposal to modify the existing Renewable Portfolio Standards (RPS) calculation in Hawaii Revised Statutes (HRS) section 269-91 by eliminating "sales" from the calculation beginning in 2030. This modification will eliminate the existing "loophole" that could allow the State to

Testimony of DCCA H.B. 550, H.D. 1 Page 2 of 2

achieve a 100% RPS but still have a significant contribution from fossil-fueled generation sources, as well as possibly allow for more than 100% of generation from renewable energy.

If the RPS calculation is modified as proposed, this would mean that the corrected calculation will automatically require more grid-connected renewable energy than is currently required. The Department also notes that, pursuant to HRS section 269-95, the Commission is already tasked to evaluate the RPS every five years to determine whether, using the best information available at the time, the RPS can be cost-effectively achieved. Given the uncertainty of various factors, such as future technology and its costs, land availability, and grid security and resiliency concerns, it may be prudent to rely upon the results of this recurring study to determine future modifications to RPS interim goals.

The Department 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 Department 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.

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

TO THE SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

March 11, 2019 2:45 p.m.

Chair Wakai 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 provisions to modify 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 requirement to study the feasibility of implementing renewable portfolio standards to encourage the use of renewable energy by gas utility companies, the Commission is supportive of conducting a feasibility study, provided that the accompanying appropriation will cover the cost of the study.

However, in considering the scope of the proposed study, the Commission is concerned that the proposed scope may require a substantial commitment of funds, and respectfully recommends that Section 2 of the bill be modified to focus the study on key questions in the consideration of establishing a gas RPS, including the technical feasibility and potential cost of achievement of a gas RPS.

As such, the Commission recommends that within Section 2, item (3) be retained, but that items (1), (2), (4), and (5) be removed. Item (3) refers to the scope of the proposed study, but the other items appear to refer to a gas RPS which has not yet been established. These items could be inserted at a later date, after consideration of the study proposed by this measure, if the Legislature subsequently establishes an RPS for gas utilities.

In addition, the Commission recommends that for item (3) within Section 2, the scope of the proposed study be focused on sub-items (A), (C), and (D). This would provide the Commission the flexibility to conduct the proposed study in a timely manner and at a reasonable cost. Accordingly, the Commission respectfully recommends Section 2 would be modified to read:

"§269- Renewable gas portfolio standards study. The public utilities commission shall:

- (1) 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 be reviewed by a panel of experts from entities such as the United States Department of Energy, National Renewable Energy Laboratory, Hawaii gas utility companies, environmental groups, and other similar institutions with the required expertise. These studies shall include findings and recommendations regarding:
 - (A) The capability of Hawaii's gas utility companies to achieve renewable portfolio standards in a cost-effective manner;
 - (B) The technical feasibility of establishing renewable portfolio standards for gas utility companies in Hawaii; and
 - (C) Unregulated gas sales and what requirements are needed for the transition of gas that is unregulated to a renewable energy source."

Thank you for the opportunity to testify on this measure.

Testimony Presented Before the Senate Committee on Energy, Economic Development, and Tourism Monday, March 11, 2019 at 2:45 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 Wakai, Vice Chair Taniguchi and members of the committee:

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

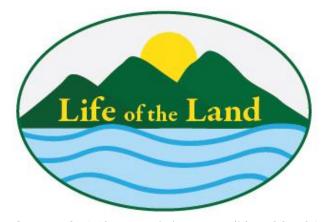
Section 2 of this bill would require the Public Utilities Commission to contract with HNEI to conduct studies to determine the feasibility and capability of Hawai'i's gas utility companies to achieve renewable portfolio standards in a cost-effective manner. HNEI has conducted RPS studies in the past and supports a study to assess the feasibility of adding RPS requirements for Hawai'i's gas utilities. Issues such as availability of resources for production of renewable gas and cost of appropriately scaled conversion technology are likely to have significant impact on the ability the gas utility to meet RPS goals, thus we suggest that whoever is selected, conduct this study work closely with the HPUC to limit the scope of the study to those issues directly relevant to achieving an RPS.

HNEI supports changing the electric utility RPS definition to be based on all grid connected generation, and not on utility sales. A change in the calculation of percent renewable energy is necessary to accurately reflect the relative amount of renewable energy on the grid and the concomitant reduction in fossil fuel use. We believe this change will eliminate confusion in regard to progress against the RPS goals and help maintain public confidence in the RPS.

We note that the initial version of this bill 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. This version of the bill does not include that amendment. We recommend that amended definition be added back to the bill to eliminate any potential confusion whether the RPS percentage requirements are based on sales, generation or some other undefined metric.

Section 3 of the bill increases the electric utility renewable portfolio standard interim goals for 2030 and 2040 to 65% and 85%, respectively. HNEI supports accelerating Hawai'i's RPS targets to levels that are technically and economically feasible. However, HNEI notes that changing the definition of "renewable portfolio standard," as noted above, would significantly increase the amount of renewable generation necessary to meet the current 2030 target compared to the current statutory RPS language. Given the likely challenges related to land availability and use, reliability, and technical siting issues (e.g. transmission constraints) at these higher variable renewable energy penetrations, we suggest that it may be prudent to further study the impacts of accelerating the interim targets before doing so.

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



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

COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM Senator Glenn Wakai, Chair Senator Brian T. Taniguchi, Vice Chair

DATE: Monday, March 11, 2019

TIME: 2:45 p.m.

PLACE: Conference Room 414

HB 550, HD1 RELATING TO RENEWABLE ENERGY STRONG SUPPORT

Aloha Chair Wakai, Vice Chair Taniguchi, 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 Gas Company recently worked out a deal to recover waste gas from the Honouliuli Wastewater Treatment facility. There are opprtunities to use that contractual process with the City and County of Honolulu to acquire the waste gas from all other wastewater facilities in the State, including the largest at Sand Island.

Alternatively, the Gas Company could use the approach used by HECO. First, acquire out-of-state biodiesel. Then, allow a local market to develop. Now, buy from Pacific Biodiesel. The local biodiesel is made from waste oil and grease, and from sunflowers. Pacific Biodiesel currently has an over-supply and is looking for new customers.

The Gas Company is owned by climate change deniers. But that shouldn't affect Hawaii requirements that everyone participate in saving the planet. 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.

HB 550 HD1 accomplishes four important goals

1. The Gas Company was exempted from mandated increases in the use of renewable energy because they said they would be 50% renewable by 2015. They are currently about 5% renewable. The bill would subject the gas company to a ratemaking structure such as performance-based ratemaking, whereby the gas company would get rewards and penalties on their income due to meeting or missing targets in their use of renewable energy. The PUC has an open docket examining similar performance-based regulation for the HECO Companies.

"The public utilities commission shall: (1) By December 31, 2021, develop and implement a utility ratemaking structure, which may include performance-based ratemaking, to provide incentives that encourage Hawaii's gas utility companies to use cost-effective renewable energy resources found in Hawaii to meet the renewable portfolio standard of reaching one hundred per cent by 2045, while allowing for deviation from the standards in the event that the standards cannot be met in a cost-effective manner or as a result of events or circumstances beyond the control of a gas utility company that could not have been reasonably anticipated or ameliorated."

2. The Gas Company asserts that it is unable to dramatically increase its use of renewable energy. A comprehensive and independent two-year UH study will be conducted.

The Hawaii Natural Energy Institute (HNEI) of the University of Hawaii to conduct independent studies to be reviewed by a panel of experts from entities such as the United States Department of Energy, National Renewable Energy Laboratory, Electric Power Research Institute, Hawaii gas utility companies, environmental groups, and other similar institutions with the required expertise.

These studies shall include findings and recommendations regarding: technical feasibility, identification of renewable alternatives (procurement, local fuels, biogas imports), PUC regulated sales and unregulated gas sales, permitting, impacts (economy, balance of trade, culture, community, environment, land, water, and climate), impacts to consumer rates and reliability, equity issues, tax credits, and interim and long-term goals.

3. The timeline for the HECO Cmopanies to increase their use of renewable energy shall be to sped up

Year	Existing Law	Proposal
2020	30%	30%
2030	40%	65%
2040	70%	85%
2045	100%	100%

4. Renewable energy penetration is currently measured by the Renewable Portfolio Standard (RPS) metric. The metric over-inflates the actual penetration level. The fight over the definition has gone nowhere. Instead, the bill proposes an alternative end-runaround approach that solves the problem in a different way.

"All electric grid-connected energy systems shall be one hundred per cent renewable energy systems by December 31, 2045; provided that generation that is used exclusively for emergency service in the event that the normal supply from the Hawaii electric system fails shall be excluded from the calculation as set forth in the definition of renewable portfolio standard in section 269-91."

Mahalo

Henry Curtis
Executive Director



Email: communications@ulupono.com

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, & TOURISM Monday, March 11, 2019 — 2:45 p.m. — Room 414

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

Dear Chair Wakai, Vice Chair Taniguchi, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of the Ulupono Initiative, a Hawaiʻi-based impact investment firm that strives to improve the quality of life for the people of Hawaiʻi 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 <u>supports</u> **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



Written Statement of Elemental Excelerator before the Senate Committee on Energy, Economic Development, and Tourism Monday, March 11, 2019

In consideration of <u>HB 550 HD 1</u> RELATING TO RENEWABLE ENERGY

Aloha Chair Wakai, Vice-Chair Taniguchi, and Members of the Senate Committee on Energy, Economic Development, and Tourism:

Elemental Excelerator respectfully <u>submits our support with comments</u> on HB 550 HD 1, which:

- 1. Amends the renewable portfolio standard (RPS) 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 HD 1 because of the following reasons:

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. 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: Hawaii's Path to a Clean Energy Economy, p.22, Retrieved from https://rhg.com/research/transcending-oil-hawaiis-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

We respectfully submit the following comment to HB 550 HD 1 for consideration:

The renewable portfolio standard should be amended to calculate renewable electrical energy generation divided by total electrical energy generation, as specified in the preamble of HB 550 HD1. This clarification results in two benefits:

- 1. It reflects the intent of Act 97, section 969-92 of Hawai'i Revised Statutes, which aims for the renewable portfolio standard to result in 100% renewable energy generation by 2045.
- 2. This calculation removes confusion and increases public confidence to achieve the State of Hawai'i's RPS goals. Based on the current calculation, the renewable portfolio standard could equal 100 percent while the electric grid continues to be heavily reliant on fossil fuels.

Mahalo for the opportunity to provide testimony on this legislation.

Sincerely,

Aki Marceau

GLA-M-

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 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 https://www.hawaiianelectric.com/documents/clean energy hawaii/grid modernization/psip executive summary 2016122 <a href="https://www.hawaiianelectric.com/documents/clean energy hawaiianelectric.com/documents/clean energy hawaiianelectric.com/documents/clean energy hawaiianelectric.com/documents/clean energy hawaiianelectric.com/documents/clean energy hawaiianelectric

³Transcending Oil, p.3.



Testimony in support of HB550

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT AND TOURISM

Hearing Monday, March 11, 2019 2:45 p.m.

Aloha Chair Wakai, Vice Chair Taniguchi and Committee Members,

I am writing in strong support of the original version of HB550. Having said that, HB550 CD1 is better than nothing.

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. It is not the goal of the State of Hawaii to protect the gas industry as any particular proportion of our future energy portfolio. The size of their future presence in Hawaii will depend on investment in existing and new technologies that align with the State's environmental goals.

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

hisa Master

Healthy Climate Communities healthyclimate@hawaii.rr.com



To: The Senate Committee on Energy, Economic Development, and Tourism

From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action

Date: Monday, March 11, 2019, 2:45 pm

Comments HB 550 HD1

Dear EET Chair Wakai, Vice Chair Taniguchi, and Committee Members—

Organizing for Action supports HB 550 HD1, if its original language is 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 we don't have. 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 a concrete RPS, not a useless study that only serves to delay their inevitable change. The world can afford no more delays.

In addition, the language about an RPS changing "sales" to "generation" should be reinserted. The convincing rationale for this change even remains in HD 1's preamble.

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.

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.

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



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 Senate Committee on Energy, Economic Development, and Tourism

Monday, March 11, 2019 245 p.m. Conference Room 414, State Capitol

RE: HB 550 HD1 – Relating to Renewable Energy

Chair Wakai, Vice Chair Taniguchi, and Members of the Senate Committee on Energy, Economic Development, and Tourism

The Hawaii Teamsters and Allied Workers, Local 996 stands OPPOSED to HB 550 HD1 with these comments.

We do not support a study into gas utility related to electric generation, because Hawai'i's gas utility does not generate electricity. Also, the scope of the study into the unregulated non-utility like propane brings concern as well. Studies show that states who have conducted on electric utilities for the purpose of implementing RPS language have increased utility and non-utility costs for consumers. We fear this study could consequently have the same negative effect on gas consumers. Furthermore, no other state nationwide has implemented RPS on gas utilities, and is solely regulated by the PUC.

For generations, gas based technologies have been an affordable, reliable, and resilient energy and plays a very small but vital role in Hawai'i. Gas utility provides less than 2% of energy in the state, and its facilities account for 3/10th of 1% of greenhouse emissions in Hawaii. The gas utility has 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 converts these by-products into clean gas. If a study is to be considered, we ask the focus would be solely on the complexities of the gas utility with consideration that the resources for procurement is limited in our state, and we seek to avoid increased costs for our members and other consumers of the regulated, and unregulated gas industry.

Lastly, If a study is not done, the utility should not be forced into any mandate which ignores the industry's complexity that would come with hefty costs, and lacking benefits to Hawai'i residents at a time where majority of local 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



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

Monday, March 11, 2019 2:45 p.m.
Conference Room 414, State Capitol
RE: House Bill 550 HD1 – Relating to Renewable Energy

Chair Wakai, Vice Chair Taniguchi and Members of the Senate Energy, Economic Development, and Tourism Committee

Hawaii Gas (HG) is committed to well-studied public policy that curbs greenhouse gas emissions and to the development of affordable, resilient and sustainable pathways to achieve carbon neutrality for all citizens of Hawaii. As such, HG **respectfully opposes** this bill and provides the following **comments** to HB 550 HD1:

HB550 HD1:

- (1) Requires a renewable portfolio standard (RPS) of one hundred percent by 2045 on Hawaii's gas utility, including its unregulated business;
- (2) Appropriates funds for a required study to implement the 2045 RPS on the gas utility;
- (3) Requires the Commission to report its findings and revisions to the renewable portfolio standards based on its study to the Legislature before the convening of the Regular Session of 2021, and for every five years thereafter; and
- (4) Amends the renewable portfolio standard interim goals for 2030 and 2040 for electric utility companies to accelerate the adoption of renewable energy.

HG is appreciative that the legislature recognizes the **complexity** of establishing a renewable portfolio standard on the gas utility, including the consideration of the impact on ratepayers, especially given that nearly half our state's population is living paycheck to paycheck or are living below the poverty line (according to the ALICE study commissioned by Aloha United Way). The impacts of policy decisions must be well studied to help mitigate any unintended consequences on consumers, and other state policy initiatives like affordable housing.

HG supports an appropriate and objective study to explore the feasibility of implementing a renewable portfolio standard for gas utilities. However, the current language in HB 550 HD1 dangerously presumes the outcome of that study, putting the cart before the proverbial horse as it proscribes a mandated outcome (imposing the same 100% RPS by 2045 for the gas utility as for the electric utility, without regard to the fundamental differences in their technology, industry, operations and objectives) for the Hawaii Public Utilities Commission (HPUC) to carry out. We would also note that the State's electric utility RPS was formulated and adjusted over a number of years based on studies specific to the issues at hand and "real world" experience acquired in Hawaii along the way. Hawaii's original renewable portfolio goal for electric utilities was enacted into law in 2001 (Act 272), and turned into a true renewable portfolio standard in 2004 (Act 95) – the 100% by 2045 goal for electric utilities was not codified into law until 2015 (Act 97), giving the electric utilities a period of roughly 44 years from the imposition of an initial RPS to achieve 100% renewable power for electric generation. Further the 100% goal was codified at a time (2015) when roughly 20% of the State's electrical generation was from renewable sources. The currently proscribed outcome in HB550 HD1 would give Hawaii Gas less than 25 years (approximately 55% of the time) to



achieve the same goal. Further, Hawaii's electric utilities benefitted in the RPS' early years from the ability to utilize both customer-sited generation (rooftop solar), independent power producers, aggressive federal and state tax incentives and "conserved energy" towards meeting their RPS goals — it is hardly practical to expect distributed generation of gaseous fuel supply to play a part in the gas utility achieving any RPS, nor an industry of independent renewable gas producers to be developed overnight, nor conservation initiatives without consumer incentives such as rebates and tax credits.

We are also strongly concerned that HG's unregulated gas sales are being included in the prescribed study for a gas RPS and it is unclear how the HPUC would have oversight over an unregulated business and ensure a level playing field for this entity versus its competitors, who are unregulated and who would not be subject to an RPS.

Before implementing an RPS on the gas utility, HG respectfully recommends that the legislature consider developing a strategic holistic energy plan including the integration of all energy systems in the state and to first decide on integrated policy objectives, so that there is clarity on the impact of an RPS:

- Determine overall policy objectives and trade-offs including but not limited to
 - o Is the state focused on reducing greenhouse gas emissions? How much? By When?
 - The State's Hawaii Greenhouse Gas Emissions Report recently released on January 2019 states that:
 - Transportation emissions...accounted for the largest share of Energy sector emissions in all inventory years;
 - Stationary combustion emissions is the second largest share...largely driven by emissions from energy industries (electric power plants and petroleum refineries; and that
 - Emissions from waste incineration and oil and natural gas systems comprised a relatively small portion of Energy sector emissions – 2% (two percent).¹
 - o Is the state focused on creating affordable energy prices and affordable housing?
 - o Is the state focused on ensuring resiliency and planning for climate change?
 - o Is the state focused on the pursuit of renewable energy at any cost to ratepayers?
 - o Is the state focused on developing a sustainable and 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 waste
 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 financial incentives or subsidies, favorable policies to develop new industry growth, farmer incentives, land aquisition incentives, water policies, etc.
- Determine best mechanism or combination of mechanisms to achieve the policy objectives and ensure no conflict or clear prioritization between these policies.
- Conduct cost-benefit analysis on the entity or entities that will be subject to mechanism or mechanisms.

¹ Hawaii Greenhouse Gas Emissions Report, pp. 9-12 - https://health.hawaii.gov/cab/files/2019/02/2015- Inventory Final-Report January-2019-004-1.pdf



- Conduct economic analysis on impact to ratepayers.
- Determine reasonable timeframe to implement any mechanism and the associated milestones.

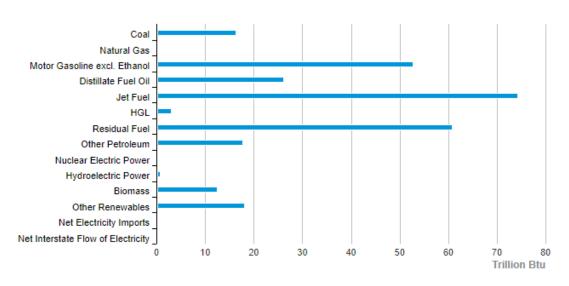
HG similarly believes that any study would benefit from a review of other industry frameworks for increasing RNG and study what is working and what is not working and how they can be adapted for Hawaii. Unlike mainland gas utilities, which predominately use natural gas, HG makes its gas, which is called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

Implementing the placement of a mandate without fully understanding the feasibility of imposing such a requirement on a utility that operates far differently and is not a ubiquitous energy supplier as electric utilities denies our ratepayers and other stakeholders the opportunity for fair policy making. We need to do the hard work and HG is willing to collaboratively work with the state and other interdependent energy producers on a system-wide energy plan in order to avoid worsening existing economic inequities and creating 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.

The chart below from EIA highlights the consumption of different types of energy in Hawaii.

Hawaii Energy Consumption Estimates, 2016

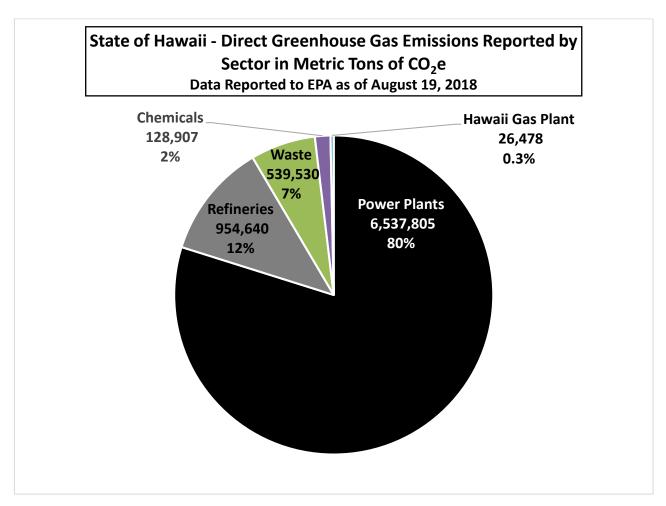


Source: Energy Information Administration, State Energy Data System

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



The chart below (data from the EPA's website) illustrates that of the direct greenhouse gas emissions in Hawaii, 92% of emissions are from power plants and refineries, while only 0.3% of emissions are from HG's Synthetic Natural Gas plant.



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

It took over five years from conception to operation to develop the state's first RNG production facility with the City and County of Honolulu due to issues such as feasibility, procurement, regulatory approvals and technical requirements. We continue to explore future development of RNG from municipal waste facilities and landfills, however, with similar obstacles. Hawaii Gas is also pursuing the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of locally produced renewable natural gas, but there is currently no existing reliable source that from the procurement of local produced renewable natural gas, but there is currently no existing reliable source that from the procurement of local produced renewable natural gas, but there is currently no existing reliable source that from the procurement of local produced renewable natural gas, but there is currently no existing the procurement of local produced renewable natural gas, but there is currently no existing the procurement of local produced renewable natural gas, but there is currently no existing the procurement of local produced renewable natural gas, but the local produced renewable natural gas are produced renewable natural gas and the local produced renewable natural



produce the <u>scale</u> necessary to service the energy needs of our entire state. Alternatively, to import a costly product creates issues such as ratepayer impacts, dependency on outside sources and reliability of sourcing.

We welcome the opportunity for a study to consider the physical resource limitations, industry technical issues, lack of clear 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 currently 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 Hawaii²;
- 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 or independent producers 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;
- 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 in the Mainland exist for non-utility, transportation
 according to the Coalition For Renewable Natural Gas; the production of RNG for
 transportation is stimulated by federal incentives;
- Electric and gas utilities are different in fundamental ways. While the electric utilities have the flexibility to utilize different fuels for generation, different power producers with different fluctuating inputs and different power plants, gas utilities do not have the same flexibility by nature of the technology utilized.
- Existing Policy mandates are redundant to this proposed legislation and must be taken into account:

² https://www.americanbiogascouncil.org/State%20Profiles/ABCBiogasStateProfile HI.pdf



- 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 by regulatory policies to develop pathways to meet deadline in most economical and sustainable way for our customers

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 meet³ or are living below the poverty level, an increase in utility costs will add financial burden for families;
- Renewable natural gas costs are higher than existing sources, 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;
- Natural gas also played a major role in the recovery efforts in 1982 Hurricane Iwa and 1992
 Hurricane Iniki
- 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 of natural gas to be integrated with solar, wind power and battery storage in various scenarios that permit the retirement of Puerto Rico's coalfired units.

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

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.

³ https://www.auw.org/sites/default/files/pictures/AUW-ALICE%20Fact%20Sheet%20FINAL.PDF



Thank yo	ou for the o	pportunity to	o testify	on HB 550 HD1.
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Sincerely,

Jeannine A. Souki Director, Government Affairs and Communication

Submitted on: 3/9/2019 12:14:44 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
stephanie frazier	Individual	Support	No	

Comments:

Aloha Chair Wakai, Vice Chair Taniguchi and EEDT Committee Members,

I strongly support and ask you to pass HB550 HD1. The bill would be even better if you go back to the original version of HB550.

The transition to 100% renewable energy will save us money, create local jobs and make our energy supply more secure. To maximize these benefits we need this bill to fix the map so that 100% actually means 100%. We also need to close the loop hole for the gas industry. Finally, given how much cheaper renewable energy has become then imported oil, we will save money if we move the timeline up.

Mahalo, Stephanie Frazier

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 5:14:00 AM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

Aloha,

Please support HB 550 HD1. We need to promote more renewable energy.

Mahalo,

Caroline Kunitake

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 3:57:31 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Christopher Biltoft	Individual	Support	No

Comments:

Submitted on: 3/9/2019 12:11:40 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Debbie Schatz	Individual	Support	No	

Comments:

Esteemed Chair Wakai, Vice Chair Taniguchi and Members of EETD,

I request that you pass HB550 HDI and that you amend to the original version of HB550.

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.

Acting now will still take time for systems to be in a place that secures success. ACT NOW!

Debbie Schatz

<u>HB-550-HD-1</u> Submitted on: 3/7/2019 4:49:29 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitt	ed By	Organization	Testifier Position	Present at Hearing
Dyson (Chee	Individual	Support	No

Comments:

Submitted on: 3/9/2019 12:07:29 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

Aloha Chair Wakai, Vice Chair Taniguchi and Committee Members,

I support HB550 and recommend reinstating the original language so that it will be more effective.

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.

Thank you, Dr. Brit Reis

Submitted on: 3/10/2019 10:53:07 AM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

Dear Honorable Committee Members:

Please support HB550. Our coral reefs are dying due in large part to warming oceans and valuable coastline is eroding due to sea level rise. Climate change is already occurring. We need to be a leader in renewable energy.

Thank you for the opportunity to present my testimony.

Sincerely,

Andrea Quinn

Kihei

Submitted on: 3/9/2019 12:16:57 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Karen Simmons	Individual	Support	No

Comments:

Dear Chair Wakai, Vice Chair Taniguchi and Committee Members,

I support and ask you to pass HB550 HD1and to replace it with the original HB550.

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.

Thank you for your consideration,

Karen Simmons

From: William D. Smith
To: EETTestimony

Subject: HB 550 HD1 being heard on March 11, 2019, 2:45 p.m.

Date: Friday, March 8, 2019 9:32:32 AM

I support HB 550 HD1 being heard on March 11, 2019, 2:45 p.m.

 From:
 Dave Kisor

 To:
 EETTestimony

 Subject:
 Please support HB550

Date: Friday, March 8, 2019 8:13:05 PM

Aloha EET Committee

If we keep consuming hydrocarbon fuels at the constant rate, Honolulu International could be underwater at high tide. That may be what it takes for many to realize there isn't much they can do about climate change and its effects. Antarctic ice is 2 miles thick, but once it gets started, we'd be hard pressed to stop it. My Oceanography and Marine Biology teacher in high school told us when Antarctic and Greenland ice melt, the oceans will rise 200 feet and that was upgraded to 220. The more renewables used now, the better.

Mahalo,

Dave Kisor, Puna Makai resident

||||||||||||| >^.^<

Cats & computers. Bring them into your home and your life is no longer your own. Don't get upset when things don't work, but rather be amazed when they do! Life is an exercise in how well you handle disappointment!

 From:
 Lorn Douglas

 To:
 EETTestimony

 Subject:
 Supprt of HB 550

Date: Friday, March 8, 2019 1:49:12 PM

Aloha,

I not only support this bill, but walk my talk.... I generate a surplus of solar power, which in fact my surplus lowers the amount of petroleum that HELCO burns.... Also I grow at least half of my family's food....

Lorn DOuglas Lower Puna From: daniela minerbi
To: EETTestimony
Subject: support HB 550 HD1

Date: Friday, March 8, 2019 1:51:14 PM

I do strongly support HB 550 HD1, respectfully, Daniela Minerbi

Submitted on: 3/8/2019 1:57:25 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

We need to diversify our energy sources for Hawaii . Gas is clean and cost effective. Gas is proven to be resilent. We live in the middle of the ocean and need gas to survive natural disasters.

Submitted on: 3/8/2019 2:00:14 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

Emergency responders, DHS, and our Departments of Emergency Management all agree; we need firm energy sources for resiliency (when the lights go out, the gas stays on) and as a bridge to our renewable future.

Gas energy is significantly cleaner than the 80% petroleum made electricity in our state and needs to be an important part of that bridge.

If we eliminate gas, no mo tiki torches :-(

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:00:47 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Derwin Chu	Individual	Oppose	No	1

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:02:58 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:07:52 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:17:08 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Submitted on: 3/8/2019 2:17:03 PM

Testimony for EET on 3/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Felicida	Individual	Oppose	Yes

Comments:

We need to have a diverse amount of energy resources. We cannot only depend on solar. We need options. I believe that using a gas fired tankless heater is a way of life. I have been living with a solar water heater, but when there is rain we need to flip the switch to heat our tank. I have also seem what spike in electricty looks like on my bill. Then when the power goes out, no hot water...... Gas is clean & energy efficient.

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:17:48 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:19:22 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

I oppose this bill.

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 2:48:44 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 3:36:55 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

<u>HB-550-HD-1</u> Submitted on: 3/8/2019 5:31:06 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Submitted on: 3/9/2019 9:05:58 AM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

In my reading of HB550 I have a few thoughts:

- 1. Several times, it mentions cost effective. What measure is being used for this? Additionally, what is cost effective for one can be considerably different for another. Especially if they come from different socio-economic stratas.
- 2. The bill instructs the PUC to implement rules onto unregulated gas suppliers, such as the hardware store I purchase my propane to heat my house, cook my food, wash my clothes and make hot water. Does this mean every propane retailer will now become regulated? Will you now be requiring them to purchase renewable propane for resale? Would they no longer be allowed to procure there propane supply from there preferred supplier, who may be out of state/country?
- 3. Before you go down this road, please be sure you understand the difference between, propane (LPG), natural gas, synthetic gas and how/where we use those fuels are consumed here in Hawaii.
- 4. As far as I know, there is no renewable option for propane, which is about 1/2 of our state's gas consumption. Natural gas or synthetic natural gas will not work on half the gas uses in the state. It's like using diesel in a gasoline engine. Simply incompatible.
- 5. Don't take away my gas BBQ! If you do, every auntie, tutu and back yard cook who voted for you, won't make that mistake again.

Good Luck

Antonio

<u>HB-550-HD-1</u> Submitted on: 3/9/2019 9:38:45 AM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Submitted on: 3/9/2019 4:42:38 PM

Testimony for EET on 3/11/2019 2:45:00 PM

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

Comments:

I respectively oppose House Bill 550 in its current form. This bill attempts to apply the Renewable Portfolio Standards (RPS) developed for the electric utilities to the gas utility. There are not enough natural resources in the state to allow the gas utility to meet even a fraction of theses requirements. There are no economical or physical ways for the gas utility to meet these standards. The attempt to do so will be a recipe for failure and cause undue hardship to the rate payer.

Second, we need diverse energy sources for the state. Being in our geographic location, it is critical to have diverse and reliable sources of energy for the state. Additionally, rate payers should have economical energy options that provide the energy security they need to live in such a remote part of the planet. The option to have a gas generator and gas hot water in our homes and businesses should not be infringed upon. The need for alternative sources of energy has been proven over and over during times of flood, high winds or any other disruption in the electrical grid.

Third, this bill unfairly puts requirements on the gas company that would restrict both its regulated side and its unregulated side. The unattended consequence of this bill would be to penalize the gas company without applying those same requirements to the other gas companies in the state.

In my opinion, this is an unnecessary bill that restricts both private industry and customer choice.

<u>HB-550-HD-1</u> Submitted on: 3/10/2019 3:26:37 AM

Testimony for EET on 3/11/2019 2:45:00 PM

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